



Fox River Corridor Plan

from Burtons Bridge to Fox Bluff

Adopted October 16, 2018



Acknowledgements

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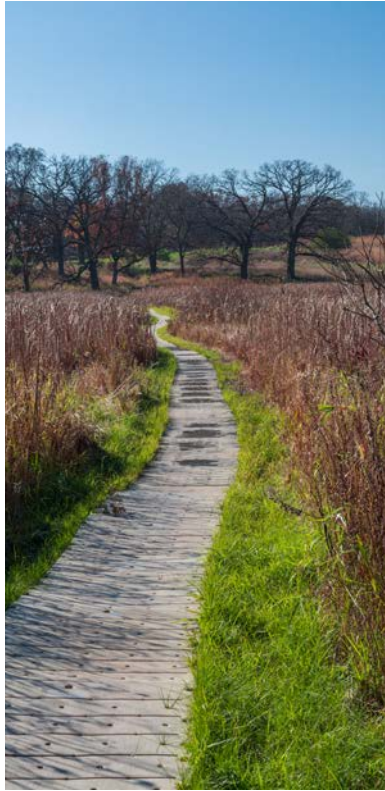
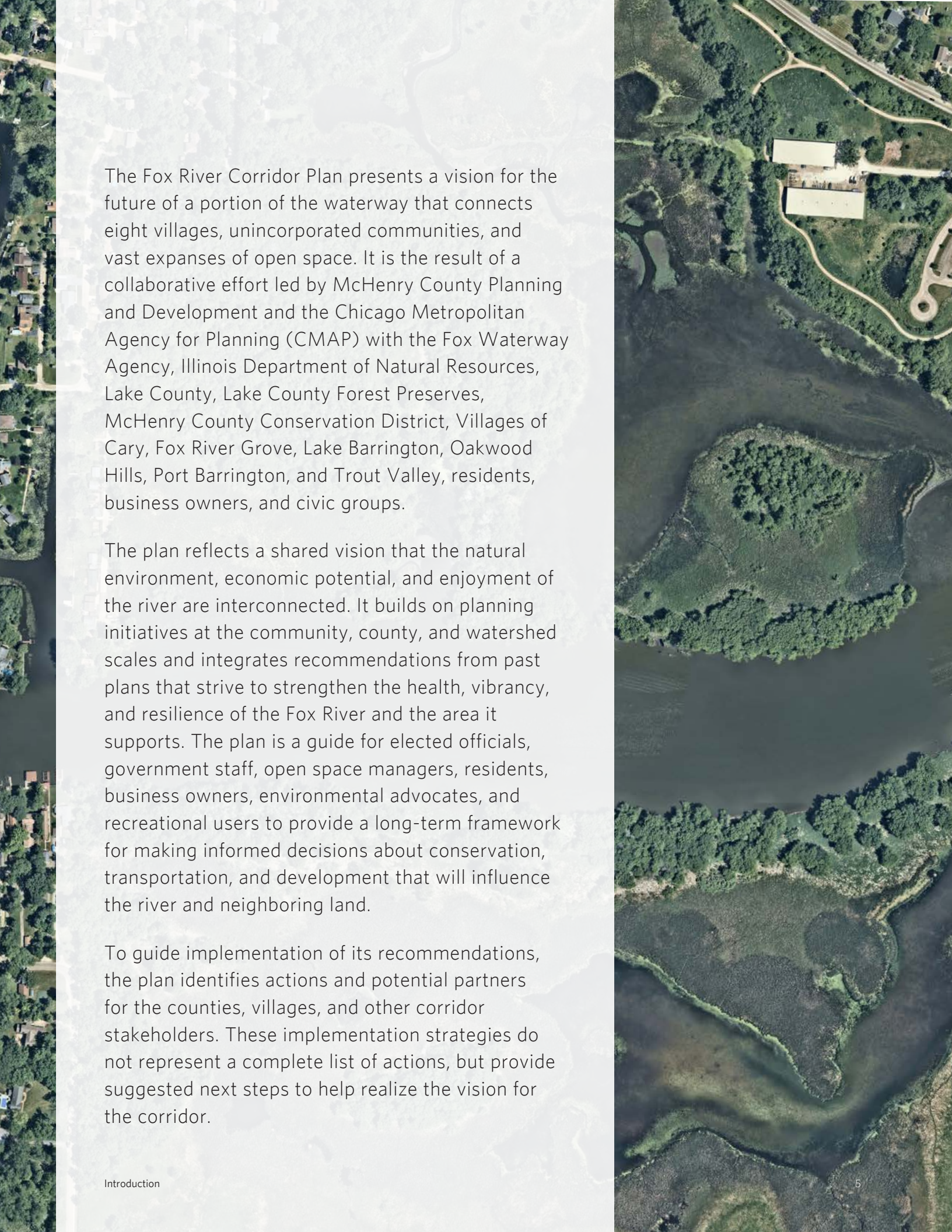


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An aerial photograph of a river corridor, likely the Fox River, showing a mix of residential development, dense green trees, and open grassy areas. A prominent blue semi-transparent rectangle is overlaid on the upper portion of the image, containing the chapter title in white text. The river flows from the top left towards the bottom right, with several bends and a small boat docked on the left bank. Residential houses with roofs and driveways are scattered throughout the landscape, particularly along the riverbanks. Large areas of green trees and grassy fields are interspersed with the buildings.

Chapter 1 INTRODUCTION

An aerial photograph of a river corridor. The river flows from the top right towards the bottom left. A large, circular island of dense green forest is situated in the middle of the river. To the right of the island, there are two large, light-colored rectangular buildings, possibly a farm or industrial site, with a dirt road leading to them. The surrounding land is a mix of green fields, trees, and some residential or commercial structures. The overall scene depicts a natural waterway integrated with human development.

The Fox River Corridor Plan presents a vision for the future of a portion of the waterway that connects eight villages, unincorporated communities, and vast expanses of open space. It is the result of a collaborative effort led by McHenry County Planning and Development and the Chicago Metropolitan Agency for Planning (CMAP) with the Fox Waterway Agency, Illinois Department of Natural Resources, Lake County, Lake County Forest Preserves, McHenry County Conservation District, Villages of Cary, Fox River Grove, Lake Barrington, Oakwood Hills, Port Barrington, and Trout Valley, residents, business owners, and civic groups.

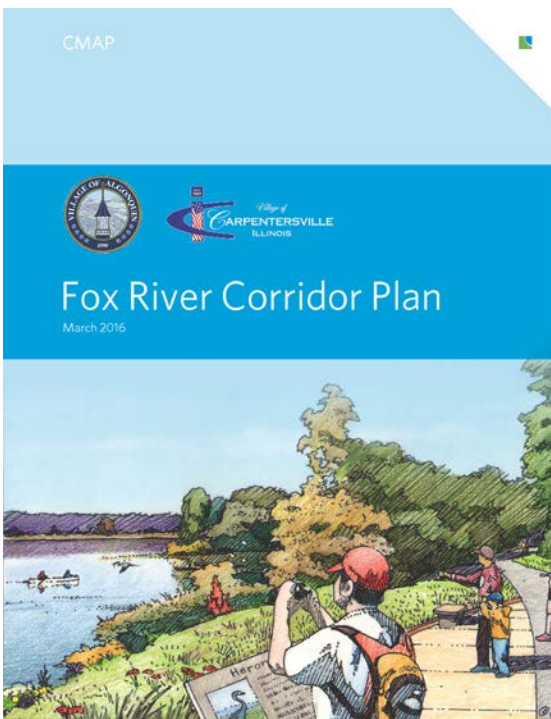
The plan reflects a shared vision that the natural environment, economic potential, and enjoyment of the river are interconnected. It builds on planning initiatives at the community, county, and watershed scales and integrates recommendations from past plans that strive to strengthen the health, vibrancy, and resilience of the Fox River and the area it supports. The plan is a guide for elected officials, government staff, open space managers, residents, business owners, environmental advocates, and recreational users to provide a long-term framework for making informed decisions about conservation, transportation, and development that will influence the river and neighboring land.

To guide implementation of its recommendations, the plan identifies actions and potential partners for the counties, villages, and other corridor stakeholders. These implementation strategies do not represent a complete list of actions, but provide suggested next steps to help realize the vision for the corridor.

Project Introduction

The Fox River is one of the greatest natural, recreational, and cultural assets of McHenry and Lake Counties and the Chicago region. This effort builds on the groundwork established by the Fox River Corridor Plan adopted by the Villages of Algonquin and Carpentersville in 2015 and 2016 respectively.¹ Inspired by that initiative, McHenry County Planning and Development – with support from the Village of Fox River Grove, McHenry County Conservation District (MCCD), Lake County Forest Preserves (LCFP), Illinois Department of Natural Resources (IDNR), and the Environmental Defenders of McHenry County – applied to CMAP’s Local Technical Assistance (LTA) program to develop a vision for the portion of the Fox River that extends upstream through McHenry and Lake Counties.

The plan covers a scenic stretch of the Fox River that spans unincorporated lands in southeast McHenry County and southwest Lake County, the Villages of Cary, Fox River Grove, Island Lake, Lake Barrington, Oakwood Hills, Port Barrington, Tower Lakes, and Trout Valley, adjoining conservation areas, forest preserves, and State nature preserves, and floodplains.



The Fox River

The Fox River originates near Waukesha, Wisconsin and flows for over 185 miles before reaching the Illinois River in Ottawa, Illinois. The Fox River watershed – the area drained by the river – spans 2,658 square miles across both states (See Figure 1.1). In its northern reaches, the watershed comprises many wetlands, lakes, and glacial formations, among rural communities and agricultural land. The middle reach of the Fox River, known in Illinois as the Upper Fox, is more developed with cities, villages, and unincorporated communities. The Upper Fox includes the Chain O’Lakes, a series of connected waterbodies in Lake and McHenry Counties popular for motorized recreational boating. Pressures associated with expanding urban development have resulted in conservation and watershed planning efforts to protect sensitive habitat and improve water quality of this ecologically rich area.

The flat landscape of Lake and McHenry Counties creates a relatively shallow riverbed between the Chain O’Lakes and the Algonquin Dam. IDNR manages water levels for recreational boating on the Chain O’Lakes and for water supply use by the cities of Elgin and Aurora and Fermilab in Batavia. Flows are maintained through the Stratton Dam near McHenry, Illinois and the Algonquin Dam, yet at times water levels near docks and in the backwater channels can be too shallow for powered watercraft. South of Algonquin, the river level is much lower and is primarily suitable for paddling and fishing.

Figure 1.1. Fox River watershed (adapted from the Fox River Study Group)



Fox River Communities

Located approximately 45 miles northwest of downtown Chicago, the corridor communities offer a suburban, small-town feel with Metra train access to downtown Chicago, excellent recreational amenities, and high-quality natural resources (See Figure 1.2).

Burtons Bridge: Burtons Bridge is an unincorporated community in McHenry County. Located on the west bank of the Fox River at IL Route 176, Burtons Bridge features a small concentration of restaurants, entertainment, and other businesses.

Village of Cary: Located in southeast McHenry County, Cary is situated across the Fox River from the Village of Fox River Grove. The Village's historic downtown is located approximately one mile from the Fox River at Main Street and US Route 14 with restaurants and businesses, as well as a Metra station. With the exception of future improvements at the Fox Bluff Conservation Area, the Village does not have public riverfront access within its limits.

Village of Fox River Grove: Fox River Grove is located in McHenry and Lake Counties along the east bank of the Fox River. The Village offers riverfront parks, restaurants, and a marina and is home to the world-renowned Norge Ski Jump Club. The Village's downtown area and Metra station is situated along US Route 14 at Lincoln Avenue.

Village of Island Lake: Island Lake is situated on the east bank of the Fox River in McHenry and Lake Counties. The Village does not have public riverfront access; however, the Fox River Shores subdivision abuts the Fox River between IL Route 176 and the Cotton Creek Marsh Nature Preserve.

Village of Lake Barrington: Lake Barrington is located in Lake County on the east side of the Fox River between Fox River Grove and Port Barrington. The Village trail system follows Flint Creek and provides access to the river at Tower Lake Drain. The Barrington Harbor subdivision abuts the Fox River.

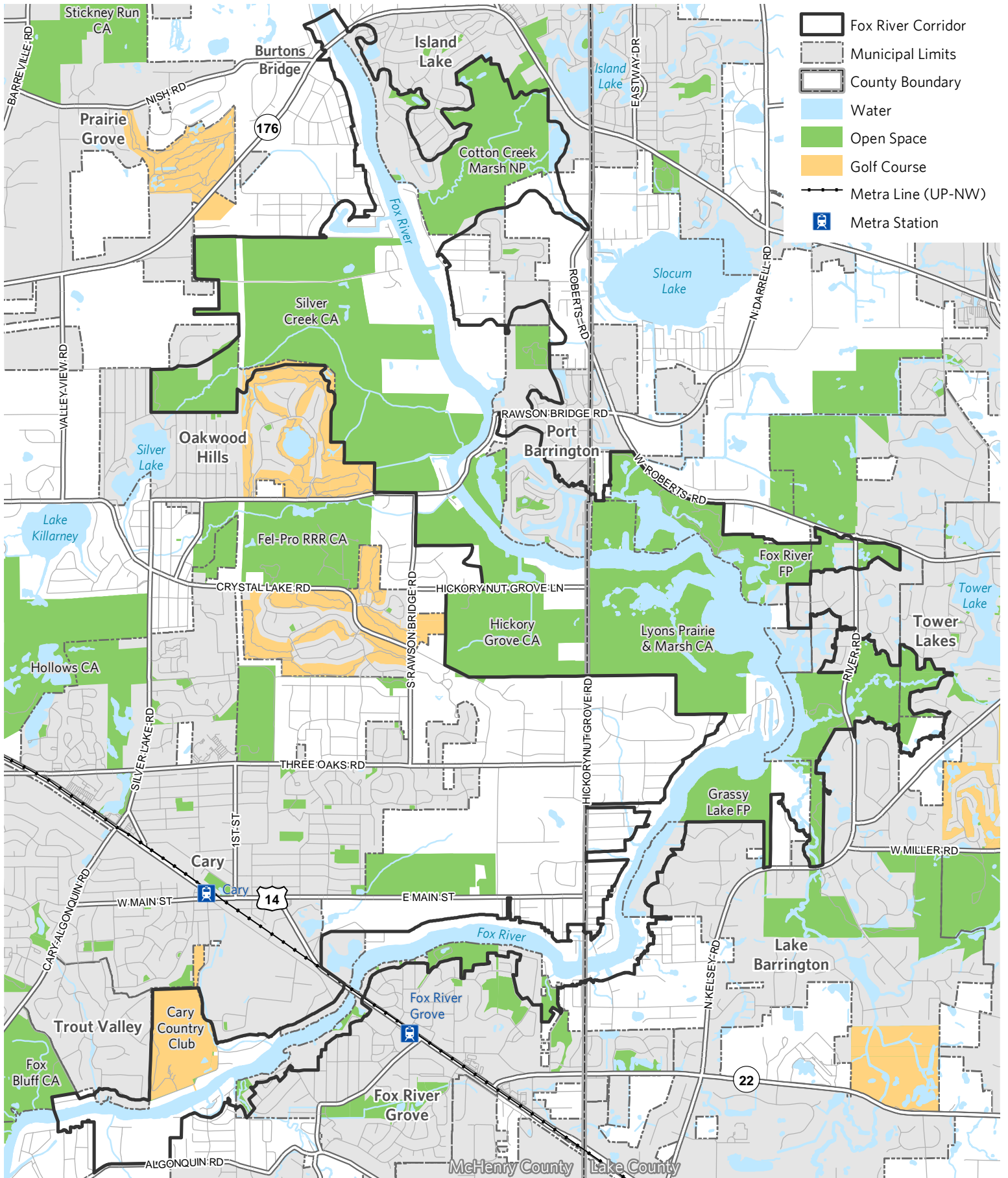
Village of Oakwood Hills: Oakwood Hills is a small, residential community in McHenry County. The Village features high quality natural areas, including Oakwood Hills Fen and Silver Lake, and is bordered by Silver Creek Conservation Area to the north and east.

Village of Port Barrington: Port Barrington is located in McHenry and Lake Counties along the east bank of the Fox River. Nielsen's Channels meander through the heart of the residential community, providing residents with ample access to the water. A few restaurants, marinas, and entertainment venues also dot the riverfront.

Village of Tower Lakes: Tower Lakes is a small residential community situated a half mile east of the river in Lake County. The Village was built around its namesake lake that drains into the Tower Lakes Fen before entering the Fox River.

Village of Trout Valley: Trout Valley is a small residential community that is situated along the Fox River in southeast McHenry County. The Village is bordered by the Village of Cary, Fox Bluff Conservation Area, and the Cary County Club. Trout Valley Park provides residents with access to the river.

Figure 1.2. Fox River Corridor Plan study area



Why Does the Fox River Need a Corridor Plan?

The health of the Fox River is intrinsically connected to the quality of life and economic prosperity of the corridor communities. At the same time, the decisions and actions of one riverfront community can have a negative impact on another community. Issues such as flooding, water pollution, sedimentation, invasive species, and poor bikeway connectivity extend beyond municipal and county lines and involve many different stakeholders. By planning together, the counties and villages can develop complementary strategies to continue to protect, enhance, and enjoy the unique resource that connects them all – the Fox River.

The river corridor plan provides a consistent framework for planning decisions along the length of the river, including natural resource protection, bicycle and pedestrian access, parks and recreation, and sensitive economic development. This plan builds on the framework established in the downstream communities of Algonquin and Carpentersville to develop a cohesive structure for protecting and improving the waterway with strategies tailored to the unique opportunities and concerns of this stretch of the river. The plan encourages cross-agency collaboration among large landholders and waterway managers such as IDNR, the Fox Waterway Agency (FWA), LCFP, and MCCC. It will also help McHenry County, Lake County, and the villages leverage resources to implement improvements and programs that serve the shared interests of the communities, the Fox River watershed, and the Chicago region as a whole.

Planning Process

The planning process to create the Fox River Corridor Plan included multiple steps that were undertaken over two years. The process was developed in close consultation with McHenry County and was designed to include extensive input from community residents, business owners, open space managers, civic groups, and community leaders throughout.

- Project initiation (Sep. 2016)
- Community outreach (Nov. 2016–Sep. 2017)
- Existing conditions analysis (Mar.–Oct. 2017)
- Preliminary recommendations (Nov.–Dec. 2017)
- Plan development (Jan.–July 2018)
- Public review and adoption (Aug.–Oct. 2018)
- Implementation of the plan (begins Oct. 2018)

A complementary CMAP-led process assessed the corridor’s vulnerability to climate change. The assessment explored climate-related hazards affecting the ecosystem, infrastructure, and communities in the Fox River corridor today and in the future, as well as the local capacity to adapt to these changes. This assessment has been integrated into the Fox River Corridor Plan. Refer to Appendix B for more information on the assessment.

Community Engagement

To better understand and address the communities' needs and vision for the corridor's future, a number of community engagement activities were conducted to gather public feedback. In addition to the ongoing input of the project steering committee, this included conducting two public workshops, an online survey, and confidential interviews with key stakeholders throughout the study area to identify the primary concerns of local residents, businesses, and recreationists, among other stakeholders. Since the start of the planning process, a total of 425 residents and stakeholders have participated in the community engagement process.

The first phase of the planning process involved several outreach activities including the first steering committee meeting, stakeholder interviews, an online community survey, and a public kick-off open house. McHenry County Planning and Development held the open house on March 2, 2017 at Cary Village Hall to introduce the public to the planning process, and receive input on corridor priorities, issues, and opportunities. Specifically, McHenry County and CMAP staff led activities focused on issues related to natural resources, transportation and circulation, and businesses, tourism, and recreation in the corridor.



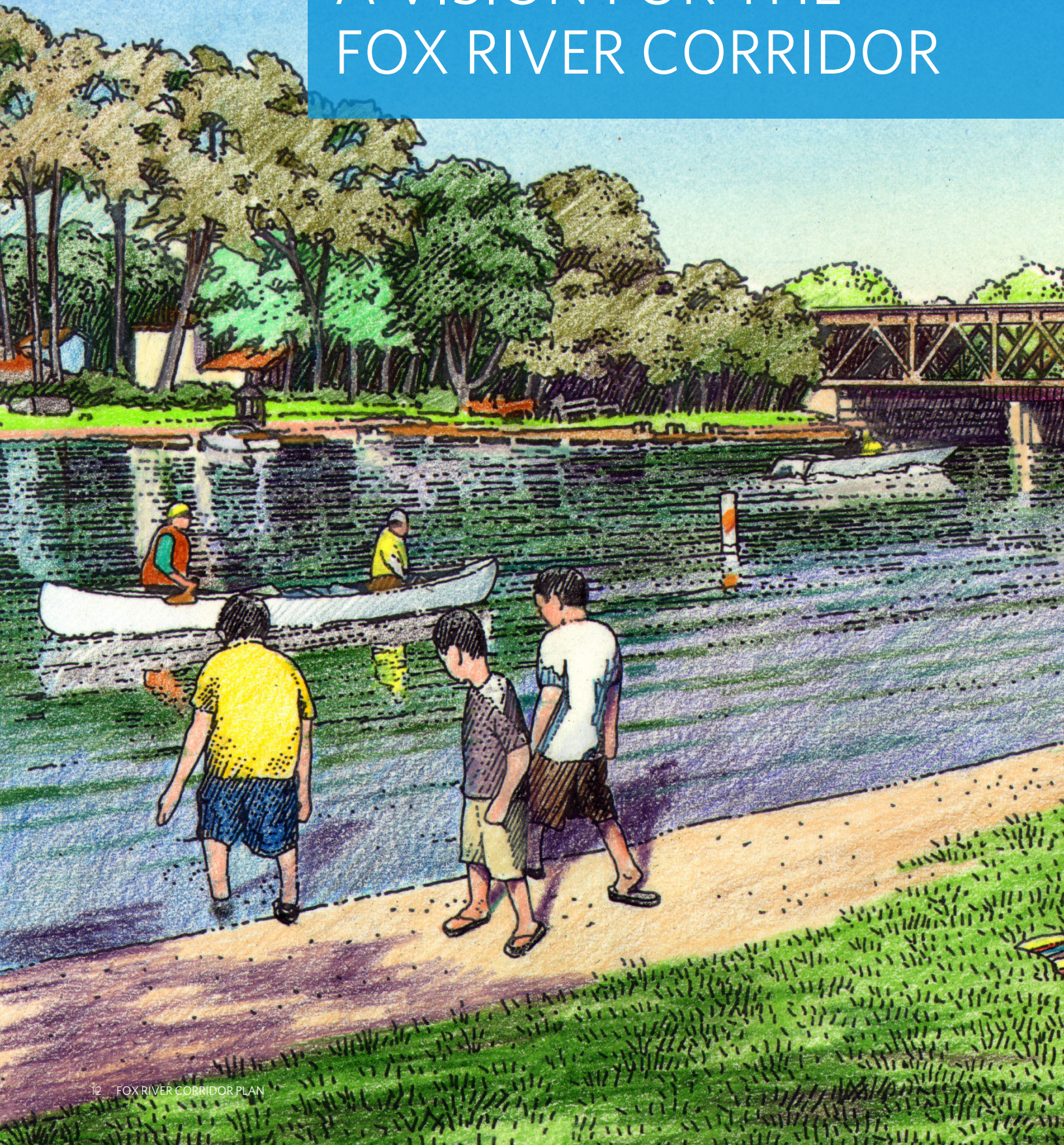
Visioning exercise, Fox River Corridor Plan workshop.

The second step of the planning process was the visioning phase. The goal of the visioning phase was to present key findings from the existing conditions in the corridor, and garner feedback from residents and stakeholders, including their thoughts on potential solutions to the issues and opportunities that were identified during phase one. McHenry County Planning and Development held a public visioning workshop on September 21, 2017 at Lake Barrington Village Hall. The workshop began with a summary of current conditions in the Fox River Corridor, synthesizing information gathered through public input, field observations, data, previous studies, and other sources. Workshop attendees then divided into small groups and developed ideas related to improving access and water-based recreation, flood mitigation, water quality, open space and recreation, bicycling and walking, and economic development. More than 50 residents, business owners, County staff, Steering Committee members, and elected and appointed officials attended.

Throughout the planning process, participants held many of the same concerns and generally expressed the desire to preserve the corridor's natural resources and scenic beauty, enhance safety for all river users, provide more public riverfront access, improve connections for bicyclists and pedestrians, and attract more family-friendly businesses, activities, and events. While improving public riverfront access was a common desire, many participants were opposed to using private property to construct a river trail, similar to the Fox River Trail in Kane County. One key finding that was heard across all outreach activities was the need for better stormwater management and sediment control to improve water quality and maintain motorboat access to docks and riverfront businesses.

Chapter 2

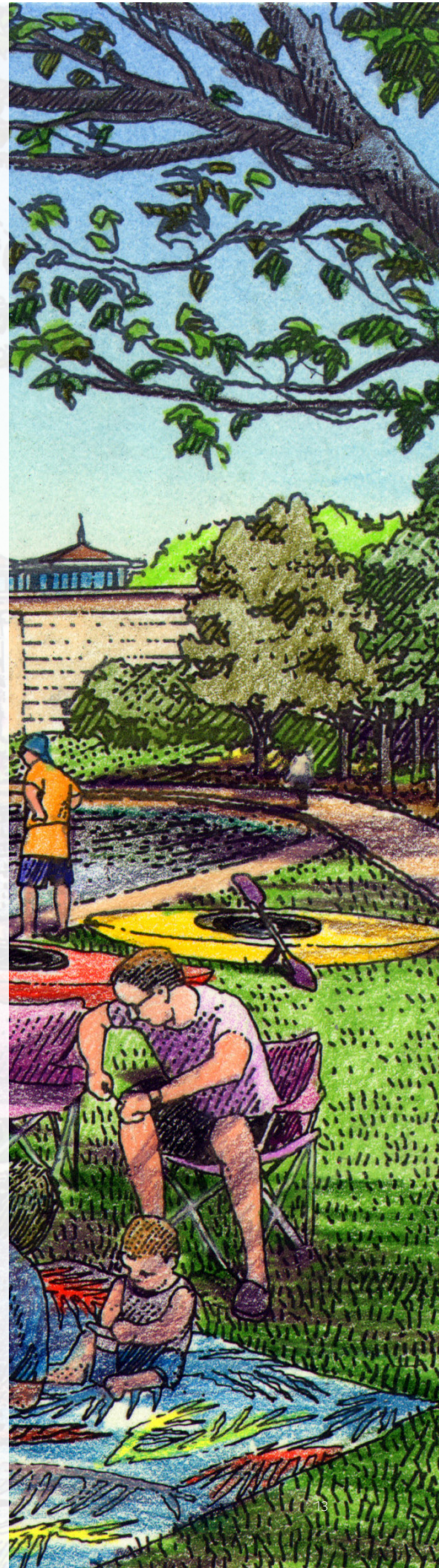
A VISION FOR THE FOX RIVER CORRIDOR



Guiding Principles

It is clear that the corridor's communities have great pride and optimism for the future of the Fox River. Seven overarching principles emerged to guide the strategies outlined in the Fox River Corridor Plan:

- Create a healthy, safe, and accessible river environment.
- Balance the preservation and recreational use of the Fox River and connected natural areas.
- Foster a culture of appreciation and stewardship among residents, businesses, and river users.
- Preserve the area's rural and local character.
- Enhance the vibrancy of the riverfront and nearby commercial and downtown areas.
- Protect high quality and diverse habitats.
- Strengthen resilience to the effects of climate change to better withstand floods, droughts, and other impacts.



