FOX RIVER CORRIDOR PLAN

DECEMBER, 2015

Funding Acknowledgment

This project was supported through the Chicago Metropolitan Agency for Planning's (CMAP) Local Technical Assistance (LTA) program, which is funded by the Federal Highway Administration (FHWA), Federal Transit Administration (FTA), U.S. Department of Housing and Urban Development (HUD), Illinois Department of Transportation (IDOT), and the Chicago Community Trust. The Metropolitan Mayors Caucus (MMC) and CMAP would like to thank these funders for their support for this project.

Unless otherwise specified, all photos are by CMAP staff.
Cover illustration by Bruce Bondy 2015.

Table of Contents

Chapter 1
INTRODUCTION

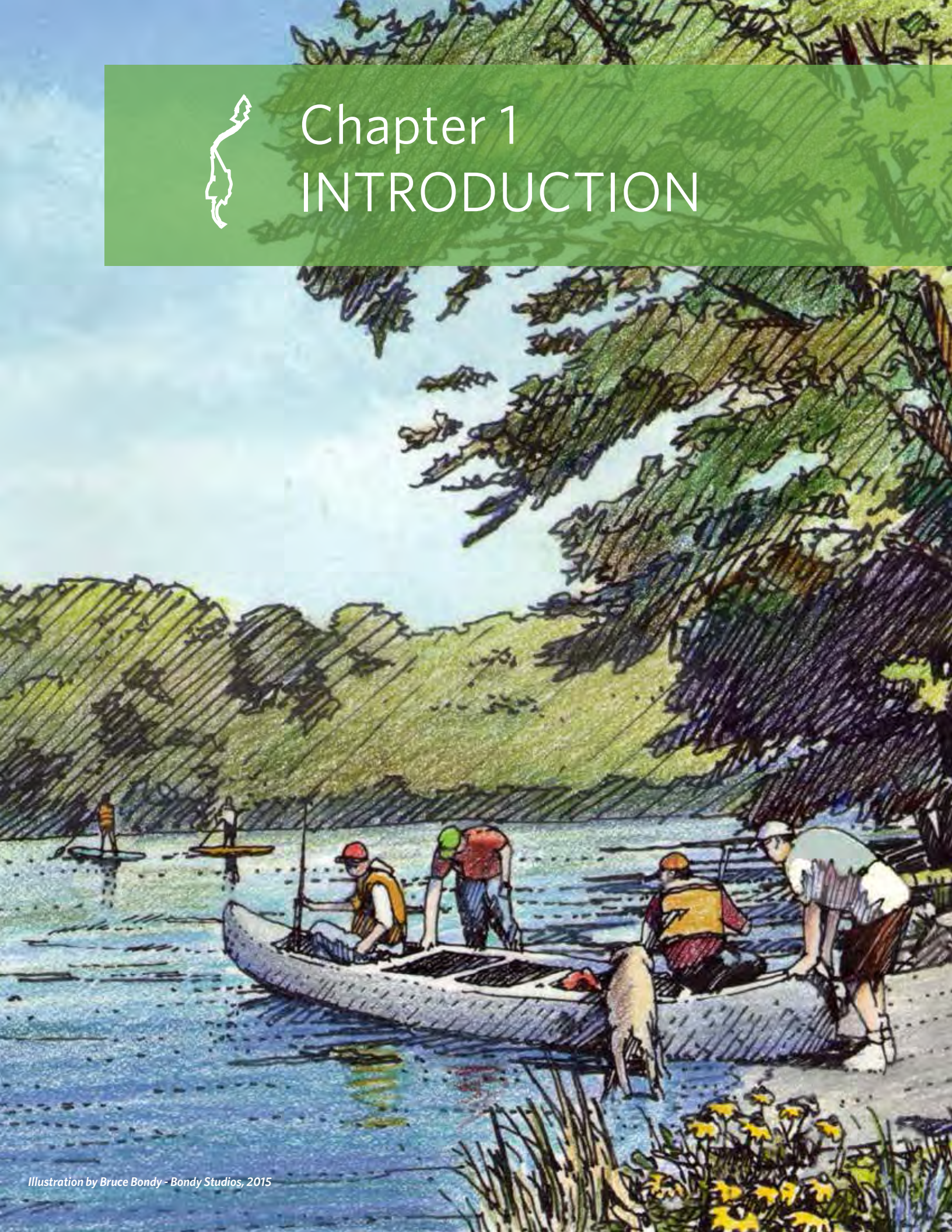


Illustration by Bruce Bondy - Bondy Studios, 2015

Chapter 1: Introduction

The Fox River Corridor Plan presents a vision for the future of the waterway that connects the villages of Algonquin and Carpentersville. The plan serves as a guide for elected officials, municipal staff, community residents, business owners, recreational users, and environmental advocates, providing them with a long-term framework for making informed decisions about development and conservation that will affect the river and the adjoining land.

The plan reflects a cohesive vision that builds on recent planning initiatives in both communities, which primarily focused on Downtown Algonquin (2013) and Old Town Carpentersville (2012). It integrates the recommendations of the previous and current planning initiatives, and addresses issues that previous planning initiatives have not covered in detail, such as water quality and recreational access to the river itself. It recommends collaborating to improve aquatic and terrestrial environments, removing the Carpentersville Dam, improving and adding recreational amenities, boosting the safety and connectivity of bicycle and pedestrian networks, and taking advantage of the river's unique features to enliven Downtown and Old Town's business districts. To guide implementation of its recommendations, the plan identifies specific action items, next steps, and relevant partners both within and outside village government. The implementation strategies the plan identifies are not meant to be a comprehensive list of actions by the villages and their partners, but provide suggested next steps that will help to bring the plan to reality.

Background

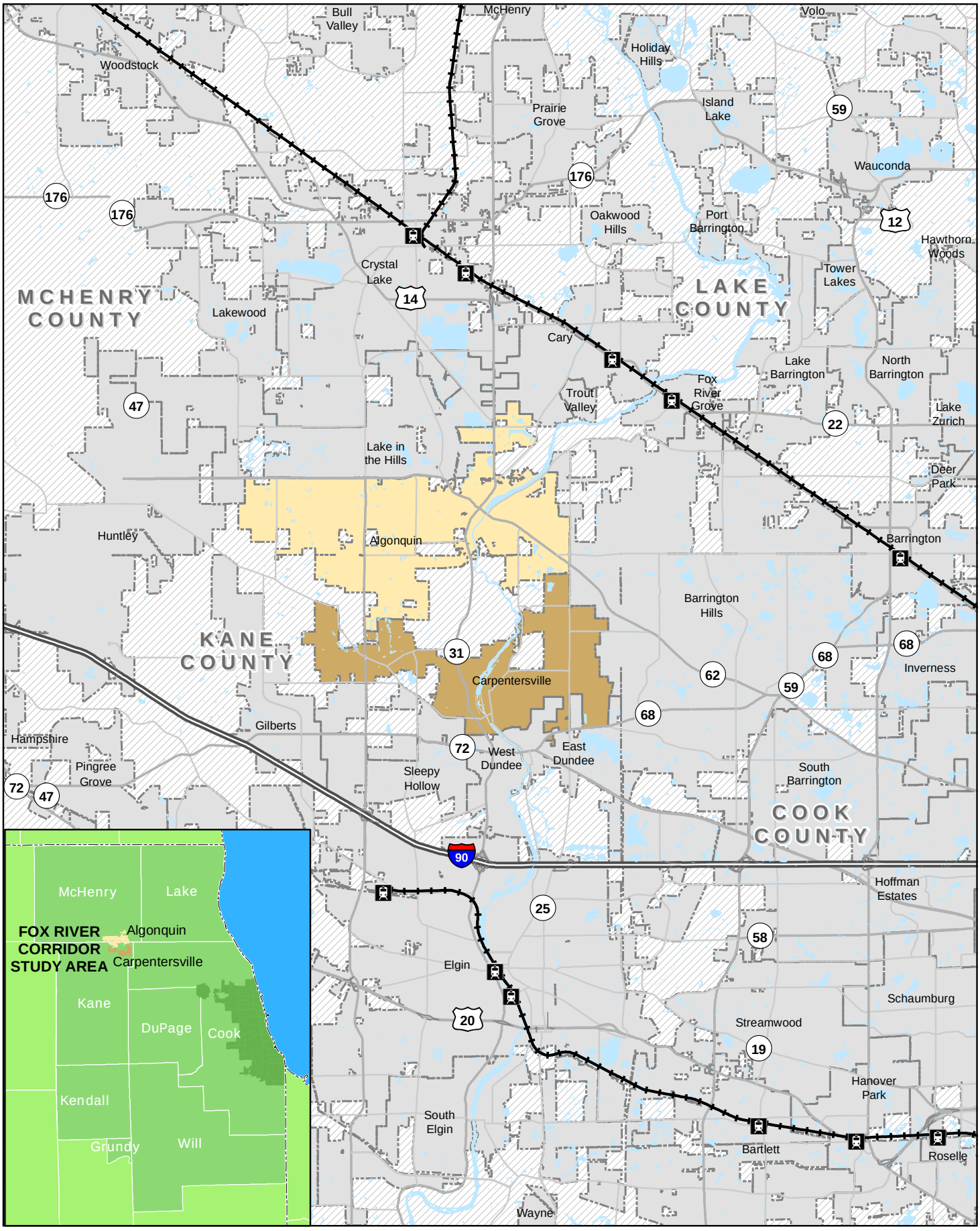
The Village of Algonquin and the Village of Carpentersville share one of the Chicago region's great natural amenities—the Fox River. Inspired by their recent subarea plans, the Villages jointly applied to the Chicago Metropolitan Agency for Planning (CMAP)'s Local Technical Assistance (LTA) program to create a corridor plan for the reach of river between their respective historic downtowns. Both downtown plans include recommendations to enhance recreational use of and access to the Fox River, as well as to use the river as an attraction to help drive economic development.

The plan covers a study area that stretches along both sides of the river from Fox Bluff Conservation Area in the north to the southern boundary of Carpentersville, including parts of both downtown areas, the Prairie/Fox River Trail, and several forest preserves and conservation areas. It is situated within two villages, two counties, and along a river that originates in Wisconsin and flows for over 200 miles. (**See Figure 1.1**)

Village of Algonquin

The Village of Algonquin is located in southeastern McHenry County and northeastern Kane County, 45 miles northwest of downtown Chicago. Algonquin is bordered by Barrington Hills to the east, Cary to the north, Lake in the Hills to the northwest, Huntley to the west, and Carpentersville to the south. Unincorporated areas of both Kane and McHenry Counties also border the Village of Algonquin. Historic Downtown Algonquin lies along the west bank of the Fox River, with its center at the intersection of Main Street and Illinois Route 62 (Algonquin Road). Main Street is home to a variety of locally owned restaurants and businesses, while the riverfront features a marina and two parks. In recent years, strong planning efforts and new downtown development have helped Algonquin create and maintain a unique sense of place that blends historic riverfront charm with modern amenities.

Figure 1.1 Regional context



Village of Carpentersville

The Village of Carpentersville is located 40 miles west of Chicago in northeastern Kane County, just south of Algonquin. The historic center of Carpentersville is Old Town, an area centered on Main Street between the Fox River and Carpenter Park. Old Town began as a collection of industrial riverfront facilities, with supportive businesses and homes developing as the Village grew. Today, it continues to host successful industrial enterprises alongside a mix of retail and office businesses.

The Fox River

Originating in Waukesha County, Wisconsin, the Fox River flows south for 200 miles to Ottawa, Illinois. Along the way, it passes through Lake, McHenry, Kane, and Kendall counties in Illinois, draining 1,720 square miles of widely diverse ecosystems and landscapes. In its northern reaches, the river's watershed comprises many wetlands, lakes, and glacial formations. The middle reach of the Fox, known in Illinois as the Upper Fox, is an urbanized river basin. It flows through six cities, including Elgin and Aurora, where hundreds of thousands of residents rely on the Fox to provide drinking water. 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 efforts to preserve the Fox River watershed, including the creation of local forest preserves and the Hackmatack National Wildlife Refuge, the Jelkes Creek-Fox River Watershed Action Plan, and efforts to improve water quality through the Fox River Study Group.

Within Illinois, the Fox River is the site of fifteen dams. These dams have been constructed over a period of centuries to serve a range of purposes, from powering factories to mitigating flooding. Some of these dams continue to serve important functions, while others are legacies of the needs of earlier eras. Algonquin Dam is owned by the State of Illinois. (See **Figure 1.2**) Using its hinged gate, the Illinois Department of Natural Resources (IDNR) uses the Algonquin Dam to regulate water levels to the north, creating a wide pool for recreational boating. North of the Algonquin Dam, the Fox River is navigable for powered watercraft and is connected to the Chain O'Lakes system via the Stratton Lock and Dam at McHenry. South of Algonquin, the river level is much lower and is primarily suitable for paddling and fishing. The Carpentersville Dam is located north of Old Town Carpentersville in the Fox River Shores Forest Preserve. The Forest Preserve District of Kane County (FPDKC) owns both the dam and the surrounding land. While the Carpentersville Dam once provided power to mills and factories in Old Town Carpentersville, it no longer performs that function and is not used to actively regulate water levels.

Why Does the Fox River Need a Corridor Plan?

The villages of Algonquin and Carpentersville have each engaged in extensive planning efforts in recent years. But these communities recognize that planning issues do not stop at municipal boundaries; rather, adjacent communities affect one another by their actions and decisions. Algonquin and Carpentersville aim to develop complementary strategies to enhance and capitalize on the natural asset that connects them: the Fox River.

The river corridor plan provides a consistent framework for planning decisions along the river and riverfront in both communities, including pedestrian access, recreational uses on and along the Fox River, and strategies to improve water quality. It also includes participation from and recommendations for the Forest Preserve District of Kane County and the McHenry County Conservation District, which own land adjacent to the river and within the villages' respective planning areas. The Fox River Corridor Plan will help Algonquin and Carpentersville plan improvements and programs that serve the shared interests of both communities as well as the region.

The Fox River Corridor Plan addresses the land uses that line the waterway in both communities, transportation connections, and the role the Fox River plays in creating the distinct identity of each

downtown area. More specifically, the plan focuses on the following topics:

- Safe walking/bicycling connections between key destinations along the riverfront.
- A network of bikeways that will link to the regional greenway system (Fox River Trail and Prairie Trail) as well as connect cyclists to local shopping, community institutions, and regional open space.
- Environmental features and conditions within the river and riverfront, including vegetation, park space, and the benefits of dam removal.
- Accessibility of the important recreational features on and along the river, including park space, bicycling, paddling, fishing, and swimming.
- A future land use plan along the riverfront within the study area that is based upon public input, existing plans, and the results of the existing conditions report.

Planning Process

The process to create the Fox River Corridor Plan included multiple steps that were undertaken over approximately 18 months. The process was crafted with assistance from a steering committee consisting of various municipal and county stakeholders and designed to include resident and business owner input throughout. At the beginning of May 2014, key staff from both villages met with CMAP staff to develop a scope of work for the project. A work plan established program tasks, a timeline for the program, and recommended participation by a community steering committee to assist CMAP staff in developing the final plan and recommendations.

Engagement

One of the primary goals of the Fox River Corridor planning process was to optimize community engagement. The first phase of the planning process involved several outreach activities including the first steering committee meeting, stakeholder interviews, and a public kick-off meeting. 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 Fox River study area, and garner feedback from residents and stakeholders, including their thoughts on potential solutions to the issues and opportunities that were identified during phase one. The final phase included a public open house and review by the steering committee.

The tools and techniques that CMAP staff employed during the planning process varied according to the activity, amount of time available, and the specific characteristics of each group. To ensure full participation from a broad-range of participants, CMAP staff developed an interactive website using MetroQuest to engage people who could not attend meetings. This online tool served to educate the community about the purpose of the project and to gather input about their priorities and preferred

Chart 1. Planning process

1. **Project initiation**
2. **Existing conditions**
3. **Vision development**
4. **Draft Plan preparation**
5. **Final Plan and adoption**

choices for the future of the Fox River. Since the start of the formal planning process, a total of 683 residents and stakeholders have participated.

Community outreach summary

Overall, participants held many of the same concerns and generally expressed the desire to protect the natural environment and wildlife habitat. Residents value the Fox River and natural feel of adjoining parks and open spaces. In addition, residents and stakeholders would like to address water quality issues to improve aquatic life and recreational activities. One key finding that was heard across all outreach activities was the need to increase the safety and ease of navigation of bicycle and pedestrian connections to the river and surrounding areas with wayfinding signage. In addition, many stakeholders would like to strengthen the downtown areas to capitalize on the river's assets, attracting residents, visitors, and shoppers into the area. A number of participants expressed concerns about the impact of the Longmeadow Parkway. For more about outreach activities and results please refer to the Public Outreach Appendix.

Organization of the Plan

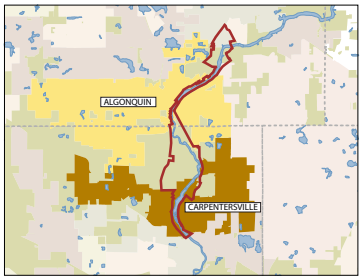
The Fox River Corridor Plan is organized into the following chapters:

- Chapter 1: Introduction
- Chapter 2: A Vision for the Fox River Corridor
- Chapter 3: Natural resources and the environment
- Chapter 4: Open space and recreation
- Chapter 5; Transportation and circulation
- Chapter 6: Economic development and placemaking

Each of these chapters includes a goal statement, a summary of existing conditions, and a set of recommendations followed by an implementation table that includes a description of actions to be undertaken.

