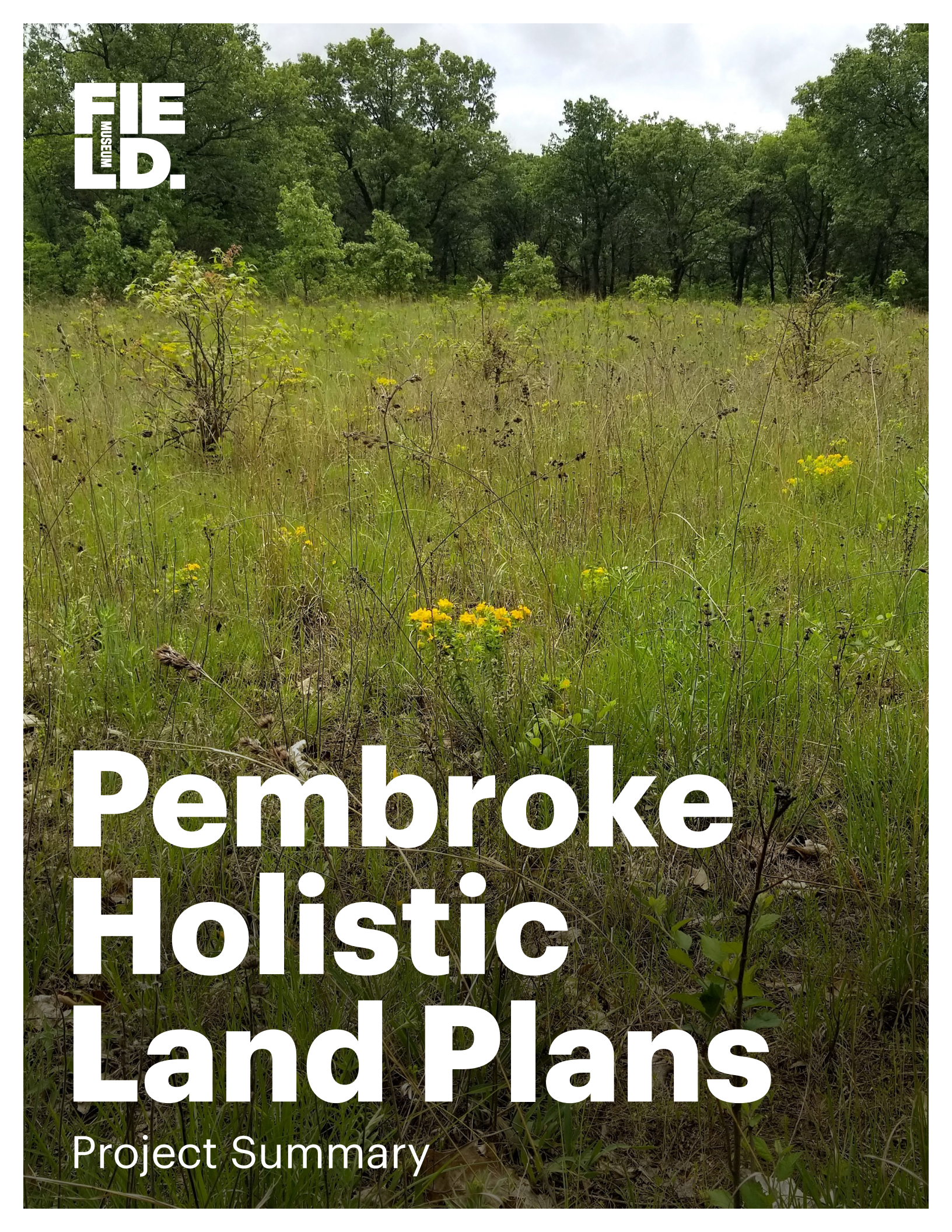




FIELD.
MUSEUM

Pembroke Holistic Land Plans

Project Summary



PROJECT OVERVIEW

Private landowners in the globally rare habitat of the Pembroke-Hopkins Park geography have been identified as crucial partners in area land conservation, but how they specifically contribute to ecological value or tools they need to do so has not been explored in detail. If the complex mosaic of conservation lands in Pembroke-Hopkins Park that includes both formally protected land and small agricultural and residential holdings is to be sustained in the long run, then the history of use and vision for the smallholders's land is critical to understand. And the best place to begin is by asking them.