Framework Plan

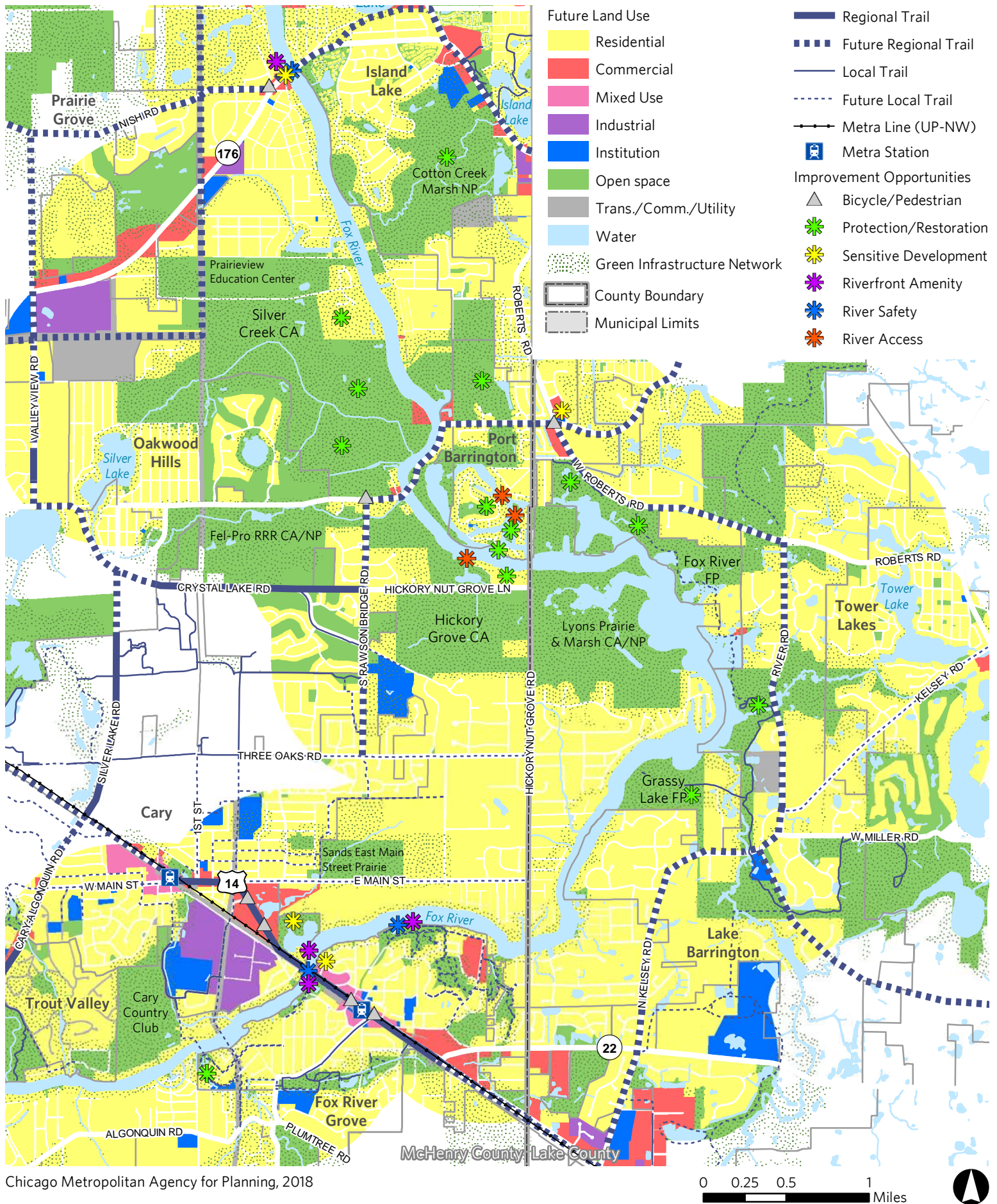
The framework plan consolidates many of the recommendations made in the Fox River Corridor Plan that, when implemented, would help corridor communities take steps toward achieving the vision (See Figure 2.2). The framework plan illustrates future land use recommendations from previous village and county-led planning initiatives, including the green infrastructure network that identifies riparian areas, wetlands, and other important habitat that should be considered in future land use decisions.

The framework plan also locates improvement opportunities that have been identified through this planning process. These opportunities aim to improve the natural environment, bicycle and pedestrian facilities, riverfront access and amenities, and river safety, as well as potential locations for sensitive development. The improvement opportunities will be described in more detail in the subsequent chapters of the plan.

Figure 2.1. Concept illustrations highlighting the vision for the Fox River Corridor (Bruce Bondy-Bondy Studios, 2018)



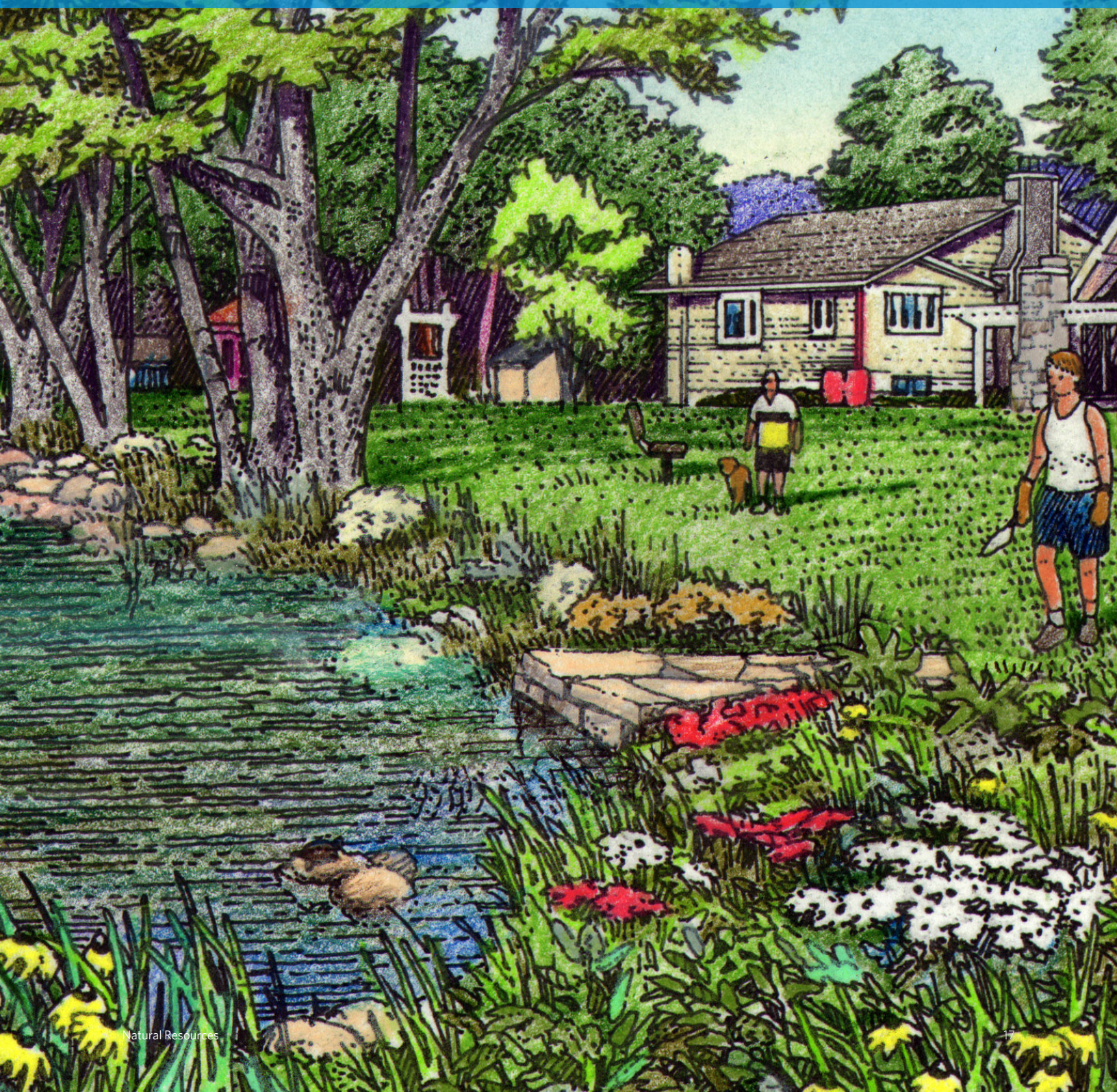
Figure 2.2. Fox River Corridor framework plan

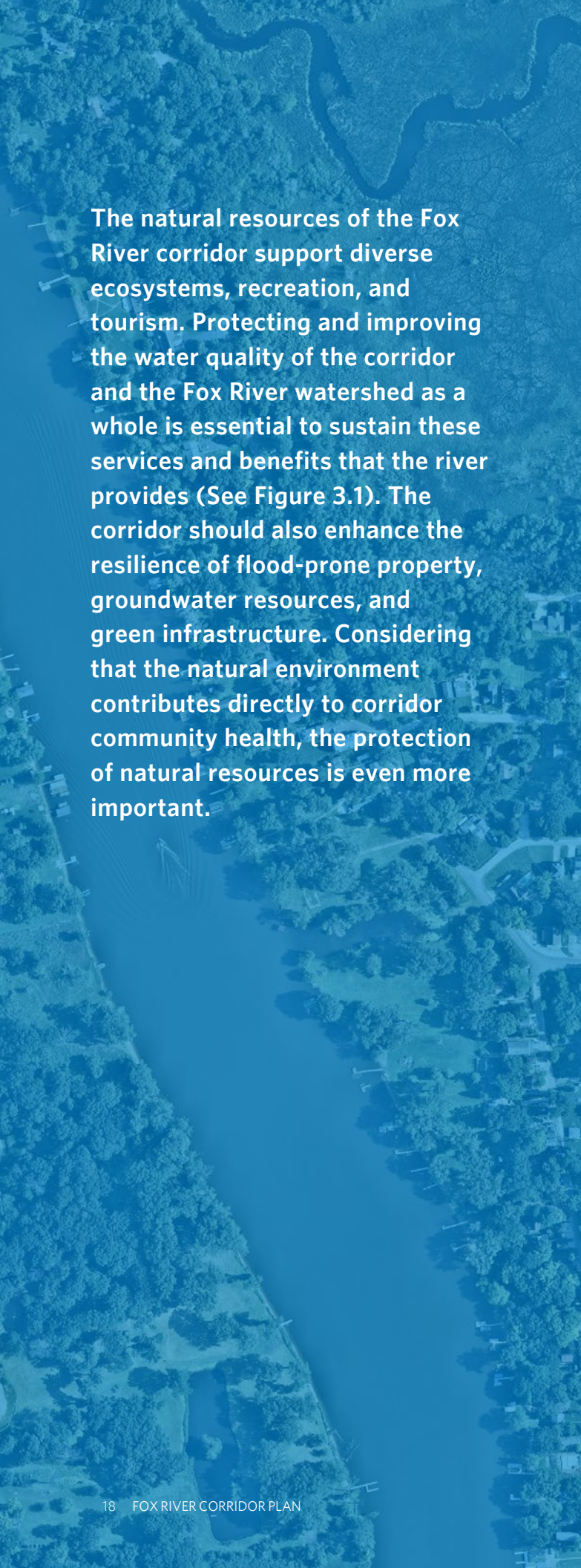


Chapter 3 NATURAL RESOURCES



The Fox River corridor will achieve a healthy, clean, diverse, and connected system of natural resources that is appreciated and protected for its ecological value and better able to withstand the impacts of climate change.



An aerial photograph of the Fox River corridor, showing a winding river through a lush, green landscape. The image is overlaid with a semi-transparent blue filter. The river flows from the top left towards the bottom right, with dense vegetation on both banks. Some residential or commercial buildings are visible along the river's edge.

The natural resources of the Fox River corridor support diverse ecosystems, recreation, and tourism. Protecting and improving the water quality of the corridor and the Fox River watershed as a whole is essential to sustain these services and benefits that the river provides (See Figure 3.1). The corridor should also enhance the resilience of flood-prone property, groundwater resources, and green infrastructure. Considering that the natural environment contributes directly to corridor community health, the protection of natural resources is even more important.

Key Findings

Water quality has improved but is still a key concern. Stormwater runoff and other sources of pollution harm the aquatic habitat, swimming and fishing potential, and aesthetics of the Fox River. The river is also important to downstream communities that currently rely on it for their water supply and may depend on it in the future.

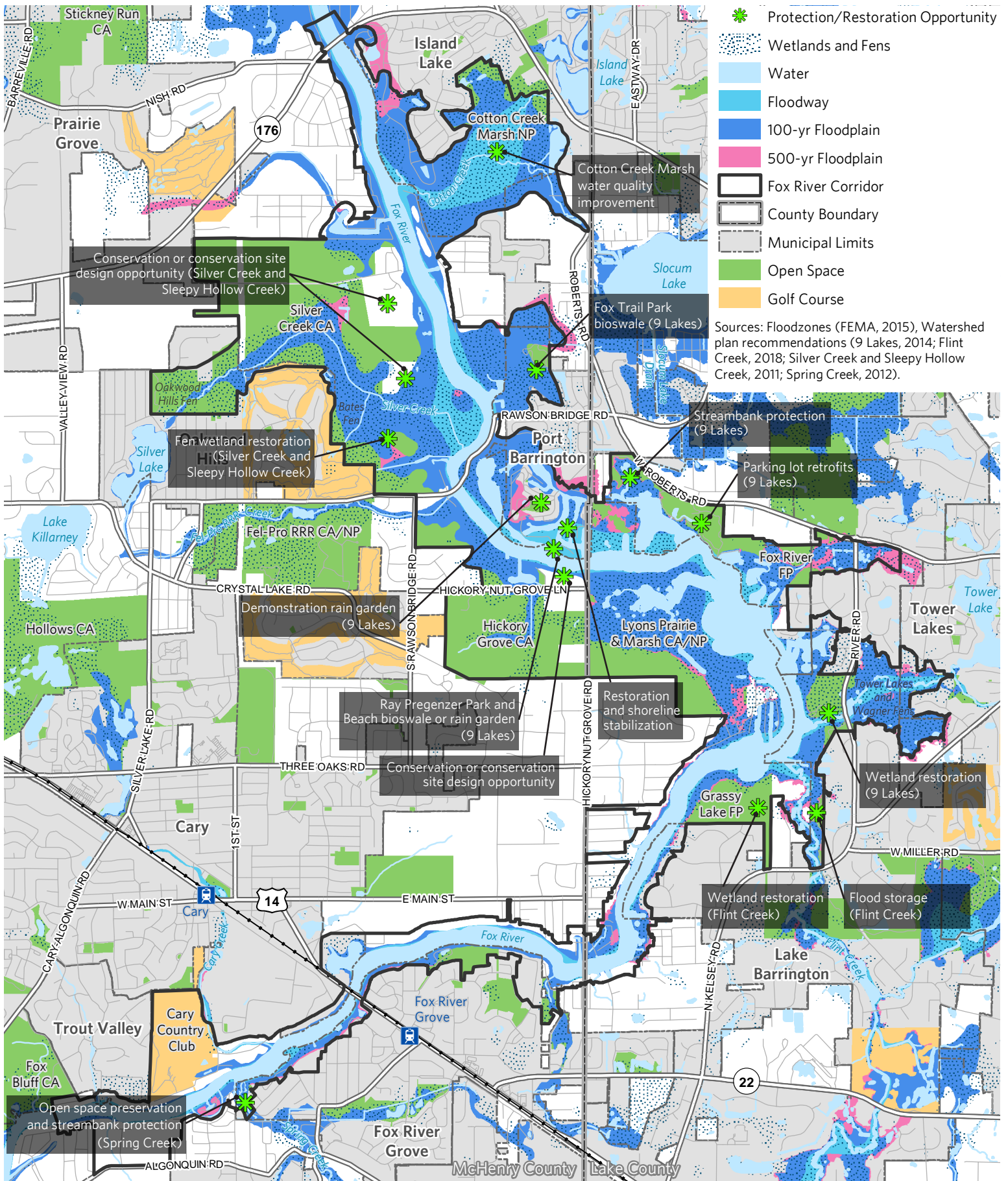
Corridor communities are highly vulnerable to flooding. Past decisions to develop within the Fox River floodplain has resulted in property damage, road closures, economic losses, and reduced quality of life. Projected increases in rainfall will further expose riverfront communities to flood-related impacts, including the potential for greater shoreline erosion and sediment buildup, which is already an issue requiring attention. Fortunately, large areas of the floodplain within the corridor are protected as open space and provide natural flood control.

Shallow groundwater is highly sensitive to contamination and at risk of depletion. Corridor communities rely on shallow groundwater for their water supplies, which also supplies baseflow to the Fox River. Overconsumption and drought can reduce this vital resource, while land management and development practices such as agricultural operations and snow and ice management can degrade groundwater quality.

Wetlands, fens, oak groves, and prairies support biodiversity, but are fragmented. These important natural areas have been identified in county plans and State inventories for protection, conservation, or management to maximize their ecosystem benefits and preserve them for future generations.

Climate change may place a greater strain on natural resources. More intense and frequent storms, longer periods of drought, and hotter temperatures all have the potential to put the corridor's flora, fauna, and water resources at risk.

Figure 3.1. Natural resources plan



Chicago Metropolitan Agency for Planning, 2018

0 0.25 0.5 1 Miles



Recommendations

3.1 Collaborate to leverage resources and maximize impact.

3.2 Protect and restore green infrastructure.

3.3 Maintain and enhance groundwater resources.

3.1 Collaborate to leverage resources and maximize impact.

Creating and maintaining a healthy river ecosystem with high water quality requires coordination and collaboration across state, county, township, municipal, and district lines. This coordination will continue to play an important role in building resilient communities in the face of climate change. Throughout the planning process several stakeholders noted that the number of groups dedicated to the protection of the corridor is a key strength. Collaboration among these groups provides opportunities to leverage limited economic resources, avoid duplication of work, and scale up best practices to maximize impact across the corridor and Fox River watershed as a whole.

Support existing cross-jurisdictional groups.

The plan recommends that local governments continue to support existing cross-jurisdictional groups through meeting participation and data and information sharing. These groups include:

Fox River Study Group (FRSG) is a coalition focused on improving water quality throughout the watershed. Counties and villages should leverage the FRSG's volunteer monitoring group to improve surface water and groundwater data sharing.

Fox River Ecosystem Partnership (FREP) convenes a broad set of stakeholders to advance restoration and educational goals, including improving water quality.

Southeast Fox River Partnership, in collaboration with FREP, has been convening the annual Fox River Summit since 2013 to increase collaboration and data and information sharing across the watershed in Wisconsin and Illinois. Counties, villages, and other stakeholders should continue to engage in efforts to increase collaboration across state lines to improve water quality.

Friends of the Fox River (FOFR) is dedicated to preserving, protecting, and restoring the Fox River watershed. In addition to advocacy and volunteer cleanup activities, FOFR engages students and the general public in water quality monitoring.

Fox Valley Sustainability Network (FVSN) brings together public and private sector stakeholders to work on various issues and projects in the Fox Valley surrounding green infrastructure, water, waste, transportation, economic development, energy, and food.

Chicago Wilderness is a regional alliance leading strategy to preserve, improve, and expand nature and quality of life. The Green Infrastructure Working Group brings together partners to increase collaboration and leverage resources.

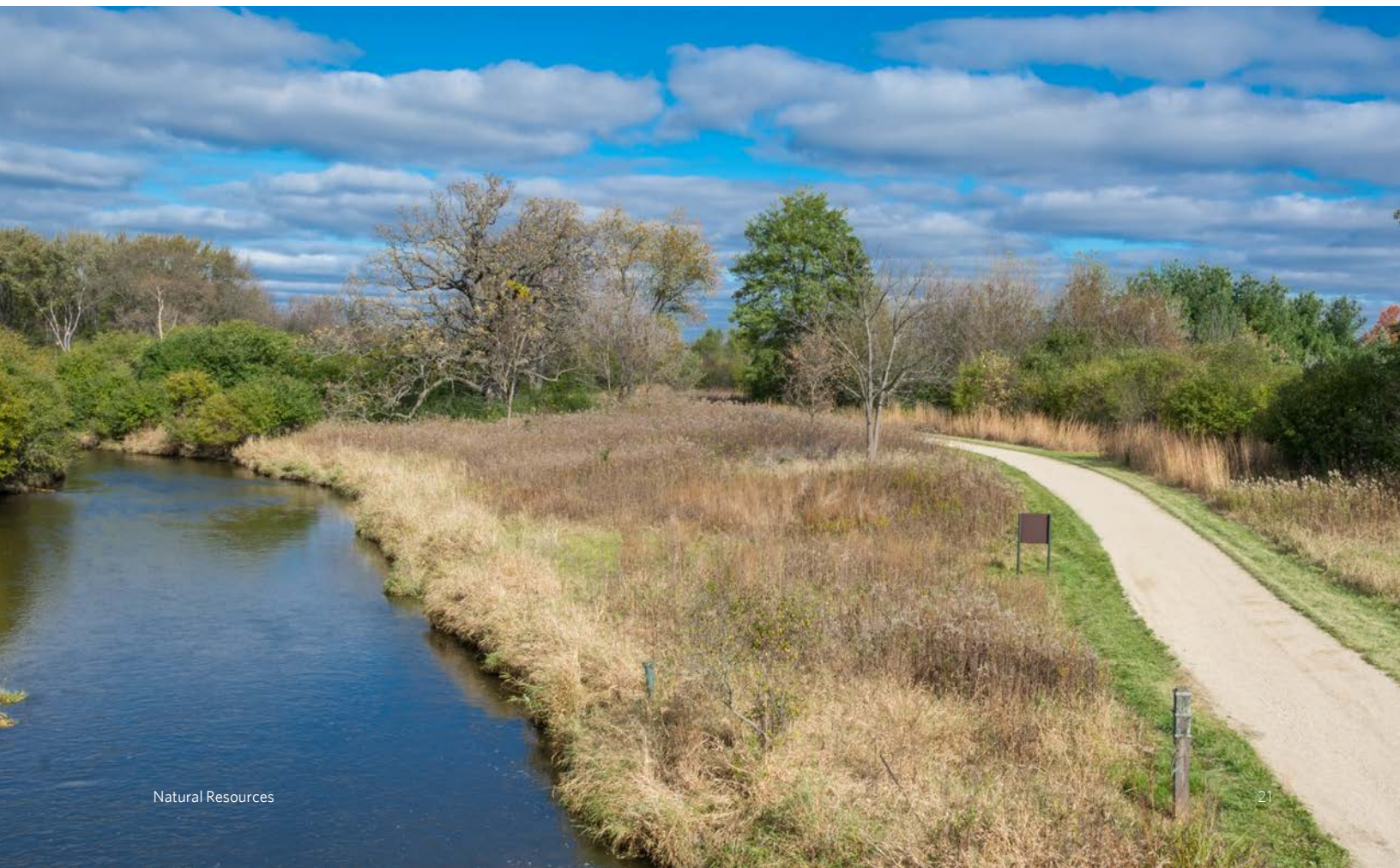
Northwest Water Planning Alliance (NWPA) is a voluntary coalition of communities and county governments planning for and managing a sustainable water supply in the Fox River watershed.

Barrington Area Council of Governments (BACOG) is a regional planning organization that supports legislative advocacy, managed development, and environmental protection that includes groundwater study and mapping, well water testing, monitoring of water levels and quality, and public education for its government members.

Floodplain managers. Obtaining data on flooding is critical to inform flood mitigation activities. McHenry and Lake Counties should establish a data sharing agreement that could improve flood mitigation planning and response along the Fox River. Municipal, county, state, and federal government entities should increase collaboration to better understand and communicate flood risk to vulnerable communities. For example, a municipality could work with IDNR and the National Weather Service to document various flood levels, such as flooding of the roadway, basement, or main living area, and relate it to nearest river gauge data to improve the flood alert system for residents and businesses.

Watershed planning groups. Watershed planning is important to improve and protect the water quality and other resources of the corridor. This plan recommends that counties, villages, and other stakeholders continue to participate in existing watershed planning groups to implement watershed-based plan recommendations, conduct monitoring, and stay up-to-date on funding opportunities and educational resources. It also recommends that plans be prepared for areas currently lacking a watershed-based plan, such as the Cary Creek watershed and adjacent direct drainage areas tributary to the Fox River.

Open space managers. MCCD, LCFP, IDNR, Cary Park District, and Citizens for Conservation (CFC) own and manage significant amounts of land in the corridor and offer opportunities for collaboration to conserve, restore, and manage land.



Tailor outreach to meet the needs of the Fox River corridor.

Education and engagement activities are essential to increase public awareness of environmental issues, build local capacity to mitigate impacts, and garner support for investment. In fact, education was cited as a priority by stakeholders during outreach activities. Counties, villages, open space managers, and civic groups already implement outreach activities that can benefit from increased collaboration and be modified to focus on the needs of the Fox River corridor. These activities will also help the villages meet National Pollutant Discharge Elimination System (NPDES) Phase II requirements and implement watershed-based plan recommendations for education and outreach.