Some members of the Fox River Corridor Study Steering Committee before a canoe trip in the fall of 2014.

Figure 1.2 Fox River study area



FOX RIVER CORRIDOR LOCATION

FOX BLUFF AND CAMP ALGONQUIN

CARY ALGONQUIN ROAD

31

NORTH RIVER ROAD

ALGONQUIN

62

FOX RIVER

RIVERFRONT PARK

ALGONQUIN DAM AND CORNISH PARK

PRAIRIE TRAIL

PEDESTRIAN/BIKE BRIDGE

ALGONQUIN ROAD

62

MCHENRY COUNTY
KANE COUNTY

BUFFALO PARK FOREST PRESERVE

RAGING BUFFALO

PLANNED LONGMEADOW PARKWAY

FOX RIVER TRAIL

31

BRUNNER FAMILY FOREST PRESERVE

FOX RIVER SHORES PRESERVE

RACEWAY WOODS FOREST PRESERVE

CARPENTERSVILLE

CARPENTERSVILLE DAM

ABANDONED RAILWAY BRIDGE

MAIN STREET BRIDGE

OLD TOWN CARPENTERSVILLE

JOHN "JACK" HILL MEMORIAL PARK

MEMORIAL PARK AND CANOE LAUNCH

31

EAST DUNDEE

SPRING HILL MALL

PEDESTRIAN BRIDGE

72

WEST DUNDEE

N

0 1

MILE

Fox River Corridor Study Area

- Fox River and streams
- Village of Carpentersville boundary
- Village of Algonquin boundary
- County boundary
- Fox River Trail and Prairie Trail
- Arterials
- Collectors

Chapter 2
A VISION FOR THE FOX RIVER CORRIDOR

Illustration by Bruce Bondy - Bondy Studios, 2015

Chapter 2:
A Vision for the Fox River Corridor

Over the course of the planning process, a common vision for the future of the Fox River corridor emerged. Based on the input of residents, village staff, business owners, and environmental and recreational advocates, several guiding principles stand out that shaped the strategies outlined in the Fox River Corridor Plan. Applying these guiding principles together will help the community build toward a future where a clean river connects two thriving downtowns; where residents and visitors enjoy an accessible system of land and water trails that pass through protected, picturesque natural areas; and where downtown businesses and parks take advantage of the opportunities of the riverfront to attract people of all ages and abilities and create vibrant, walkable community spaces.

A Connected Fox River

The Fox River corridor should offer better connectivity for all modes of transportation, both within the corridor and to destinations outside it. The Prairie/Fox River Trail should be better connected to the regional trail system and nearby open space, and it should be easier to get from the trail to downtown destinations.

A Recreational Fox River

Improvements to the trails, boating infrastructure, and public access would allow a greater number of users to benefit from what the corridor offers. Removing the Carpentersville Dam, improving the safety of trail crossings and canoe and kayak launches, and offering more open space in Old Town Carpentersville would boost the recreational potential of the area.

A Natural Fox River

The future of the corridor should protect and enhance the large amounts of preserved natural land that lines the Fox River. The significant amounts of conservation areas and forest preserves in the area present a rare, unique setting along a heavily urbanized waterway.

A Clean Fox River

A plan for the Fox River should help advance efforts to improve water quality by offering best practices for stormwater management and wastewater treatment and supporting the work of active conservation and water organizations. Addressing the impact of the corridor's two dams is one commonly voiced goal for the plan.

A Vibrant Fox River

Downtown Algonquin and Old Town Carpentersville should both seek to orient themselves to the Fox River to take advantage of the visitors it attracts, its unique placemaking opportunities, and its connection to the history of the area. Through programming, open space, and water-based transportation, the river can draw residents and visitors alike, helping to create two thriving downtown business districts.

Figure 2.1 Framework Plan

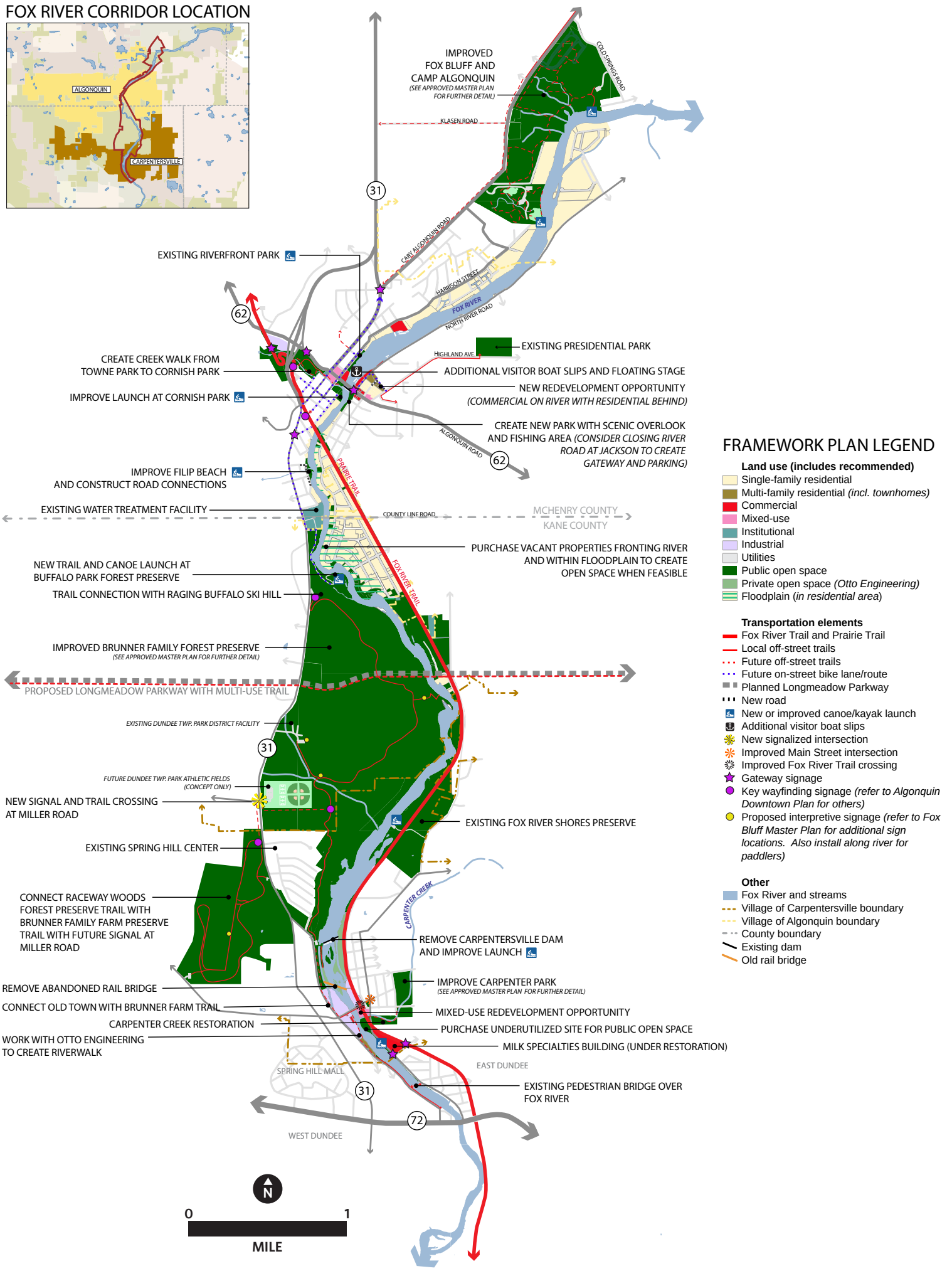
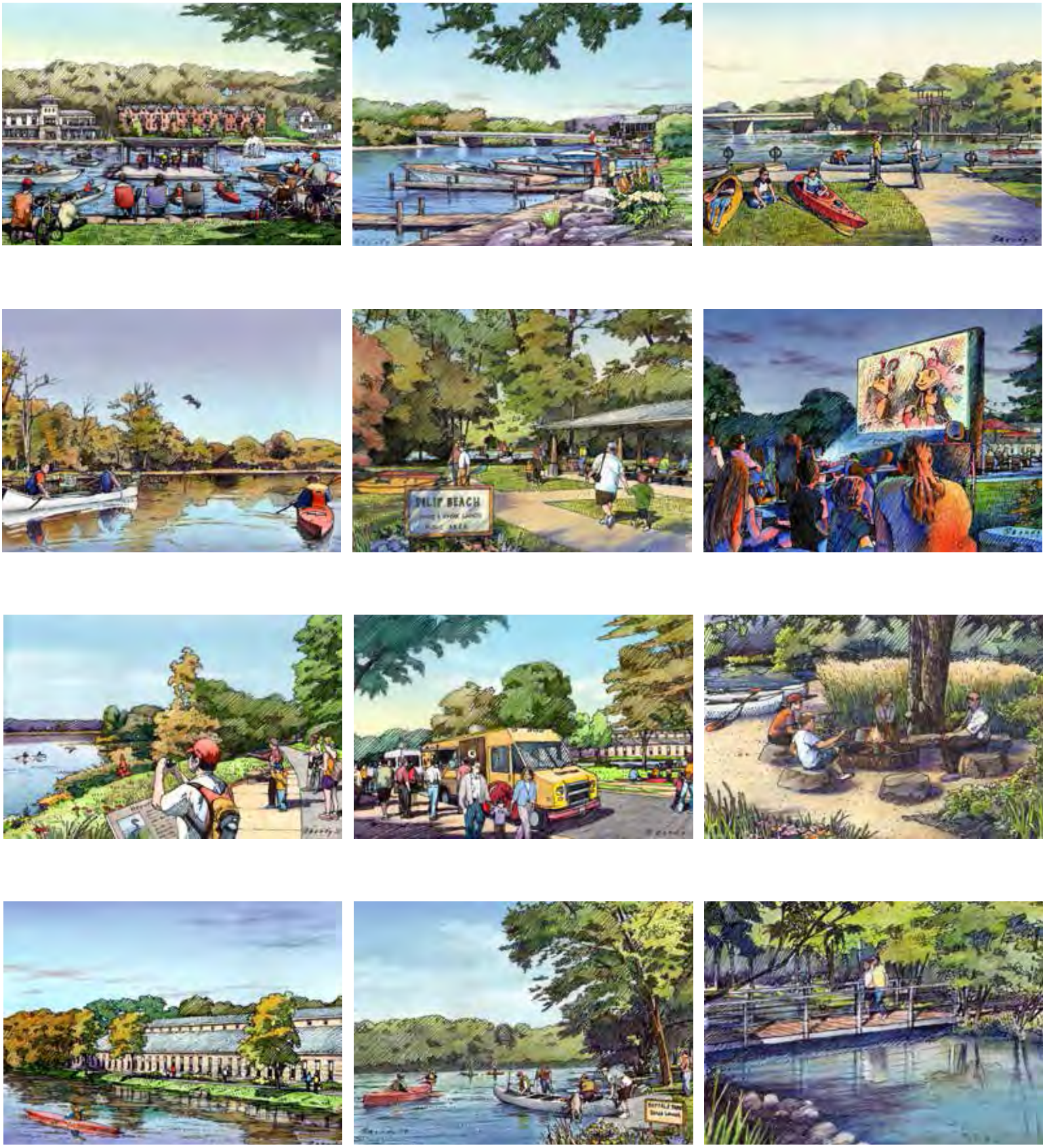


Figure 2.2 Conceptual Illustrations highlighting the vision for the Fox River Corridor



Illustrations by Bruce Bondy, of Bondy Studios, 2015

Chapter 3
NATURAL RESOURCES AND THE ENVIRONMENT

Illustration by Bruce Bondy - Bondy Studios, 2015

Chapter 3:
Natural Resources and the Environment

Goal: Preserve and enhance the natural beauty and ecological value of the Fox River by improving water quality, restoring natural flow, implementing green infrastructure, and pursuing land use strategies that preserve high-quality habitat.

The Fox River corridor stands out for the amount and quality of natural resources present in and along the river. The hundreds of acres of preserved open space, eight miles of river, and multiple tributaries provide a setting that serves many functions beyond recreation. (See **Figure 3.1**) The corridor boasts considerable wildlife habitat, including prairies, wetlands, and maple and oak forest, that supports numerous species of flora and fauna. These natural areas also provide benefits to the human communities in the corridor and beyond, filtering pollutants, recharging groundwater supplies, and capturing stormwater that could otherwise flood homes and infrastructure.

The corridor also faces challenges to its natural resources and environmental benefits. The Fox River suffers from impaired water quality for its full length in Illinois. Dams contribute to water quality problems, while also dividing the river into segments that disrupt aquatic habitat. To address these issues and to secure the current wealth of natural resources in the corridor, this chapter provides recommendations to improve water quality, preserve aquatic and terrestrial habitat, and protect the Fox River.

Summary of Existing Conditions

- ***The Fox River suffers from impaired water quality.*** The Fox River exhibits water quality problems along its entire length, including in the study area. According to the Illinois Environmental Protection Agency (IEPA), the river contains multiple pollutants and low levels of dissolved oxygen, creating an environment that does not adequately support aquatic life and makes fish in the river unsafe for human consumption. Among the causes of these impairments are flow alterations and dissolved oxygen levels, with dams and flow regulation as potential sources. The river receives point-source discharges from wastewater treatment plants and stormwater runoff from both developed and agricultural areas, introducing chemicals that compromise water quality.
- ***The Algonquin and Carpentersville dams contribute to water quality impairments.*** The dams within the corridor are two among a total of fifteen on the Illinois segment of the Fox River. The presence of these dams decreases overall levels of dissolved oxygen in the river while increasing sedimentation at impoundment sites above the dams.

A 2003 study funded by the Illinois Department of Natural Resources (IDNR) found low levels of dissolved oxygen not just immediately above dams, but rather throughout impounded reaches.[1] These effects also harm aquatic habitat. Studies have found that a greater number and variety of fish species are present in free-flowing areas closer to the mouth of the Fox River and that the many dams act as barriers to large, diverse populations of fish establishing themselves upstream.

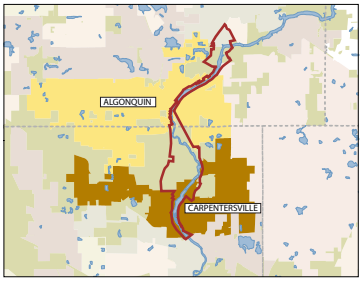
- ***Existing stakeholder groups offer the opportunity for regional collaboration on water quality issues affecting the corridor.*** Impairments to water quality are affected by decisions and practices of many parties outside the study area, which makes a regional effort necessary to improve the corridor. Several groups exist that draw together a diversity of stakeholders from throughout the Fox River watershed. These groups, including the Fox River Study Group, Fox River Ecosystem Partnership, and Friends of the Fox River, represent excellent opportunities to widely implement best practices, benefiting the corridor and beyond.
- ***The Fox River Corridor features high quality terrestrial habitat.*** The wetlands, prairies, savannas, and maple and oak forests in the corridor host a diversity of species. Deer, turtles, great blue herons, egrets, hawks, sandhill cranes, and, in recent years, bald eagles populate the land surrounding the Fox River. The Forest Preserve District of Kane County (FPDKC) has identified several bird species in the Brunner Family Forest Preserve, including willow flycatchers, American bitterns, and sedge wrens, as well as Baltimore Checkerspot butterflies and rare plant and shrub species.[2] Other species in the area that birders and naturalists have identified include the black-crowned night heron (listed as an endangered and threatened species in Illinois by the IDNR) and soft shell turtles. The Brunner Family and Buffalo Park preserves and Fox Bluff Conservation Area also include considerable oak stands along the west bank of the River. Fox River Shores hosts a range of rare plant life, including vanilla grass, twayblade orchids, and turtlehead, and fruit trees such as pink flowering crabapples and white plums.[3]

1. Santucci, et al., "Effects of Multiple Low-Head Dams on Fish, Macroinvertebrates, Habitat, and Water Quality in the Fox River, Illinois," North American Journal of Fisheries Management, 2005. 2. Fox River Ecosystem Partnership, "Integrated Management Plan for the Fox River Watershed in Illinois," 1998.