The primary focus of this project was to provide participating Pembroke landowners with ecological information in a format that serves as a resource to support their goals for better understanding and managing their land. Information collected from late 2020 through summer 2021 by Field Museum staff was shared back with the five participating landowners in the form of **individualized holistic plans**. This report serves as a summary of those findings, while protecting the privacy of individual landowners.

Interviews and ecological surveys on private parcels helped demonstrate how **Pembroke-Hopkins Park has become an example of community-centered conservation** and can continue to be for future generations. Participating landowners sought not only to gain support for managing their own properties, but also to encourage sustainable practices on private land across their community and in other places. This project was a collaboration of the Pembroke Hopkins Park Community Development Corporation (CDC) and the Field Museum.



The main objective of the Field Museum and CDC was to help maintain land tenure in Pembroke Township for landowners committed to management practices that support livelihoods and aesthetic interests in addition to the globally significant biodiversity of the region. Our goal was to support landowners in formally articulating the vision for their property, provide ecological information and management recommendations specific to them, and outline potential resources for maintaining healthy habitat on their parcels.

Our Field Museum team utilized an **integrated social science and ecological approach** to generating holistic land management plans with landowners. A museum anthropologist interviewed participants about family tenure history, land use practices and priorities, perceived risks, relationships with plants and wildlife, and long term goals. Museum ecologists created maps providing context on each parcel's land cover change over time using 1938/39 and more recent aerial imagery, produced species lists from plant and bird surveys, and drafted management recommendations to address stated goals.

The cohort of five participating landowners represented **a diversity of properties, land uses and objectives**. The CDC helped recruit participants and an affiliate of the organization, herself a local rancher, coordinated and advised on the project. All the landowners are African American, an important point to be made in a community that is seeing a rapid increase of Latinx landowners. Parcels ranged from five to forty acres, containing different degrees of habitat quality and vegetation cover. Land uses included organic farming and gardening, livestock raising, a youth summer camp, and maintaining vegetation to provide privacy and resources for wildlife, with multiple uses being common on most sites. The Field Museum scientists interviewed each landowner once and made multiple visits to most properties to conduct ecological surveys. The team also relied on current and historic imagery along with other remotely sensed data to help classify vegetation and land use changes around each property.

After delays due to the COVID-19 pandemic, the Field Museum team presented the participating landowners with their holistic plans in February 2022, reviewing them with each individual to answer questions and highlight key features. The team also met with the cohort collectively. Local landowners demonstrated an interest in maintaining the collaboration in order to share best practices, support each other through the implementation of their plans, and develop mechanisms for visibly showing their neighbors what they have learned and committed to. Ideas for achieving sustaining the collaboration include yard signs with a logo branding their participation in sustainable practices on their private land and posters featuring that logo along with photos of important native species found on their properties.

Future work with the Field Museum team will include supporting implementation of the holistic plan priorities and realizing these cohort goals for showcasing private land conservation benefits for other community members. More broadly, the CDC and Field Museum seek to engage the land protection and conservation community in developing comprehensive strategies for supporting private landowners as key stakeholders for sustainability planning in Pembroke.