Source: The Conservation Foundation

The riparian zone is the area adjacent and ecologically connected to rivers, lakes, and other waterbodies. Building relationships with riparian homeowners is critical to raise awareness of issues and responsibilities related to living in the corridor. Homeowners' associations (HOAs) typically host regularly occurring meetings and are usually receptive to learning about water-related issues. Counties and villages should begin by building relationships with active HOAs and seek opportunities to present at HOA meetings to educate homeowners.

Conservation@Home is one program that local governments can leverage and is available to corridor residents through The Land Conservancy of McHenry County, Barrington Area Conservation Trust (BACT), and Conserve Lake County. The Conservation@Home and Conservation@Work programs encourage the use of native plants on residential yards, business properties, and campuses, protection and restoration of natural areas, promotion of good water resource practices such as rain barrels and rain gardens, education of landowners on how to improve habitats, and provision of a visible sign of good conservation design and implementation. The Conservation Foundation also has a program that is focused on education and outreach on the Fox River that corridor communities should leverage.²

Relevant topics for corridor homeowners include:

- Stormwater best management practices and maintenance;
- Backyard habitat, landscaping, and lawn care practices;
- Flood risk, flood insurance, floodproofing, and flood assistance;
- Sensible salting practices, pavement sealants, and pet waste management;
- Septic system and well maintenance; and
- Shoreline stabilization and the benefits of naturally-vegetated shorelines.^{3,4}

Marina operators, boaters, and other river users play an important role in protecting the health of the Fox River. IDNR's Coastal Management program manages a Clean Marina Initiative to encourage marina operators and recreational boaters to adopt practices that protect coastal water quality. In 2014, the State of Indiana expanded its Clean Marina Program statewide to protect inland waterways, as well as coastal areas. Illinois' program recommends practices for operations and maintenance, stormwater management, vessel maintenance and repair, waste management, and aquatic invasive species awareness that are important to inland waters like the Fox River. Counties, villages, open space managers, chambers of commerce, and other entities should draw on the Illinois Clean Marina Guidebook⁵ to foster positive change among businesses and river users (see Recommendation 4.4 for safety strategies for river users). Strategies to educate and engage river users include:

- Incorporate educational signage into stormwater projects, recreational amenities, and placemaking improvements. Post signs describing best management practices at marinas, docks, and other places where motorboats are docked.
- Host a workshop on green boating practices at a local marina to demonstrate best management practices. This could be coordinated with an existing event at a marina to capture a larger audience.
- Create educational placemats to distribute at riverfront and other local restaurants that feature information on the importance of the corridor and stewardship best practices.
- Employ methods to reduce water contamination. Place signs and waste receptacles at public places where litter is a concern and mark stormwater drains.

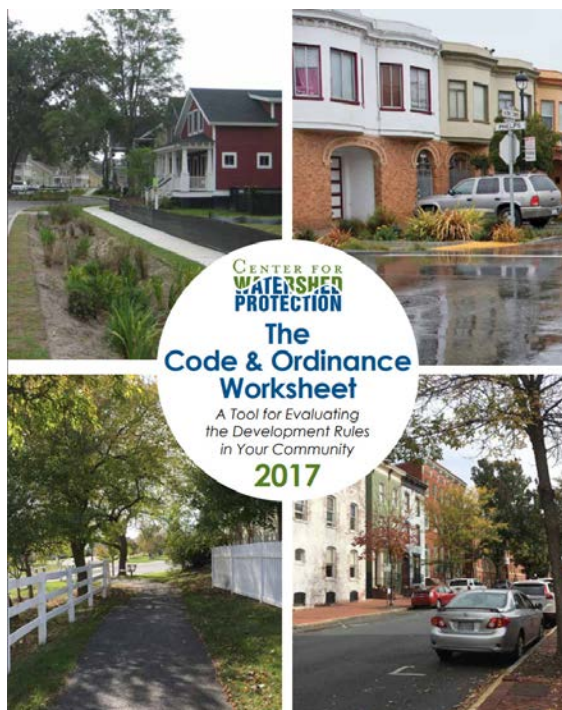


Example of a sign to help people identify invasive species and prevent them from spreading.

Source: Steve Apps, Wisconsin State Journal

3.2 Protect and restore green infrastructure.

The corridor's green infrastructure includes riparian areas, floodplains, wetlands, fens, oak groves, and prairies on protected and unprotected land. The entire green infrastructure network is important; however, riparian areas – the land alongside waterbodies and wetlands – are particularly important to river corridors. Riparian areas help to filter out pollutants, stabilize shorelines, reduce flooding, maintain the baseflow of rivers and streams, provide habitat and corridors for migration, and add recreational and aesthetic value. Without healthy riparian areas and other green infrastructure, the Fox River and the wildlife, recreation, economic development, and quality of life that it supports would severely decline.



Strengthen local ordinances and plans.

Many people are attracted to riverfront property, so it is no surprise that much of the Fox River riparian area is privately owned and maintained. Development ordinances regulating stormwater, subdivision, and zoning are important methods for local governments to influence the protection and restoration of riparian areas on private land. Ordinance checklists are tools that can be used by municipal and county governments to assess the performance of their development ordinances and identify improvements to protect riparian areas and other natural resources. Counties and villages should use a checklist⁶ to identify opportunities to strengthen their ordinances, including:

- Waterbody setbacks to limit development, defined as a set distance from the ordinary high water mark of the Fox River, streams, lakes, and ponds, or the edge of wetlands;
- Waterbody buffers of native vegetation, which establish a minimum width of protected buffer strip along the edge of the Fox River, streams, lakes, ponds, and wetlands;
- Restoration of stream and wetland habitat, hydrology, and morphology on sites with degraded aquatic systems;
- Preservation, restoration, and/or creation of protected natural areas to reduce invasive species and enhance biodiversity;
- Reduced impervious lot coverage and use of site-scale green infrastructure;
- Tree protection, especially for mature oaks and oak ecosystems; and
- Dedicated open space within residential development.

In 2013, CMAP conducted a comprehensive plan and ordinance assessment for the Village of Oakwood Hills.⁷ The document cites examples of local ordinances that local governments can reference when making updates.

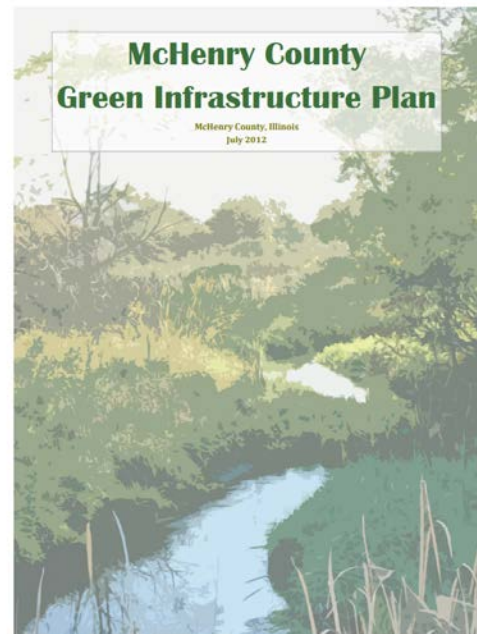
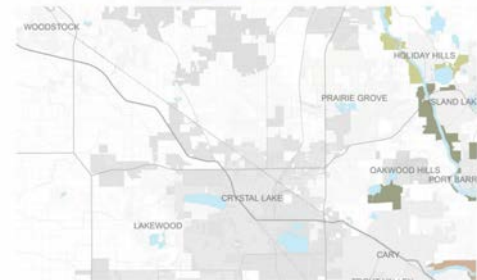
Local governments can use an overlay district to target these strategies to riparian zones and other sensitive natural resources in the corridor. An overlay district provides a set of regulations for a specific geography or geographies based on unique characteristics. In 2014, McHenry County adopted a Legacy Neighborhood Overlay District to regulate the redevelopment and rehabilitation of compact properties in waterfront neighborhoods in unincorporated communities. McHenry County should explore adding riparian area protections that encourage practices to filter stormwater, reduce shoreline erosion, and provide other environmental benefits. Similarly, the villages should explore the feasibility of adopting an overlay district or amending existing ordinances to protect sensitive riparian areas, which could include remnant natural areas such as prairies, woodlands, savannas, and steep slopes, in addition to wetlands and floodplains that already receive protection. Villages and McHenry County should extend riparian protections beyond the Fox River corridor, particularly along headwater streams such as Cary Creek, Cotton Creek, Fel-Pro Creek, Silver Creek, Slocum Lake Drain, Spring Creek, and several unnamed tributaries.

Villages should also work to integrate county green infrastructure plans into their comprehensive plans and future land use maps to link development priorities with sensitive natural resource areas. The McHenry County Green Infrastructure Plan and Lake County Green Infrastructure Model and Strategy (GIMS) provide a starting point for villages to adapt to their unique conditions. McHenry County and LCFP should provide assistance to corridor municipalities and ensure a consistent approach to resource protection.



A ZONING APPROACH FOR MCHENRY COUNTY'S UNINCORPORATED WATERFRONT NEIGHBORHOODS

PREPARED BY CAMIROS, LTD.
NOVEMBER 2, 2012



Target green infrastructure expansion and management.

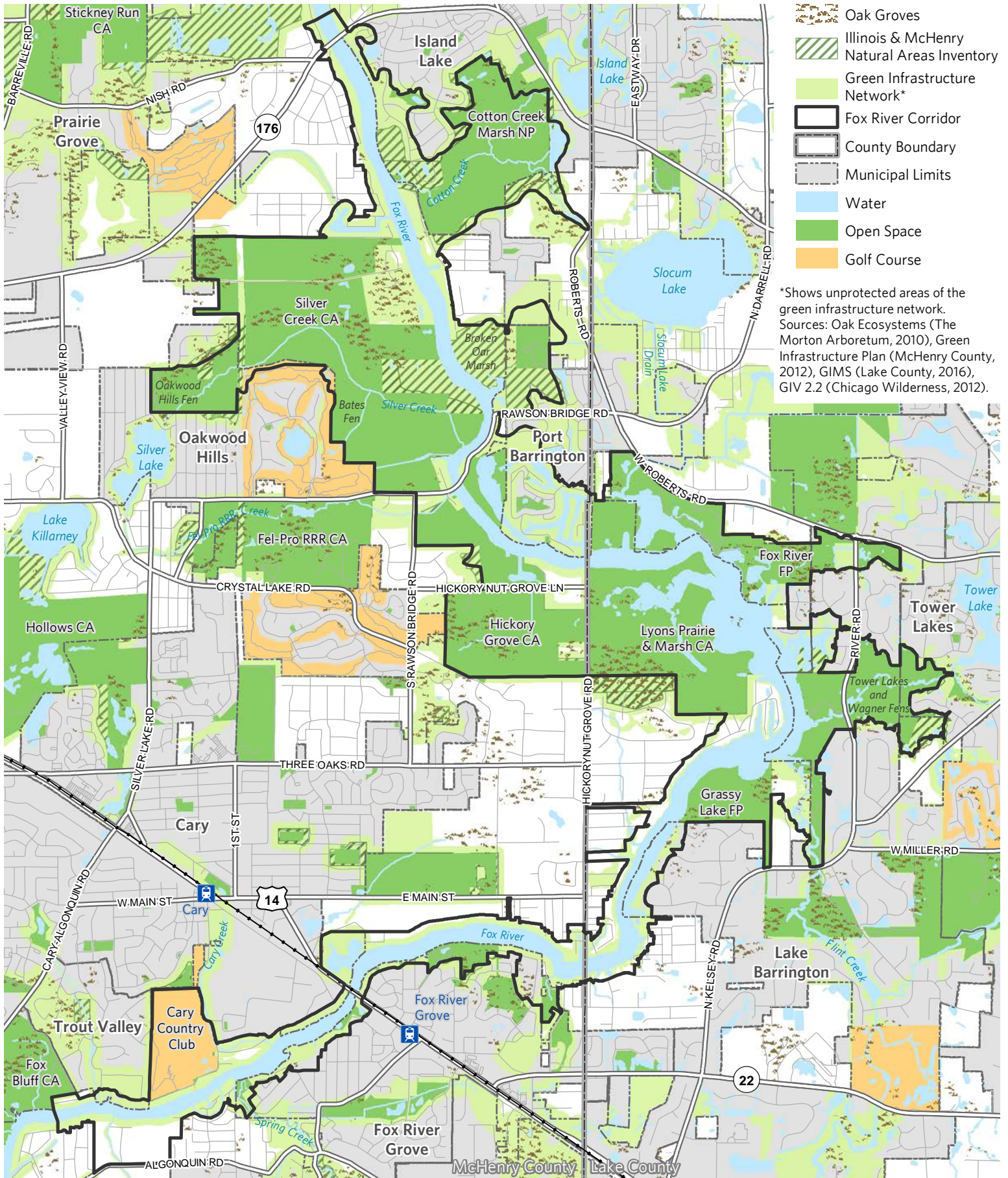
The Fox River corridor enjoys vast expanses of protected riparian areas, floodplains, wetlands and fens, oak groves, and other high quality habitats. Expanding the network of these natural areas through targeted acquisition, easements, or other land conservation methods will benefit the ecosystems and the services they provide. Municipalities, townships, and state and local land conservation organizations should use county green infrastructure plans and natural resource inventories to prioritize open space acquisition.^{8,9} Such projects should also consider opportunities to expand access, recreational amenities, and programming that is sensitive to the integrity of the natural resources. Priority areas for expanding and restoring the green infrastructure network include (See Figure 3.2):

- Conservation, stream restoration, and wetland restoration opportunities identified in watershed-based plans for 9 Lakes, Flint Creek, Silver Creek and Sleepy Hollow Creek, and Spring Creek.¹⁰ Conservation opportunities include the protection of oak groves and wetlands between Silver Creek Conservation Area and the Fox River.
- Unprotected lands that are contiguous to conservation areas and forest preserves, or in the Illinois Natural Areas Inventory (INAI) and McHenry County Natural Areas Inventory (MCNAI) that would expand existing protected areas, such as property adjacent to Cotton Creek Marsh Nature Preserve, Bates Fen, Broken Oar Marsh, Lyons Prairie and Marsh Conservation Area, and Tower Lake Fen.
- Unprotected wetlands that are adjacent to a waterbody or that would connect protected wetlands, such as along Fel-Pro RRR Creek, Flint Creek, Jack's Channel, and the Village-owned island in Port Barrington.
- Acquisition of flood-prone property from willing sellers. Commonly called "buyouts," these long-term projects require collaboration between counties, villages, and the Illinois Emergency Management Agency (IEMA). In addition to providing flood protection, restored floodplains help to filter pollutants, recharge aquifers, improve wildlife habitat, and provide recreational opportunities.
- Conservation of sensitive aquifer recharge areas. See Recommendation 3.3 for strategies related to protecting recharge areas.

Once protected and restored, green infrastructure requires management and restoration to maximize the ecosystem services and the health of the habitat it provides. This task is becoming even more important due to climate change, which is expected to cause more flooding that can result in more aquatic invasive species getting washed into fens, wetlands, and riparian areas. To stretch funding for open space management, counties, villages, open space administrators, and land conservation organizations should explore new partnership opportunities as well as landowner education and engagement to encourage management of private lands.

Land managers and villages should select hardier native tree species to withstand increased precipitation and prolonged drought, and practice routine pruning to protect trees against damage from severe summer and winter storms. In an effort to target management, open space administrators should use Illinois' Species in Greatest Need of Conservation inventory¹¹ and threatened and endangered species list¹² to allocate resources that will improve the habitat of these vulnerable species. Restoring wooded riverfront areas for rookeries is also critical to maintain bird populations such as great blue herons, black crowned night herons, and great egrets.

Figure 3.2. Green infrastructure and sensitive natural areas



*Shows unprotected areas of the green infrastructure network. Sources: Oak Ecosystems (The Morton Arboretum, 2010), Green Infrastructure Plan (McHenry County, 2012), GIMS (Lake County, 2016), GIV 2.2 (Chicago Wilderness, 2012).



Improve stormwater management and erosion control.

Stormwater runoff degrades water quality, erodes and destabilizes stream channels, and causes flood damage to property. Green infrastructure best management practices (BMPs) are cost-effective ways to control and reduce runoff by using vegetation, soils, and natural processes to mimic natural functions and treat runoff at its source. Example practices include bioswales, rain gardens, permeable pavement, green roofs, rainwater harvesting, green streets, and vegetated stream buffers. When considered cumulatively, green infrastructure BMPs can reduce streambank erosion and pressure on local stormwater infrastructure. They provide additional benefits by reducing the installation or replacement costs of gray infrastructure, improving air quality and public health, increasing habitat diversity and property values, and enhancing a community's visual image and identity.



Example of a stormwater detention basin in Port Barrington that incorporates native vegetation and a recreational path.

The effectiveness of stormwater regulations and BMPs throughout the entire Fox River watershed will ultimately determine the health of the Fox River. However, corridor counties and municipalities can pursue a combination of strategies to improve stormwater management to reduce nonpoint source pollution, meet MS4 permit requirements, and garner additional benefits like habitat, recreation, and aesthetics:

- Continue to promote the design or retrofit of detention basins as dry naturalized, wet, or wetland basins, naturally landscaped above and below the water line;
- Integrate green infrastructure BMPs in capital improvement projects, such as street reconstruction, to increase the array of possible funding sources and reduce project costs;
- Create partnerships between villages, counties, and other entities, such as school districts, places of worship, and homeowners' associations to advance green infrastructure BMPs;
- Educate residents and businesses through demonstration projects on public land, such as municipal campuses and street rights-of-way;
- Pursue funding opportunities, such as Illinois Environmental Protection Agency (IEPA) Section 319(h) and 604(b) grants, to implement BMPs recommended in watershed-based plans, including conducting monitoring to measure BMP performance. Example projects include installing rain gardens or bioswales to capture runoff from parking lots, streets, rooftops, or athletic fields; and
- Engage HOAs and property owners through maintenance workshops and outreach. HOAs are often responsible for maintaining detention ponds, a task they are rarely aware of or equipped to perform. Resources, such as Lake County Stormwater Management Commission's (SMC) *A Citizen's Guide to Maintaining Stormwater Best Management Practices*,¹³ can help with education and stewardship efforts.

Even with improved stormwater management, shoreline maintenance will continue to be important for riverfront property owners. Any work to stabilize shorelines should be designed to meet corridor goals to improve water quality, create habitat, and reduce flood impacts. Similarly, any improvements to increase public river access should incorporate best practices in shoreline stabilization (see Strategies 4.1 and 4.3 for recommendations on river access and recreation). Public and private landowners can meet these goals by maximizing the use of native vegetation and minimizing the use of riprap, using riprap revetments where structural shoreline protection is required in place of vertical bulkhead walls which can exacerbate flooding and erosion elsewhere, and planting buffers of appropriate native vegetation along shorelines.

Shoreline stabilization projects require permits from several different entities, including a joint permit between the U.S. Army Corps of Engineers (USACE), the IDNR Office of Water Resources, and the IEPA, and a county general permit. Counties should implement ways to educate and engage villages, HOAs, and waterfront property owners on best practices, potential partnerships, and how to navigate the permitting process. Local governments should also pursue funding opportunities, such as IEPA Section 319(h) grants, to implement shoreline stabilization projects recommended in watershed-based plans.



Example of shoreline stabilization with native vegetation at the Chicago Botanic Garden in Glencoe, IL.



Example of shoreline stabilization that combines native vegetation and riprap revetments at Long Lake in Lake County, IL.

3.3 Maintain and enhance groundwater resources.

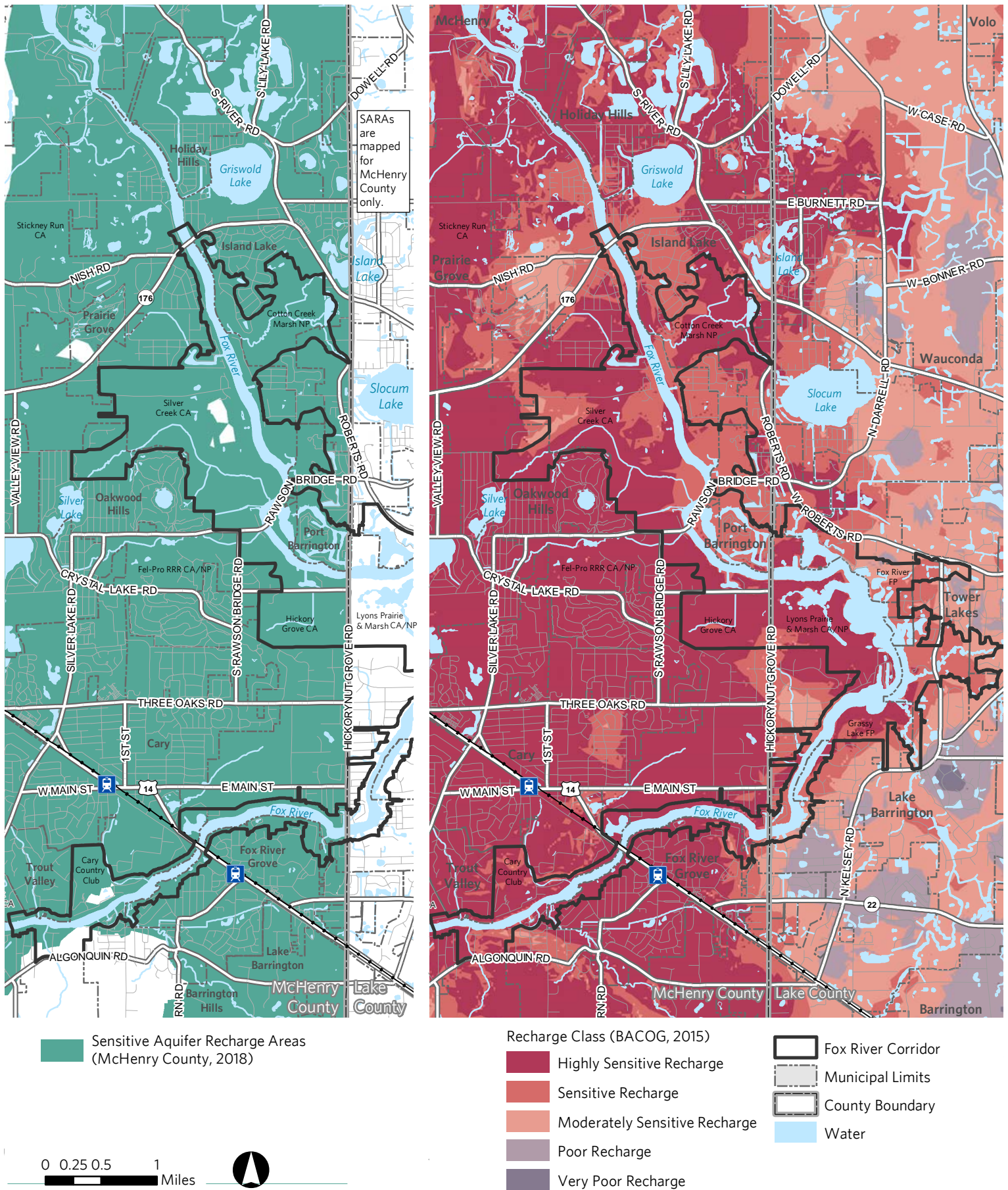
Clean groundwater is essential for corridor communities as well as the overall health of the Fox River. Although shallow aquifers are capable of providing safe, clean sources of potable water, they are sensitive to depletion, drought, contamination, and lack of recharge. Projected increases in drought could exacerbate these conditions, resulting in less aquifer recharge as well as an increase in consumption. Much of the corridor comprises highly permeable soils and geology that promote groundwater recharge but are also susceptible to contamination.

Recharge is the process by which rainwater or snowmelt infiltrates into the ground and re-supplies groundwater aquifers. Groundwater recharge is commonly lost when development replaces natural ground with pavement, buildings, or other impervious surfaces. Sensitive aquifer recharge areas have been mapped for the corridor using two distinct methodologies (See Figure 3.3). The McHenry County Sensitive Aquifer Recharge Areas (SARA) map⁴ identifies areas of the county that have highly permeable soils and geology and therefore have high or moderate potential for aquifer contamination. BACOG developed a recharge sensitivity map for its jurisdiction spanning the entire Fox River corridor and the surrounding area. Like the SARA map, BACOG's recharge analysis shows the majority of the Fox River Corridor is classified as sensitive for recharge.

Groundwater protection and water conservation ordinances are important tools for communities to use to protect and maintain groundwater supply and quality. Many of the strategies to protect riparian areas also benefit groundwater, especially in sensitive aquifer recharge areas and Class III groundwater areas. These strategies include:

- Protecting sensitive aquifer recharge areas by maintaining them as dedicated open space;
- Implementing regulations that minimize development intensity, impervious surfaces, and extensive grading to promote infiltration and groundwater recharge;
- Encouraging the safe use of stormwater infiltration and treatment BMPs – through proper siting, design, and construction – to prevent pollutants from leeching into the shallow groundwater table;
- Promoting landscaping with deep-rooted native vegetation to increase infiltration and reduce the need for supplemental water; and
- Requiring or promoting conservation design practices.

Figure 3.3. McHenry County sensitive aquifer recharge areas (left) and BACOG recharge classification (right)





Villages should use the McHenry County SARA map and the BACOG aquifer sensitivity map to identify areas that require additional groundwater protections and develop local groundwater protection ordinances. For villages almost entirely within sensitive aquifer recharge areas, such as Cary, Fox River Grove, Island Lake, Oakwood Hills, Port Barrington, and Trout Valley, these protections should be required village-wide. Other actions that villages should take to maintain and enhance groundwater quality and quantity include:

- Adopting ordinances for salt storage and handling, septic system testing and maintenance, pet-waste pick-up, and water use conservation;¹⁵
- Promoting or requiring the use of phosphorus-free lawn fertilizer;¹⁶
- Promoting the reduction in use of products containing tri-sodium phosphate;
- Restricting or eliminating the use of coal tar sealants and other pavement sealants that are high in polycyclic aromatic hydrocarbons, which are toxic to aquatic species and a known carcinogen to human health;¹⁷
- Encouraging water softener alternatives in the building code to reduce chloride concentrations in groundwater; and
- Updating development standards to encourage water-efficient development patterns, such as compact development.