2. Available at http://www.kaneforest.com/ForestPreserveView.aspx?ID=73

3. http://www.kaneforest.com/ForestPreserveView.aspx?ID=22

Figure 3.1 Water features



FOX RIVER CORRIDOR LOCATION

FOX BLUFF AND CAMP ALGONQUIN
CARY-ALGONQUIN ROAD
NORTH RIVER ROAD
RIVERFRONT PARK
CRYSTAL CREEK
ALGONQUIN DAM AND CORNISH PARK
PEDESTRIAN/BIKE BRIDGE
RATT CREEK
ALGONQUIN ROAD
MCHENRY COUNTY
KANE COUNTY
BUFFALO PARK FOREST PRESERVE
RAGING BUFFALO
WILDCAT CREEK
PLANNED LONGMEADOW PARKWAY
BRUNNER FAMILY FOREST PRESERVE
SELMARTIN CREEK
FOX RIVER
FOX RIVER SHORES PRESERVE
RACEWAY WOODS FOREST PRESERVE
CARPENTERSVILLE
CARPENTERSVILLE DAM
CARPENTER CREEK
OLD TOWN CARPENTERSVILLE
JOHN "JACK" HILL MEMORIAL PARK
MEMORIAL PARK AND CANOE LAUNCH
EAST DUNDEE
SPRING HILL MALL
PEDESTRIAN BRIDGE
WEST DUNDEE
N
0
1
MILE

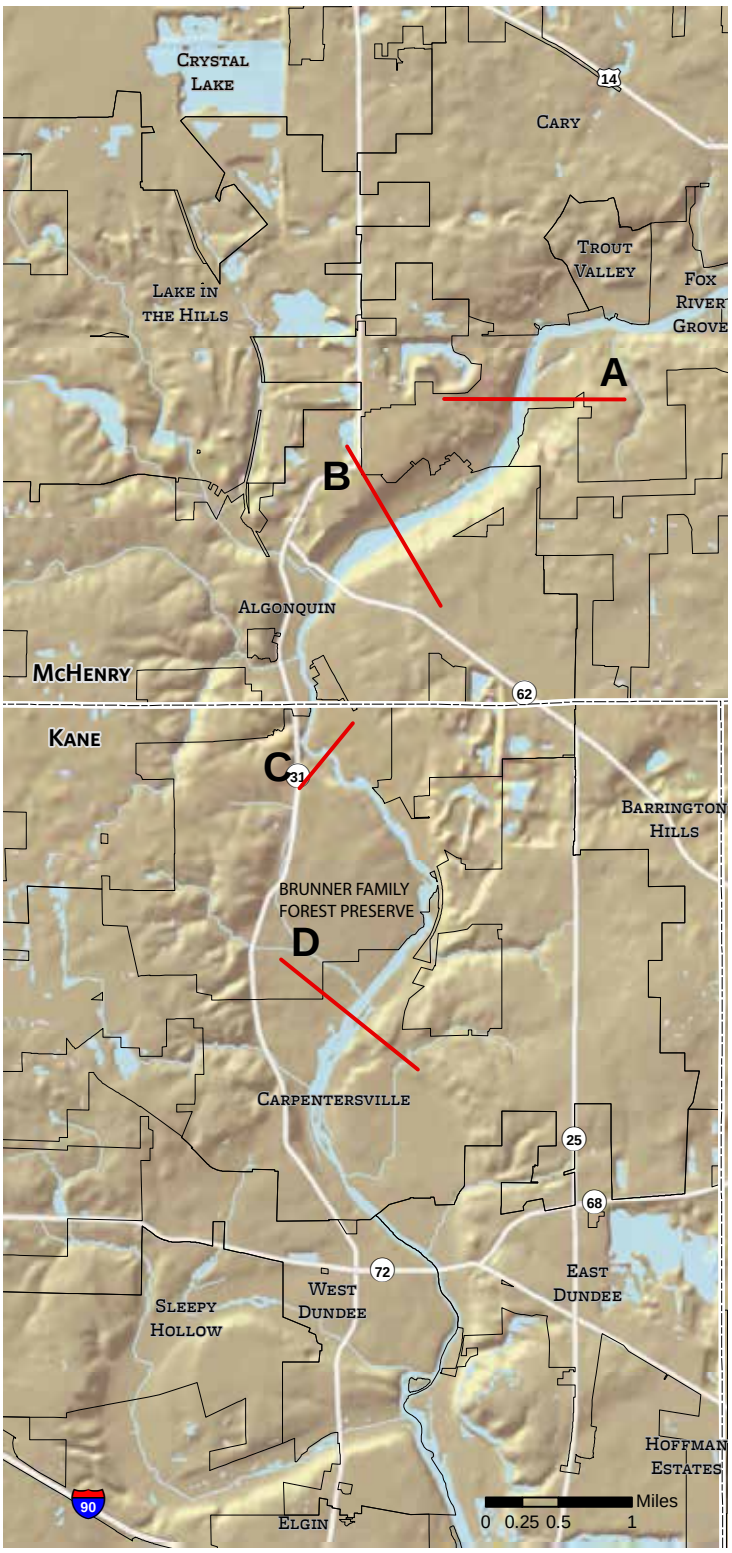
Water Features Legend

100-Year Flood Plain

Other

Fox River and streams
County boundary
Fox River Trail and Prairie Trail
Arterials
Collectors

Figure 3.2 Contours and elevations



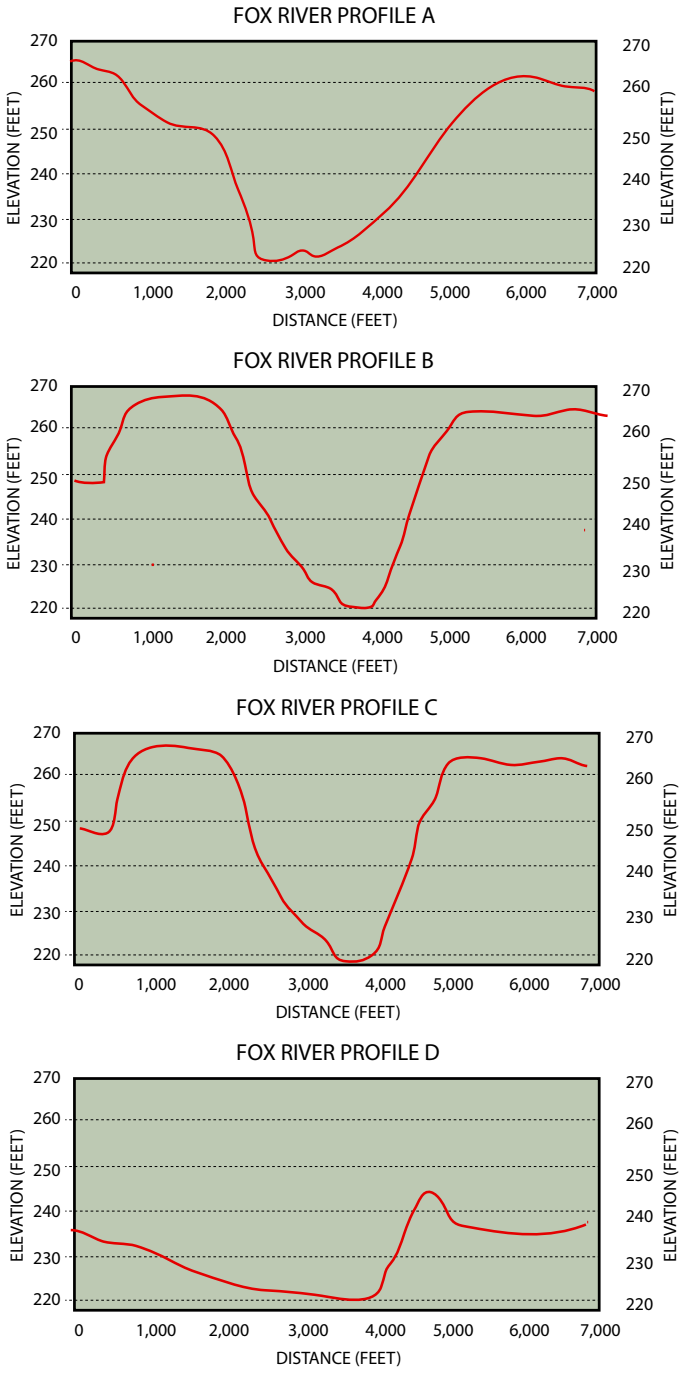
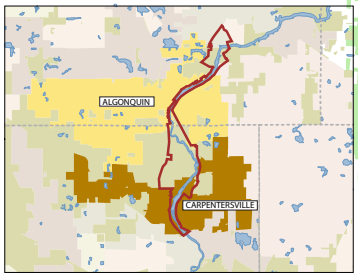


Figure 3.2 illustrates the significant elevation changes along the Fox River corridor. In general, the southern portion of the corridor, within Kane County, is relatively flat. However, in the northern parts of the corridor, the topography near the river becomes much steeper. In McHenry County, the elevation change is large enough to support a snowboarding facility. At the northern extent near Fox Bluff and Camp Algonquin the land rises over 45 feet above the river (Profile A). Just north of Downtown Algonquin (Profile B) rises nearly 60 feet over the river.

Figure 3.3 Green infrastructure vision



FOX RIVER CORRIDOR LOCATION

FOX BLUFF AND CAMP ALGONQUIN

CARY ALGONQUIN ROAD

NORTH RIVER ROAD

FOX RIVER

RIVERFRONT PARK

CRYSTAL CREEK

ALGONQUIN DAM AND CORNISH PARK

DOWNTOWN ALGONQUIN

PEDESTRIAN/BIKE BRIDGE

ALGONQUIN ROAD

RATT CREEK

MCHENRY COUNTY

KANE COUNTY

BUFFALO PARK FOREST PRESERVE

RAGING BUFFALO

WILDCAT CREEK

PLANNED LONGMEADOW PARKWAY

BRUNNER FAMILY FOREST PRESERVE

SELMARTIN CREEK

FOX RIVER SHORES PRESERVE

RACEWAY WOODS FOREST PRESERVE

CARPENTERSVILLE DAM

OLD TOWN

ABANDONED RAIL BRIDGE

CARPENTER CREEK

JOHN "JACK" HILL MEMORIAL PARK

MEMORIAL PARK AND CANOE LAUNCH

PEDESTRIAN BRIDGE

WEST DUNDEE

N

0 1

MILE

GREEN INFRASTRUCTURE VISION

Green Infrastructure Vision (GIV)

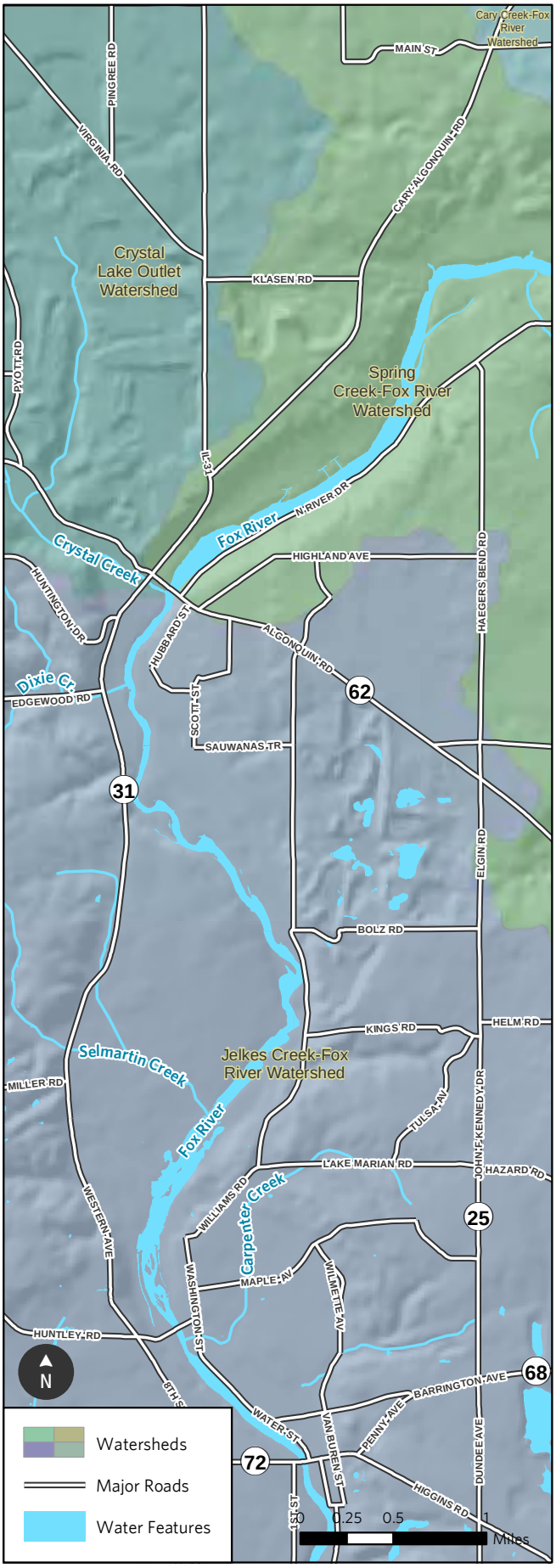
Greenway corridors are the connective tissue in a sustainable open space system that serve to protect and enhance habitats, provide recreational and non-motorized transportation options, assist with ecosystems services (particularly those related to water), and improve overall quality of life. In 2004, the nonprofit coalition Chicago Wilderness developed a Green Infrastructure Vision (GIV) for the broader metropolitan region. In this vision, natural areas and their surrounding landscapes will be developed and managed with mutual benefits in mind as the region grows.

The GIV identifies many acres of land that can be restored, protected, or connected through conservation and thoughtful, sustainable development practices. The GIV guides the protection and development of an accessible, interconnected network of healthy ecosystems that contribute to economic vitality and quality of life for all the region's residents. Chicago Wilderness recently facilitated an update to the Green Infrastructure Vision (titled GIV 2.0) which enhances the functionality for decision-makers across the region.

Other

- Fox River and streams
- County boundary
- Fox River Trail and Prairie Trail

Figure 3.4 Watersheds



Recommendations

Pursue collaborative environmental improvement efforts

Many of the strategies for improving environmental quality in the corridor will be far more effective if the villages pursue them as part of a coordinated effort with other stakeholders whose actions affect the Fox River. Best practices can be adopted more strategically and broadly if multiple jurisdictions collaborate on devising and implementing policies. Especially for water quality, which is influenced by activities from Waukesha County, Wisconsin, to Ottawa, Illinois, the villages can have only a small impact by themselves. This plan recommends that both villages continue to support the work of governmental agencies and existing collaborative cross-jurisdictional groups including:

- **The Fox River Study Group (FRSG),** an existing coalition that provides an opportunity for the villages to engage with stakeholders to participate in collaborative environmental improvement efforts related to water quality.
- **The Fox River Ecosystem Partnership (FREP)** is another group that offers opportunity for collaboration to improve water quality. FREP convenes a broader set of stakeholders from across the Fox River watershed to advance restoration and educational goals.
- **The Friends of the Fox River (FFR)** is a non-profit organization dedicated to preserving, protecting, and restoring the Fox River watershed. In addition to advocacy and volunteer cleanup activities, FFR engages students and the general public in water quality monitoring. The organization has gathered data from several waterways within the Corridor, including Crystal Creek, Ratt Creek, Carpenter Creek, and Dixie Creek.
- **Parks and open space administrators including FPDKC, McHenry County Conservation District (MCCD), Dundee Township, and the Dundee Township Park District.** These districts own and manage significant amounts of land in the corridor and have a conservation mission that aligns with many of the Plan's recommendations for improving environmental quality. Dundee Township preserves and maintains open space through funding enabled by a referendum, and could look to preserve land within the corridor in the future. As major landholders, FPDKC and MCCD are key partners in protecting and restoring habitat, implementing best practices for green stormwater management, and enhancing water quality.
- Kane County and McHenry County have both adopted green infrastructure plans and maps. These long-range plans include analysis of existing natural resources and recommendations for green infrastructure conservation priorities and policy and management approaches. The green infrastructure plans and accompanying maps complement and expand on the natural resource elements of the counties' comprehensive plans. These efforts have created a detailed inventory of natural resource areas and recommend steps that the counties can take with local governments and agencies to identify additional green infrastructure opportunities at the regional, community, neighborhood, and site levels.

The following policies and practices can improve water quality and enhance natural resources in the corridor through collaborative efforts:

Support FRSG's implementation plan

Since 2001, the FRSG has been pursuing a major project to create an implementation plan for watershed management that addresses the river's water quality issues through a collaborative process that incorporates sound science and stakeholder input. Since its formation, the FRSG has been working with the Illinois State Water Survey (ISWS) on a four-phase work plan to guide sustainable growth and improve water quality in the Fox River watershed, particularly dissolved oxygen and algae levels. The work will culminate in the Fox River Implementation Plan (FRIP), a guide for decision makers that will quantify the necessary pollutant discharge reductions and include specific project proposals for meeting reduction targets. Algonquin and Carpentersville should work to help develop these proposals, which are likely to include recommendations in the two villages, including their wastewater treatment plants.

Many municipalities along the Fox River are members of FRSG. The Village of Algonquin has been a member of the FRSG for some time, and the Village

of Carpentersville should consider joining the group going forward. By engaging as fully as possible with the FRSG, each village can help ensure that the forthcoming plan incorporates its needs and concerns. Engagement with both villages is also in the best interest of the FRSG, as it will make implementation more likely if a constituent community has been fully invested. Carpentersville should work with FRSG to find a way to participate in the planning effort.