Present Day Aerial Imagery | Central Street Hopkins Park







FINDINGS AND OBSERVATIONS

Key Finding Summary

- A throughline in our findings is how identity and sense of self are tied to the land for many Pembroke residents. One participant stated simply, “land equals freedom.” This holds important implications for conservation practice and conservation-focused land purchasing by outside entities. This dynamic has become a central political departure point as well. **Self-determination and Pembroke history.**
- Land ethics are contested through demographic change. Networks and relationships among landowners are complex. Alliances and partnerships can be fragile. Social ties are political, shifting, and difficult for outsiders to navigate. **Social relationships and land ethics.**
- Family and land tenure is often contested. Older people often have children that are uninterested in the rural lifestyle, throwing into question future tenure. Generational change in land ownership is a significant point of concern for African American residents in particular. **Tenure uncertainty.**
- Attention to and investment in the soil is a common priority for Pembroke landowners, particularly those engaged in gardening and agriculture. **Soil quality and healthy food.**



- Organized fire management across public and private land in Pembroke township would better control invasive and weedy species. More organized management of fire would reduce damaging wildfires and lead to better oak regeneration benefiting biodiversity.

Land management and prescribed fire.

- Pembroke is **Ecologically rich.**

In the process of developing holistic landowner plans for individual participants, and then developing this summative document, we arrived at some interrelated general conclusions that could enhance the work of conservation organizations, inform funding decisions, and create an overall sense of context for local residents.



The landowners we collaborated with cherish nature; they just don't use the same language as ecologists or land managers to describe it.

Our project and approach was designed to bridge the gap between local and 'expert/outsider' knowledge frameworks. Language presents barriers to effective communication and potential collaboration among local landowners, land management agencies and conservationists. For some landowners we spoke with, jargon-filled or technical language around weeds, invasive species, and species protection did not resonate, or worse, served to alienate local people from these concepts.

The classification of specific plants as undesirable on the landscape (weeds, invasive species, etc) was a particular sticking point for some landowners. This was not a universal finding, but suggestions of intensive management through cutting brush or using herbicide to remove those species shut down

conversations. However, discussing long term goals for having a variety of species on the property, allowing light to penetrate the canopy, and bringing fire back to the landscape were more successful. This suggests that land management collaborations with residents is possible in Pembroke but conversations need to be had slowly over time, building trust and shared language.

The landowners we spoke with echoed points often heard in Pembroke — the natural environment remains “special” and healthy in that region in large part due to the stewardship of long time residents. This leads to a desire by the landowners to see their land-based practices and knowledge reflected and respected in the language of conservationists.

“This place is a port in the storm. My land is a safe haven. And our trees provide fresh air and peace, not just for me but for all of us.”

In many interviews, landowners described connections with their neighbors past and present. Often properties had fences along the road but were unfenced along the back of the parcel. This was not universal but many property owners expressed comfort with neighbors walking across their property. For some landowners this extended to viewing their land as a resource for people within the community. However, most residents indicated a suspicion of outsiders and indicated that people they do not know need an invitation to come to their place.

2 Pembroke is changing demographically. Some of these changes entail threats to the ecological integrity of the area as well as often stated local values of peace and quiet.

The recent influx of Latinx families has created tension, but this varies by individual, and should not be glossed. That said, we did visit properties that had newly cleared land adjacent to them, where weekend homes, ATV trails, fences, shooting ranges, and camp sites were established just in the past several years. In some cases these were stark impacts on the landscape, where quality natural areas existed until very recently.

Landowners welcomed support in developing events, workshops and tools that served both to educate people about the valuable natural features of their properties as well as to foster a land ethic that protects high quality sites from further disturbance. A point to build upon is that with planning and intention, properties can serve multiple functions, for livelihoods, recreation and ecosystems. Participating landowners highlighted how their properties and management plans could serve as a model for others in the community to achieve similar aims. Awareness building and education, however, were named as necessary first steps for many residents, especially newcomers. Spanish language materials and programs will be crucial to meet these goals.

“There is now a shooting range next to our property that causes my family to feel unsafe. And the damage that neighbor has done mining a beautiful dune on his land just makes us so sad.”



Safety was a topic that came up in many interviews, and has the potential to be a unifying issue for stakeholders to collectively address. For conservation partners, entry points to this discussion can be illegal logging and dune mining, fly dumping, ATV trails, and a marked increase in shooting ranges. Law enforcement was named as a challenge, and land management entities may have the ability to bring additional attention to these issues. Noting the sensitivity raised in the previous section about Pembroke neighborliness, these actions should be taken in coordination with local partners.