McHenry County and BACOG should continue to provide education and outreach to villages around groundwater protection ordinances. McHenry County should assist communities to implement other recommendations outlined in the Water Resources Action Plan.¹⁸

Implementation Actions

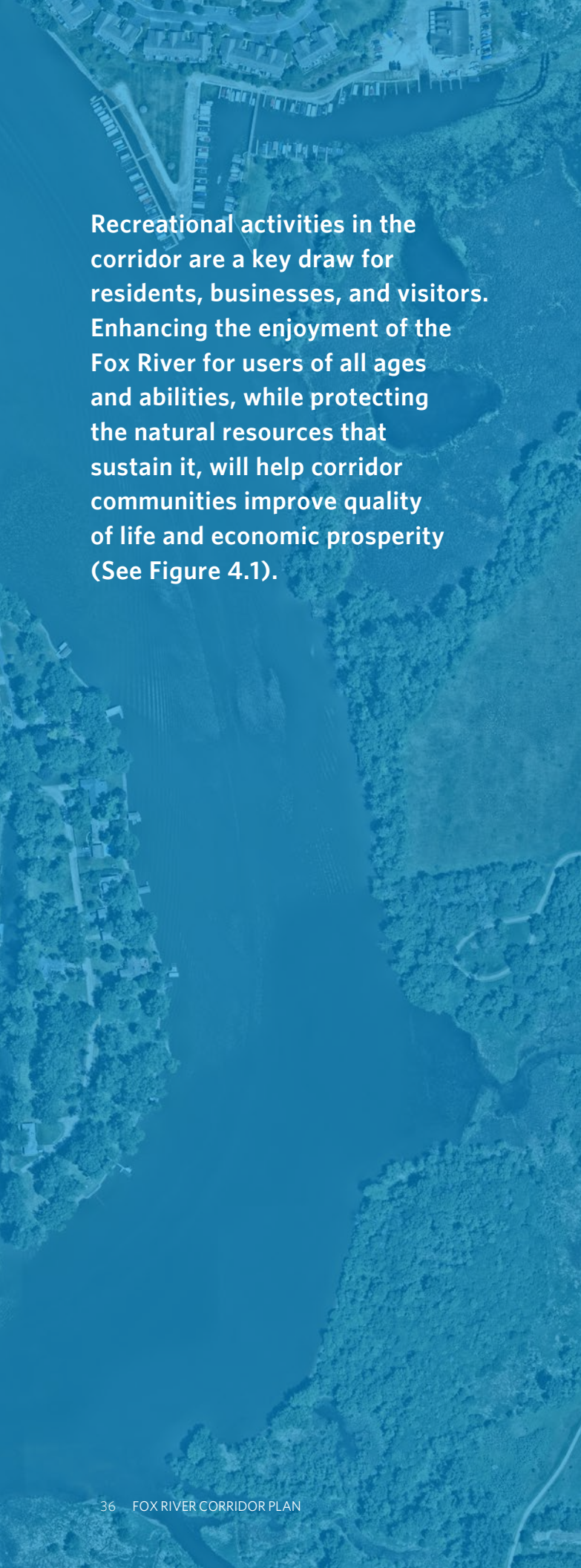
Recommendation	Timeline	Lead and Partners
3.1 Collaborate to leverage resources and maximize impact.		
Support existing cross-jurisdictional groups. Increase presence in river-related groups and events that could benefit from participation in McHenry County and Lake County, such as Friends of the Fox River, the Fox Valley Sustainability Network, and the Fox River Summit.	Ongoing	Counties, villages, LCFP, MCCD
Develop watershed plans for Cary Creek watershed and direct drainage. Work together to submit an application for IEPA Section 319(h) or 604(b) funding.	2-5 years	Village of Cary and/or McHenry County, Village of Trout Valley, Lake County SMC, LCFP, MCCD, FREP, CMAP, IEPA
Establish county-level data sharing agreement for flood mitigation planning. Discuss the possibility to establish a data sharing agreement to improve flood mitigation planning and response efforts along the Fox River. A similar agreement should be made with Kane County.	Immediate	McHenry County, Lake County SMC, Kane County, FWA, IDNR, USACE
Tailor outreach to meet the needs of the Fox River corridor. Work together to create an education program for property owners in riparian areas and river users. Efforts focused on homeowners should build on the existing educational programs of McHenry and Lake Counties, FREP, and watershed groups. In unincorporated areas, counties should identify active HOAs to target educational outreach via scheduled meetings. Efforts focused on river users should target marina operators, boating clubs, and other river users and draw on IDNR's Illinois Clean Marina Guidebook. See also 3.2 and 4.4.	0-2 years	Counties, FREP, watershed groups, villages, Cary Park District, IDNR, McHenry-Lake County Soil and Water Conservation District (SWCD), MCCD, LCFP, FWA
3.2 Protect and restore green infrastructure.		
Strengthen local ordinances and plans. Assess development ordinances for riparian area and water quality protection. Counties should assist villages in the assessment, using tools such as the Code and Ordinance Worksheet (COW) developed by the Center for Watershed Protection or similar questionnaires developed by CMAP.	0-2 years	Counties, villages, Center for Watershed Protection, CMAP, watershed groups
Explore opportunities to incorporate natural resource protection into development ordinances, such as requiring waterbody setbacks and buffers. McHenry County should strengthen the Legacy Neighborhood Overlay District to protect natural resources.	0-2 years	McHenry County, villages, IDNR, CMAP
Counties should identify opportunities to scale down county plans through local planning processes. Villages should work with counties and districts when pursuing comprehensive or other local planning activities to ensure a consistent approach to resource protection.	Ongoing	Counties, villages, IDNR, LCFP, MCCD, CMAP
Target green infrastructure expansion and management. Pursue grants and partnerships for green infrastructure expansion, restoration, and management. Continue to recruit volunteers for invasive species work days. <i>Funding: ComEd Green Region Program, Grand Victoria Foundation, Illinois Clean Energy, Kodak American Greenways Awards Program, Land & Water Conservation Program, Morton Arboretum Community Trees Program, National Fish and Wildlife Foundation (NFWF) Pulling Together Initiative, Open Space Lands Acquisition and Development (OSLAD)</i>	Ongoing	All relevant stakeholders, The Land Conservancy of McHenry County, Illinois Nature Preserves Commission, Conserve Lake County, BACT, IDNR
Improve stormwater management and erosion control. Seek opportunities to promote BMPs for water quality on public land through demonstration projects, capital improvements, and partnerships. BMPs recommended in watershed-based plans, including rain gardens, bioswales, and permeable pavement, can qualify for IEPA Section 319(h) grant funding. <i>Funding: IEPA Section 319(h), IEPA State Revolving Fund, Illinois Department of Agriculture Streambank Stabilization and Restoration Program, Lake County SMC Watershed Management Board grants</i>	Ongoing	McHenry County, Lake County SMC, villages, LCFP, MCCD, park districts, watershed groups, McHenry-Lake County SWCD, golf courses
Implement ways to educate and engage villages, homeowners' associations, and waterfront property owners on best practices for shoreline stabilization and how to navigate the permitting process. See also 3.1.	Immediate	McHenry County, Lake County SMC, villages, HOAs, BACT, CFC, FREP, FWA, watershed groups
3.3 Maintain and enhance groundwater supply and quality.		
Update local ordinances to protect groundwater resources. Work with McHenry County and BACOG to identify highly sensitive aquifer areas and amend or adopt ordinances to require appropriate protections. Adopt community-wide protections to prevent contaminants from entering the groundwater. See also 3.2.	0-2 years	Villages, McHenry County, BACOG, Lake County SMC, IEPA, NWPA
McHenry County should dedicate resources to help communities implement priority recommendations of the Water Resources Action Plan and any future revisions of the plan.	Ongoing	McHenry County, NWPA, watershed groups, FREP



Chapter 4 RECREATION AND OPEN SPACE

The Fox River corridor will balance recreation and natural resources protection to offer a safe, clean, and accessible environment for residents and visitors to enjoy throughout the year.





Recreational activities in the corridor are a key draw for residents, businesses, and visitors. Enhancing the enjoyment of the Fox River for users of all ages and abilities, while protecting the natural resources that sustain it, will help corridor communities improve quality of life and economic prosperity (See Figure 4.1).

Key Findings

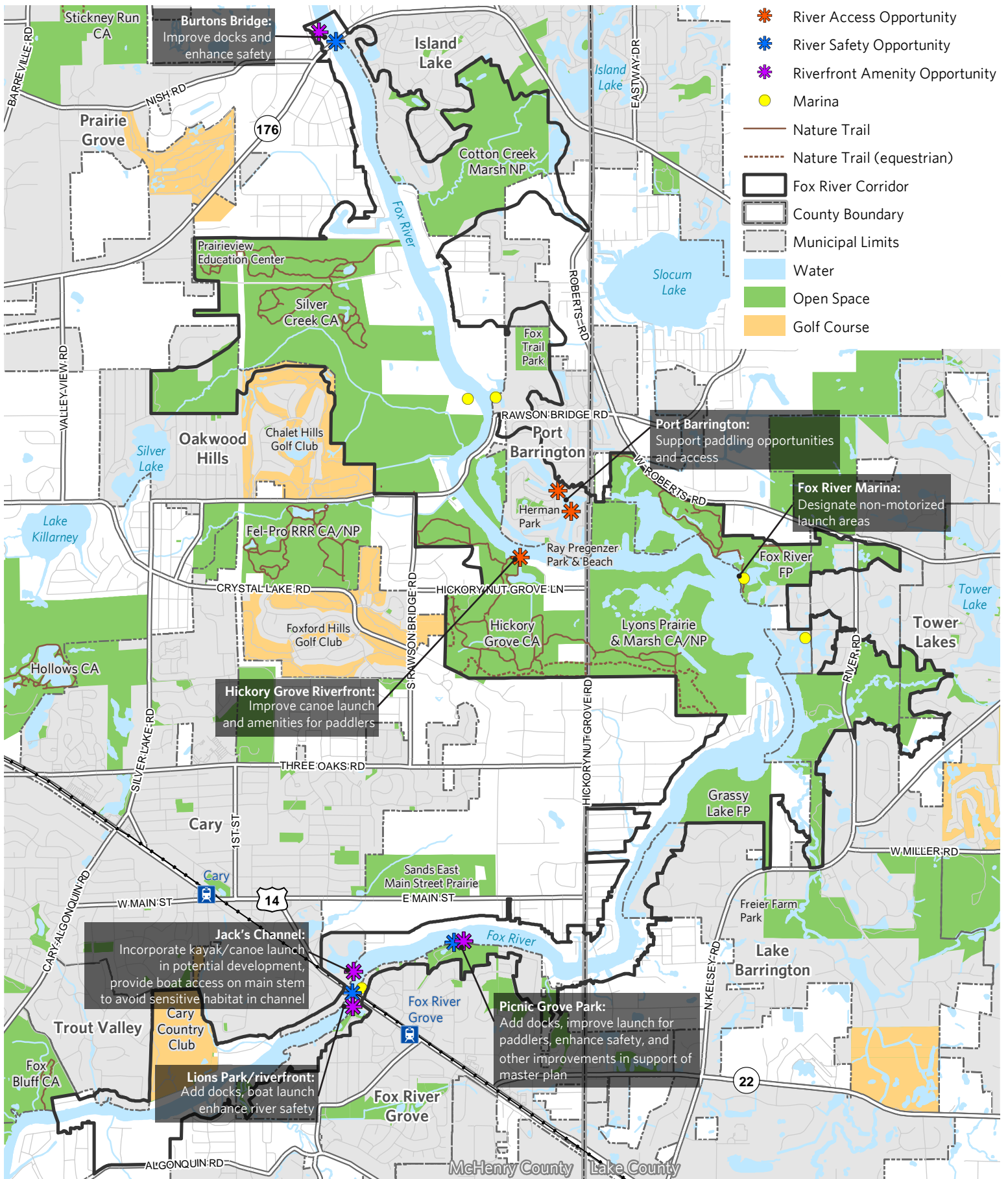
Public river access points are limited and can be difficult to find. Marinas provide access for boaters, yet there are few amenities for paddlers and other non-boaters to enjoy the Fox River.

Sedimentation is a critical issue that limits recreational boating and safe navigation, degrades water quality, and reduces flood storage capacity. Sediment buildup is most prevalent in the bays and channels, which can hinder access to private docks, marinas, and riverfront businesses. Projected increases in intense rain events will increase the need for better stormwater management and erosion control throughout the Fox River watershed.

River safety is a primary concern for all river users. Powerboating is extremely popular between the Chain O'Lakes and the Algonquin Dam. The narrow channel, paired with heavy boat traffic, accelerated boat speeds, and reckless driving can cause unsafe conditions for other river users. Many stakeholders also noted that litter and poor water quality limit swimming and other recreational opportunities.

The corridor provides vast expanses of open space for recreation. Many of the areas contain sensitive habitats requiring protection, which can limit certain recreational activities. This can create confusion around which natural areas are publicly accessible and from where they can be accessed.

Figure 4.1. Recreation and open space plan



Recommendations

4.1 Enhance river access and recreation amenities.

4.2 Participate in the Fox River Water Trail Initiative.

4.3 Support recreational boating.

4.4 Improve safety for all river users.

4.1 Enhance river access and recreation amenities.

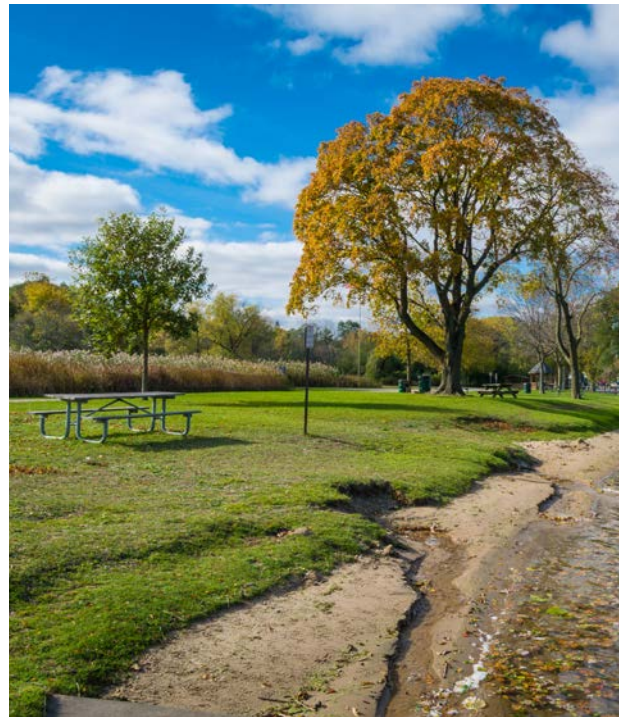
Ample parks and open space in the corridor offer opportunities to expand recreational options and river access for residents, visitors, and educational programming. Throughout the planning process, stakeholders voiced a desire to enhance access and amenities to accommodate a wider range of river users, including paddlers, anglers, birders, hikers, and bicyclists. Some improvements, like the installation of educational and wayfinding signage, could be relatively small, while others, like the creation of a new canoe and kayak launch, will require more planning and funding. Considering the environmental impact of recreation amenities will also be important to achieve a balance between conservation and recreation goals.

Make improvements in existing parks and open space.

Villages and open space managers should plan for and make improvements to existing parks and open space that would support a range of recreation activities. Examples cited by stakeholders during the planning process include litter-free beaches, fishing piers, boardwalks, landings, picnic areas, and restrooms, as well as improvements that would support increased opportunities for families and teens. Improvements can be made through local revenue, partnerships, grants, or integrated into future development opportunities.

Villages and open space districts should continue to engage residents and local businesses in the development of improvements so that they reflect the desires of the community and consider ways to bolster the local economy (see Recommendation 6.1 for strategies on increasing activity in public spaces).

At the same time, improvements to parks and open space should seek to protect and enhance habitats that support fishing, birding, and other recreation. This can be done by conserving and restoring wetlands, rookeries, and native vegetation, as well as incorporating stormwater BMPs to reduce the water quality impacts of runoff from parking lots and other impervious surfaces (see Recommendation 3.2 for strategies to protect water quality). Integrating natural resource protection into a park improvement can expand the potential pool of funding sources available and make for a more competitive grant application.



Picnic Grove Park riverfront area in Fox River Grove.

Add and improve canoe and kayak launches.

Heavy motorboat traffic along this stretch of the Fox River makes paddling much less appealing than downstream of the Algonquin Dam. However, interest in paddling along the Fox River is growing and during the planning process several residents and local paddlers expressed a desire for new or improved launches (see Recommendation 4.4 for strategies on safety). Making this stretch of the Fox more accessible to paddlers will allow more people living near the river to enjoy it. This infrastructure will also connect corridor communities and natural areas to the Fabulous Fox Water Trail, which could bring additional revenue to the area (see Recommendation 4.2).



Example of an ADA accessible canoe and kayak launch at Waukegan Harbor in Waukegan, IL.

Source: Susie Schreiber, Waukegan Harbor Citizens Advisory Group

A canoe and kayak launch is planned for Fox Bluff Conservation Area just south of the corridor. Other locations to consider adding or improving launches for canoes and kayaks include:

- **Fox River Marina and other private marinas:** Several marinas, including the LCFP Fox River Marina, allow paddlers to use existing boat launches. Designating non-motorized launch areas, where possible, would separate paddlers and boaters making for a more safe and enjoyable experience.
- **Hickory Grove Riverfront Conservation Area:** Hickory Grove Riverfront has an informal canoe launch that MCCD occasionally uses for paddling trips. Its location is off the main stem of the river in a small cove, which makes it an excellent opportunity to improve to support paddlers of all experience levels. This site already features wayfinding signage, bathroom facilities, campsites, picnic tables, and shelters. Simple kayak storage could provide paddlers with an opportunity to hike the trails as well.
- **Jack's Channel:** Incorporating a launch into the potential development of the site would provide Cary residents with a place to put in and provide access to the river. Any potential access points should mitigate disturbance to the sensitive habitat of the site.
- **Lions Park:** The existing boat launch is in need of repair. Improvements at this location, including kayak storage, bathroom facilities, and other basic amenities would help draw paddlers into the downtown. Safety considerations should be given on either side of the US Route 14 and Union Pacific bridges (see Recommendation 4.4 for strategies related to safety).
- **Picnic Grove Park:** Existing boat launch could be improved to better accommodate paddlers.
- **Port Barrington:** Opportunity exists to provide paddlers with access to the Village-owned island.

More detailed exploration of these sites should be conducted in partnership with the Fabulous Fox Water Trail Initiative through the development of the Fabulous Fox Water Trail Plan (see Recommendation 4.2). The Initiative can help ensure that sites comply with the Designated Water Trail best practices. For example, access points for paddlers are recommended every five to eight miles, should have a gradual slope to the water, and provide some level of protection for the users entering and exiting the water. This helps make trips of different lengths and connections to regional trails more viable.

Paddling advocates and water trails planners have established a number of design and maintenance best practices for canoe and kayak launches. MCCD, LCFP, and villages should incorporate these best practices into the improvement of existing launches or the development of new launches. They should look

for opportunities to make improvements to existing launches by providing less abrasive materials, better shelter from strong currents, and clearer signage indicating the location of launches. There is no one set of practices appropriate for every location; however, there are helpful resources on launch design from the River Management Society and National Park Service's *Prepare to Launch*¹⁹ and the Iowa Department of Natural Resources' *Developing Water Trails in Iowa*.²⁰ Local paddlers' groups, such as the Illinois Paddling Council and Illinois Water TrailKeepers, can also provide important input on appropriate amenities. Best practices should aim to improve both physical accessibility and ecological sensitivity, advancing the plan's goal of balancing preservation and recreation.

Best practices for canoe and kayak launches

Ecological Sensitivity

- Siting new launches in areas that are already used for public access and recreation can minimize disruption of the environment.
- Launches should be sited and designed to minimize disruption to riparian habitat and vegetation.
- If a natural surface design is used, it should be properly designed to minimize erosion by minimizing its exposure to swift currents.
- If a site shielded from heavy current is not available, a design that incorporates rocks and vegetative barriers can help shield the launch. This type of design must meet more rigorous permitting requirements than other practices.
- Launches that allow vegetation to grow through the surface can help to stabilize banks and limit erosion.
- Designers should consult natural resource experts to identify ecologically sensitive sites such as nesting sites and spawning areas to avoid.

Physical Accessibility

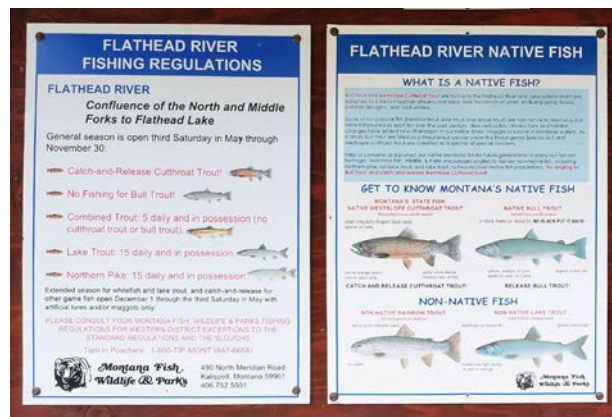
- Launches should be sited and designed to avoid high banks or heavy currents.
- The slope of a launch should be about 5 percent at water's edge and should not exceed 8.33 percent.
- Launch areas should have a staging area large enough for users to maneuver while carrying canoes or kayaks.
- Launches should allow craft to be placed in water parallel to shore to allow easier access.
- Launches should be usable in multiple flow levels and weather conditions; using a gentle natural slope or a floating dock allows use at varying water levels.
- Firm and stable surfaces are preferable, but a range of surfaces including rubber matting and packed natural surface (dirt ramps) can be suitable.
- Concrete can be damaging to hulls; using a natural surface, rubber matting, or adding wooden or PVC slats to concrete launches will make them friendlier to canoes and kayaks.
- Launches should comply with the Americans with Disabilities Act (ADA) to provide recreational access to all users.

Designate river-oriented campsites.

Establishing river-oriented campsites in the corridor can facilitate longer, multi-day canoe and kayak trips, support ecotourism, and appeal to local residents as well. Camping is already permitted at the Fox River Forest Preserve and Hickory Grove Riverfront Conservation Area. Providing campsites with a canoe/kayak launch, boat ramp, or easily accessible riverbank, a flat clearing, and a place to temporarily park canoes would help to connect the corridor to the rest of the Fabulous Fox Water Trail. LCFP and MCCD should work with the Fabulous Fox Water Trail Initiative to identify improvements, clearly mark river-oriented campsites on maps, and place markers that are visible from the river to guide paddlers to the site.

Install wayfinding and interpretive signage.

Wayfinding and interpretive signage can help people navigate the vast open space, educate them on passive recreational activities, and limit potential user conflicts on multi-use trails. Stakeholders reported that it can be difficult to navigate to and through conservation areas and forest preserves on land and by watercraft. Access for river and non-river users could be improved through the strategic placement of wayfinding signage in recreational areas and guideposts on the river that do not obstruct the picturesque view.



Example of signage at a fishing access site on the Flathead River in Montana.

Source: Kimberly Kolner

LCFP and MCCD should coordinate with the Fabulous Fox Water Trail Initiative which is also interested in signage to direct visitors to accessible areas and route users through sites upon arrival. As several areas cannot be accessed due to sensitive habitats, IDNR, LCFP, and MCCD should provide signage that emphasizes these access restrictions and educates the public on their ecological importance. Signage at entry points and along multi-use trails can educate users on the types of activities that are allowed or prohibited. Many of the existing trails are used by bicyclists, hikers, cross county skiers, and horseback riders, which could become a safety hazard and lead to user conflicts.

Signage can also be used to promote river-edge activities, such as birding and fishing. The corridor is already a popular area among birders because of its extensive, high-quality wildlife habitat. A variety of bird species, including cormorants, egrets, herons, rails, hawks, thrashers, and bald eagles, are present in the corridor. While experienced birders are already familiar with these species, the installation of interpretive signage at key points in public parks and conservation areas and within the forest preserves would help casual observers identify the birds they see, and direct them to the right locations and times within a year for viewing harder-to-find species. Similarly, signage should be placed at fishing piers to educate on rules, common and unique species, and water quality impacts. Interpretive signage should be supplemented with online information, maps, and brochures promoting the corridor's recreational assets (see Recommendation 6.3 for strategies on marketing).

4.2 Participate in the Fabulous Fox Water Trail Initiative.

FREP, the Southeast Wisconsin Fox River Partnership, Visit McHenry County, Real Racine, and the Wisconsin Village of Waterford are pursuing a National Water Trail designation for the Fox River.²¹ In recognition of cooperative efforts to conserve waterways and increase recreational access for canoeing, kayaking, and other recreation, the National Park Service (NPS) grants National Water Trail designations to segments of rivers and coastline that provide scenic, educational, and recreational value as part of a national network of exemplary trails. Benefits of the designation include the elevated profile that accompanies national recognition.

In 2015, the Fabulous Fox Water Trail Initiative (the “Initiative”) received a technical assistance grant through the NPS Rivers, Trails and Conservation Assistance Program to develop the Fabulous Fox Water Trail Plan. A water trail plan is a document that describes a long-range vision, desired future conditions, and steps for adopting best management practices for recreational use of a waterway, and is a prerequisite of the National Water Trail designation. Many of the recommendations in this plan support the best practices in recreation opportunities, education, conservation, community support, and planning that NPS seeks in water trails. Corridor counties, villages, and stakeholders should work closely with the Initiative and its partners to provide local input and leverage resources.

As part of this grant, the Initiative has been locating and evaluating access points and dam locations along the entire length of the Fox River to identify where new access sites may be needed. The Fox River Corridor Plan recommends improvements to existing access points and identifies potential locations for new access that should be included in this inventory. Once complete, counties, MCCD, LCFP, FWA, and corridor stakeholders can help promote and educate users on the public access points and preferred times of day and season for paddlers to avoid heavy motorized boat traffic. These could include updating recreational maps, making the data publically available, and keeping it up to date.

Local promotion of the Fox River should also be consistent with the National Water Trail branding and wayfinding. In 2018, the Initiative received a grant from the Wisconsin Department of Natural Resources to develop a logo, brochures, and maps to promote the water trail. This information will be featured on an online portal that will double as a promotional tool. Corridor counties, villages, and stakeholders should leverage the branding and online portal, as well as work with the convention and visitors bureaus (CVBs), Visit McHenry County and Visit Lake County, to capitalize on the heightened interest to attract visitors to the corridor (see Recommendation 6.3 for strategies on marketing).