The Fox River Study Group offers an excellent route to effecting positive environmental change beyond the borders of the Fox River Corridor. In addition to identifying key sites for green stormwater infrastructure, which is described in greater detail below, some of the water quality policies that would benefit from collaboration include:

- **Protect riverbanks from erosion:** Although the Fox River moves fairly slowly within the corridor, it still experiences erosion that destabilizes banks and introduces additional sediment to the river. A coordinated program can identify sites suffering from erosion and prioritize repairs. Planting and preserving native vegetation, which tends to have deeper, more extensive roots than non-native species, will help stabilize soil and decrease erosion. In the long run, replacing concrete seawalls with stabilizing native vegetation will also help decrease erosion and sedimentation.
- **Identify priority restoration areas:** Restoration of wetlands, riverbanks, riparian areas, instream segments of tributaries, and the reintroduction of prairies and native plants can have a positive impact on water quality and aquatic habitat. As groups such as the FRSG and FREP consider restoration projects along the Fox River, corridor stakeholders can contribute local knowledge and qualitative data to the process, as well as implement projects on their own. If sites within the corridor rise to the level of being a restoration priority for the watershed, they may become eligible for funding through grants and other funding opportunities.
- **Revise stormwater and development ordinances:** Land use and stormwater management practices in the watershed have a major impact on water quality. Beyond restoration of the river and riverbanks, changes to local ordinances could be an outgrowth of the FRSG process. These changes will be more effective if they are consistent across the Fox River area, which spans many municipalities and multiple counties. The villages should revise stormwater, zoning, subdivision, and building ordinances as necessary to develop policies that reflect conditions and plans in their communities while advancing environmental goals. Some of the elements of ordinances that could be updated include language addressing buffer zones around streams, parking and streetscaping guidelines, the use of products such as coal tar sealants, and stormwater management practices. Ordinances should encourage infill development in Downtown Algonquin and Old Town Carpentersville, as well as conservation design and low impact development practices for residential areas. Municipalities can promote these approaches with density bonuses, allowing developers more lots or square footage of commercial development as a trade-off for advanced stormwater designs that exceed minimum standards. Another form of incentive is to provide a reduction in municipal water and stormwater fees if a project incorporates best practices. Through these incentives, the villages can encourage private property owners to minimize impervious surfaces in residential driveways and commercial parking lots by rewarding the use of permeable pavement and smaller footprints for paved surfaces.
- **Reduce salts and chlorides from roads:** In urbanized watersheds, the use of salt and chemicals to clear snow and ice significantly impairs water quality. Stormwater runoff from roads and parking lots carries salts and chlorides into waterways, harming aquatic habitat and sensitive natural areas. Communities in the area should evaluate alternative methods for managing roadway snow and ice. Traffic safety is the most important consideration, but some alternative methods exist that can reduce chemicals in runoff without compromising safety. Eco-friendly products such as beet juice can offer protection with lower chloride content than rock salt. Pretreating

roads prior to storm events can also reduce the total amount of chemicals needed. In addition to coordinating an evaluation of alternatives among Fox River jurisdictions, the watershed would benefit from a collaborative effort to educate snow removal contractors and owners of properties with parking areas on these environmentally friendly methods.

- **Educate property owners:** Because of the abundance of public land in the Fox River corridor, the villages and forest and conservation districts will be able to directly implement many best practices and pursue restoration projects. On private land, implementation will depend on the participation of property owners. A program to educate property owners in riparian areas on the benefits of native vegetation, filter strips, bank restoration, phosphate-free home and garden products, permeable pavement, and other practices will help spread their impact.

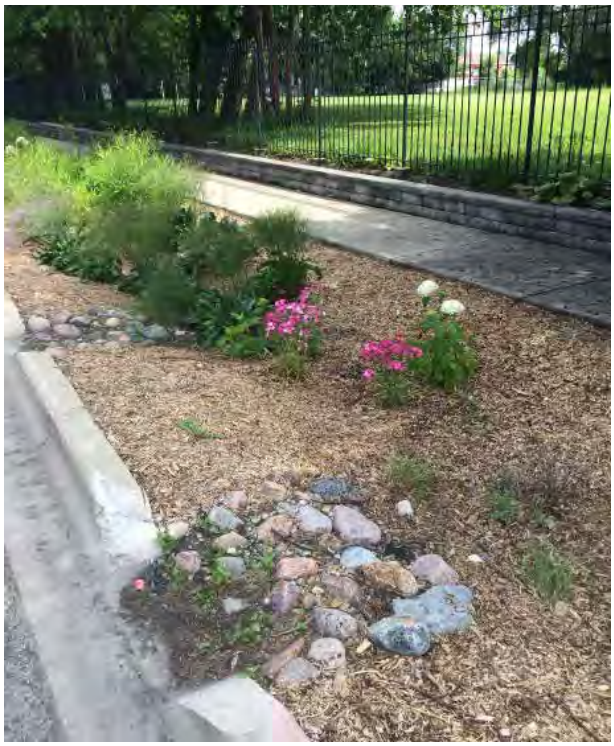
Protect floodplains

The large amount of conserved land along the Fox River means that much of the floodplain within the corridor is already protected. Compared to other developed watersheds, structures in the Fox River corridor are relatively well-protected from river flooding. Moving forward, the villages and counties should work to protect additional property within the floodplain as opportunities arise. This practice does not require immediate action, but if properties in the floodplain go on the market, the villages, townships, and counties should consider acquiring them as open space.

Adopt best practices for green stormwater management

Traditionally, stormwater management includes managing both the quality and quantity of stormwater that is collected from a piped network ("gray infrastructure") and transported into a nearby waterbody. Increasingly, communities are also using green stormwater infrastructure to decrease the burden on sewer systems while also reducing pollution levels in runoff before it reaches waterbodies. Green stormwater practices help keep water where it falls, capturing and cleaning

A photo of a rain barrel. Photo by the Conservation Foundation.



The use of natural landscaping within a street right-of-way in downtown Aurora, IL.

A bioswale used to control stormwater runoff near Metra's Aurora Transportation Center.

stormwater to reduce the amount of pollution entering streams and lakes. Green practices also promote infiltration and groundwater recharge. Some examples of green stormwater management infrastructure and practices include rain water harvesting (e.g., rain barrels), rain gardens, bioswales, the use of permeable pavement, and native landscaping. The villages should work with the counties and open space districts in the corridor to install demonstration green stormwater projects on public land.

On private land, the villages should encourage the use of best practices by private property owners, whether residents, businesses, or institutions. As ordinances are revised, the villages should include incentives for using green infrastructure practices. Current ordinances often require full installation of gray infrastructure even if the property owner has installed alternative green infrastructure at the site. For example, ordinances may require storm sewers even if a developer installs a parallel bioswale system, increasing costs for developers. Eliminating redundant stormwater controls would make green stormwater management more attractive by reducing the cost burden of installing potentially unnecessary storm sewers. Other policies that can help reduce stormwater runoff include minimizing impervious surfaces by promoting the use of alternative materials and reducing parking requirements where possible, as well as zoning that offers density bonuses or fee rebates for reducing runoff beyond the minimum requirements of the local or county stormwater ordinance.

Support the Forest Preserve in its efforts to remove the Carpentersville Dam

Strong support has emerged for removing the Carpentersville Dam, which poses a safety hazard to boaters and contributes to impaired water quality. Unlike the Algonquin Dam, the Carpentersville Dam does not regulate water levels or facilitate recreation. While it once provided mill races to power industrial businesses, it no longer has a commercial function. Additionally, IDNR's 2007 report on the safety of river dams found significant erosion along the banks and mill races by the Carpentersville Dam, along with a buildup of debris within each raceway.

Broadly speaking, the practice of dam removal offers numerous environmental benefits. Restoring a river to free-flowing condition allows free passage for aquatic animals, increases dissolved oxygen, reduces algal growth, and creates better habitat. Dam removal also carries recreational benefits by allowing easy passage for paddlers and increasing the diversity and amount of sport fish. A 2003 report for IDNR found that removing dams on the Fox River could enhance habitat and water quality in the river itself, improve access to spawning and nursery habitats in tributaries and wetlands, and allows greater populations and migration of a number of fish species. The FRSG has recommended the removal of Carpentersville Dam for ecological reasons, and many stakeholders, including FPDKC, have also expressed interest in removing the dam. The 2007 IDNR report noted that the existing raceways could be used to temporarily divert water from the spillway, with the dam being gradually removed to draw the water levels down at a controlled pace and avoid sudden disruptions to sediment.

This plan strongly recommends pursuing removal of the Carpentersville Dam. The ecological and

recreational benefits are clear, and a free-flowing river within the majority of the corridor would be consistent with both villages' visions for their historic downtown areas. In early 2015, FPDKC reached an agreement with IDNR to secure funding to remove the dam, but IDNR has since suspended the grant as part of a general state suspension of discretionary grants. With a history of support from both the dam's owner and state environmental agencies, it remains likely that the dam will be removed in the near future. Stakeholders in the corridor should continue to advocate for the dam's removal and pursue funding to allow the project to move forward.

As described in Chapter 4 of this plan, the project is likely to have an impact on public access to the current site of the dam, which is a popular open space site in Carpentersville. The design and engineering process leading up to removal will provide insight into potential solutions for such impacts, as well as information about future water levels, alterations to flood zones, costs, and the environmental impact of sediment displacement during and after the removal process. Both villages should remain engaged with FPDKC to support the effort and gather information about projected impacts on land within the villages.

Implementation Strategies

The following are the action steps for each key recommendation that will help strengthen the natural environment within the corridor.

Table 3.1 Natural environment implementation

Key Recommendation	Action	Implementation	Description
Pursue collaborative environmental improvement efforts	Participate in FRSG Timeline: Ongoing	Village of Algonquin, Village of Carpentersville	The FRSG is developing the Fox River Implementation Plan (FRIP), which will quantify the necessary pollutant discharge reductions and include specific project proposals for meeting reduction targets. Algonquin should continue its membership and Carpentersville should explore joining as a member. FRSG should work with Carpentersville to find an arrangement that allows the Village to be as involved as possible.
	Revise stormwater and development ordinances Timeline: 0-2 years	Village of Algonquin, Village of Carpentersville, Kane County, McHenry County	The villages and counties should work to incorporate best practices for surface water protection and stormwater management into any ordinance revisions. As much as possible, ordinances should be consistent across jurisdictions and reflect the recommendations of the FRSG plan.
	Evaluate alternative winter road treatments Timeline: 0-2 years	Village of Algonquin, Village of Carpentersville, Kane County, McHenry County, property owners	To reduce salt and chloride levels in runoff reaching the Fox River, departments that treat winter roads should evaluate alternative practices, including pretreating roads before storms, and ecofriendly products such as beet juice. If alternative methods can reduce ecological impact without compromising safety, they should be adopted. The Village of Algonquin, which already conducts winter road treatment evaluations, can offer guidance based on their experience.
	Educate riparian landowners Timeline: 0-2 years	Village of Algonquin, Village of Carpentersville, Kane County, McHenry County, FRSG, FREP, EDMC	Stakeholders should work together to create an education program for property owners in riparian areas. These efforts should build on the existing educational programs of FREP and FRSG. This program can communicate the benefits of native vegetation, filter strips, bank restoration, low-impact home and garden products, and other practices, and help landowners implement these steps.

Key Recommendation	Action	Implementation	Description
	Plant and preserve native vegetation Timeline: Ongoing	Village of Algonquin, Village of Carpentersville, Kane County, McHenry County, Dundee Township, FPDKC, MCCD, EDMC, property owners	Planting native vegetation will establish deep root systems that stabilize riparian soils. The villages, counties, and open space districts should identify native vegetation to preserve as well as turf grass and non-native species that can be replaced.
	Identify priority restoration areas Timeline: 0-2 years	Village of Algonquin, Village of Carpentersville, Kane County, Dundee Township, McHenry County, FRSG, FPDKC, MCCD	Based on restorability, quality of habitat, land ownership, partnership opportunities, and input from environmental groups, stakeholders should identify restoration areas within the corridor that are a priority for the watershed. These areas could include wetlands, riverbanks and riparian areas, instream segments of tributaries, and sites for the reintroduction of prairies and native plants.
	Protect floodplains Timeline: 5+ years	Village of Algonquin, Village of Carpentersville, Kane County, McHenry County, Dundee Township, Openlands	As opportunities arise to protect land within the one-hundred-year floodplain, public entities should consider using it as open space. Protecting this land is a long-term goal determined by landowner interest.
	Adopt best practices for stormwater management Timeline: 0-2 years	Village of Algonquin, Village of Carpentersville, Kane County, McHenry County, FPDKC, MCCD	Public lands are good sites for installing pilot and demonstration projects for green stormwater infrastructure. Open space districts and the villages should seek locations to demonstrate bioswales, rain gardens, permeable pavement, and other best practices. Existing subwatershed plans, such as the Jelkes Creek-Fox River Watershed Action plan, identify specific best management practices public entities could implement that would advance the goals of this plan. These include dam removal and restoration activities in Ratt Creek and Carpenter Creek, To encourage private landowners to adopt best practices, the villages should introduce incentives in development ordinances and water fees.
	Support FFR's ongoing water quality monitoring program Timeline: 0-2 years	Village of Algonquin, Village of Carpentersville, Kane County, McHenry County, FFR	Friends of the Fox River has collected water quality data from waterways within the corridor through a volunteer monitoring program. The villages should support these efforts in conjunction with FRSG's implementation plan to track progress on achieving water quality goals.
Support the Forest Preserve in its efforts to remove the Carpentersville Dam	Advocate for restoration of IDNR grant Timeline: 0-2 years	Village of Carpentersville, FPDKC, FRSG, FREP, EDMC	The awarding of a grant in 2015 reflected the local consensus in favor of removing the dam. The restoration of the grant remains the most likely funding source for the project. Stakeholders should collaborate to advocate for the funding to IDNR and representatives in state government.
	Investigate other funding sources Timeline: ongoing	Village of Carpentersville, FPDKC, FRSG, FREP, EDMC	In case the IDNR does not restore its grant for the project, stakeholders should investigate other potential funding sources. IEPA, the Army Corps of Engineers, other federal sources, or philanthropic sources could potentially help fund dam removal.
	Plan for future water levels Timeline: 0-2 years	Village of Carpentersville, FPDKC	The site of the Carpentersville Dam is a popular location for fishing and other activities. While dam removal will not affect water levels over a large area, it will have an impact at the site of the dam. The study preceding dam removal will provide detailed information about what land will be newly exposed, changes to the floodplain, and other impacts. The Village of Carpentersville and FPDKC should use this information to plan for the future use of the site.

Chapter 4
OPEN SPACE & RECREATION

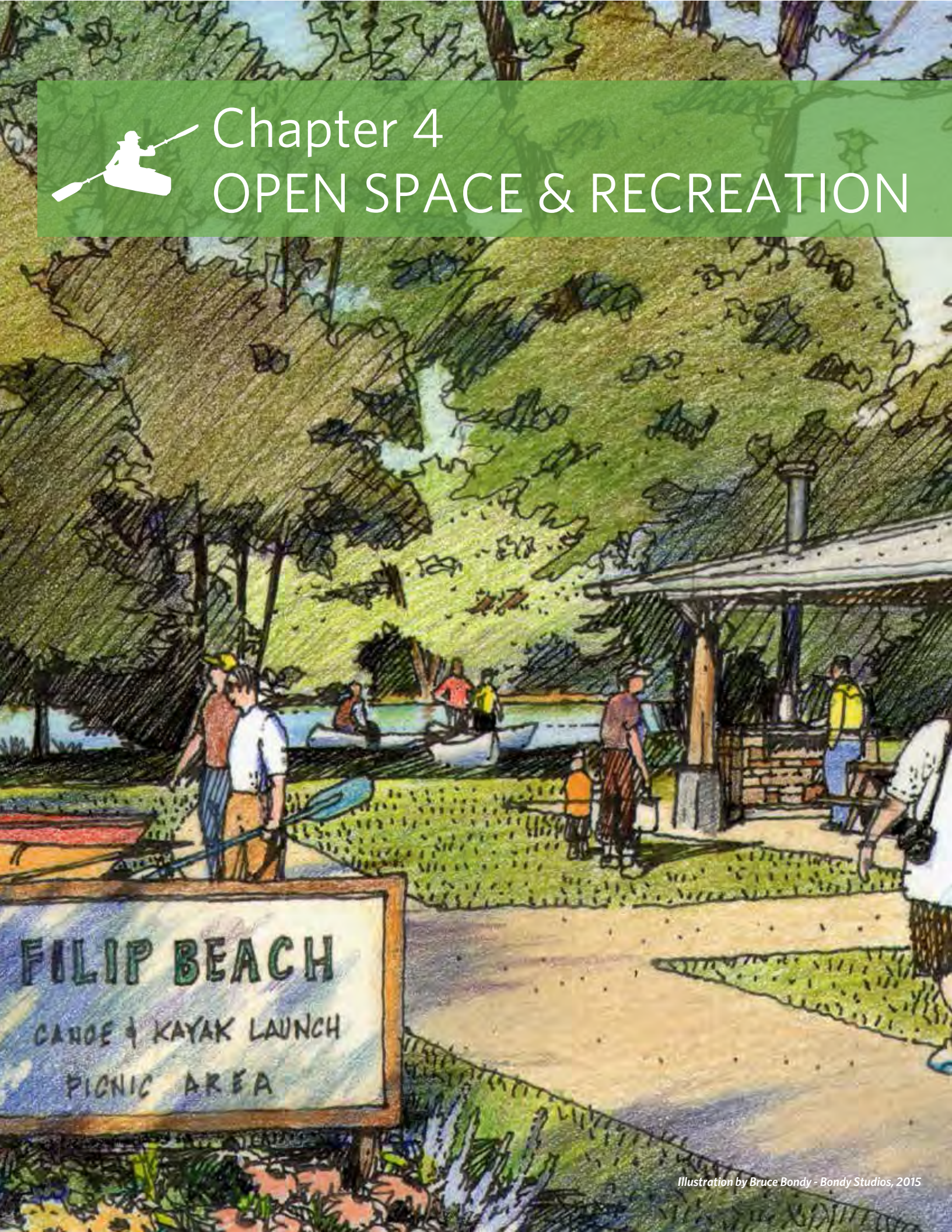


Illustration by Bruce Bondy - Bondy Studios, 2015

Chapter 4:
Open Space and Recreation

Goal: Build on the diverse and plentiful land and water open spaces in the corridor by improving public access while maintaining a balance between protecting natural resources and enhancing recreational opportunities.