3 There is strong interest in programs and resources that are tailored to fostering exchange between generations, and also inclusion of youth.

One program participant runs a summer camp on their property and will utilize information from their Plan to develop curriculum and activities for youth that engage the ecology of their land.

Landowners proposed that the local public library or a nature center serve as a hub for interactive content that conveys, explores, educates on the “Pembroke Land Ethic” — past and future. They highlighted that an oral history project to gather and share local stories about the land was increasingly important, as many community elders are passing away in recent years.

“Our land provides freedom and liberty. I can grow my own food — pork, chicken, vegetables. Self-sufficiency is a must for us and I want this for my children and grandchildren too.”



Agriculture is an important part of the livelihoods of many landowners in Pembroke.



Fire is still common on the landscape and has preserved prairie openings.

Among program participants and more broadly, elderly Pembroke landowners have often expressed concern about maintaining tenure for their families. Some cite disinterested members of younger generations, who seek to live elsewhere with more amenities, while others point to conflicts or disagreements within families over visions for a property and tenure rights. Programs for youth and support facilitating intergenerational exchange are viewed as potential solutions for these challenges.

“My kids and grandchildren visit sometimes, but most of them don’t like bugs so they don’t have an interest. The kids aren’t invested yet in my plans for this place.”

4 Many landowners interviewed for this project and for other work in Pembroke have expressed deep knowledge in caring for the productivity of their soil and protectiveness of their land.

In a community with strong connections to regenerative agriculture and permaculture movements, language describing poor soil or a disturbed landscape received pushback. It was important that we work with the landowner to find terms that worked for them.

Dating back to the 2014 co-curation of the local exhibition, *Rooted: The Richness of Land and Culture in Pembroke*, our Field Museum team has documented the pride among residents in the quality of their soil. Farmers and gardeners regularly counter historic narratives that the area’s sandy soil is not productive for agriculture with stories of abundant vegetable yields and every seed that is tossed into the yard growing strong.



Spotted bee balm was observed on most of the private Pembroke properties we surveyed for this project.



Many parcels in Pembroke are unfenced, connected by informal trails and former rail lines.

“I used to lease part of my land to a farmer growing corn. But he was removing nitrogen, and eventually my logic changed. I decided to invest in this quality organic soil, and there hasn’t been pesticides here now since the early 90s. The soil is worth the investment.”

There is a deep knowledge base in the community and some residents we spoke with felt that knowledge is ignored or not acknowledged. When our team brought maps of historic aerial imagery and landcover, the conversations we had with landowners often highlighted the extensive knowledge of hydrology, soil history, and the planning that had gone into each property.

5 Resistance by residents to prescribed fire has become a land management challenge in some communities.

However, in this project we found most landowners felt positive, or at least neutral about the idea of proscribed fire. In finding #1, we discussed landowner resistance to management techniques such as brush cutting and herbicide, however a similar resistance to fire was not found. All of the landowners we spoke with could recall wildfires that burned on or near their property. This is a community with real concerns about the risk of uncontrolled wildfires and an openness to organized fire management across public and private. The possibility that a collaboration with conservation organizations could bring **prescribed fire** to their property **was seen as a potential benefit** by most landowners.

The primary management need on many of the private lands we visited was management of woody underbrush. On some properties there was a clear difference between areas that had burned in wildfires and those that hadn’t. Providing a collaborative effort for landowners to access prescribed fire would be a double win for improving biodiversity and creating safety for residents.

In one of the participating landowner families for this project, a 30 year old son was in charge of mowing and maintaining their grounds. He requested support and training in identifying native plants, particularly those with medicinal value or value for birds. Our team provided field guides and walked the property providing preliminary advice. His father charged him with modifying his maintenance practice based upon this new knowledge, and explore the possibility of prescribed fire in the future. We expect that this case could provide insight into family roles and management partnership opportunities more broadly in Pembroke.