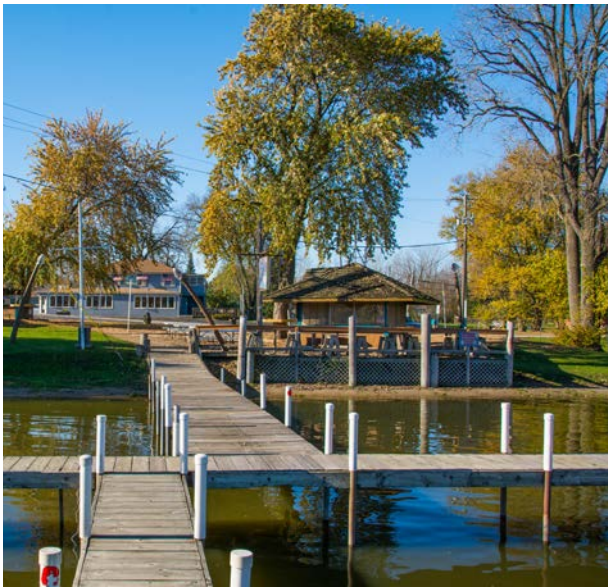
Source: Fabulous Fox Water Trail Initiative

4.3 Support recreational boating.

Powerboating, as well as wakeboarding and tubing, is extremely popular on this stretch of the river. Five marinas in the corridor offer a range of services including slips, launches, in/out service, fuel, maintenance, and repair. Stakeholders in the corridor expressed interest in maintaining these boating amenities, exploring opportunities for expansion, and addressing sedimentation issues that hinder access to private docks, marinas, and riverfront businesses.

Explore adding docks at public places.

By strategically locating boat docks for temporary parking at public parks and near river-oriented businesses, corridor communities could encourage more people to visit local parks, businesses, and attend events. These improvements could include basic amenities geared toward day trips to the corridor or capitalizing on boaters passing through. As these areas are popular destinations, considerations should be given to ensure safety among all river users.



Docks at Kief's Reef in Burtons Bridge.

Locations to consider adding or improving docks include:

- **Lions Park/Fox River Grove riverfront:** Adding docks at the park or as part of new riverfront development would draw boaters to patron downtown businesses, festivals, and other events. Since this is already a congested area, safety considerations, such as establishing a 'no wake zone,' should be given on either side of the US Route 14 and Union Pacific bridges. Several stakeholders expressed interest in providing public boat launch access at this location as well.
- **Jack's Channel:** Providing boating access on this side of the waterway would allow the Village of Cary to capitalize on its location on the Fox River and provide public access to the riverfront. Potential development proposals should locate docks or slips closer to the main stem of the river and not within the channel to protect sensitive habitat.
- **Picnic Grove Park:** This is already a popular area to drop anchor. Adding docks could attract more people to support events, concessions, and other opportunities at the park.
- **Burtons Bridge:** This popular spot on the river could benefit from improving upon or expanding existing docks to draw more boaters to patron businesses and attend events in this area.

Multi-user facilities, such as marinas, hotels, homeowners' associations, and other facilities with overnight mooring, and the installation of boat ramps require the removal of an existing pier or ramp for each one constructed.²² Given the popularity of boating within the corridor, proposals for new facilities should seek to maximize the recreational and economic benefits generated in the corridor. New facilities should also reduce the environmental impact to the corridor by adopting best practices from the Clean Marina Guidebook.²³



Permeable pavement and bioswales at a recreation center in Carol Stream reduce the amount of stormwater that enters nearby waterways.

Source: Center for Neighborhood Technology



Dredging in the Chain O' Lakes.

Source: Frank S. Abderholden, Lake County News-Sun

Improve waterway capacity and water quality through sediment control and management.

Sedimentation impedes access for recreational boaters, particularly in bays, channels, and other backwater areas. Areas near Port Barrington Motor Sports, Hickory Grove Riverfront Conservation Area, and the lagoon near Fox River Grove were some of the commonly cited problem areas by stakeholders. The primary way to reduce recurring sedimentation is by implementing better stormwater management and erosion control throughout the entire Fox River watershed in Illinois and Wisconsin. This includes encouraging communities throughout the watershed to install stormwater best management practices, adopt policies that support sound land use decisions, and conduct education and outreach on water quality protection measures (see Recommendation 3.2 for strategies on stormwater management and shoreline stabilization).

Many stakeholders through the planning process voiced the need for increased dredging activities. However, dredging should be seen as a supplement to stormwater management and erosion control improvements, as these projects are costly and require land to deposit the dredged material or prepare it for sale. To reduce costs and promote sediment management near the river, Lake and McHenry Counties and surrounding municipalities should continue to work with the Fox Waterway Agency to develop a process for identifying opportunities and engaging and educating the public on dredging projects. This collaboration can help establish strategic partnerships that can serve as a model for the corridor to improve sediment management.

Dredging can produce nutrient rich soils, which can be applied to farm land or sold for profit. FWA, counties, and other partners like the Liberty Prairie Foundation could explore the feasibility of creating a circular business model where the nutrient byproduct of dredging is sold to local farms and agriculture businesses within northeastern Illinois. Provided the dredged material is clean, it could support row crops and production of local food while revenues from the byproduct would help cover excavation and drying costs on newly dredged material. Pursuing available state and federal grant incentives will help promote the sustainability of the business.

4.4 Improve safety for all river users.

The Fox River is popular for a variety of watersports, which increases the potential for conflict among river users during the summer, especially on weekends. Boating is extremely popular between the Algonquin Dam and the Chain O'Lakes, and many stakeholders are concerned with heavy boat traffic and unsafe speeds through this narrow stretch, particularly at identified pinch points. Stakeholders also expressed a desire for cleaner water and more swimming opportunities (see Recommendation 3.2 for strategies to improve water quality). Actions to improve river safety should consider all river users and help implement recommendations from the Fabulous Fox Water Trail plan.

Strengthen education and enforcement.

Education and enforcement can help to curtail powerboat speeding and reckless driving behavior and foster a culture of shared responsibility and respect among all river users.



View of Union Pacific and US Route 14 bridges from Lions Park in Fox River Grove.

Source: John Marvig

During the planning process, boater safety education was very popular among stakeholders, especially for new boat drivers and rental boat customers. In addition, the potential designation of the Fox River as a National Water Trail will require a coordinated effort by enforcement agencies, the FWA, and river user groups to improve water safety for everyone. This should include:

- Outlining regulations and safety tips at river access points through signage, consent forms for rentals, and other informational materials.
- Promoting safety education through National Safe Boating Week²⁴ and events, newsletters, and social media. Topics should address safety concerns such as speed and control, negligent operation, and tow sport safety for rental boat customers²⁵ and inexperienced boaters.
- Advertising boating safety courses and workshops offered by the U.S. Coast Guard and US Power Squadrons.
- Publicizing education resources for paddlers provided by the American Canoe Association.²⁶

Education should also target snowmobilers. Spring-fed sections of the Fox River and more frequent freeze-thaw cycles prevent areas from freezing over, which can cause dangerous conditions for snowmobilers. McHenry and Lake County Sheriff's offices, IDNR Conservation Police, MCCD, and LCFP should work with the McHenry County Snowmobile Association, other clubs, and local businesses that cater to snowmobilers to identify key locations for cautionary signage and outreach to inform users of the safety risks.

Improving coordination among enforcement agencies can complement education efforts to ensure river user safety. The U.S. Coast Guard, IDNR Conservation Police, McHenry and Lake County Sheriff's offices, MCCD, and LCFP should increase coordination efforts to ensure appropriate police enforcement is provided. These agencies may want to meet regularly throughout the boating season to identify strengths of each agency, report out on the agency's capacity, establish clear lines of communication under certain types of scenarios, and collaboratively address emergent issues. More collaboration among IDNR, local enforcement agencies, the FWA, and boating clubs would also help maintain safe conditions on the river by removing large debris and keeping buoys in alignment.

Consider establishing safety zones.

Safety zones or no-wake zones can supplement education and enforcement activities in congested areas. Through the planning process, many stakeholders voiced interest in increasing safety near the bridges, watercraft launches, popular swimming areas, and at the sharp bend in the river near Fox River Marina. At the same time, many stakeholders voiced concern that implementing restrictions on the river could make boating less enjoyable and may negatively impact river-oriented businesses.

Identifying if and where to establish safety zones should be a community-led process engaging all river users. In the future, counties and open space managers, as well as the FWA and IDNR Conservation Police, should collaborate with interested villages to explore the feasibility of safety zones at public beaches or other congested areas. This process should include ample outreach to river users, including listening sessions with boating clubs, paddling groups, river-oriented businesses, and other stakeholders.



Promote best practices in boat operations and maintenance.

Stewardship among the boating community is important to reduce the harmful effects boat operation and maintenance can have on the environment and public health and safety. Boat owners and marina operators should follow the guidelines set forth in the Illinois Clean Marina Guidebook, including recommendations to:

- Use non-toxic cleaning products to minimize the discharge of pollutants.
- Perform hull, bilge, and engine maintenance in a controlled environment (e.g., indoors) and away from surface water.
- Properly dispose of debris and residual byproducts (paints, solvents, etc.) associated with hull and engine maintenance as well as oil and oil-absorbent materials.
- Install preventative equipment on the watercraft to curtail engine issues related to fuel and oil leaks or spills.
- Properly dilute and dispose of antifreeze, at the start of the boating season, into a sanitary sewer that flows to a local wastewater plant, rather than a storm sewer that drains directly into surface waters.
- Fill fuel tanks with a propylene glycol antifreeze, at the end of the boating season, to minimize its threat on aquatic habitat.
- Properly dispose of wastewater collected in vessels and holding tanks at designated pump-out or dump stations and ensure that marine sanitation devices are inspected and functioning regularly.
- Avoid the use of soaps and detergents onboard vessels to minimize graywater.
- Promote the 'Be A Hero - Transport Zero' campaign²⁷ and best management practices to limit the spread of aquatic invasive species, such as posting signs, providing dedicated inspection areas, and performing trainings on boat washing procedures.



Fox River Marina in Port Barrington.

Source: Lake County Forest Preserve District

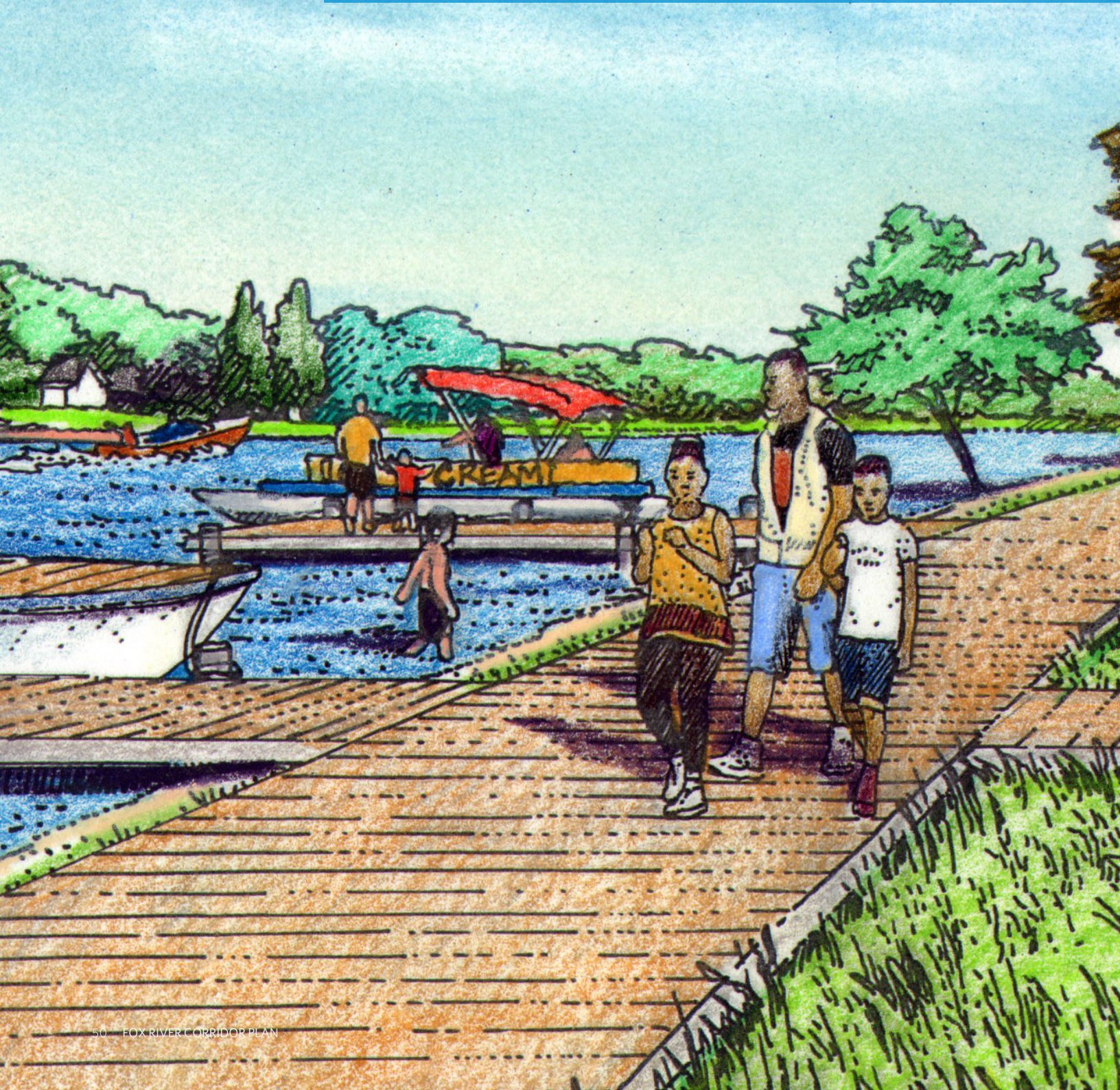


Implementation Actions

Recommendation	Timeline	Lead and Partners
4.1 Enhance river access and recreation amenities.		
<p>Improve existing parks and open space. Adding a boardwalk connecting Lions Park with future riverfront redevelopment on the other side of the US Route 14 and Union Pacific bridges would help activate this public park. The Village of Fox River Grove should seek funding to explore project feasibility through grant programs. The Village should also continue to implement the master plan for Picnic Grove Park. See also 6.1. <i>Funding: Illinois Trails Grant Programs, OSLAD</i></p>	2-5 years	Village of Fox River Grove, Fox River Grove Lions Club, IDNR
<p>Add new canoe and kayak launches. MCCD and relevant stakeholders should develop a plan to improve the Hickory Grove Riverfront for paddlers. MCCD should coordinate this effort with the Water Trail Initiative and consult paddling groups to help plan improvements. <i>Funding: American Canoe Association's Club Fostered Stewardship and Adaptive Paddling programs, IDNR's Boat Access Area Development program</i></p>	2-5 years	MCCD, Water Trail Initiative, American Canoe Association, paddling groups, IDNR
<p>The Village of Fox River Grove should explore the improvement of existing launches in Picnic Grove Park and Lions Park in coordination with the Water Trail Initiative and paddling groups. Over the long term, the Villages of Fox River Grove and Cary should advocate paddling improvements be incorporated into their respective riverfront developments. <i>Funding: American Canoe Association's Club Fostered Stewardship and Adaptive Paddling programs, IDNR's Boat Access Area Development program</i></p>	2-5 years	Village of Fox River Grove, Village of Cary, Water Trail Initiative, American Canoe Association, paddling groups, IDNR, LCFP, MCCD
<p>Designate river-oriented campsites. LCFP and MCCD should continue to work the Water Trail Initiative to identify locations accessible from the river where paddlers can tie up and access campsites at Hickory Grove Riverfront Conservation Area and Fox River Forest Preserve. These sites should be clearly marked on maps and easily identified from the river.</p>	Ongoing	LCFP, MCCD, Water Trail Initiative, paddling groups
<p>Install wayfinding and interpretive signage. LCFP and MCCD should coordinate with the Water Trail Initiative to identify locations on the river that would benefit from signage or guideposts. They should also work with user groups to identify opportunities to improve wayfinding signage in the conservation areas and forest preserves to communicate access restrictions and reduce user conflicts on multi-use trails. See also 4.2.</p>	2-5 years	LCFP, MCCD, Water Trail Initiative, paddling groups, trail user groups (angler, birding, equestrian, cross-country ski, snowmobile)
4.2 Participate in the Fabulous Fox Water Trail Initiative.		
<p>Contribute to the Fabulous Fox Water Trail Plan. Provide input on the location and condition of existing public access points in the corridor, and submit proposed access points identified in this plan. Once the inventory is complete, work closely with the Initiative to keep this information current on maps, websites, and other materials.</p>	Immediate	Counties, villages, LCFP, MCCD, Water Trail Initiative, FWA
<p>Leverage Initiative for branding and wayfinding. Efforts to promote the corridor should be consistent with the Water Trail branding and wayfinding. Villages and open space districts should leverage the branding to seek funding for river improvements, such as kayak and canoe launches. See also 6.3.</p>	2-5 years	All relevant stakeholders, Water Trail Initiative, CVBs, chambers of commerce

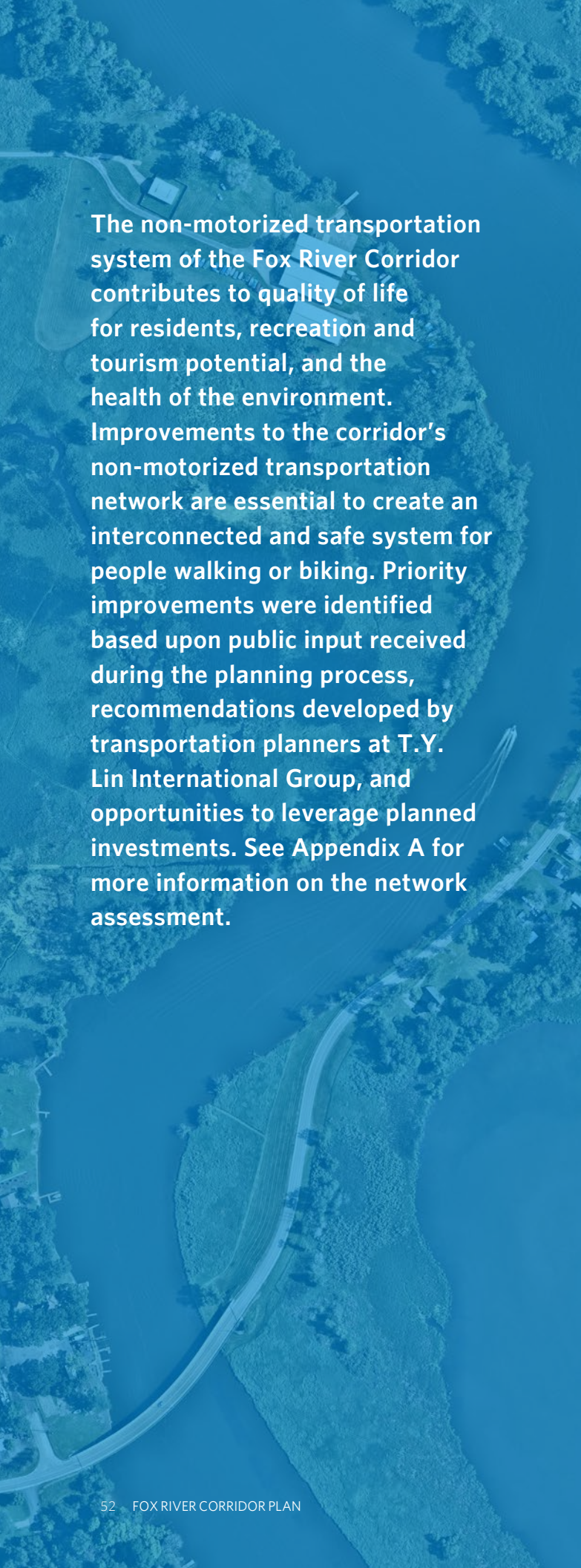
Recommendation	Timeline	Lead and Partners
4.3 Support recreational boating.		
<p>Add docks at public places. Explore the addition of new docks for temporary parking at Burtons Bridge, Picnic Grove Park, Lions Park, and/or Fox River Grove riverfront and Jack's Channel in conjunction with development. Close coordination should take place with the FWA, IDNR, and USACE to assess feasibility and identify opportunities to pair access improvements with shoreline stabilization. See also 3.2, 4.1, 4.4, and 6.1. <i>Funding: IDNR's Boat Access Area Development program</i></p>	2-5 years	All relevant stakeholders, FWA, IDNR, USACE, boating clubs, riverfront businesses and property owners, HOAs
<p>Advocate watershed-wide stormwater management and erosion control. Local governments should stay engaged with FREP, the Fox River Summit, and other watershed initiatives aimed at reducing sedimentation. See 3.2.</p>	Ongoing	Counties, villages, IDNR, IEPA, FREP, FRSG, FWA, Southeast Fox River Partnership (Wisconsin), watershed groups
<p>Permit sediment management activities. In partnership with the FWA, Lake County, McHenry County, and villages should educate landowners on the potential use of land adjacent to the Fox River for temporary or permanent sediment management.</p>	0-2 years	McHenry County, villages, FWA, Lake County, HOAs
4.4 Improve safety for all river users		
<p>Strengthen education and enforcement. All relevant stakeholders, including enforcement agencies, the FWA, and river user groups should develop a coordinated safety campaign to promote safe behavior among all river users, including proper boat operations and maintenance to support water quality goals.</p>	0-2 years	Enforcement agencies, FWA, river user groups, Water Trail Initiative, U.S. Coast Guard, American Canoe Association, National Safe Boating Council, Rental Boat Safety
<p>The U.S. Coast Guard, IDNR Conservation Police, and McHenry and Lake County Sheriff's offices should meet to assess existing coordination efforts and identify areas for improvement.</p>	Immediate	Enforcement agencies, FWA, LCFP, MCCD, villages

Chapter 5 NON-MOTORIZED TRANSPORTATION



The Fox River corridor will provide safe, convenient, and comfortable access for pedestrians, bicyclists, and people of all ages and abilities to enjoy the nature, recreation, businesses, and entertainment that the corridor has to offer.





The non-motorized transportation system of the Fox River Corridor contributes to quality of life for residents, recreation and tourism potential, and the health of the environment. Improvements to the corridor's non-motorized transportation network are essential to create an interconnected and safe system for people walking or biking. Priority improvements were identified based upon public input received during the planning process, recommendations developed by transportation planners at T.Y. Lin International Group, and opportunities to leverage planned investments. See Appendix A for more information on the network assessment.

Key Findings

River crossings are not safe for bicyclists and pedestrians. US Route 14, IL Route 176, and Rawson Bridge Road experience heavy traffic and are largely designed for vehicles. The lack of safe accommodations for active transportation, either on or leading to these bridges, creates both real and perceived safety concerns for all modes and discourages people from biking or walking across the river.

The Fox River Corridor lacks direct access to regional trails. This lack of access to the Prairie Trail and Fox River Trail isolates the communities within the study area and limits users of the existing trail network to residents. Safe and comfortable connections could open the corridor to an influx of visitors that would benefit the local economy.

Signage and wayfinding needs improvement. The street network offers few direct routes to reach destinations. Signage would help users navigate routes and trails, get to where they want to go, and discover what the corridor has to offer.

Streets in the corridor are controlled by multiple jurisdictions. Most of the smaller and neighborhood streets are under local control, though many streets providing direct connections to destinations are under control of the Illinois Department of Transportation (IDOT) or the local township. Greater coordination is required to make improvements on these streets.

Recommendations

5.1 Expand the bicycle and pedestrian network.

5.2 Invest in pedestrian improvements along US Route 14.

5.1 Expand the bicycle and pedestrian network.

Expanding the corridor’s trail network will create a safe and convenient system that connects residents and visitors with the regional trail system and local destinations, such as parks, nature trails in conservation areas and forest preserves, riverfront restaurants, events, and neighboring communities. Most of the corridor’s streets have low posted speed limits and traffic volumes, making them more comfortable for biking and walking. Areas in most need of improvement tend to be along busier streets since they provide bicyclists and pedestrians with the most direct or only route to destinations and can often act as barriers if they are difficult to cross or unsafe to walk or bike along. Creating connections between more comfortable streets and neighborhoods can also help by providing bicyclists and pedestrians with more route choices.

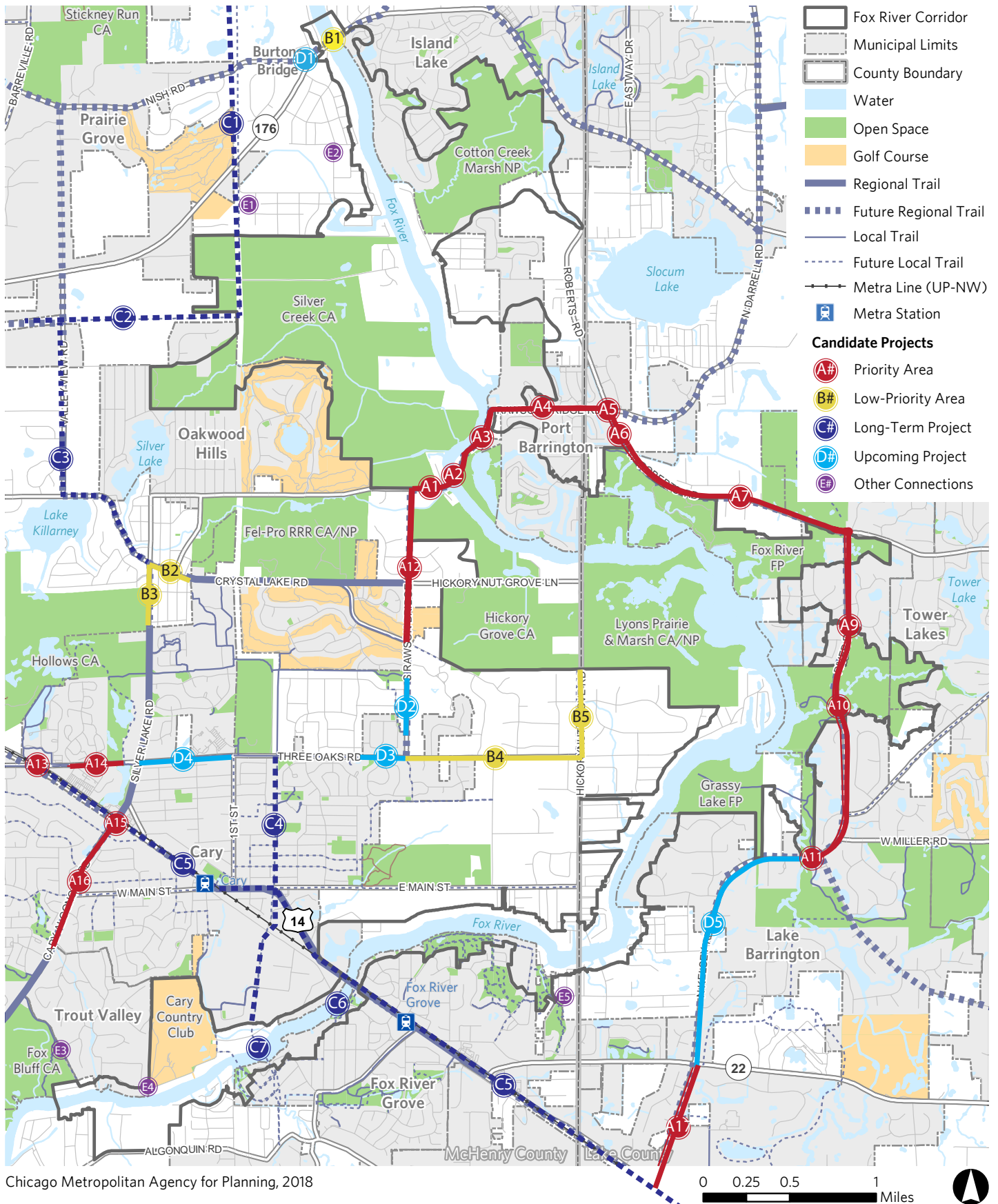


Rawson Bridge Road in Nunda Township.