The Fox River corridor features a large amount of picturesque and natural open space, offering recreational opportunities, wildlife habitat, and stormwater and water quality benefits. In a watershed that is otherwise heavily urbanized and developed, the high-quality conserved land throughout the corridor represents a unique attribute. The undeveloped, natural areas within a short walk, bike ride, or canoe trip of two historic downtowns is a special setting that can provide benefits to residents, visitors, and the area's flora and fauna. The plentiful trails and open space offer community spaces, public health benefits, and an opportunity for residents to enjoy the natural beauty of the Fox River. Algonquin and Carpentersville, as well as the McHenry Conservation District, Forest Preserve District of Kane County, and Dundee Township Park District, are all actively engaged in providing recreational opportunities in the corridor. This chapter provides recommendations to enrich the corridor's open spaces and enhance public access and safety while maintaining the land's valuable role in the ecosystem.

Summary of Existing Conditions

- ***The Fox River corridor is dominated by open space.*** In total, over 60% of land in the corridor consists of public open space maintained by the Forest Preserve District of Kane County, the McHenry County Conservation District, and the Villages of Algonquin and Carpentersville. Key regional open space including the Brunner Family Forest Preserve, Fox River Shores Forest Preserve, and the Fox Bluff Conservation Area form the majority of the open space. Recently developed master plans for Brunner Family Forest Preserve and Fox Bluff Conservation Area include numerous improvements to public access, trails, and interpretive elements.
- ***Old Town Carpentersville lacks public open space along the Fox River.*** The corridor offers considerable open space along the river, including 3.5 uninterrupted, conserved miles of public river frontage in Buffalo Park, Brunner Family, and Fox River Shores Forest Preserves. However, public open space along the river in Old Town is currently limited to McNamee Memorial Park and John "Jack" Hill Memorial Park, the small, narrow parks along either side of the river at the Village's southern boundary. While the Otto Engineering properties offer public access for registered anglers, a public park would be a major asset to residents and workers in the district.
- ***Connectivity among the corridor's open spaces is uneven.*** The presence of multiple community parks, conservation areas, and forest preserves provides residents with recreational opportunities, ecological benefits, and plentiful access to the Fox River. The open space within the study area east of the river is well connected by the Fox River Trail. West of the river, no trails currently connect the Buffalo Park, Brunner Family, and Fox River Shores Forest Preserves to one another and other nearby regional open space. Planned trail work in the Brunner Family Forest Preserve will better connect these preserves, providing a large area of contiguous habitat and accessible open space with both ecological and recreational benefits. East-west connectivity is limited to downtown bridges that are shared with busy roadways and the Prairie Trail bridge in Algonquin.
- ***The corridor hosts a wide variety of recreational uses.*** The Fox River and the surrounding lands and trails are popular for cycling, paddling, powerboating, fishing, snowboarding, and hiking. The unique features of the corridor help it to safely support diverse recreational activities; for

example, the Algonquin Dam effectively reserves the section to the north for powerboats and the stretch to the south for canoes and kayaks. The preserved natural habitat also allows for more passive forms of recreation and appreciation of nature, including birdwatching.

- ***The corridor features several canoe and kayak launches and portage sites, but they may not be suitable for novice paddlers.*** Many points along the river offer access for paddlers above and below both dams. However, some of the launches are located in areas of swift current or in close proximity to dams. Additional launches, signage, or modifications to existing ramps could create a safer environment, especially for less experienced paddlers. The portage points at Carpentersville Dam are unmarked dirt landings that are difficult to find and use.
- ***There are no outdoor outfitters near the corridor.*** Currently, no businesses located conveniently to the Fox River corridor rent canoes, kayaks, stand-up paddleboards, or other gear for watersports. Residents and other stakeholders commonly cited the lack of canoe and kayak rentals as a gap they would like to see filled.

Recommendations

Plan for changes to the site of the Carpentersville Dam

With a covered viewing platform, access from the Fox River Trail and Lincoln Avenue, and off-street parking, the site of the Carpentersville Dam is a popular spot for a variety of recreational uses. Because the dam is a barrier to traveling upstream, a large number of fish are present near its base, making the easily accessible, sandy beach on the river's west bank a popular place for fishing. FPDKC should proactively plan for the likely impacts that dam removal will have on this popular location for recreation. While dam removal will have little impact on the water level or width of the Fox River in most of the corridor, it will affect the area immediately surrounding the current dam. The absence of a dam will mean the location will become safer, making it more attractive for a variety of activities, especially for families with small children. This "new riverfront" may become a popular destination for picnicking, passive recreation, and paddling. The river just above the dam is likely to become somewhat narrower, potentially exposing a small amount of additional land that could be incorporated into the park. To ensure the site can continue to function as a popular park, the Village of Carpentersville and FPDKC should collaborate with IDNR to forecast likely future water levels and plan to optimize the open space at the site and take advantage of the newly free-flowing river. Elements to consider include:

- **New canoe and kayak launch.** Currently, the portage points around the dam are unmarked dirt ramps with no infrastructure. While removing the dam will eliminate the need for portage, the ample parking and clear, open path to the water, makes the site an excellent location for an additional launch.
- **Safe beach access.** While the Fox River's water quality does not currently support swimming, many stakeholders expressed interest in a beach in the corridor. The dam site, which already features many modes of access and a flat, sandy bank on the west side, could be a suitable location. Access from the parking lot to the beach currently consists of an unimproved dirt path. Future planning for the site could improve the path to promote accessibility for visitors of all ages and abilities.
- **Preserve fishing opportunities.** Removal of a major barrier to fish passage will mean that the site will be less likely to stand out as a singularly rich fishing spot. But dam removal has been shown to dramatically increase the overall health of fish habitat, with increases to both the number of species and total number of fish present in the river. Given the site's easy access from Old Town, the village and FPDKC should promote the site to ensure it is a continued destination for local anglers.

Another amenity stakeholders have expressed interest in is a pedestrian bridge connecting the Fox River Trail to the west side of the river, using portions of the dam that could be left intact. Because the greatest

ecological benefits follow from a complete removal of the dam, such an option may not be feasible. FPDKC should explore whether constructing a bridge using the dam could be done in a way that reduces costs and preserves environmental benefits.

Explore the addition of new recreational amenities

The Fox River corridor has a large amount of total open space, but certain locations would benefit from the addition of new recreational amenities. In some cases, relatively small improvements to existing open space areas, including additional canoe and kayak launches, educational signage, or camping facilities, can activate and improve access to forest preserves and local parks. In other areas, particularly in Old Town, opportunities may arise to create new parks where there is currently no public access to the river. Thoughtfully planned additions will expand recreational options and access for residents and visitors. Appropriately sited amenities will also help the corridor to achieve a balance between conservation and recreation, supporting more active uses in developed downtown parks rather than in more sensitive areas of wildlife habitat.

Install birdwatching signage

Due to its extensive, high-quality wildlife habitat, the corridor is already a popular site among birders. A variety of bird species, including egrets, great blue herons, hawks, sandhill cranes, and bald eagles, are present in the corridor. While experienced birders are already familiar with these species, the installation of signage at key points along the Fox River Trail and within the forest preserves would help casual observers identify the birds they see and direct them to the right locations and times of year for viewing harder-to-find species.

Designate river-oriented campsites

Several stakeholders expressed interest in campsites along the river that could facilitate longer, multi-day canoe and kayak trips. The plentiful open space in the corridor may offer suitable locations to designate as campsites, with minimal need for physical infrastructure. Supporting camping at locations where there is a 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 Fox River. FPDKC and MCCD could clearly mark these areas on maps of their properties, and place markers that are visible from the river to guide paddlers to the sites. Other potential improvements could include fire pits, seating areas, and refuse bins. Longer, better connected canoe and kayak trips can help Algonquin and Carpentersville capitalize on recent interest in river-oriented planning in both Kane and McHenry Counties, including work toward achieving a National Water Trails designation.

Implement Brunner Family Preserve and Fox Bluff Conservation Area master plans

Both FPDKC and MCCD have recently adopted master plans for their largest properties in the corridor. The plans include significant new trails for hiking and observing nature, helping to connect these preserves to regional trails and open space. They also include interpretive signage and community facilities. The Brunner Family Preserve plan also includes athletic fields that the Dundee Township Park District will manage. During the creation of this plan, the Forest Preserve District completed the OSLAD project illustrated in **Figure 4.1**. The many parties who collaborated to develop the Brunner Family Preserve and the Fox Bluff Conservation Area master plans should continue to secure funding to improve the two sites as envisioned.

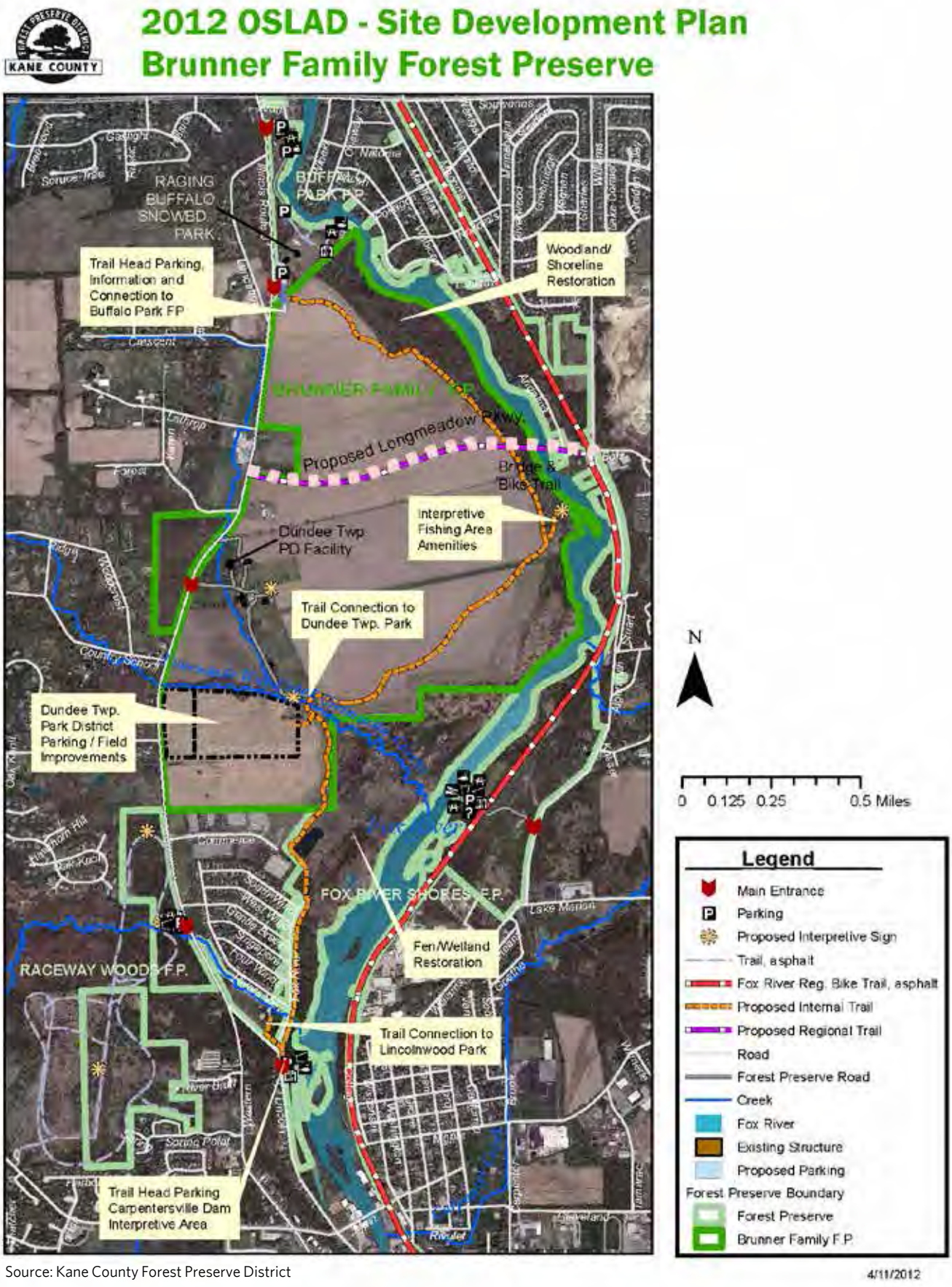
Install birdwatching signage

An illustration showing new birdwatch signs along the existing trail system. *Image by Bondy Studios, 2015.*

Designate river-oriented campsites

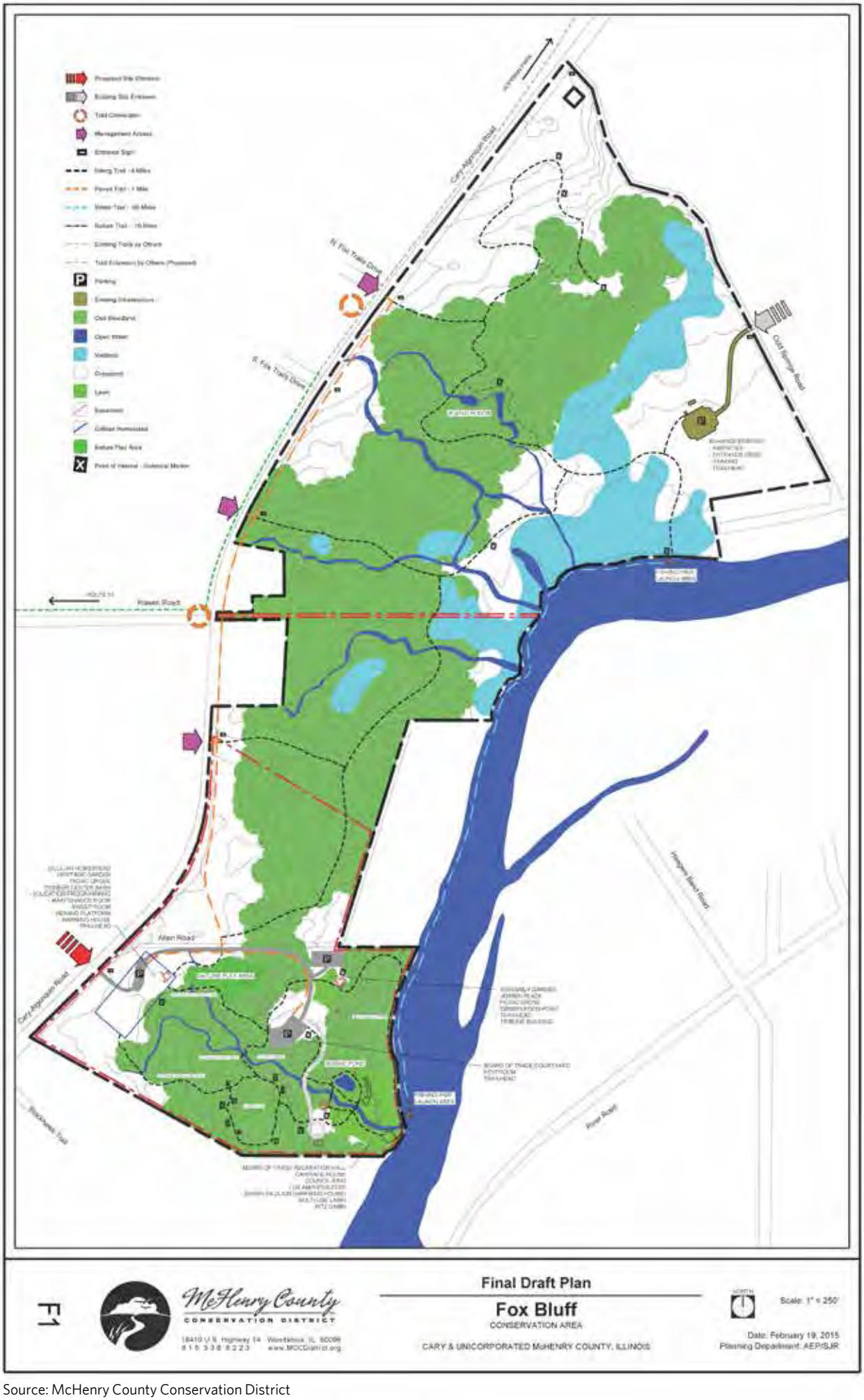
An illustration of recommended campsites along the Fox River. *Image by Bondy Studios, 2015.*