6 Pembroke is ecologically rich. There are plants and wildlife on private land that are significantly contributing to the broader conservation matrix in the region.

Bird and plant surveys conducted by Field Museum staff found species important to conservation on private land and found habitat on private land that could support species important to conservation. Interviews with landowners showed they are open to resources and support for realizing their goals for their property from outside agencies, state & federal programs, and conservation organizations. However, there is skepticism about outsiders and they would need to be approached as equal partners in the conservation of Pembroke. This finding is highly related to findings one and four.

During surveys **we found 58 species of birds during the one day on five small parcels of private lands in Pembroke Township during the 2021 summer breeding season.** There are 18 species of birds that breed in Pembroke's native grasslands, oak savannas or oak woodlands that we consider conservation targets in Pembroke Township. We found 11 of these species on these 15 parcels, with Red-headed Woodpecker the most widespread. Of the seven species not recorded, four of them likely breed on at least one of the properties. The remaining three species are grassland breeders requiring relatively large areas of contiguous grassland to breed. The small, mostly savanna or woodland dominated sites that we surveyed are not appropriate for these grassland species. Grasslands birds, which are a secondary conservation target, are not well represented on private lands currently.

Across our surveys we found both plants and wildlife on private land that is contributing significantly to the broader conservation matrix in the region. Some key plants that we observed were as follows:

Wet Prairie Species

- **Colic Root (*Aletris farinosa*)** — This species is most commonly found in sandy soils and while it can be found in wet or dry conditions other indicators told us the plants we found were growing in an area with spring flooding which is common in Pembroke. *Aletris farinosa* does not grow well with compaction and in the places we found this species it was an indicator of a site with low disturbance.
- **Meadowsweet (*Spiraea alba*)** — Another wet indicator that we found growing with *Aletris farinosa* in sites with spring flooding. *Spiraea alba* prefers more organic soils than *Aletris farinosa*. This species was also found along some of the many drainage ditches in Pembroke. While it tolerates flooding *Spiraea alba* will not tolerate long term standing water. This species is one that can suffer from deer browse but its relative commonness on our surveys is an indicator of the lower deer populations in Pembroke.

Sand Prairie Species

- **Spotted bee balm (*Monarda punctata*)** — This classic species of abandoned sandy fields and Black Oak Savannas is common throughout Pembroke. The plant has been used as a medicine for both humans and horses. Sometimes it is called horsemint because of its medicinal properties. As the common name bee balm indicates this is a popular plant with many kinds of pollinators and seeing fields of Spotted bee balm in Pembroke that are filled with bees is very impressive.
- **Blue Toadflax (*Nuttallanthus canadensis*)** — Pollinated by long tongued bees. This is a species of open sandy areas. It will tolerate some shade but is an indicator of open sandy areas. This species is thought to need some disturbance and may be maintained through fire.
- **Bird's Foot Violet (*Viola pedata*)** — Another species that is uncommon outside of Pembroke. Violets are a host plant for the state threatened Regal fritillary Butterfly. This species is somewhat dependent on disturbance so it thrives in areas of recent burning but is often common in areas around homesites that experience infrequent disturbance.

- **Broad-leaved panic grass (*Dichanthelium latifolium*)** — This is an uncommon species in our region. It's labeled conservative, which means it has very specific habitat requirements. Broad-leaved panic grass requires rich soils and is not typically found in prairie restorations.
- **Hoary Puccoon (*Lithospermum canescens*)** — This is one of the early blooming species in prairies. It produces shiny white, very hard seeds that are difficult to grow. The difficulty of growing this species means it's not often seen in prairie restorations but was seen on many of the private land sites we visited.

Savanna and Woodland Species

- **Low Bush Blueberries (*Vaccinium angustifolium*)** — Several sites we surveyed had large patches of blueberries. In every case the landowner was well aware of the location of the patch and shared memories about the site. Many patches were located in a savanna or woodland setting with oak and other mixed overstory. The frequency with which blueberries are seen in Pembroke is an indicator of the acidic soil.