There are several opportunities that the counties, townships, and villages can pursue to implement the recommended trail network and key improvements, such as:

- Requiring new bicycle and pedestrian trails and connections to existing trails in future developments;
- Pursuing easements to increase trail connectivity;
- Coordinating acquisition of flood-prone property from willing sellers with opportunities to expand the local trail system;
- Leveraging planned road investments by transportation agencies to incorporate bicycle and pedestrian facilities, as well as adopting “complete streets” ordinances to guide implementation;
- Seeking grant funding to make improvements on public land; and
- Building partnerships between public agencies.

Figure 5.1. Bicycle and pedestrian network improvements



Network improvements

Improving the connectivity of the local bicycling and walking network and linking it to the regional trail network can provide residents and visitors with a tremendous recreational opportunity. Throughout the planning process, stakeholders voiced a desire for safer and more convenient connections across the Fox River and between existing trails, neighborhoods, communities, and key destinations such as downtown Fox River Grove and Cary, riverfront parks and businesses, local parks, conservation areas, forest preserves, and regional trails. As shown in Figure 5.1, this plan recommends a wide range of improvements that have been classified into five categories (see the appendix for a description of network improvements).

Priority Areas

These comprise bicycle and pedestrian improvements that would increase safety and improve regional connections through the Fox River Corridor, especially on corridors identified for future regional trails. While projects could be implemented alone, it is recommended these projects be considered as they relate to one another along these regional corridors:

- **Rawson Bridge Road (A1, A2, A3, A4)** across the Fox River is the most vital connection in the Fox River Corridor. While not ideal for biking or walking, it is the safest river crossing in the area and should be prioritized for on and off street improvements. This is part of a regional priority corridor (See detailed description on pages 60 and 61).
- **South Rawson Bridge Road (A12)** connects the two major east/west routes in the Fox River Corridor—Rawson Bridge Road and Three Oaks Road. As such, a sidepath is recommended to safely connect bicyclists to Rawson Bridge Road to the north and the Decker and Cary Grove Community Trails to the south. This is part of a regional priority corridor (See detailed description on pages 59 and 60).
- **Rawson Bridge Road/Roberts Road intersection (A5)**. Improvements to the intersection of Roberts Road and Rawson Bridge Road are recommended. The intersection is heavily used by bicyclists crossing the Fox River west via Rawson Bridge and travelling to the Fox River Forest Preserve. This is part of a regional priority corridor (See detailed description on page 62).

- **Roberts Road and River Road (A6, A7, A9, A10)** are already heavily utilized by people biking. The roads offer moderate shoulders that, while narrower than current best practices, allow bicyclists to stay out of the travel lane. In the future, these shoulders should be upgraded to match the bicycle friendly shoulders planned for Kelsey Road.
- **Kelsey Road (A17)**. Planned improvements to create bike friendly shoulders on Kelsey Road should be extended further south to US Route 14 in the future to connect to the Pepper Road trail in Lake Barrington.
- **Three Oaks Road (A13, A14)** is an important east/west route in the Fox River corridor. In addition to upgrading sidewalks to sidepaths in some areas, a safe connection is needed at the intersection with US Route 14 and the Union Pacific railroad and to the east between Oak Valley Drive and Feinberg Drive.
- **Cary Algonquin Road (A15, A16)** connects the Fox River corridor to the Prairie Trail and Fox River Trail. Planned projects by the Villages of Cary and Algonquin make improvements on Cary Algonquin road a lower priority compared to other locations in the Corridor.

Lower Priority Areas

These comprise bicycle and pedestrian improvements that would increase safety on routes of less regional significance in the Fox River Corridor, notably locations not expected to see significant regional bicycle/pedestrian travel.

- **IL Route 176 (B1):** Improve conditions for bicyclists and pedestrians, including a sidewalk, over the Fox River.
- **Crystal Lake Road (B2):** Extend the existing sidepath from Dear Path Elementary School to Silver Lake Road.
- **Silver Lake Road (B3):** Extend the existing sidepath from Oakdale Terrace to Crystal Lake Road.
- **Three Oaks Road/Hickory Nut Grove Road (B4, B5):** Extend Three Oaks Road sidepath or provide on-street improvement from South Rawson Bridge Road to Hickory Nut Grove Road and Hickory Grove Highlands and Lyons Prairie and Marsh.

Upcoming Projects

These comprise bicycle and pedestrian projects that are already underway in the Fox River Corridor.

- **IL Route 176 and Nish Road (D1):** This intersection is currently being redesigned by IDOT and is an important junction of the Prairie Trail - Island Lake Connector regional trail.
- **South Rawson Bridge Road (D2):** Algonquin Township will be restriping this segment to include a narrow bike lane in one direction.
- **Three Oaks Road (D3, D4):** The Village of Cary will extend the existing sidepath from Nighthawk Way to South Rawson Bridge Road (D3) and from Silver Lake Road to 1st Street (D4).
- **Kelsey Road (D5):** Lake County is installing bike-friendly shoulders from IL Route 59 to IL Route 22, which will provide a better connection through Lake Barrington.

Long-Term Projects

These comprise regionally-significant bicycle and pedestrian projects, such as multiuse trails and new bridges, which require significant right-of-way acquisition, coordination, and/or capital investment.

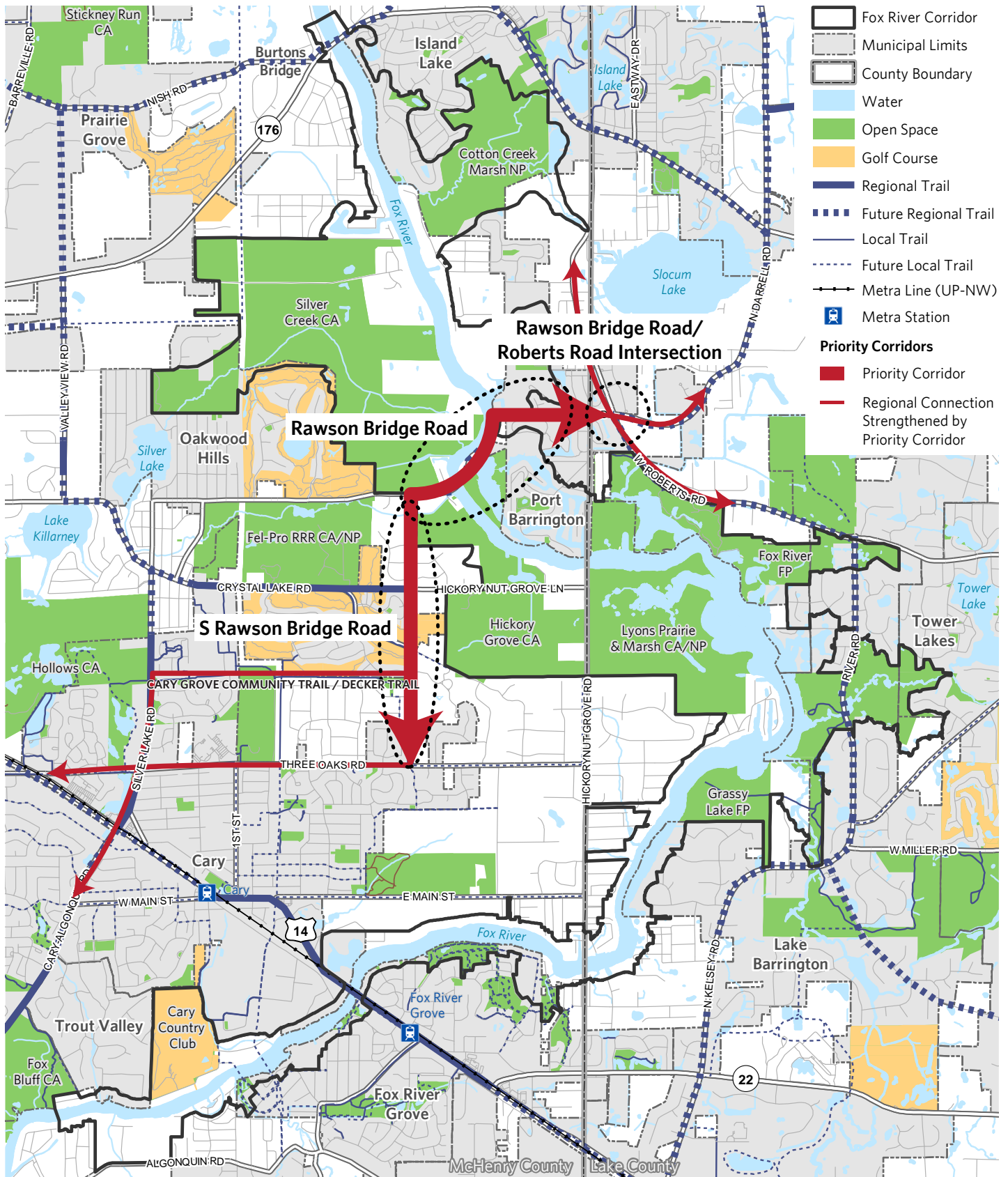
- **ComEd Right-of-Way (C1):** A new multiuse trail from Prairie Grove to Prairieview Education Center and Silver Creek Conservation Area.
- **ComEd Right-of-Way (C2):** A new multiuse trail from Prairieview Education Center and Silver Creek Conservation Area to Crystal Lake and the existing sidepath on US Route 31.
- **Valley View Road/Crystal Lake Road (C3):** This route would allow for the extension of the ComEd multiuse trail, while avoiding unsuitable terrain and sensitive natural resources in Oakwood Hills Park and Fel-Pro RRR Conservation Area.
- **ComEd Right-of-Way (C4):** A new multiuse trail from Cary-Grove Park to the Fox River.
- **Union Pacific Right-of-Way/US Route 14 (C5, C6, C7):** A long-term vision to create a regional trail along this corridor. A new pedestrian/bicycle bridge (C6) would provide an alternative to US Route 14. Alternative C7 would need to be combined with project C4 to provide continuity through Cary.

Other Connections

These comprise pedestrian improvements that were noted by stakeholders during this planning process to improve connectivity.

- Whippoorwill Drive and Mills Pond Road (E1)
- South Street and Sherman Boulevard (E2)
- Cold Springs Road and Brookbridge Road to connect Fox Bluff Conservation Area and Trout Valley (E3)
- River Drive and Grove Lane to connect Trout Valley and Cary (E4)
- Gardner Road and Main Street to connect Fox River Grove and Lake Barrington (E5)

Figure 5.2. Regional priority corridors



Chicago Metropolitan Agency for Planning, 2018

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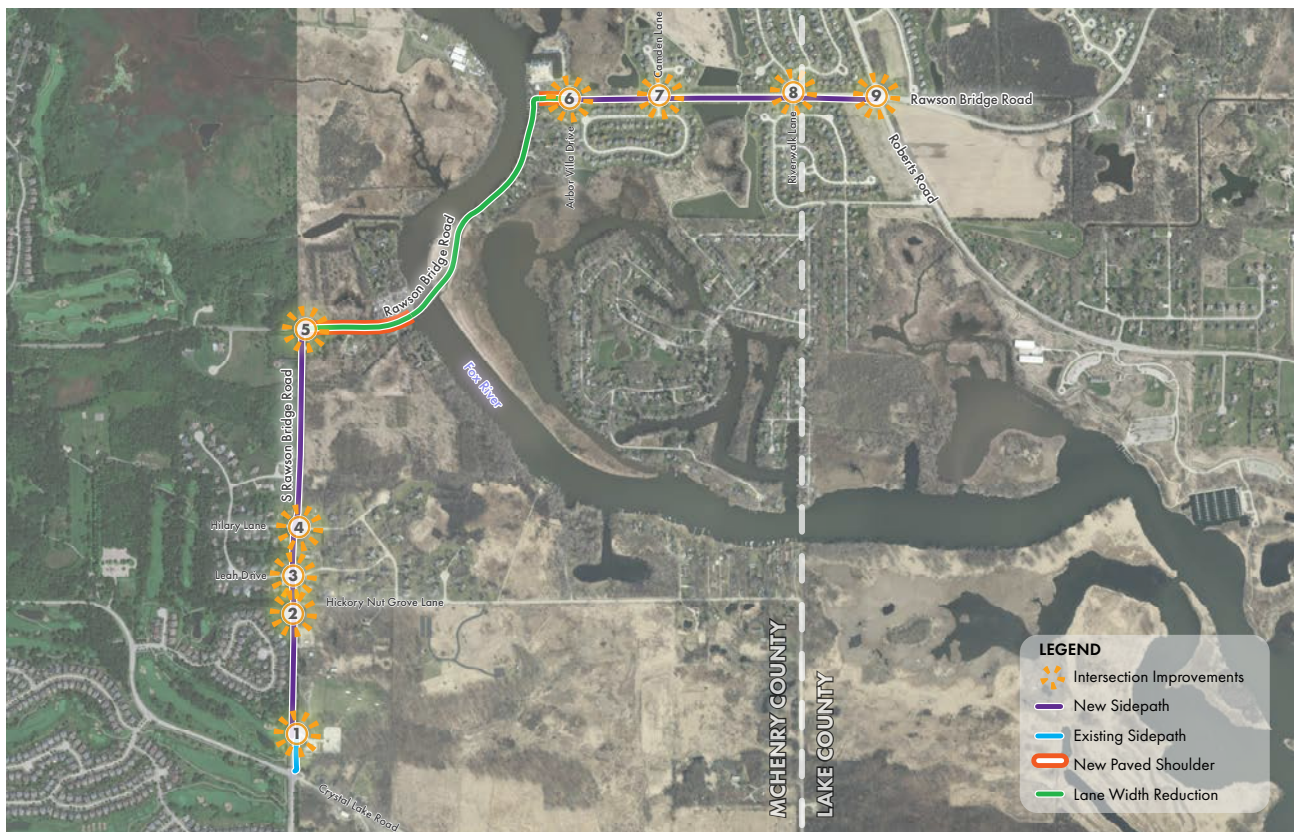


Regional priority corridors

The natural beauty of the Fox River corridor and its proximity to the Prairie Trail and Fox River Trail creates tremendous potential for the area to become a recreational resource and destination for bicycling. As part of the Grand Illinois Trail, these regional trails connect bicyclists to and from destinations as far away as Chicago, Joliet, and the Quad Cities.²⁸ Three key routes have been proposed that, if constructed, would connect the Fox River corridor with the Prairie Trail: the Prairie Trail – Island Lake Connector (via IL Route 176 and Nish Road), the Rawson Bridge – Prairie Trail Connector (via Rawson Bridge Road), and the Union Pacific Corridor (in Union Pacific rail right-of-way). Each of these routes require safe access across the Fox River via IL Route 176, Rawson Bridge Road, and US Route 14 respectively. Similar to the local trail system, partnerships and cooperation between public agencies will be especially important to expand the regional trail system.

Out of these proposed connections, this plan recommends that the Rawson Bridge – Prairie Trail Connector be prioritized for implementation, as it is the safest river crossing in the area. When paired with existing facilities and future improvements on Three Oaks Road and Cary Algonquin Road, as well as the Decker and Cary Grove Community Trails, improvements to Rawson Bridge Road and South Rawson Bridge Road can create a new regional connection allowing for a direct and safe connection from Lake County, across the Fox River into McHenry County, and connecting to the Prairie Trail and Fox River Trail in Algonquin (See Figure 5.2). This new regional connection would connect the corridor to an extensive existing trail system and invite visitors to patronize local businesses. Figure 5.3 and Figures 5.4-5.7 illustrate proposed improvements to these regional priority corridors.

Figure 5.3. Improvement overview for Rawson Bridge Road and South Rawson Bridge Road



South Rawson Bridge Road (#1-4): This street connects the two major east/west routes in the Fox River Corridor area—Rawson Bridge Road and Three Oaks Road. Given the narrow dimensions of the street, a sidepath on the west side of the street should be extended from Three Oaks Road north to Decker Park and from the Foxford Hills Country Club north to Rawson Bridge Road. New crosswalks with accompanying signage should be provided where necessary and rapid flashing beacons should be installed at the Foxford Hills crosswalk to warn motorists of people crossing South Rawson Bridge Road.

If a sidepath is not feasible, improvements should be made to allow bicyclists to safely navigate through the neighboring subdivision. In the short-term, it is recommended that Algonquin Township restripe the street to accommodate an on-street bicycle facility.

Figure 5.4 Improvement concept for South Rawson Bridge Road

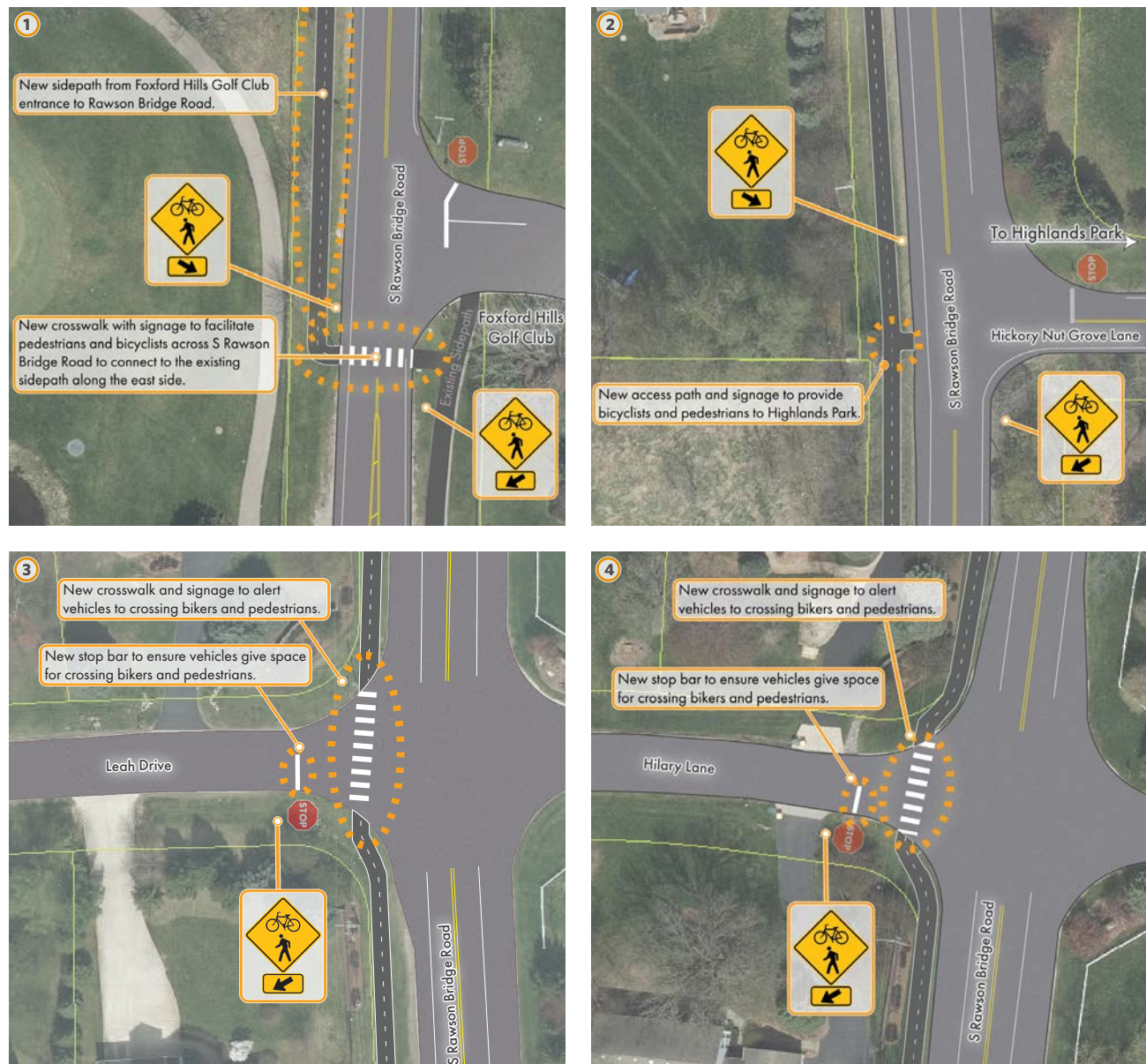
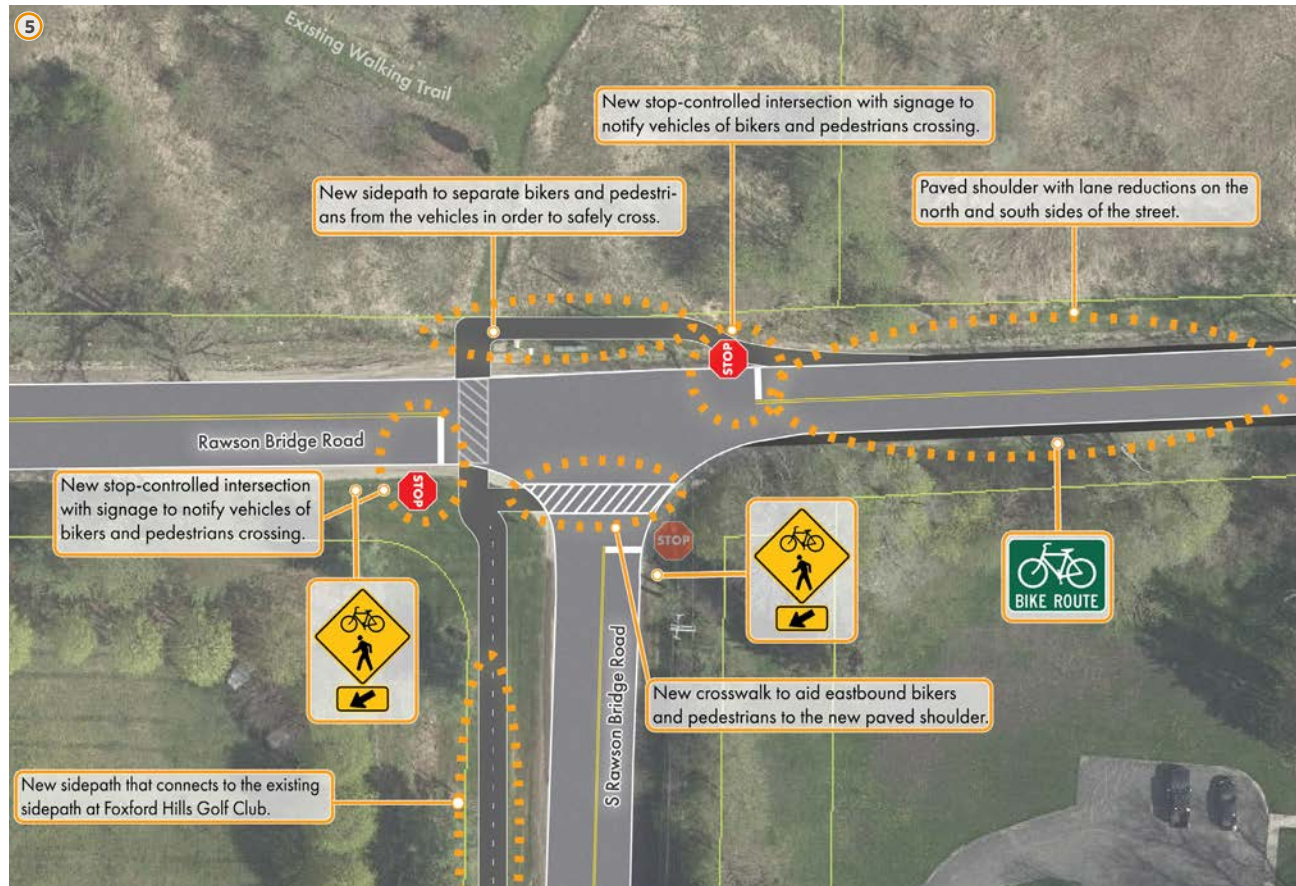


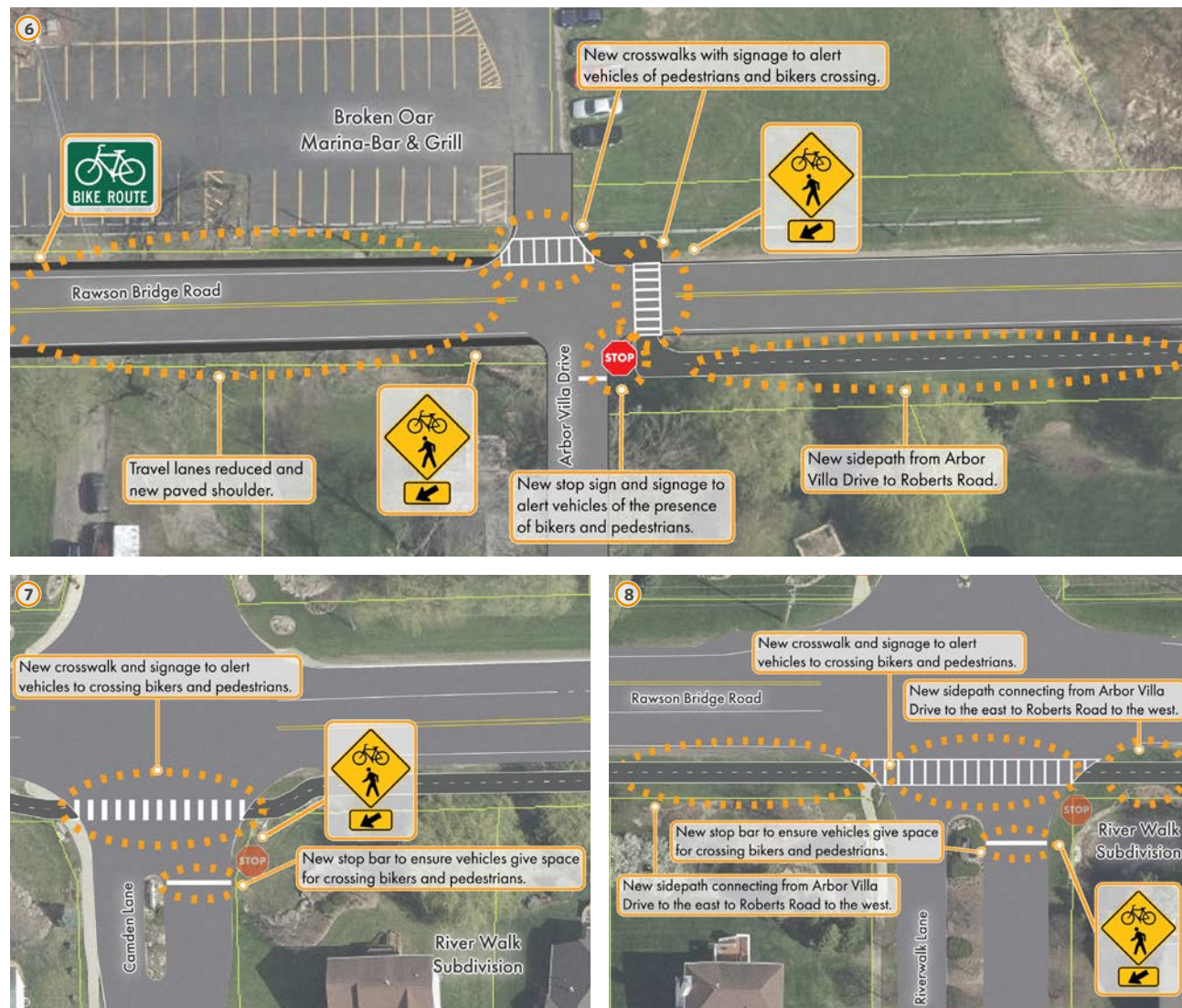
Figure 5.5 Improvement concept for Rawson Bridge Road/South Rawson Bridge Road intersection



South Rawson Bridge Road/Rawson Bridge Road intersection (#5): New stop signs, crosswalks, and signage should be installed at this intersection to help bicyclists safely transition from biking on the shoulder of Rawson Bridge Road from the east to the new sidepath on South Rawson Bridge Road.