Figure 4.1 Brunner Family Forest Preserve Plan



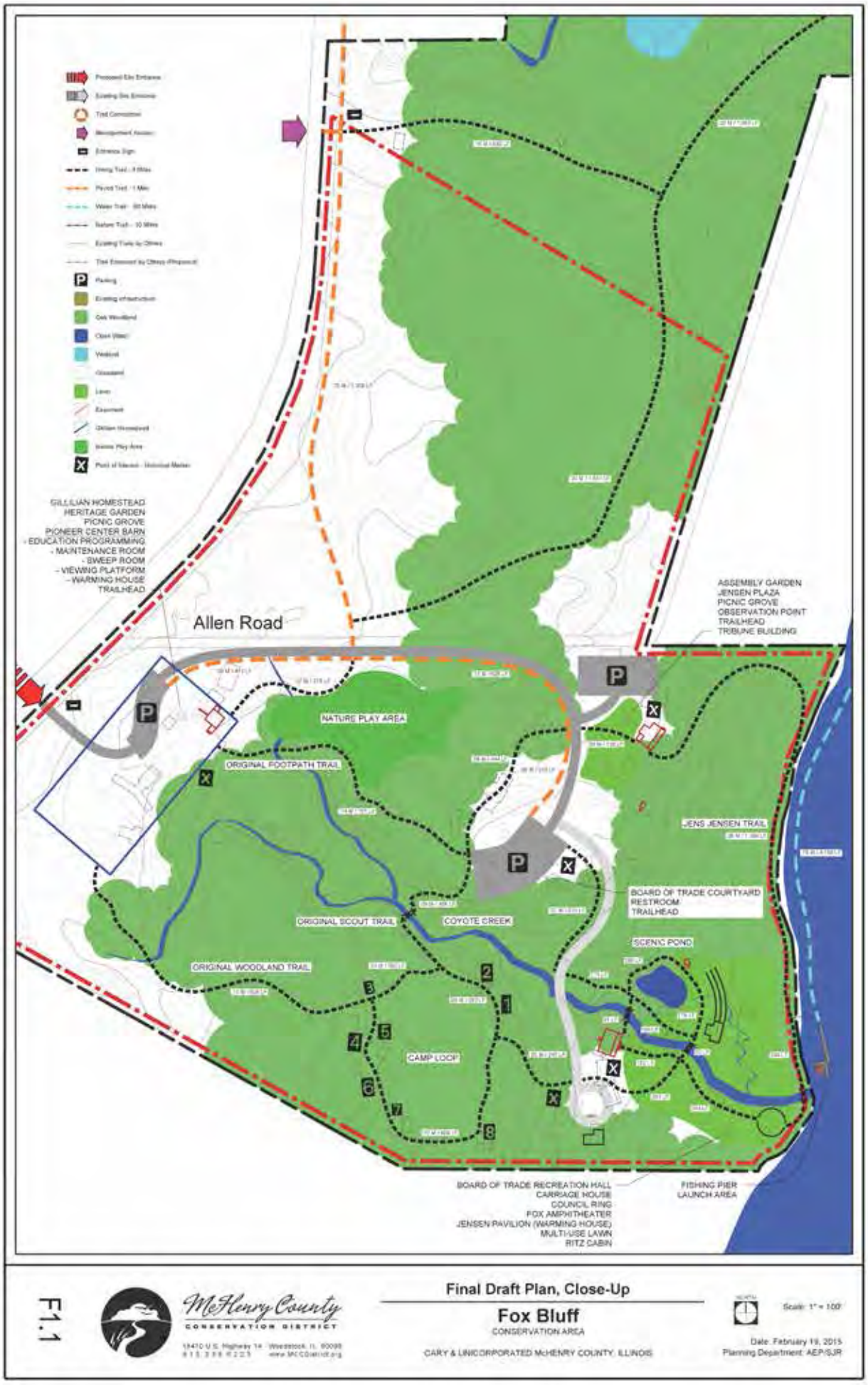
Source: Kane County Forest Preserve District

Figure 4.2 Fox Bluff Conservation Area master plan



Source: McHenry County Conservation District

Figure 4.3 Fox Bluff Conservation Area master plan - southern section only



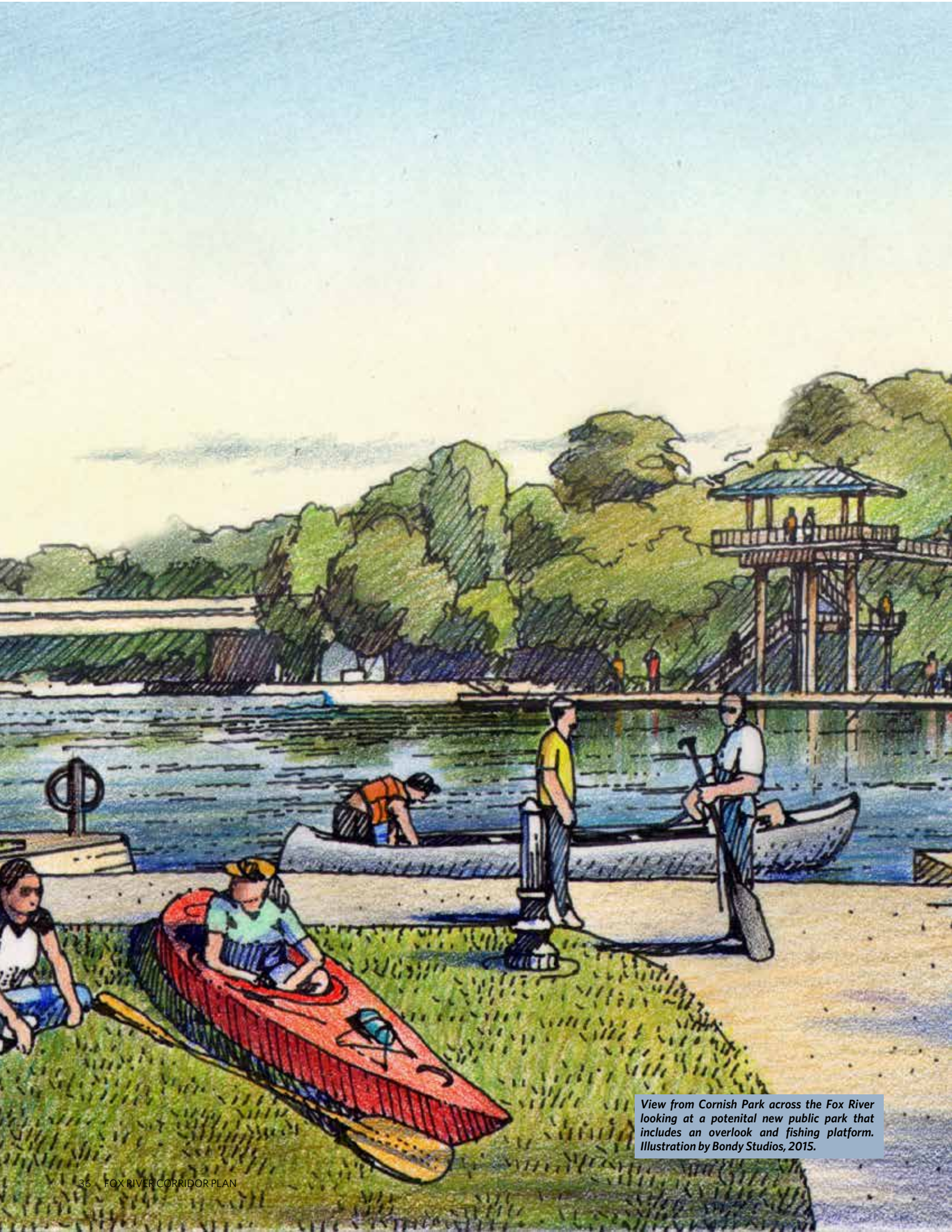
Create new parks

Several locations within the corridor present excellent opportunities to activate existing public land or to create new parks. (See **Figures 4.4, 4.5, and 4.6**) Creating new open spaces at these sites would help take advantage of public assets, offer a greater variety of recreational activity, support paddling and active transportation, and attract more people to downtown business areas. In addition to the creek walk and river walk featured in Chapter 5, some open space opportunities include:

Create an east side overlook and fishing platform

The Village of Algonquin has the opportunity to create new infrastructure that supports recreational activities that are already popular, while also connecting the neighborhoods east of the river to downtown. The village has recently acquired parcels east of the river and south of Algonquin Road, where the steep slope precludes development. (See **Figure 4.4**) The village should explore ways to use this land as open space to provide a visual connection from the east side to the river and downtown. A viewing platform along River Road would provide a dramatic vista that would invite people on the east side of the river to journey across to downtown businesses, restaurants, and parks. The site could also potentially provide stairs to safely access a new platform at river level along the east bank. The base of the hill, below the dam, is a popular site for fishing. Many people climb down the bank to fish from the concrete platform under the Algonquin Road bridge. Stairs from River Road could provide a safer, more public route for anglers, and a boardwalk would provide a more attractive accommodation for the many people who enjoy fishing at the dam. As part of the potential east side overlook, the Village may consider creating a dead end where River Road meets Algonquin Road, routing traffic along adjacent streets to allow parking and safer pedestrian access to the new site.

Figure 4.4 Location of Village Property for East Side Overlook



View from Cornish Park across the Fox River looking at a potenital new public park that includes an overlook and fishing platform. Illustration by Bondy Studios, 2015.

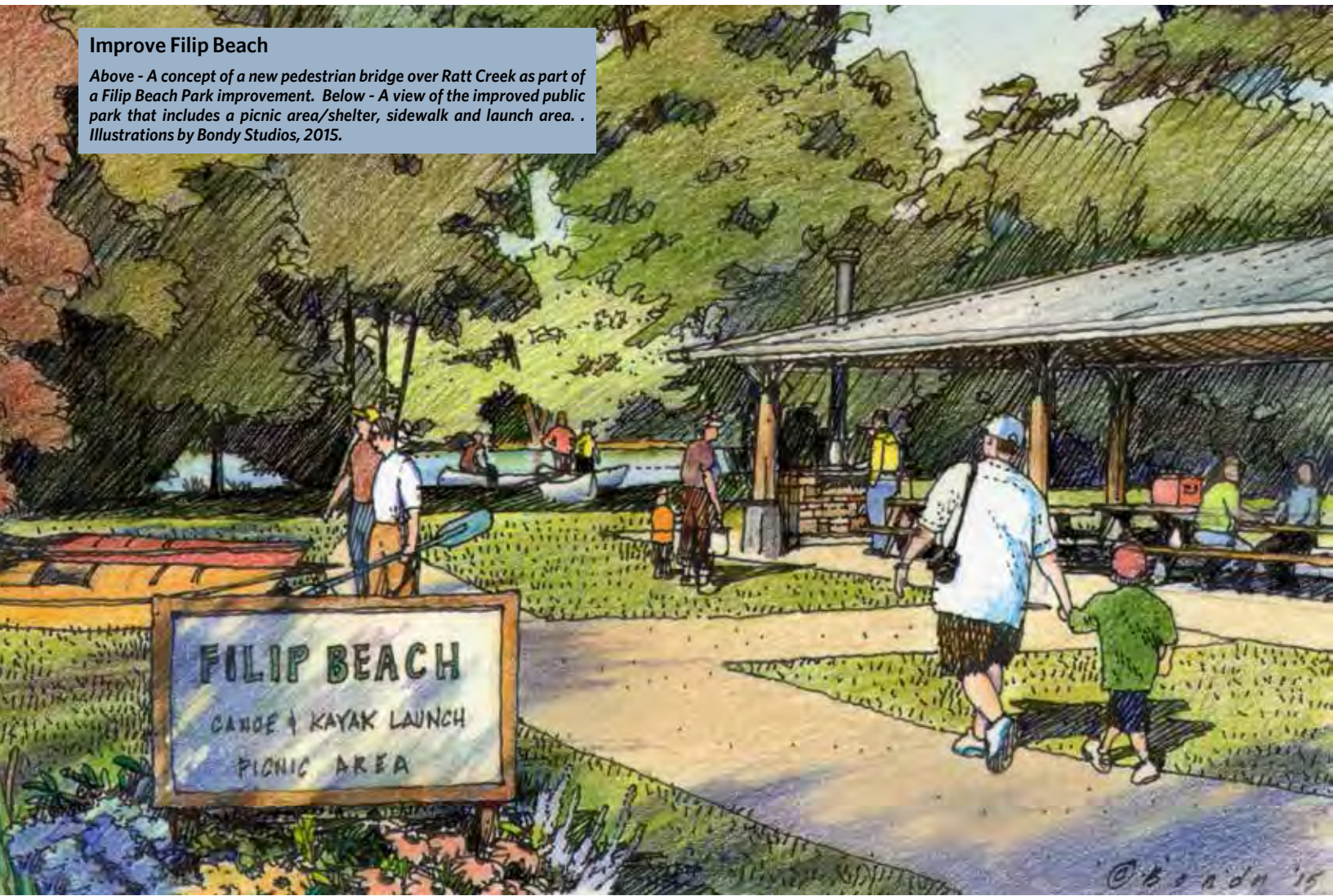
Activate Filip Beach

Filip Beach is an unimproved riverfront property owned by Algonquin, located where Ratt Creek enters the Fox River. (See **Figure 4.5**) The addition of a few amenities would effectively make use of a currently underutilized property, adding another location in the chain of open spaces along the Fox River. Because of its accessibility, it would be a good location for an additional canoe and kayak launch, and possibly a picnic area and pedestrian bridge over Ratt Creek. With properly designed facilities, open space can be an appropriate use of land within floodplains, protecting it from development impacts while offering community benefits for flood prevention and recreation.

Figure 4.5 Location of Village Property called Filip Beach

Improve Filip Beach

Above - A concept of a new pedestrian bridge over Ratt Creek as part of a Filip Beach Park improvement. Below - A view of the improved public park that includes a picnic area/shelter, sidewalk and launch area. . Illustrations by Bondy Studios, 2015.



A conceptual illustration showing a public event being held at the new public park in Old Town with a variety of food trucks. Illustration by Bondy Studios, 2015.

Create an Old Town riverfront park

The introduction of larger, more flexible public open space along the Fox River would open numerous possibilities for bringing residents and visitors to Old Town. Working with the township, the park district, and the forest preserve district, the Village of Carpentersville should consider acquiring the M&M Patio Stone parcel to establish a new Riverfront Park along the east side of the Fox River. This location offers excellent possibilities for connecting the new park to the adjacent Fox River Trail as well as to Carpenter Park. In conjunction with the Village's master plan for Carpenter Park and its IEPA-funded work to restore Carpenter Creek, the Village should seek to preserve a greenway along the Creek to connect the existing park with this new site at the confluence of Carpenter Creek and the river. The new park should feature both active and passive recreational opportunities. New outdoor spaces, such as an amphitheater, will create a central gathering point for community events. Providing year-round activities in the new riverfront park should be a goal of the Village. In the summer, the site could host outdoor movies, food truck festivals, and other seasonal events. Winter activities such as ice-skating and cross-country skiing would help to attract visitors to the Old Town area in the winter months. Landscaping with a variety of appropriate habitat types will provide educational opportunities for residents and visitors as well as improve stormwater management on the site. As this parcel is largely within the Fox River floodplain, it is a prime opportunity to provide green infrastructure to mitigate the impacts of floods.

Whitewater kayaking and canoeing

Several paddling advocates involved in this planning process expressed a desire to develop a whitewater kayaking course within the study area. Because of the topography and relatively slow flow of the Fox River within the corridor, a whitewater course would be feasible only with stream modifications, most likely at one of the two existing dams. Previously, IDNR incorporated a whitewater course in its reconstruction of the Yorkville Dam in Kane County. In Yorkville, the dam was both a significant safety hazard and a detriment to water quality, prompting IDNR to explore dam removal. Because of the historic significance and aesthetic appeal of the dam, residents and other stakeholders preferred a solution that would leave the dam at least partially intact. As an alternative, IDNR installed five steps in the face of the dam to create a more gradual drop and eliminate the dangerous current at the base of the dam, which could pin paddlers underwater. As part of the same project, IDNR created a bypass channel alongside the dam where they installed a series of rocks and boulders to create the Marge Cline Whitewater Course. The bypass offers canoes and kayaks multiple routes of varying difficulty. Once the dam project was completed, the City of Yorkville assumed responsibility for managing and maintaining the whitewater course.

While the Marge Cline Whitewater Course has been popular among local paddlers, there are several factors that suggest a similar project is not appropriate for Algonquin and Carpentersville. In Algonquin, there is little room for a bypass channel; the east bank is quite steep and on the west bank, the control gate limits available space. In Carpentersville, the project would be considerably more expensive than a more straightforward dam removal. The Yorkville project cost approximately $8 million, much more than the estimated $2.4 million that IDNR granted FPDKC for the removal of the Carpentersville Dam. While a destination whitewater facility could potentially generate economic activity to help offset the higher cost, the Yorkville course has not attracted major competitions or large numbers of paddlers from outside the region as was hoped. Additionally, either FPDKC or one of the villages would have to assume the costs and responsibilities of ongoing maintenance and liability. Perhaps most importantly, a whitewater course would reduce the environmental benefits of dam removal. To generate sufficient flow rate for a whitewater course, the dam would need to be left largely intact. Partially removing the dam would have much less positive impact on dissolved oxygen levels, ability to flush pollutants, and sedimentation above the dam. It would also lessen the improvement to fish passage.

Whitewater course. Photo by: Timothy Jacobsen

Whitewater course along the Fox River in Downtown Yorkville, IL.

Improve canoe and kayak launches and portages

Currently, the corridor features several constructed ramps dedicated for use by non-motorized boats, plus other sites where bank conditions allow experienced paddlers to put in and take out their watercrafts. These facilities could be made safer and more attractive to paddlers.

Add new canoe and kayak launches

The addition of new launches in accessible areas of public open space would also accommodate more paddlers, making trips of different lengths and connections to regional trails more viable. Locations to consider adding launches for canoes and kayaks include:

- **Fox Bluff Conservation Area:** The MCCD master plan for Fox Bluff includes fishing pier/launch areas at the northeastern end of the area (where an informal put-in currently exists) and the southern end, where one would be added near the site of Camp Algonquin.
- **Filip Beach:** As described earlier, the Filip Beach site in Algonquin would be a good location for a new launch.
- **Buffalo Park Forest Preserve:** An additional launch on the west side of the river, between the two dams, would make the river more accessible. Buffalo Park Forest Preserve offers river access and close proximity to Arbor Lane, making it easy for paddlers to carry canoes and kayaks to a potential launch.
- **Carpentersville Dam:** Currently, the portage points around the dam lack constructed ramps or clear identification, making safe navigation more difficult for paddlers unfamiliar with the area. If the dam is removed as planned, a portage will become unnecessary, but the location would still be an excellent location for a launch due to its accessibility and popularity. The Village should work with FPDKC to incorporate an improved launch as part of future plans for the site in conjunction with dam removal.