Lack of oak tree regeneration is a documented issue in the Chicago Region. Loss of oaks on the landscape is of great concern to conservation because oak trees support hundreds of other species. However at the private lands we visited in Pembroke Township there were oak trees at many age classes. Several reasons for this increased regeneration have been suggested, including lower deer populations, lower presence of invasive species, fire on the landscape and woodcutting by residents.

Through our surveys and examination of 1938/1939 aerial imagery it is clear that Pembroke Township was a more open landscape in historic times. In some areas we found new growth of black cherry, cottonwood, quaking aspen, hawthorn, sumac, mulberry. We also found encroachment of some invasive species such as autumn olive and honeysuckle. These are examples of species that encroach when fire is removed from the landscape. All of the parcels we surveyed and most of the private lands in Pembroke are in need of management. The oak savannas and woodlands are overgrown and would benefit from prescribed fire.

Historic Aerial Imagery | Central Street Hopkins Park







IMPLICATIONS FOR CONSERVATION WITH PRIVATE LANDOWNERS

The globally rare black-oak savannas of Pembroke Township do not stop at the fence lines of lands protected by conservation organizations like The Nature Conservancy, Friends of the Kankakee and U.S. Fish and Wildlife Service. They also frame and support privately held land that may not ever pass into formal protection status. But “protection” of land for the mutual benefit of people and nature need not be confined to legal holding status. Outside agencies and organizations can build trust by supporting conservation-compatible goals in Pembroke precisely on lands that are not formally protected and that in all likelihood will remain a part of the lived-in landscape of the community. We recommend that conservation partners become even more outspoken in local fora to communicate land acquisition intentions, underscoring how private land tenure figures into their mission, values and vision for the landscape.

Most Pembroke residents we have spoken with emphasize the importance of maintaining the environmental quality of their lands, yet they seek to do so in a way that also generates social and economic development. Residents are not surprisingly unsupportive of conservation initiatives that are perceived to marginalize them from their lands, or which do not in some way support identified interests of local community members and organizations. Visible and sustained provision of expertise and resources to assist Pembroke landowners in sustainability practices is a clear



way for conservation entities to counter the longstanding local perception by some residents that land protection-focused outsiders are playing a long game to remove people from large swaths of Pembroke in service of the rare habitats there.

This recent project with private landowners upheld our Field Museum team's working premise that conservation goals and the land use interests of Pembroke residents are not inherently at odds. It underscored the need to expand research and practical knowledge about potential co-benefits of conservation and sustainable development for adjacent communities. Considerable work is being done globally on this issue, as conservation practitioners increasingly seek to employ models of community engagement that generate positive conservation outcomes. Future collaborations among external partners, the CDC and other local stakeholders should deliberately engage debates around community-based conservation, and when possible, contribute to the academic literature that addresses the issue of rural livelihood sustainability and conservation practice. Additionally, this network of partners can scale impact on the ground, as lessons learned are collectively utilized to inform community-based initiatives aimed at securing livelihood stability and family tenure while seeking conservation outcomes on land of high ecological quality in Pembroke Township.



RECOMMENDATIONS

There are plants and wildlife on private land that are significantly contributing to the broader conservation matrix in the region. This deserves further research and monitoring. However such research would entail relationship building with the landowners themselves, who from our sample also have interest in better understanding the biodiversity on their parcels and the role it plays in the broader Kankakee Sands system.

A community based approach to land management is going to be more successful than language around eradicating species. Landowners proposed that the local public library or a nature center serve as a hub for interactive content that conveys, explores, educates on the “Pembroke Land Ethic” — past and future. They suggested that an oral history project to gather and share local stories about the land was increasingly important, as many community elders are passing away in recent years.