Rawson Bridge Road (between #5 and 6): Through this stretch, the travel lanes should be reduced to ten feet in each direction to create more space for people biking and to encourage motorists to drive slower. The shoulders should also be widened between South Rawson Bridge Road and Rawson Bridge to create additional space for people riding bikes. At each end of this stretch, new crosswalks and signage should be installed to provide transitions between on-street travel and off-street sidepaths for people biking. Additional improvements include installing “Three Feet Min to Pass Bicycles” signage where bicyclists must use the shoulder, and reducing the speed limit from 30 MPH to 20 MPH between Rawson Bridge and the crosswalk at the Broken Oar (#6) to encourage slower speeds in this narrow stretch.

Figure 5.6 Improvement concept for Rawson Bridge Road in Port Barrington



Rawson Bridge Road (#6-8): A sidepath is recommended on the south side of the street from the Broken Oar Bar to Roberts Road. New crosswalks with accompanying signage would be provided where necessary, including at Camden Lane and Riverwalk Lane.

Roberts Road/Rawson Bridge Road intersection (#9): Proposed improvements to this intersection include new crosswalks and paved transitions from the shoulder to an off-street path at each approach to the intersection. This new configuration would better separate people biking from motorists and eliminate the need for people biking to merge into travel lanes when turning from one road to another.

Improvements at this intersection would connect to the new sidepath on Rawson Bridge Road. Future development at the southwest corner of the intersection could provide an opportunity to connect the sidepath and intersection with the Fox River Forest Preserve trail on Center Street.

Figure 5.7 Improvement concept for Rawson Bridge Road/Roberts Road intersection

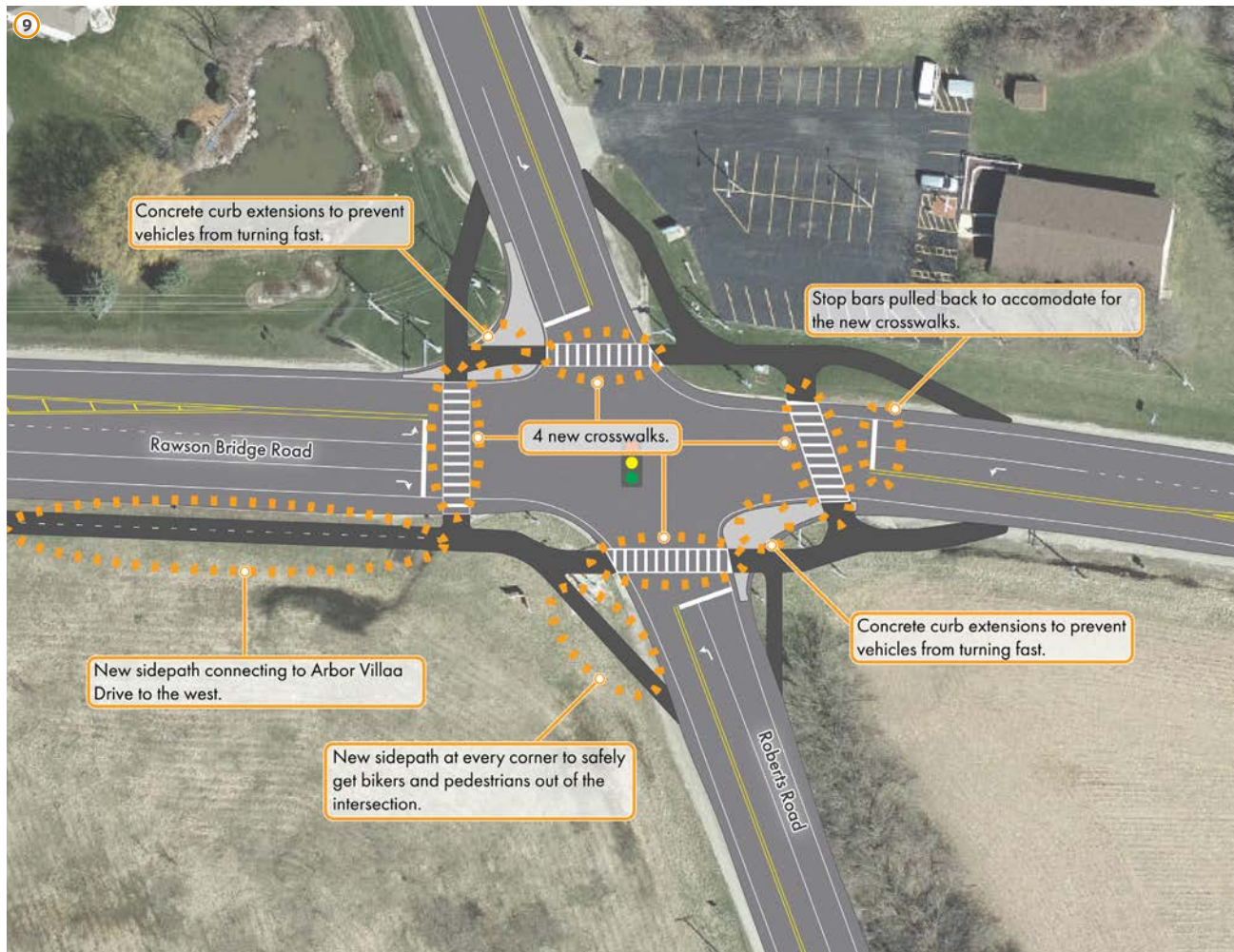
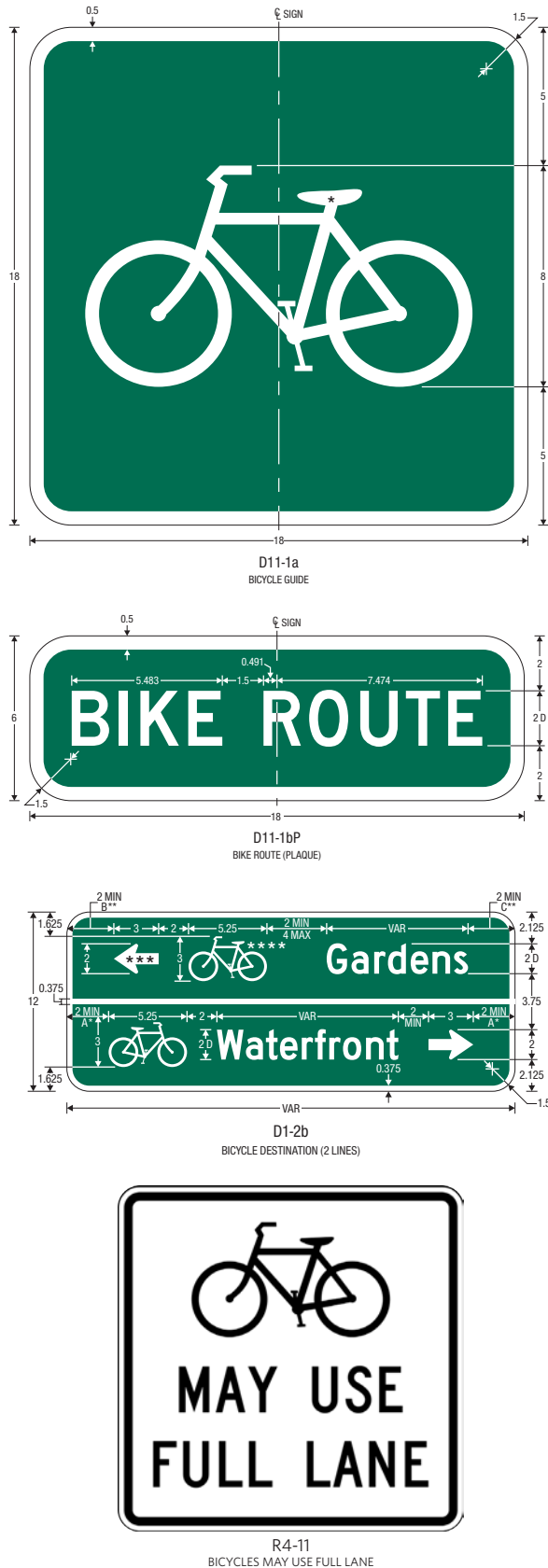


Figure 5.8 MUTCD signage design



Develop signage and wayfinding.

Several stakeholders noted a need for improved signage and wayfinding in the corridor. Bike route signs help to identify the best bicycling routes to destinations and alert motorists that they are driving along a bicycle route and should use caution. It also familiarizes the community and visitors with the bicycle network which can encourage ridership. Clear and visible directional signage should accompany network improvements and can be used in the near term to make motorists aware of popular bicycle and walking routes.

There are generally three types of wayfinding signs – confirmation signs, turn signs, and decision signs. Signs should be placed at key decision points leading to and at regular intervals along bicycle routes. Signs should also be installed along bike routes in areas with sight lines challenges, either due to trees or hilly topography, to alert motorists that bicyclists may be present. Confirmation signs should be placed soon after turns to confirm that a bicyclist is on a preferred route.²⁹ To ensure consistency across county and municipal lines, sign design and installation should follow the Manual on Uniform Traffic Control Devices (MUTCD) shown in Figure 5.8.³⁰ However, a common logo for signage along the Fox River corridor can help create a unified corridor identity and brand.

Information on parking availability, local businesses, and distances to corridor destinations should also be posted and included on promotional material to help drive economic activity by people biking through or visiting the area. Yield etiquette signs, such as Bikes Yield to Peds, help clarify yielding rules on shared paths.

Source: The Manual on Uniform Traffic Control Devices.

5.2 Invest in pedestrian improvements along US Route 14.

Creating a walkable river corridor that connects to the downtown areas of Cary and Fox River Grove, as well as Lake Barrington to the east, will help increase the vibrancy of the communities, improve equity and public health, and support the local economy. US Route 14 links the villages and connects them to the Fox River; however, heavy traffic and roadway design creates an unsafe environment for people walking, biking, and driving. The Villages of Cary and Fox River Grove should work with IDOT, Metra, businesses, and developers along this important transportation corridor to balance the need to meet traffic demands with the communities' goals to make the street work for pedestrians and bicyclists too.

Incorporate sidewalk and bicycle connections in redevelopment opportunities.

Leveraging redevelopment investments is a key strategy to increase the walkability and vibrancy of the US Route 14 corridor (See Figure 6.2 on page 74). The Cary Comprehensive Plan recommends pedestrian and bicycle improvements in conjunction with new development to enhance safety and access between Downtown, the Eastern Gateway at Jandus Cutoff Road, and ultimately the Fox River. Fox River Grove's redevelopment plan envisions a mix of commercial and residential developments along the north side of US Route 14 from the Fox River Grove Metra station to the Fox River. Pedestrian and bicycle connections should be a key component of the site design to link the phased development all the way down to the river. At the river's edge, a boardwalk could link the marina redevelopment with Lions Park on both sides of the US Route 14 and Union Pacific bridges to create a vibrant and connected riverfront in Fox River Grove (see Recommendation 6.1). Both villages should encourage developers to design future projects to create a safe, accessible, and comfortable pedestrian environment.

Improve major crossings.

The safest crossings are visible, shorten the distance that pedestrians have to travel, and provide proper signalization and signing. Improving the intersections between Cary and Fox River Grove is necessary to improve walkability given the long distance between crossings, high vehicular traffic volumes and speeds, and wide road dimensions. The crossings should include marked crosswalks on all four sides, signage, lighting, and stop or signal control. The villages should coordinate with IDOT to ensure that future intersection improvements address pedestrian safety and accommodate bicyclists at Algonquin Road and Lincoln Avenue.

Enhance streetscape and signage.

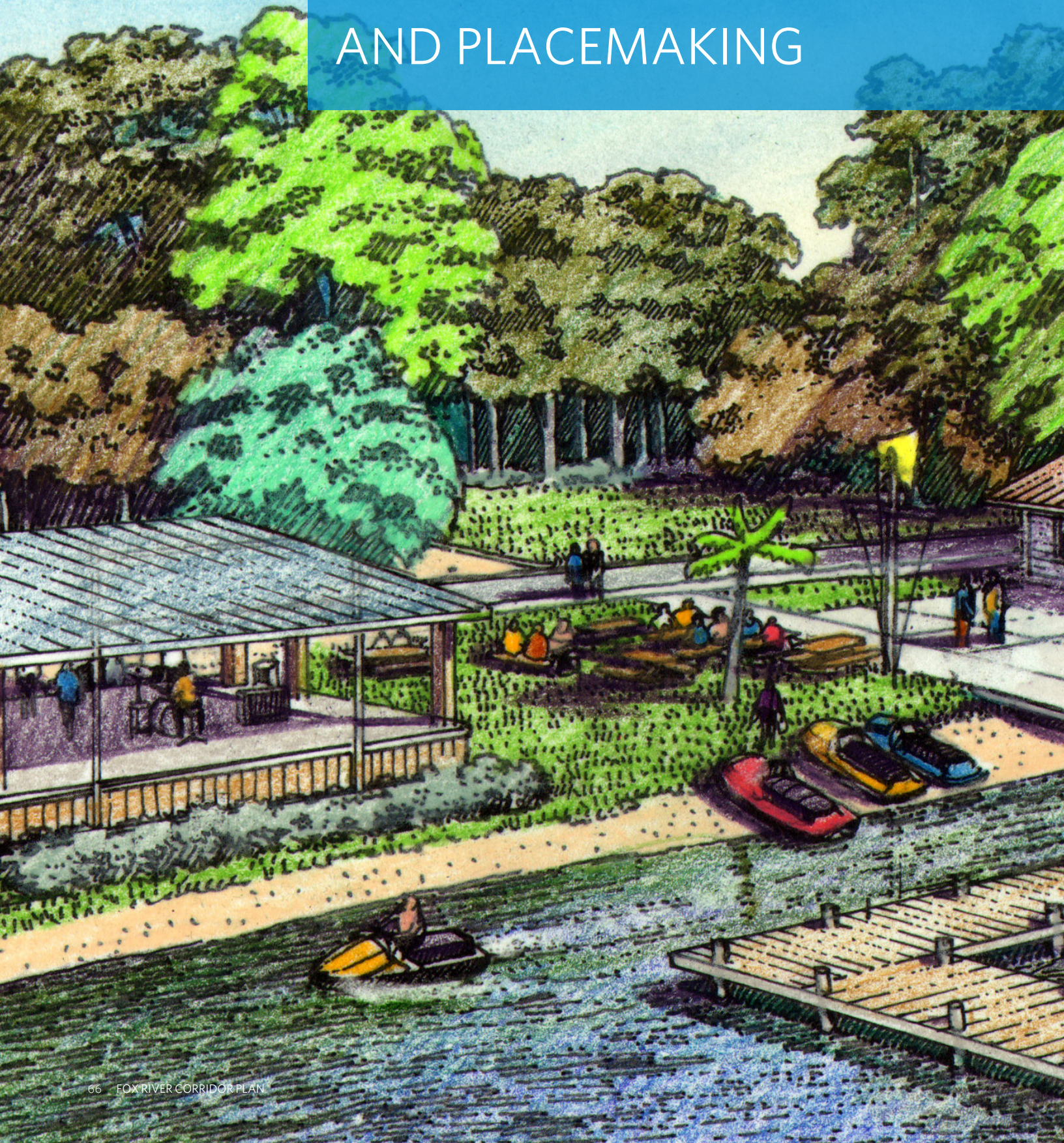
The look and feel of a street can encourage or discourage people from walking, even if the distance is relatively short. Fox River Grove's streetscape design guidelines that were adopted in 2014 will guide streetscape improvements between the Fox River and downtown Fox River Grove and the Metra station. Coordinating wayfinding signage should be included in streetscape improvements in Fox River Grove and Cary to help visitors and residents identify nearby destinations and businesses, and draw them toward the river. By working together, the villages can develop signage and banners that highlight their own unique communities while communicating a cohesive identity on the Fox River. Signs should include directions, distances, and could feature a wayfinding map and educational information on the Fox River. Stormwater management improvements, such as tree trenches, permeable pavement, and stormwater planters, should be integrated into streetscape projects to help improve the water quality and overall health of the Fox River and demonstrate the villages' commitment to environmental protection. Cary and Fox River Grove should encourage business owners within the corridor to add amenities, as discussed in Chapter 6, and seek opportunities to improve sidewalks and add new pedestrian amenities.

Implementation Actions

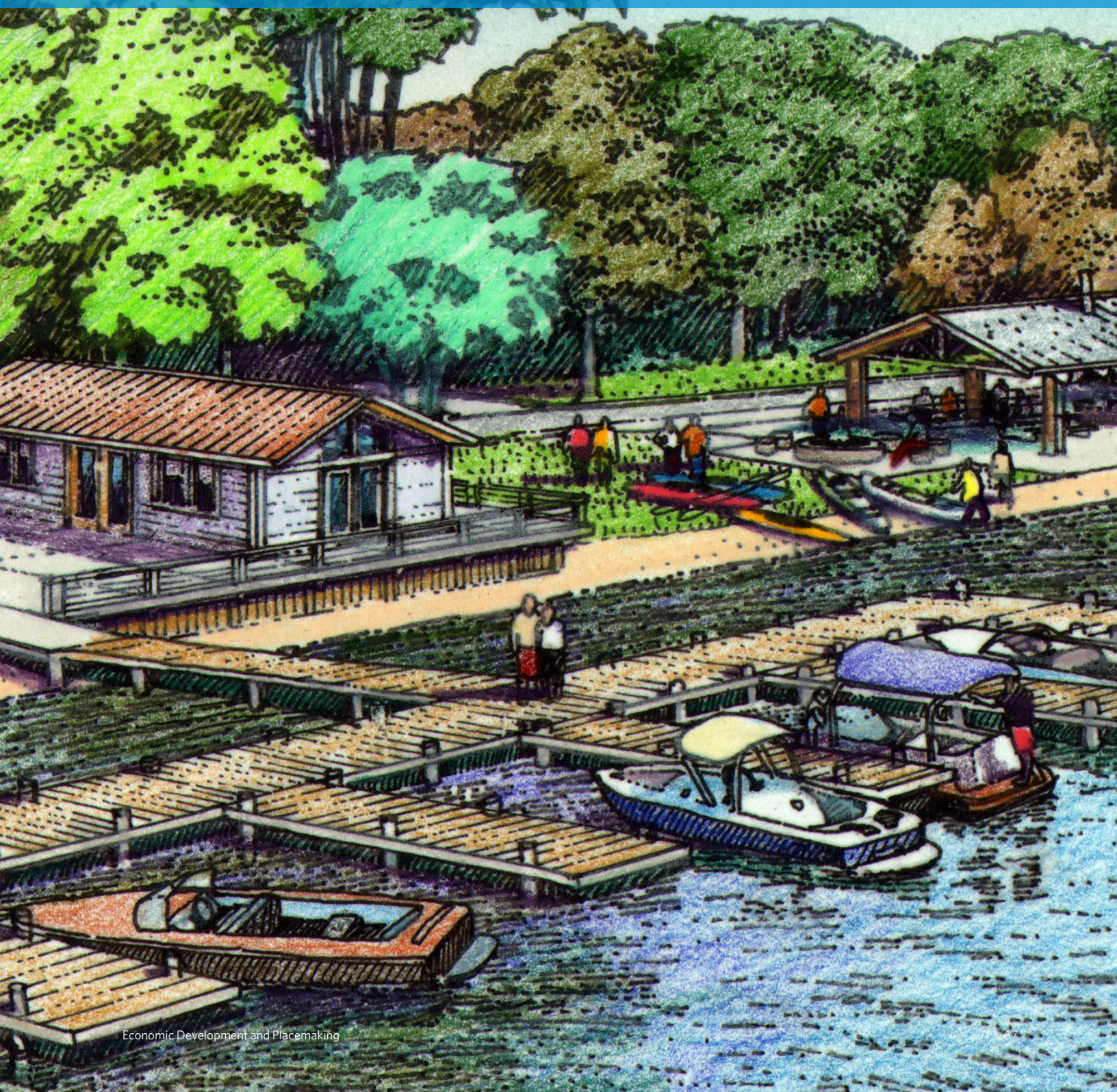
Recommendation	Timeline	Lead and Partners
5.1 Expand the bicycle and pedestrian network.		
<p>Implement network improvements in priority areas. Transportation agencies should work together to incorporate priority improvements into near-term road improvements and work together to pursue external funding for significant improvements. Additional engineering studies may be necessary to determine alignment, environmental sensitivity, and other design considerations. <i>Funding: Illinois Trails Grant Programs, Surface Transportation Program (STP-L), Transportation Alternatives Program (TAP-L), Transportation Enhancements Program (ITEP)</i></p>	2-5 years	<p>McHenry County, Lake County, Algonquin Township, Nunda Township, Village of Port Barrington, Village of Cary, LCFP, MCCD, McHenry County Bicycle Advocates, Lake County Bike Project</p>
<p>Restripe Rawson Bridge Road between South Rawson Bridge Road and the Broken Oar. The travel lanes should be reduced to ten feet in each direction to accommodate bicyclists and encourage motorists to drive slower.</p>	0-2 years	<p>Nunda Township, McHenry County, McHenry County Bicycle Advocates</p>
<p>Coordinate development of signage and wayfinding. Work together to develop a consistent approach to signage and wayfinding across county and district lines. McHenry County should collaborate with Lake County Department of Transportation in its current effort to assess wayfinding needs in Lake County. Depending on the location of the sign, the appropriate stakeholder should create, install, and maintain the sign. See also 4.1 and 4.2.</p>	2-5 years	<p>McHenry County, Lake County, townships, villages, LCFP, MCCD, McHenry County Bicycle Advocates, Lake County Bike Project</p>
5.2 Invest in pedestrian improvements along US Route 14.		
<p>Incorporate sidewalk and bicycle connections in redevelopment opportunities. Stakeholders, including the private sector and new developments, should incorporate pedestrian amenities whenever feasible. The Village of Fox River Grove should explore riverwalk feasibility and the creation of a public/private partnership for construction and maintenance. <i>Funding: Illinois Trails Grant Programs, ITEP</i></p>	5-10 years	<p>Village of Cary, Village of Fox River Grove, IDOT, Business owners, developers</p>
<p>Improve major street crossings. The Village of Cary and Village of Fox River Grove should coordinate with IDOT to ensure that future intersection improvements between Jandus Cut Off Road and Algonquin Road address pedestrian safety and that bicyclists are accommodated at the intersections of Algonquin Road and Lincoln Avenue.</p>	0-2 years	<p>Village of Cary, Village of Fox River Grove, IDOT, Metra</p>
<p>Enhance streetscape and signage. Encourage business owners within the corridor to add amenities and seek opportunities to improve sidewalks and add new pedestrian amenities. Pedestrian wayfinding signage should be designed to replicate the same themes and identity as the recommended bicycle signage. See also 6.2 and 6.3. <i>Funding: ITEP</i></p>	Ongoing	<p>Village of Cary, Village of Fox River Grove, IDOT, Business owners, developers</p>

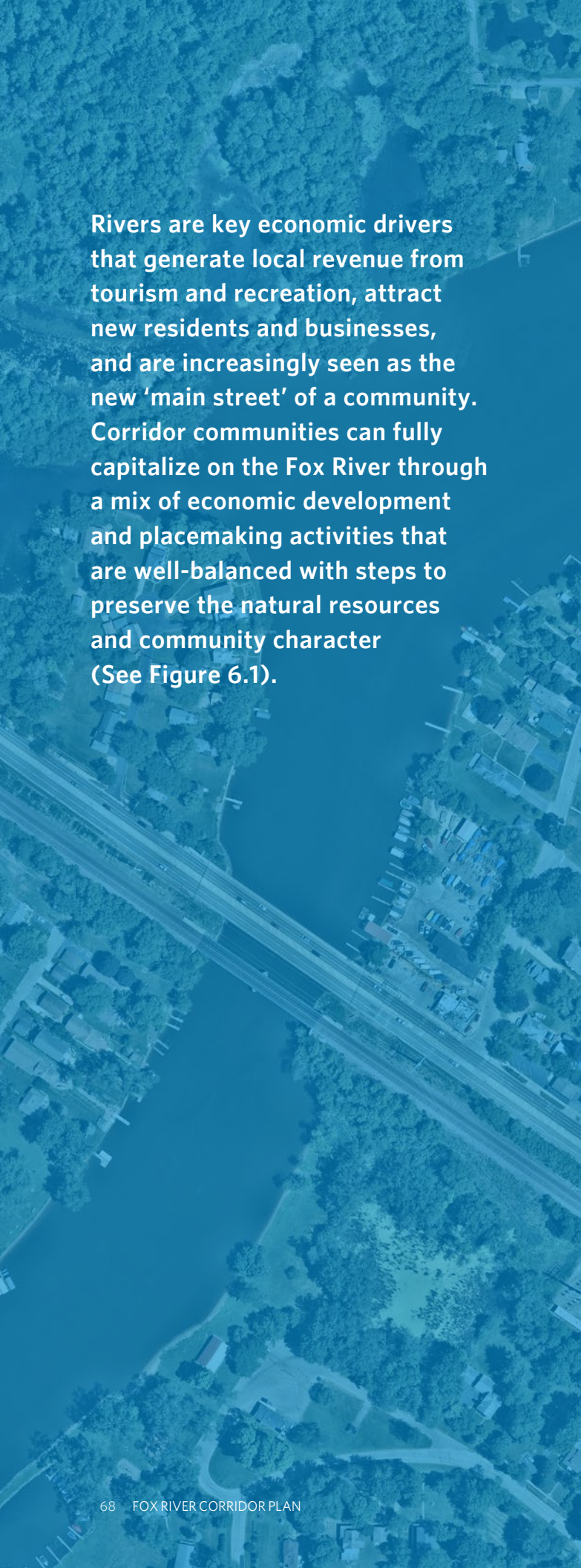
Chapter 6

ECONOMIC DEVELOPMENT AND PLACEMAKING



The Fox River will be a primary gateway into corridor communities, creating a vibrant and unique place that leverages river recreation, placemaking, and sensitive development opportunities to expand the local economy.