Improve portages

The two dams in the corridor are significant barriers to safe passage for paddlers. Improving the portages would effectively extend the corridor, making it easier for paddlers to traverse the dams and travel from McHenry to Elgin. Improved signage would clearly alert paddlers of the need to portage, mark the location of the take-out point, and provide directions to the downstream put-in. At the Algonquin Dam, constructed launches at Riverfront and Cornish Parks offer a portage with appropriate infrastructure. However, getting from one launch to the other requires carrying the vessel through busy downtown streets. Signage to clearly mark the shortest, safest route would help paddlers navigate the portage and alert drivers that paddlers may be crossing at crosswalks. In Carpentersville, the portage points are unmarked and unimproved, consisting of dirt ramps that may be hard to locate for novices. Removal of the dam is the

The existing launch at Cornish Park can offer some challenges for beginners due to the swift current and rocks. Photo by Jodie Auliff

ideal solution, but if the dam remains in place, the Village should work with FPDKC to ensure that the portage points are improved with a constructed ramp and clear signage.

Adopt best practices in launch design

Paddling advocates and water trails planners have established a number of design and maintenance best practices for canoe and kayak launches. The two villages, FPDKC, and MCCD should incorporate these best practices into future launches they develop in the corridor. They should also look for opportunities to apply them to existing launches where needed. Stakeholders reported that some of the existing launches could be improved through the use of less abrasive materials or better shelter from strong currents, and clearer signage identifying the location of launches. There is no one set of practices appropriate for every location, as the topography, river current, and aesthetic needs at each location make each launch unique. Helpful resources on launch design include the River Management Society and National Park Service's ***Prepare to Launch*** and the Iowa Department of Natural Resources' ***Developing Water Trails in Iowa***. Local paddlers' groups, such as the Illinois Paddling Council and Illinois Water TrailKeepers, can also provide important input on what types of users are most likely to take advantage of these amenities and what improvements would be useful. Relevant best practices could improve both physical accessibility and ecological sensitivity, advancing the plan's goal of balancing preservation and recreation:

Physical Accessibility

- Launches should be sited and designed to avoid high banks or heavy currents
- The slope of a launch should be about 5% at water's edge and should not exceed 8.33%
- 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

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 or 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,

An example of an improved kayak launch. Photo by ezdockusa.com.

An example of an improved canoe/kayak launch. Photo by www.exploreie.org

a design that incorporates rocks and vegetative barriers can help shield the launch

- 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

Support efforts to receive National Water Trail designation

The Fox River Ecosystem Partnership (FREP), the Southeast Wisconsin Fox River Partnership and the Wisconsin Village of Waterford have been granted a technical assistance grant from the National Park Service (NPS) through the NPS Rivers, Trails and Conservation Assistance Program to develop the Fox River Water Trail Plan. The purpose of the Program is to connect all Americans to their parks, trails, rivers and other special places by helping plan parks and trails, conserve and improve access to rivers and natural areas and create recreation opportunities through locally led partnerships. The Fox River Corridor Plan represents the type of collaborative effort across multiple sectors that is the foundation of creating and managing a successful water trail. Algonquin and Carpentersville should work with FREP and its partners to find areas where the two planning efforts can support each other. 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. This plan can serve as a blueprint for the rest of FREP's service area and the Fox River Water Trail Plan could help the corridor achieve its long term goals. In recognition of cooperative efforts to conserve waterways and increase recreational access, the NPS grants a National Water Trail designation 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.

Support motorized boating north of the Algonquin Dam

North of the Algonquin Dam, the Fox River is a popular site for motorized boats. In large part due to the presence of the dam, the river is significantly deeper and wider from the dam north to the Chain O'Lakes, which is among the busiest inland recreational waterways in the country. IDNR operates the Algonquin Dam, using its hinged gate to regulate water levels and keep sufficient water for boating to the north. The Fox Waterway Agency (FWA), a regional body of government created by the State of Illinois to manage the Chain O' Lakes, also acts within the corridor, primarily by dredging sediment that impedes boats. This plan recommends several ways that the Villages and other stakeholders can support motorized boating north of the dam while encouraging non-motorized boating as well.

Keep the Algonquin Dam in place

IDNR uses the dam to regulate water levels to the north and has no plans to remove it. In addition to enabling motorized boating to the north, the dam also creates a division that helps to reserve the river below for canoing and kayaking.

Replace safety cable at Algonquin Dam

In the winter of 2013-2014, the safety cable immediately above the dam was damaged. Since that time, there has been no cable to prevent boats from accidentally slipping over the top of the dam. The Village should work with IDNR, IDOT, and the Fox Waterway Agency to pursue the installation of a new cable at the Algonquin Road bridge, or develop an alternative method of securing it to the banks.

Add boat slips in Downtown Algonquin

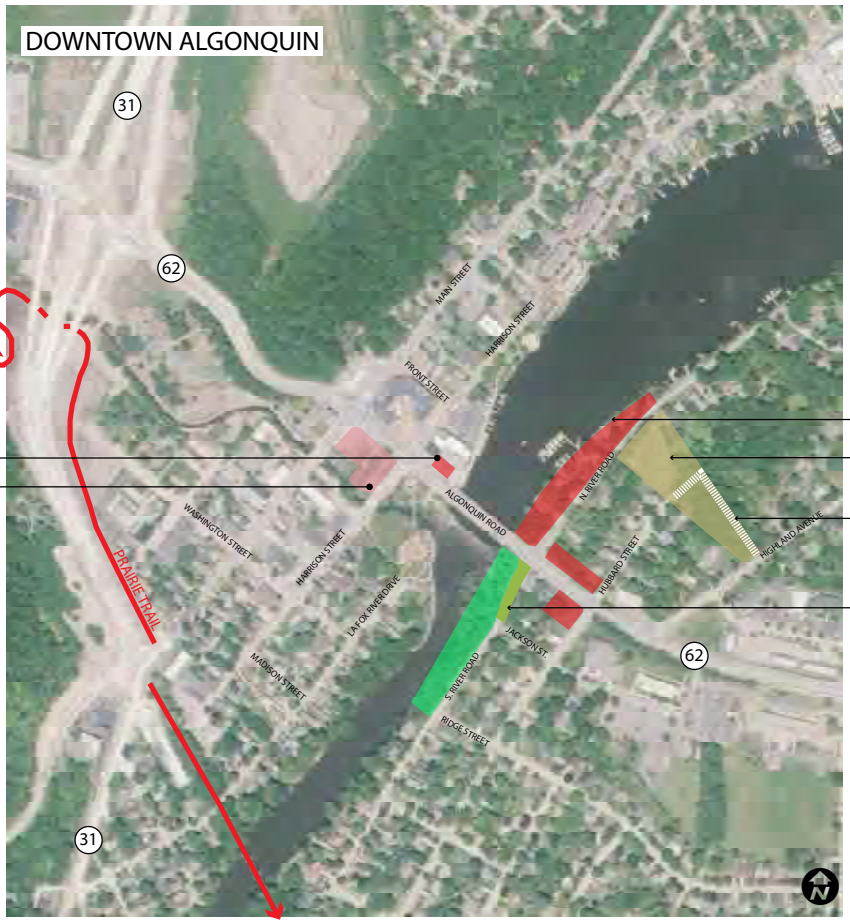
Currently, docking opportunities are available at Ericson Marina, north of the Port Edward restaurant, and on the east side of the Fox River at private facilities. Additional docking capacity could not only support boating but also help Downtown Algonquin businesses capitalize on their location along the river. Algonquin should consider providing removable floating docks at Riverfront Park during peak months.

Explore environmentally sound dredging

Boaters have reported that the accumulation of sediment behind the dam makes boating difficult and advocate increased dredging to clear a deeper channel. The Village should facilitate conversations between IDNR, environmental advocates, and the Fox Waterway Agency to determine what technique and amount of dredging are optimal to meet both water quality and recreational goals. IDNR's most recent survey data does not show any large accumulation of sediment upstream of dam, and indicates at least seven feet of water depth in the pool immediately above dam. Additionally, IDNR recommends not dredging within 300 feet of the dam to avoid encouraging dangerous boating just upstream of the dam. Because finding a site to dispose of sediment is one hurdle to dredging, several stakeholders raised the possibility of using dredged silt to create an artificial island in the Fox River just north of Algonquin Dam. Outside Peoria, the U.S. Army Corps of Engineers and IDNR created a 24-acre island nature preserve in the Illinois River using dredged sediment. However, such a project is not likely to be a workable solution within the corridor. Within the study area, the Fox River is significantly narrower than the Illinois River near Peoria, and any island would be within the navigational channel of passing boats. Other artificial islands in the Fox River, such as those in Elgin and the Chain O'Lakes, have required extensive maintenance and follow-up projects to stabilize their banks and counter the effects of erosion. Because of the complexity, cost, and uncertain enviroBased on conversations with the Army Corps and IDNR, this plan does not recommend the creation of an instream island in the Fox River corridor. The addition of an island would increase flooding upstream of the dam by restricting the conveyance capacity of the river and causing non-uniform loading of water over the dam's spillway which could increase stages upstream. Because of the narrowness of the river upstream of the dam, it could also hinder recreational boating. If dredging upstream of the dam becomes necessary for recreational boating, IDNR suggests investigating alternative disposal sites rather than placing the material back into the river.

Additional boat slips for visitors at Riverfront Park. Illustration by Bondy Studios, 2015.

Figure 4.6. Downtown Algonquin and Old Town Carpentersville Future Land Use



DOWNTOWN LEGEND

New Land Uses Shown

- Public open space
- Road closure (New parking/open space)
- Commercial
- Mixed-use
- Residential (townhomes)
- Road connection
- Existing regional trail

AS RECOMMENDED IN THE VILLAGE'S DOWNTOWN PLAN (*RECOMMENDATION B8*) THE SURFACE PARKING LOT SHOULD BE EVALUATED FOR POTENTIAL INFILL COMMERCIAL DEVELOPMENT.

AS RECOMMENDED IN THE VILLAGE'S DOWNTOWN PLAN (*RECOMMENDATIONS D2 AND D3*) THE SOUTHEAST CORNER OF MAIN STREET AND ALGONQUIN ROAD SHOULD BE CONSIDERED FOR CONSOLIDATION WITH ADJACENT PARCELS FOR A MIXED-USE DEVELOPMENT.

ADD ADDITIONAL BOAT SLIPS ON THE EAST SIDE OF THE RIVER AND PROMOTE COMMERCIAL DEVELOPMENT SUCH AS RESTAURANTS.

FUTURE RESIDENTIAL DEVELOPMENT. ATTACHED SINGLE-FAMILY HOMES WOULD BE APPROPRIATE.

CONSIDER CONNECTING HUBBARD STREET WITH HIGHLAND AVENUE AS PART OF POTENTIAL REDEVELOPMENT.

CONSIDER CLOSING S.RIVER ROAD'S CONNECTION WITH ALGONQUIN ROAD TO ALLOW FOR PARKING AND ADDITIONAL OPEN SPACE FOR FUTURE SCENIC OVERLOOK AND PUBLIC PARK.

Aerials: 2014

0 0.075 0.15 0.3 Miles

OLD TOWN LEGEND

New Land Uses Shown

- Public open space
- Commercial
- Mixed-use
- Regional Trail

FUTURE COMMERICAL OPPORTUNITY WITHIN THE OTTO ENGINEERING BUILDINGS.

FUTURE COMMERCIAL OPPORTUNITY SITE.

WORK WITH OTTO ENGINEERING AND QUILTMASTERS TO PROMOTE A MIXED-USE DEVELOPMENT.

CONNECT CARPENTER PARK WITH THE RIVER ALONG CARPENTER CREEK.

THE VILLAGE SHOULD WORK WITH THE EXISTING M&M AGGREGATE BUSINESS TO PURCHASE THE UNDERUTILIZED PROPERTY FOR PUBLIC OPEN SPACE.

THE MILK SPECIALTIES BUILDING IS CURRENTLY UNDER RENOVATION. FUTURE COMMERCIAL OPPORTUNITY.

0 0.125 0.25 0.5 Miles

Implementation Strategies

The following are the actions for each key recommendation that stakeholders should take to strengthen open space and recreation within the corridor.

Table 4.1 Open space and recreation implementation

Key Recommendation	Action	Implementation	Description
Plan for changes to the site of the Carpentersville Dam	Project future water levels Timeline: 0-2 years	IDNR, FPDKC	FPDKC should work with IDNR to project future water levels and resulting exposed land that will result from removing the dam.
	Create and implement site plan for recreational use Timeline: 0-2 years	FPDKC, Village of Carpentersville	To preserve the recreational value of the popular, accessible site, the Village should work with FPDKC to advocate for including amenities such as an improved canoe/kayak launch, a beach area, and fishing accommodations.
Explore the addition of new recreational amenities	Install birdwatching signage Timeline: 0-2 years	FPDKC, MCCD, FREP, Friends of the Fox River, IDNR	Signage at key points along the Fox River Trail would help less experienced birders identify the variety of bird species present. This educational signage could be part of FREP's National Water Trail effort or an OSLAD grant.
	Designate river-oriented campsites Timeline: 0-2 years	FPDKC, MCCD	The open space districts should try to identify locations accessible from the river where paddlers can tie up and access campsites. These sites should be clearly marked on maps and easily identified from the river.
	Implement Brunner Family Preserve and Fox Bluff Conservation Area master plans Timeline: 2-5 years	FPDKC, MCCD, DTPD, IDNR	FPDKC and MCCD should continue efforts to implement their master plans for these large areas of preserved land. OSLAD funding from IDNR or other funding sources may support these efforts.
	Create an east side overlook and fishing platform Timeline: 5+ years	Village of Algonquin, IDNR	A connected overlook and fishing platform would make the river accessible from the east side of Algonquin and create a visual gateway to Downtown. The Village should seek funding for the project through grant programs.
	Activate Filip Beach Timeline: 2-5 years	Village of Algonquin, IDNR	Adding picnic areas, a boat launch, and seating would help activate this village-owned site. A footbridge across Ratt Creek would effectively double the size of the potential park.
	Create an Old Town riverfront park Timeline: 2-5 years	Village of Carpentersville, IDNR	The Village should continue efforts to secure a riverfront parcel to convert to public open space. Once a parcel is secured, the Village should conduct a public process to identify potential amenities and events that would be popular, such as food truck festivals, outdoor movies, or a riverwalk.

Key Recommendation	Action	Implementation	Description
Improve canoe and kayak launches and portages	Add new canoe and kayak launches Timeline: 0-2 years	Village of Algonquin, Village of Carpentersville, FPDKC, MCCD, FREP, IDNR, American Canoe Association, paddling groups	To create a safer, more accessible river trail in the corridor, relevant stakeholders should explore the addition of new launches in Fox Bluff Conservation Area, Buffalo Park, Filip Beach, and the Carpentersville Dam site. The villages and open space districts should coordinate this effort with the Fox River Water Trail Plan and reach out to paddling groups to plan the best locations. Implementers should apply for grant funding through IDNR's Boat Access Area Development program and the American Canoe Association's Club Fostered Stewardship and Adaptive Paddling programs.
	Improve portages Timeline: 0-2 years	Village of Algonquin, Village of Carpentersville, FPDKC, MCCD, FREP, IDNR, American Canoe Association	The Village of Algonquin and MCCD should develop a signage and wayfinding program to help paddlers portage through Downtown Algonquin. In Carpentersville, the Village and FPDKC should explore improvements to the current portage, pending decisions about the dam's future. Implementers should apply for grant funding through IDNR's Boat Access Area Development program and the American Canoe Association's Club Fostered Stewardship and Adaptive Paddling programs.
	Adopt best practices in launch design Timeline: 0-2 years	Village of Algonquin, Village of Carpentersville, FPDKC, MCCD, FREP, IDNR, American Canoe Association	For any current or future launches, landowners should adopt best practices to improve safety and accessibility. Current resources from the National Park Service and others can guide design to shield paddlers from currents, site launches on gradual slopes, and minimize disruption to the natural environment. Implementers should apply for grant funding through IDNR's Boat Access Area Development program and the American Canoe Association's Club Fostered Stewardship and Adaptive Paddling programs.
	Support efforts to develop the Fox River Water Trail Plan Timeline: 0-2 years	All stakeholders, FREP, U.S. National Park Service	Both Villages, both counties, and the open space districts within the corridor would benefit from the facilities and marketing boost that accompany the Fox River Water Trail Plan. Stakeholders should seek to support the development of the Water Trail Plan with the goal of eventually receiving a National Water Trail designation.
Support motorized boating north of the Algonquin Dam	Keep the Algonquin Dam in place Timeline: Ongoing	IDNR	Due to its function regulating water levels above Algonquin, IDNR should continue maintaining and operating the Algonquin Dam.
	Replace safety cable at Algonquin Dam Timeline: 0-2 years	IDOT, Village of Algonquin, IDNR	To keep boaters safe, the Village should work with IDOT and IDNR to reinstall the safety cable that was broken in recent years. The village should consult FWA and boat operators to determine the right design and location for the new barrier.
	Add boat slips in Downtown Algonquin Timeline: 0-2 years	Village of Algonquin	Additional slips for temporary parking will help connect boaters to the Downtown Algonquin business district. Riverfront Park could be one location to accommodate temporary slips.
	Explore environmentally sound dredging Timeline: Ongoing	FWA, IDNR	To the extent that it can be done without damaging river ecology, dredging can support recreational use of the river. FWA should consult with IDNR to determine an optimal dredging policy that provides safe navigation and limits the danger of approaching the dam.