Pembroke Township contains one of the largest areas of oak savanna in the Midwest. Only a small portion of that habitat is under formal protection by government or conservation organizations. The vast majority of this crucial habitat is found on small private land holdings. To maintain the sizable populations of savanna birds that currently breed in the Pembroke savannas, continuing to have high quality habitat on most of the private lands where it currently exists will be necessary.

The habitats that are conservation priorities in Pembroke are oak savanna and grasslands. Private land parcels have breeding populations of most if not all of the savanna birds, and for most of these species, the majority of the populations are found on private lands, not on the existing protected lands. Because savanna birds are less sensitive to habitat size than grassland or woodland birds, savanna species are an ideal target for conservation on the small parcels that dot the township.



Private land parcels are mostly small and one by one will not be able to maintain good breeding populations. For private lands to be important to bird conservation, it will be most helpful to tie together adjacent properties with oak woodland or oak savanna on them into units that receive complementary management. The mechanism for instituting such coordinated management is uncertain. The private landowners will require access to resources in order to undertake the management necessary to keep these areas in acceptable condition.

Currently, all of the parcels we surveyed and most of the private lands in Pembroke are in need of management. The oak savannas and woodlands are overgrown and in need of fire. Recognizing that introducing prescribed fire into a landscape with residences throughout is logistically difficult, we recommend that state and federal agencies along with large conservation organizations in Pembroke help residents obtain resources and expertise to carry out the management required for the long-term health of these habitats.

Grasslands birds, which are a secondary conservation target, are not well represented on private lands currently. These small parcels are unlikely ever to be good for grassland birds, which require larger areas of contiguous open grassland with little or no woody vegetation. The best possibilities for the grassland species would be in open portions of the larger conservation landholdings or on larger agricultural landholdings. Portions of these large agricultural lands could be enrolled in Farm Bill conservation programs like CRP. These programs have provided significant habitat for grassland birds elsewhere in Illinois.

Organized fire management across public and private land in Pembroke township would better control invasive and weedy species. More organized management of fire would reduce damaging wildfires and lead to better oak regeneration benefiting biodiversity.

Finally, we shared the list of resources, programs, and potential partners in the following section with participating landowners in our cohort. Conservation partners and funders are encouraged to supplement this list, extend it to other interested Pembroke residents, and be responsive if/when local landowners contact them with inquiries. We recommend that partners consider delivering trainings and workshops in Pembroke focused on realizing private landowners' conservation-compatible goals, via programmatic offerings, grants, capacity building, or direct service,

FORMAT OF HOLISTIC LANDOWNER PLANS

Date of site visit

Location and acres

About the Plan

Land History _____ 

Aerial Images

Use/Vision/Goals _____   

Neighbors _____ 

Key Species and Features _____   

Challenges _____  

Recommendations _____   

Potential Resources _____ 

Appendix with bird and plant lists _____ 

RESOURCES SHARED WITH LANDOWNERS

Institutional Resources (Federal, State, Municipal)

<https://www2.illinois.gov/dnr/conservation/CSP/Pages/default.aspx>

IDNR Conservation Stewardship Program

Purported Benefits/Methods:

1. Reduce Your taxes by Mowing Less — any land in Illinois (except Cook County) classified as non-farm property, i.e. five contiguous acres that can be managed for wildlife qualifies;
2. Prescribed Burning — when prescribed burns are done correctly, they can be a cheap and efficient way to reach habitat management goals for your property;
3. Native Prairie Plantings — diverse native prairie plantings can be very beneficial to a variety of wildlife species while reducing soil erosion and improving water quality;
4. Preparing the land for native prairie planting;
5. Open woodland — removing non-native invasive species (NNIS) and other undesirable species will enhance native species regeneration on the property; and
6. Bluebell Bottoms — opening up sunlight to a woodland understory will allow herbaceous vegetation to grow like bluebells.

<https://www2.illinois.gov/dnr/conservation/wildlife/Pages/AcresWildlife.aspx>

IDNR Acres for Wildlife is a voluntary program where IDNR provides support and resources for converting acres for wildlife habitat. Not paid, but IDNR provides management plans, cropland conservation or conversion recommendations, native seeds and forbs, and, in some instances, special equipment.