Rivers are key economic drivers that generate local revenue from tourism and recreation, attract new residents and businesses, and are increasingly seen as the new 'main street' of a community. Corridor communities can fully capitalize on the Fox River through a mix of economic development and placemaking activities that are well-balanced with steps to preserve the natural resources and community character (See Figure 6.1).

Key Findings

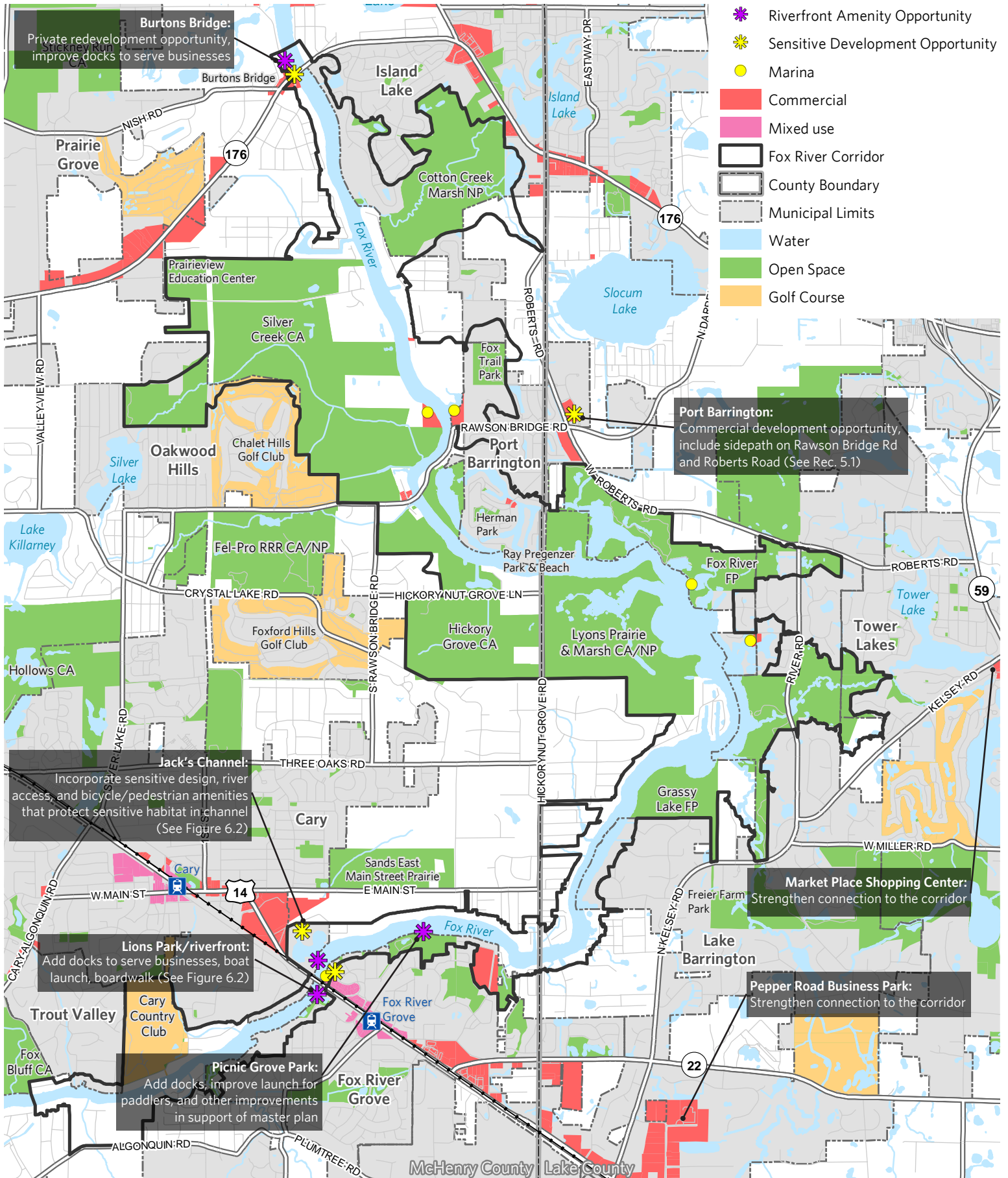
River-oriented businesses generate revenue for corridor communities. Marinas, dining and drinking establishments, and other businesses dot the river and are clustered in Burtons Bridge and Fox River Grove. Many businesses cater to boaters, host live music, and provide outdoor seating with beautiful views of the river. As such, these businesses also suffer losses from occasional flooding, including property damage and decreased revenue when the river is closed.

Recreational activities and sporting events attract thousands of visitors to the corridor annually. From ski jump competitions and fishing tournaments, to motor boating and birding, recreational activities contribute to the local economy and a sense of pride and identity for corridor communities.

Shifts in temperature and precipitation will likely affect water-based recreation and tourism. An increase in riverine flooding during the summer will increase the number of days the Fox River is shut down to boaters. An increase in temperatures would extend the regular boating season and benefit the local economy; however, it will likely have a negative impact on other activities such as fishing, snowmobiling, cross-country skiing, and winter competitions.

Some opportunities exist for new riverfront development or redevelopment. The communities of Cary and Fox River Grove have identified riverfront areas that could expand access to the Fox River and build connections to their downtowns. However, these sites are not without limitations, including sensitive aquatic habitats, wetlands, and floodplains that provide much needed flood storage.

Figure 6.1. Economic development and placemaking plan



Recommendations

6.1 Draw people to the river through programming and open space.

6.2 Pursue river-oriented economic development.

6.3 Market ecotourism activities and river-oriented businesses.

6.1 Draw people to the river through programming and open space.

Economic development activities, including the development of well-supported programs and vibrant public spaces, can help attract more residents and visitors to the Fox River corridor and support the local economy of river communities. Existing programs and events in the corridor are already a draw and many stakeholders suggested that they would like to see riverfront open space used more frequently for family-friendly programming such as concerts, recreation, and other types of activities. Many of the recommendations made in this plan aim to increase visitors to the corridor and expand opportunities for residents to take advantage of living near the Fox River. Corridor communities should leverage their proximity to the river to increase economic activity by improving connections between the Fox River and corridor destinations, and work together to create programming that serves a mix of residents and increases the use of these destinations (see Chapter 4 for recommendations related to improving connections for people walking or biking in the corridor).

Improve riverfront amenities.

Several opportunities exist to enhance the riverfront to create interesting places where people want to be. Placemaking amenities such as the installation of public art and community gathering and event spaces can enhance the use of public space, attract a diverse group of people to the riverfront, and contribute to the corridor's river-oriented identity.

Corridor communities should plan for improvements in open space and development activities and engage local businesses to support the expansion of amenities on their own property or in public places. Opportunities in the corridor include:

River access points for watercraft. Adding more public docks, canoe tie-ups, and access points near areas of higher activity makes it easier for passing boaters and paddlers to park and visit riverfront businesses. The riverfronts in Burtons Bridge, Cary, and Fox River Grove are prime areas for access improvements (see Recommendation 4.3 for recreational boating strategies).

Riverwalks and piers. These improvements on public and private land can help draw people to the river's edge, connect destinations, and increase recreation. The Fox River Grove riverfront presents a great opportunity to connect Lions Park with future riverfront development through the construction of a boardwalk beneath the US Route 14 and Union Pacific bridges. A boardwalk or other structure in riverfront locations such as Picnic Grove Park or Burtons Bridge could support other amenities like fishing piers, docks, concessions, and food boats.

Gathering and event spaces. Additional outdoor spaces for picnicking, community gatherings, and concerts with basic facilities will encourage more visits to the riverfront and can accommodate paddlers, boaters, and other river users. A small barge docked near a restaurant or other entertainment venue could be outfitted for use as a unique outdoor, on-the-river dining area or space for entertainment or recreation. Waste management should be improved at existing and future gathering spaces to reduce litter and limit portable toilet exposure to flooding.

Winter activities. The Fox River corridor has a strong heritage of winter sports. Temporary ice rinks and amenities to support ice fishing, cross country skiing, and other activities can be installed in parks such as Picnic Grove Park to increase recreation options and visitors during winter months. Winter festivals such as the ice fishing derby held in Port Barrington and other events can draw more people out to support these amenities and patron local businesses during the off-season.



Arts & Crafts Fair at Lions Park in Fox River Grove.
Source: Fox River Grove Lions Club



Mural in Saint Clair, Michigan.
Source: St. Clair Art Association

Public art. Sculptures, murals, mosaics, and other types of community-created public art could contribute to a stronger sense of unity and pride among corridor communities. Local artists could also be engaged in the design of other placemaking amenities such as benches, picnic areas, and fishing piers. Community-created art installations help bring more diverse groups together and will attract newcomers to the river.

Signage. Wayfinding signage provides directions and distances to specific destinations and, when paired with branding, can create a common identity for corridor communities that is focused around the Fox River. Interpretive signage should be used to draw people to riverfront destinations and amenities and educate river users about the history of the Fox River and surrounding communities, environmental features, geography, and river safety. See Chapters 4 and 5 for recommendations related to wayfinding and interpretive signage.

Support community events and programs.

Villages should work with local groups to support existing events and plan new ones that attract residents and visitors to the corridor throughout the year. Events focused on the Fox River could highlight the natural beauty of the area and bring potential customers to local businesses. The villages should look for ways to strengthen the connection between community events and riverfront businesses through direct engagement during events. Cary Main Street Fest, hosted by the Cary-Grove Area Chamber of Commerce is a good example of an event that engages local businesses, brings the community together, and attracts visitors from the surrounding area.

Programming should showcase the environmental, recreational, and cultural assets of the Fox River that allow families and people of all ages and abilities to participate. Some ideas received through outreach activities include a river day festival, mud runs, river cleanup events that engage youth, audio tours for birders, teen volleyball leagues at Picnic Grove Park, summer performances sponsored by riverfront businesses, battle of the bands, and food trucks. Villages could partner with the Cary-Grove Performing Arts Centre to provide performers for events in riverfront parks and encourage residents to arrive on foot or by bicycle to encourage active transportation. Hosting kayak marathons, canoe races, or dragon boat races in collaboration with other Fox River communities could build on efforts by the Water Trail Initiative and increase exposure to paddle sports along the river.



Source: PRG Living

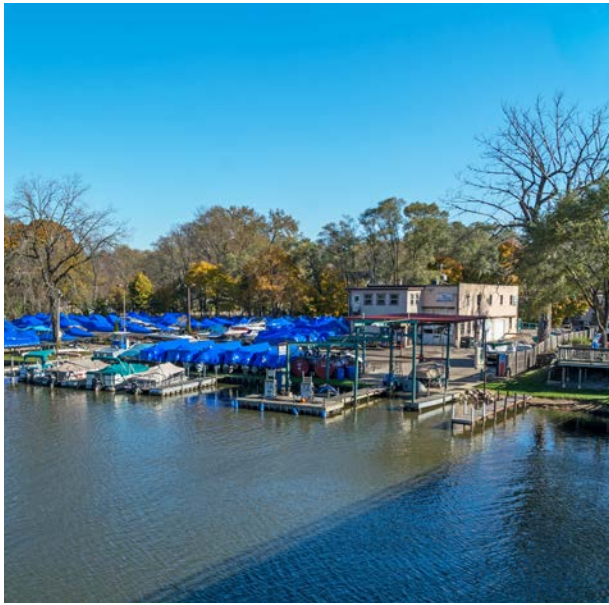
6.2 Pursue river-oriented economic development.

Corridor communities are embracing the Fox River to facilitate the revitalization of their riverfronts, downtown, and commercial areas. Villages should continue to explore strategies that support, preserve, and strengthen existing businesses and pursue responsible redevelopment to enhance the corridor as a local and regional destination. It is also important that they coordinate planning efforts that complement one another and ensure the protection, access, and enjoyment of the river.

Potential development opportunities in Cary, Fox River Grove, Lake Barrington, Port Barrington, and unincorporated Burtons Bridge present an opportunity to create vibrant corridor destinations that embrace the Fox River. Many stakeholders expressed a desire for more river-oriented and family-friendly establishments such as restaurants, shops, and recreation outfitters. The villages should market these available sites to potential developers and existing businesses looking to expand their facilities. At the same time, villages and counties should use these opportunities to integrate the related plan goals of conservation, access, and resilience into the future development or redevelopment. In order to maintain the Fox River as an asset to these communities, protections should be in place to preserve floodplains and wetlands and reduce runoff through stormwater best management practices.

Fox River Grove and Cary riverfronts: The Villages of Cary and Fox River Grove have carried out planning for their riverfront areas (See Figure 6.2). In Fox River Grove, the Village envisions the revitalization of the marina site to include a marina, restaurant, and lodging. The development would promote improved riverfront access for boaters, pedestrians, and bicyclists and link to new mixed-use commercial and residential redevelopment along US Route 14.

In Cary, the Village envisions transforming the Jack’s Channel property into a riverfront destination with the potential for a hotel, restaurant, marina, convention center, recreational amenities, and protected natural areas. Throughout the planning process, many stakeholders voiced interest in creating public river access at Jack’s Channel, while others expressed concern over the effect development could have on the natural resources of the site.



Fox River Grove riverfront.

There are several ways that the villages can seek economic development on these two sites that will benefit the corridor. Both sites are included in a tax-increment finance (TIF) district for each community. Plans and policies for Cary and Fox River Grove's TIF districts, as they relate to riverfront sites, should emphasize preservation of natural resources, including floodplains, wetlands, and aquatic habitat, river access for boaters and non-boaters, bicycle and pedestrian amenities, and attractive streetscaping.

The villages should also incorporate cohesive signage into streetscape and pedestrian improvements on US Route 14 that promote corridor branding and destinations on both sides of the river. While there may not be enough market demand for both communities to achieve their vision, it may make sense to coordinate efforts in a way that is mutually beneficial to both communities (see Recommendation 5.2 for strategies on improving US Route 14 for people walking and biking).

Figure 6.2. Riverfront development opportunities in Cary and Fox River Grove



Chicago Metropolitan Agency for Planning, 2018



Burtons Bridge: This cluster of restaurants and entertainment venues with riverfront access offers an opportunity for private redevelopment and improvements could arise in the future that could make this a more vibrant destination. Any improvements to this area should be designed to withstand occasional flooding, maintain floodplain storage, and protect and restore high quality wetland habitat.

Rawson Bridge Road and Roberts Road, Port Barrington: New commercial development on vacant land could support river recreation and programming at the Broken Oar and Raging Buffalo Wakeboard School. A sidepath on the south side of Rawson Bridge Road and the west side of Roberts Road would improve access for bicyclists and pedestrians between destinations and connect them to community trails and the Fox River Forest Preserve (see Recommendation 5.1 for bicycle and pedestrian improvements to this area).

Pepper Road Business Park Area and Market Place Shopping Center, Lake Barrington: Future development of the Pepper Road/US Route 14 Corridor and Market Place Shopping Center at IL Route 59 and Kelsey Road will expand shopping, dining, sports, and entertainment offerings in the corridor. Bicycle and pedestrian improvements on Kelsey Road and Pepper Road, when paired with the existing local trail network, will improve the connectivity between these commercial areas and the Fox River (see Recommendation 5.1).

Enhance coordination with local business owners.

Many corridor businesses are dining and drinking establishments that cater to boaters, host live music, and provide outdoor seating. Several of these businesses have expanded to provide recreation services like kayak rentals and access for ice fishing. Helping these businesses sustain and expand their offerings is vital to the success of riverfront businesses and the local economy. The Villages of Cary, Fox River Grove, Lake Barrington, and Port Barrington should work with each other and with local economic development groups and business owners to identify ways that riverfront programming, accessibility, and other improvements can support the needs of existing businesses and attract businesses that will thrive in the river environment.

During the planning process, stakeholders voiced a desire for new businesses that support river recreation, including a sandwich shop, ice cream shop, ice vendor, bait shop, paddling outfitter, and boat tour operator. The villages should continue working with the Cary-Grove Area Chamber of Commerce to take an active role in attracting new businesses while enhancing the aesthetics of the corridor to create a cohesive identity.

Villages should also increase coordination among the local business community to help existing businesses grow and contribute to a stronger local economy. Staff should regularly work together to communicate their needs and share knowledge concerning available resources in order for businesses to become more successful. This is particularly important for riverfront businesses that experience damages from flooding, as well as lost revenue during times when the river is closed to recreational boaters. A regular meeting between business owners and villages can help improve service provision, tackle issues as they arise, and provide a mechanism for sharing information about resources or available funding. The Cary-Grove Area Chamber of Commerce could devote a segment of their regular meetings for this type of information exchange with municipal staff.



Source: Fox River Grove Living Facebook page

6.3 Market ecotourism activities and river-oriented businesses.

The Fox River is a recreational resource for local residents, as well as the broader region. Economic activity generated by river-related businesses, recreation, tournaments, and events helps corridor communities expand their tax base and provide services to residents. Coordinated marketing efforts among river communities, carried out through increased collaboration with chambers of commerce and convention and visitors bureaus, will help promote corridor tourism and support river-related businesses, programming, and improvements.

Marketing efforts should be targeted to outdoor outing groups that cater to anglers, birders, paddlers, and other nature enthusiasts, leisure and travel groups, and summer camps and school districts that may be seeking environmental education opportunities. Villages, Cary-Grove Area Chamber of Commerce, Visit Lake County, and Visit McHenry County should collaborate with the Water Trail Initiative to promote the Fox River as a destination for paddling and other recreation. The Initiative is developing marketing materials, including a logo, brochures, maps, and an online portal. Other marketing ideas expressed through the planning process include providing a Fox River welcome packet to new residents, using photo and video documentation, and developing virtual field trips. By leveraging this branding effort, communities, chambers of commerce, and CVBs can more effectively promote the corridor's river experience and reach a broader audience.

Many events occur throughout the year, including fishing tournaments, ski jumping competitions, and community festivals. Bolstering events through cross-community promotion and collaboration will help attract more visitors to the Fox River to support local businesses and community programming. Utilizing social media and developing a centralized calendar or website that highlights river-related activities and destinations, paired with marketing assistance from the Water Trail Initiative, Visit McHenry County, Visit Lake County, and Cary-Grove Area Chamber of Commerce, can create a powerful marketing campaign for local businesses and help visitors explore all that the corridor has to offer.



Cary Main Street Fest volunteers.

Source: Cary-Grove Area Chamber of Commerce, Flickr



Angler's Dream Bass Fishing Tournament at Port Barrington Motor Sports.

Source: Angler's Dream Fox River and Fox Chain of Lakes Divisions

Implementation Actions

Recommendation	Timeline	Lead and Partners
6.1 Draw people to the river through programming and open space.		
<p>Improve riverfront amenities. Stakeholders, including the private sector, should incorporate placemaking amenities whenever feasible. New developments should be designed to include riverfront access and amenities as appropriate. Signage at key points in the corridor would help promote educational and recreational programs and should be coordinated with the Water Trail Initiative. See also 4.1. <i>Funding: IDNR's Boat Access Area Development program, OSLAD</i></p>	Ongoing	Villages, local artists, civic organizations, youth, businesses, and residents
<p>Support community events and programs. Work with local groups and businesses to support existing events and plan new ones that attract residents and visitors to the corridor throughout the year.</p>	Ongoing	Villages, park districts, civic organizations, Cary-Grove Performing Arts Centre, school districts, businesses
6.2 Pursue river-oriented economic development.		
<p>Align environmental, recreational, and economic development goals. Cary, Fox River Grove, Port Barrington, and Prairie Grove/unincorporated McHenry County should incorporate the goals of this plan into development opportunities to emphasize preservation of natural resources, including floodplains, wetlands, and aquatic habitat, river access for boaters and non-boaters, bicycle and pedestrian amenities, and attractive streetscaping.</p>	Immediate	Villages, counties
<p>The Village of Fox River Grove should amend the Architectural Design Guidelines for downtown redevelopment to promote stormwater management in parking perimeter plantings and landscape islands.</p>	Immediate	Village of Fox River Grove
<p>Enhance coordination with local business owners. Village staff should work alongside the Chamber of Commerce to identify opportunities to interact with local business owners.</p>	Ongoing	Villages, Cary-Grove Area Chamber of Commerce, Local business owners
6.3 Market ecotourism activities and river-oriented businesses.		
<p>Develop a marketing strategy. Villages should work with CVBs and chambers of commerce to promote recreational and community events through forms of social media, online calendar of events, and community advertising using posters/flyers. All relevant stakeholders should get involved with the Water Trail Initiative to integrate corridor branding and promotion efforts with that of the water trail. See also 4.2.</p>	Ongoing	Villages, Cary-Grove Area Chamber of Commerce, Visit Lake County, Visit McHenry County, Water Trail Initiative, LCFP, MCCD

Endnotes

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15 CMAP, "Model Water Use Conservation Ordinance," March 2010, http://www.cmap.illinois.gov/documents/10180/11537/model_water_use_conservation_ordinance.pdf/e28c8492-b127-4466-a9fb-439501c939de.

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Acronyms

ADA	Americans with Disabilities Act
BACOG	Barrington Area Council of Government
BACT	Barrington Area Conservation Trust
BMP	Best Management Practice
CA	Conservation Area
CFC	Citizens for Conservation
CMAP	Chicago Metropolitan Agency for Planning
CVB	Convention and Visitors Bureau
FHWA	Federal Highway Administration
FOFR	Friends of the Fox River
FP	Forest Preserve
FREP	Fox River Ecosystem Partnership
FRSG	Fox River Study Group
FTA	Federal Transit Administration
FVSN	Fox Valley Sustainability Network
FWA	Fox Waterway Agency
GIMS	Green Infrastructure Model and Strategy
HOA	Homeowners' Association
HUD	U.S. Dept. of Housing and Urban Development
IDNR	Illinois Department of Natural Resources
IDOT	Illinois Department of Transportation
IEMA	Illinois Emergency Management Agency
INAI	Illinois Natural Areas Inventory
Itep	Illinois Transportation Enhancement Program
LCFP	Lake County Forest Preserves
LTA	Local Technical Assistance
MCCD	McHenry County Conservation District
MCNAI	McHenry County Natural Areas Inventory
MUTCD	Manual on Uniform Traffic Control Devices
NFWF	National Fish and Wildlife Foundation
NP	Illinois Nature Preserve
NPDES	National Pollution Discharge Elimination System
NPS	National Park Service
NWPA	Northwest Water Planning Alliance
OSLAD	Open Space Lands Acquisition and Development
SARA	Sensitive Aquifer Recharge Area
SMC	Stormwater Management Commission
STP-L	Surface Transportation Program
SWCD	Soil and Water Conservation District
TAP-L	Transportation Alternatives Program
TIF	Tax Increment Financing
UP-NW	Union Pacific Northwest
USACE	U.S. Army Corps of Engineers

A “Fox River Corridor Bicycle and Pedestrian Improvements,” T.Y. Lin International, June 2018, <http://www.cmap.illinois.gov/documents/10180/592519/Fox+River+-+Bike+Ped+Improvements+-+Tech+Memo.pdf/4305dc2d-07fc-9e88-c3f8-03a9f-9b67aea>.

B “Vulnerability Assessment for the Fox River Corridor Plan,” CMAP, June 2018, <http://www.cmap.illinois.gov/documents/10180/592519/Vulnerability+Assessment+for+Fox+River+Corridor+Plan.pdf/75f860bf-f7bc-c1bf-74b6-24e13f9b4921>.

C “Fox River Corridor in McHenry and Lake Counties Existing Conditions Overview,” CMAP, October 2017, <http://www.cmap.illinois.gov/documents/10180/592519/Fox+River+Corridor+Existing+Conditions+Report.pdf/73200cd5-288a-8998-a4e7-85f0913ebb09>.



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The Chicago Metropolitan Agency for Planning (CMAP) is our region's comprehensive planning organization. The agency and its partners developed and are now implementing ON TO 2050, a new long-range plan to help the seven counties and 284 communities of northeastern Illinois implement strategies that address transportation, housing, economic development, open space, the environment, and other quality-of-life issues. See www.cmap.illinois.gov for more information.