<https://www.fs.usda.gov/managing-land/private-land/landowner-resources>

USDA / Forest Service private landowner resources for managing family forests including: Environmental Quality Incentives Program, Conservation Reserve Enhancement Program, and Forest Stewardship Program.

Restoration and Conservation by Ecotype

<https://www.oaksavannas.org> | <https://oaksavannas.org/plan.html>

Restoration and planning resource for converting land to an oak savanna ecotype.

[Changes in conservation value from grasslands to savannas to forests: How a temperate canopy cover gradient affects butterfly community composition](#)

Research article on range of Midwest eco-types with a focus on impacts on and conservation of butterfly species.

Common Methods for Tallgrass Prairie Restoration and Their Potential Effects on Bee Diversity

Research article on restoring tallgrass prairies with a focus on bee communities and conservation.

Ecology and stewardship guidelines for oak barrens landscapes in the upper Midwest

Research article and educational tool for oak barrens, combination oak savanna and sand savanna, their composition, common disturbances, and stewardship.

Restoring your Crop Field to “Conservation Prairie”

Guidelines from TNC.

Prairie Wolf Slough Wetlands Demonstration Project: A Case Study Illustrating the Need for Incorporating Soil and Water Quality Assessment in Wetland Restoration Planning, Design and Monitoring

Case Study on how soil health and water quality are essential considerations for restoring land to high quality wetland.

Land Justice and Ownership

<https://www.heirsproperty.org>

Non-profit centered on legal rights for land owners of generational land as well as resources for increasing property value through sustainable practices on working land. Based in South Carolina, but resources tabs highlight broadly applicable considerations for landowners.

<https://www.blackfoodjustice.org/about-us-1>

National coalition focused on Black-land sovereignty and food justice.

<https://www.blackurbangrowers.org/conferences>

Annual conference for Black urban farmers and growers. Focus on network and community building, resource sharing.

<https://30000acres.org>

Legal nonprofit focused on farm/land retention, asset protection for farmers, and addressing hunger. Offers resources for farmers, with a section on legal, educational, and financial resources provided to aging farm owners who seek to protect their land. Service area is potentially nationwide.

<https://tillable.com/the-guide-to-farmland-inheritance>

Basic educational tool / resource guide for inheriting farmland.

Landowner Conservation: Protecting the Unprotected

Thesis and case study of Northwest Illinois family homestead, conservation planning, and integrating multiple priorities for land stewardship.

Land Management

<https://www.savannainstitute.org/resources>

Resource on implementing regenerative agroforestry programs, including information on farm financing and crop selection for profit and land-fit.

<https://hgic.clemson.edu/factsheet/developing-a-wildlife-management-plan>

Simple but comprehensive “How To” guide for writing land management plans for landowners with a wildlife focus from Clemson University’s Cooperative Extension.

<https://www.nwtf.org/content-hub/a-science-to-private-land-management>

National Wild Turkey Federation case study, on free land management plans for private landowners geared towards turkey habitat conservation, including benefits for recreation and pollinator health. Example of hybrid systems that balance multiple land use goals.

<https://www.ducks.org/conservation/land-protection/land-protection-options>

Ducks Unlimited programs that support private land protection, with a focus on wetland resources.

https://www2.dnr.state.mi.us/publications/pdfs/huntingwildlifehabitat/landowners_guide/Resource_Dir/Acrobat/Writing_a_Mgmt_Plan.PDF

Resource for writing land management plans.

[**USDA Land Management Plan, 2014 Revision, Shoshone National Forest**](#)

Example of USDA land management plan, with emphasis on defining priorities, goals, and values.



Plan prepared by Keller Science Action Staff
at Field Museum in collaboration with with
participating Pembroke landowners.

Design by Sarah Sommers Design: sarahsommersdesign.com

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