Chapter 5
TRANSPORTATION & CIRCULATION

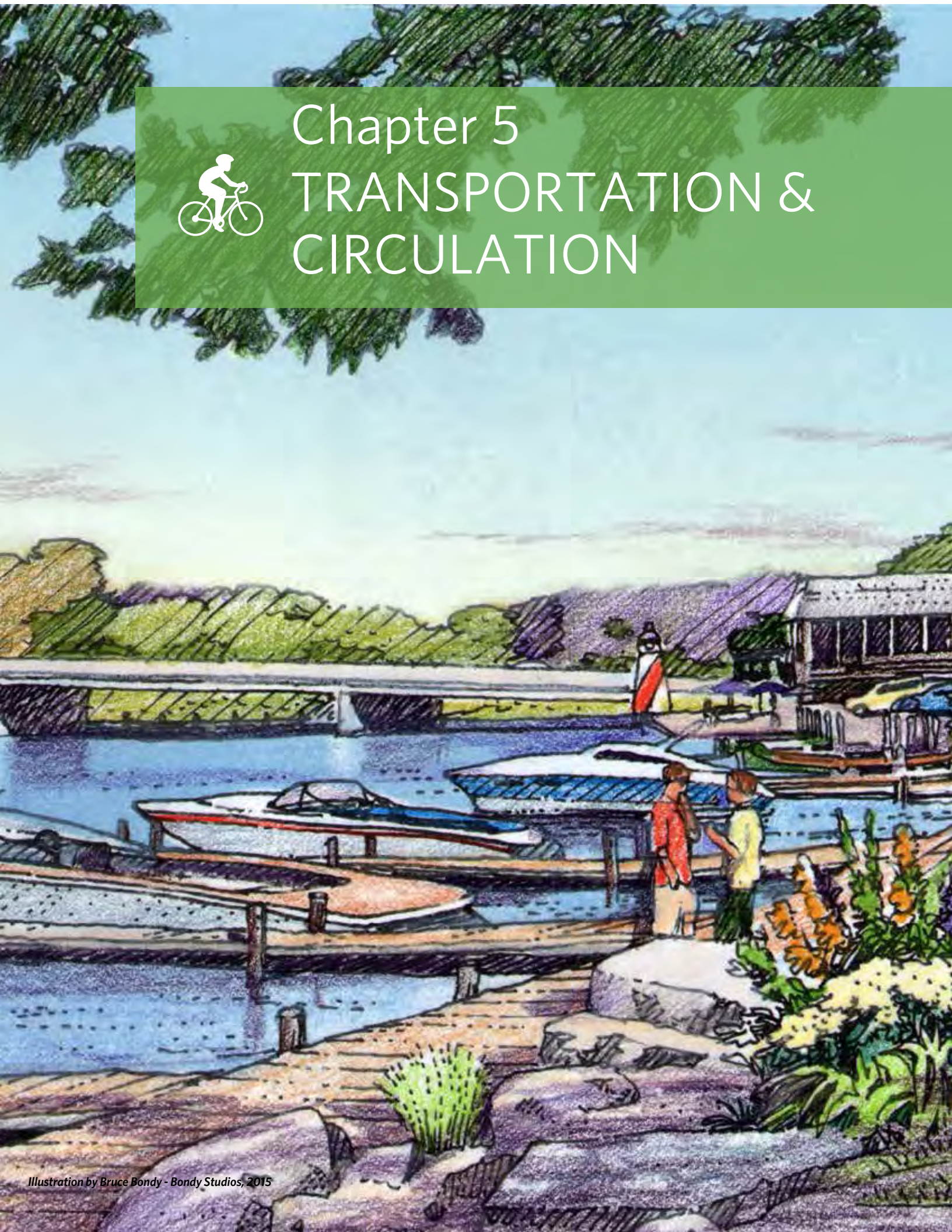


Illustration by Bruce Bondy - Bondy Studios, 2015

Chapter 5:
Transportation and Circulation

Goal: Build upon the corridor's existing transportation infrastructure to develop a balanced, equitable, and efficient transportation system that provides safe navigation and a range of transportation choices for boaters, paddlers, pedestrians, bicyclists, and motorists.

The corridor features a well-established transportation system that includes a road network, regional and local trail system, and waterway. Unfortunately, vehicular traffic and congestion in the downtown areas has long been an issue for both communities. In an effort to minimize congestion, both counties and villages have made considerable investments. One of the most significant was the new IL Route 31 bypass around Downtown Algonquin. Kane County is also moving forward with the construction of the Longmeadow Parkway, which will include a new river crossing in the middle of the corridor. This chapter brings together all of the transportation recommendations from existing plans, reports, and studies for the corridor while also providing new recommendations.

Summary of existing conditions

- ***The Fox River Trail (in Kane County) and the Prairie Trail (in McHenry County) is a popular regional trail system that runs through the corridor.*** Together these two trails create an interconnected trail system through the entire corridor primarily on the east side of the river, with a crossing to the west side near Downtown Algonquin. The trails are part of the Grand Illinois Trail system, a network of over 500 miles of trails between Lake Michigan and the Mississippi River.
- ***The pedestrian experience within downtown Algonquin varies dramatically due to differing roadway characteristics.*** It is not uncommon for the pedestrian experience to transition from pleasant and comfortable to hectic and dangerous as a pedestrian approaches key intersections in the downtown area. Although the new IL Route 31 bypass has improved walkability by diverting a traffic away from Downtown Algonquin, vehicular traffic along Illinois Route 62 (Algonquin Road) creates both a physical and mental barrier for pedestrians and bicyclists. Approximately 37,100 vehicles per day (including 1,275 trucks) travel through this street segment, making it the busiest street in the corridor. Turn lanes at the signalized intersections with Main Street and Harrison Street create a six-lane cross section, making it intimidating for pedestrian and bicycle crossings.
- ***The intersection of Main Street and Washington Street in Old Town Carpentersville should be improved.*** This problematic intersection experiences higher traffic volumes (17,900 vehicles per day) than it was designed to accommodate, resulting in a confusing and unsafe traffic pattern. The intersection consists of through traffic without a stop along Main Street (which changes to a one-way street for cars traveling east from the intersection), with two-way stops on Washington Street. Kane County and CMAP recently completed a "health impact assessment" (HIA) for the Village of Carpentersville, assessing the potential health impacts of multiple intersection design alternatives. The HIA found that a single-lane roundabout at the intersection would result in better health and safety outcomes while fulfilling transportation and mobility needs, and recommended that the Village conduct further engineering studies to determine its feasibility.
- ***The Fox River Trail crossing in Old Town should be improved.*** The crossing where the Fox River Trail intersects with Main Street lacks traffic signals, presenting safety issues. Trail users must cross the busy street at grade protected only by striping and caution signs that warn drivers to yield.
- ***Kane County plans to construct the***

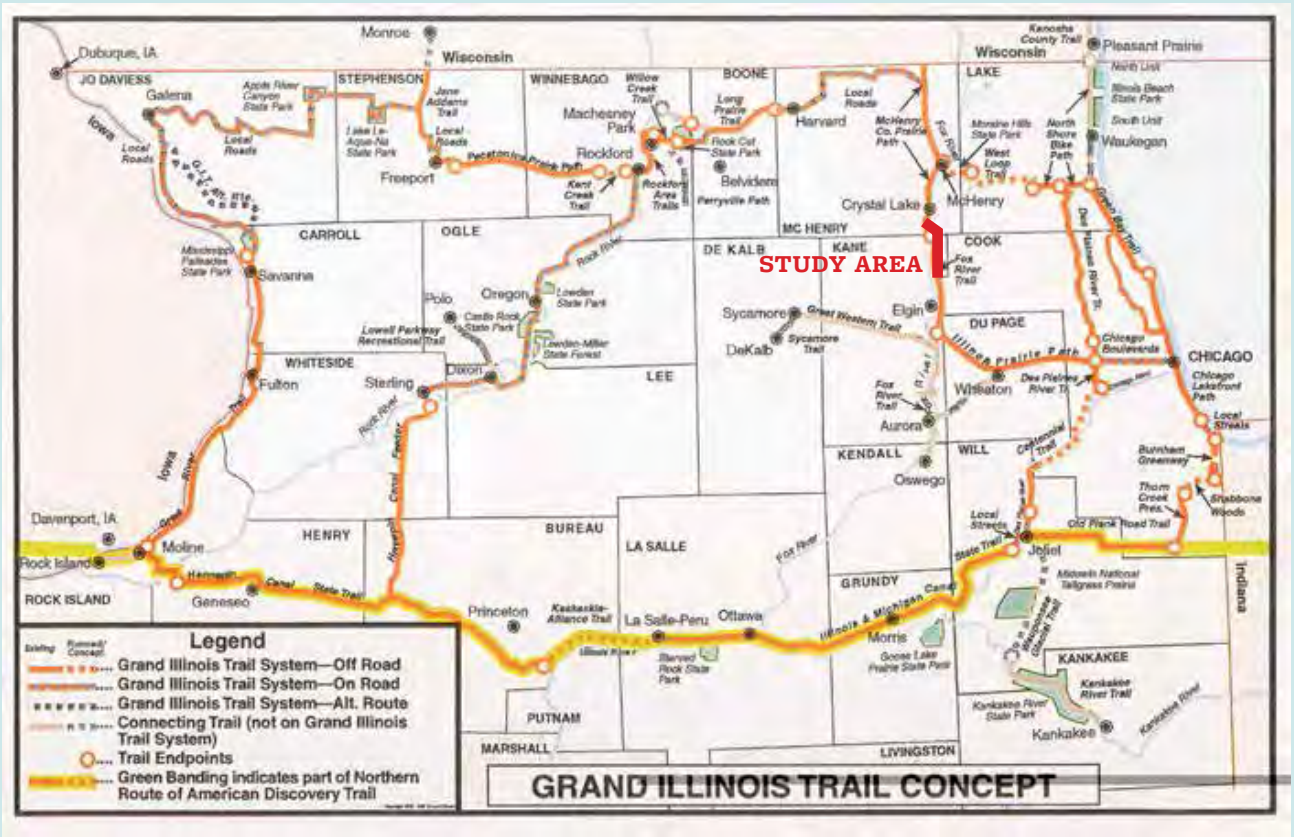
Longmeadow Parkway Fox River Bridge through the Brunner Family Forest Preserve. Longmeadow Parkway includes a proposed four-lane Fox River Bridge crossing and four-lane arterial roadway corridor. The proposed bridge and roadway are intended to alleviate traffic congestion in northern Kane County. As currently proposed, the new river crossing will include a second, separated bridge for bicyclists and pedestrians and an off-street bikeway along the length of the roadway.

- A number of entities within the corridor, including both Village's and both Counties have already ***adopted plans to add additional multi-use trails and on-street routes within the corridor*** including trail plans for the Brunner Family Forest Preserve, Fox Bluff, downtown Algonquin and Old Town.

Recommendations

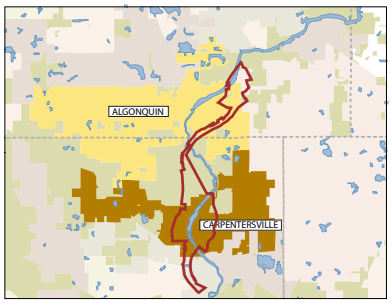
Connect local bicycle trails to the regional network

The corridor's regional trail system (Prairie Trail and Fox River Trail) offers a tremendous recreational resource for bicyclists and pedestrians. The regional trail system follows the Fox River while also connecting both downtown areas. As part of the Grand Illinois Trail, these trails offer cyclists connections to destinations as far away as Chicago, Joliet, and the Quad Cities. Stakeholders identified the need to provide local connections with the trail system, including a desire to create a link with the existing Raceway Woods trail. Partnerships and cooperation between public agencies will be important to implementing the recommended trail network.



The Grand Illinois Trail. As it loops more than 500 miles between Lake Michigan and the Mississippi River, the Grand Illinois Trail joins together existing and proposed state and local trails to create the state's longest continuous trail. It hugs historic canals, crosses hills, parallels the Rock and Fox Rivers, and includes one of America's first rail-trails. Source: IDNR. http://www.dnr.illinois.gov/recreation/greenwaysandtrails/Pages/GrandIllinoisTrail.aspx

Figure 5.1. Bike trail plan



FOX RIVER CORRIDOR LOCATION

IMPROVED FOX BLUFF AND CAMP ALGONQUIN *(SEE APPROVED MASTER PLAN FOR FURTHER DETAIL)*

KLASEN ROAD

COLD SPRINGS ROAD

CONSIDER IF A TRAIL/PEDESTRIAN CONNECTION IS FEASIBLE

CARY ALGONQUIN ROAD

HARRISON STREET

FOX RIVER

NORTH RIVER ROAD

RIVERFRONT PARK

ALGONQUIN

PRESIDENTIAL PARK

HIGHLAND AVE.

CREATE CREEK WALK FROM TOWNE PARK TO CORNISH PARK

CORNISH PARK

VILLAGE OWNED PROPERTY RECOMMENDED FOR OPEN SPACE

EXISTING PRAIRIE TRAIL BRIDGE

FILIP BEACH

PRAIRIE TRAIL

FOX RIVER TRAIL

BUFFALO PARK FOREST PRESERVE

TRAIL CONNECTION WITH RAGING BUFFALO SNOWBOARD FACILITY

IMPROVED BRUNNER FAMILY FOREST PRESERVE *(SEE APPROVED MASTER PLAN FOR FURTHER DETAIL)*

PROPOSED LONGMEADOW PARKWAY WITH MULTI-USE TRAIL

DUNDEE TWP. PARK DISTRICT FACILITY

FUTURE DUNDEE TWP. PARK ATHLETIC FIELDS (CONCEPT ONLY)

NEW SIGNAL AND TRAIL CROSSING AT MILLER ROAD WOULD IMPROVE TRAIL CONNECTIONS

FOX RIVER SHORES PRESERVE

CARPENTERSVILLE

CARPENTER CREEK

CONNECT RACEWAY WOODS FOREST PRESERVE TRAIL WITH BRUNNER FAMILY FARM PRESERVE TRAIL WITH FUTURE SIGNAL AT MILLER ROAD

CARPENTERSVILLE DAM

ABANDONED RAILWAY BRIDGE

CONNECT OLD TOWN WITH BRUNNER FARM TRAIL

CARPENTER PARK

FUTURE RIVERFRONT PARK

WORK WITH OTTO ENGINEERING TO CREATE RIVERWALK

MEMORIAL PARK AND CANOE LAUNCH

JOHN "JACK" HILL MEMORIAL PARK

DUNDEE RIVERWALK

SPRING HILL MALL

EAST DUNDEE

EXISTING PEDESTRIAN BRIDGE OVER FOX RIVER

WEST DUNDEE

31 62 31 62 31 72

N

0 1

MILE

BIKE PLAN LEGEND

Land use (includes recommended)
- Public open space
- Private open space *(Otto Engineering)*
- Floodplain (*in residential area*)

Transportation elements
- Fox River Trail and Prairie Trail
- Local off-street trails
- Future off-street trails
- Future on-street bike lane/route
- Planned Longmeadow Parkway
- Improved Fox River Trail crossing
- Key wayfinding signage *(refer to Algonquin Downtown Plan for others)*

Other
- Fox River and streams
- Village of Carpentersville boundary
- Village of Algonquin boundary
- County boundary
- Existing dam
- Old rail bridge

Create and strengthen trail connections

Stakeholders have advocated for safe, protected connections between existing regional trails, local routes, and key destinations such as Raceway Woods Forest Preserve, Fox Bluff Conservation Area, and downtown Algonquin. Current bikeways pass close to these destinations, but lack direct connections and clear wayfinding. Municipalities should coordinate with the Forest Preserve District and Conservation District, as well as the Illinois Department of Transportation (IDOT), to strengthen trail connections. New and/or improved trail connections are shown on **Figure 5.1.**

Improve regional trail crossings

Overall, the existing regional trail system has very few street crossings. However, stakeholders and previous studies identified two important trail crossings that should be improved.

1. ***IL Route 31 crossing.*** Crossing IL Route 31/ Western Avenue to connect with the Raceway Woods trail has been a goal for the Village of Carpentersville. **Figure 5.1** illustrates a trail crossing from the Brunner Farm Forest Preserve to Raceway Woods at a new Miller Road signal. A signal in this location would also provide improved access and egress for a future Township recreational area within Brunner Farm Forest Preserve.
2. ***Main Street crossing in Old Town.*** As recommended in the Village of Carpentersville Old Town Plan, the existing Fox River Trail crossing over Main Street should be improved. Decorative brick-pavers or re-painting/striping should be installed to help notify to motorists that bicyclists may be crossing. In addition, the Village should also consider the installation of automatic bollard lights and LED enhanced pedestrian crossing signs.

Illustration of an improved Fox River Trail crossing over Main Street in Old Town Carpentersville. Brick pavers and pedestrian-scaled lighting could improve the visibility of the crossing for both bicyclists and motorists. Source: Village of Carpentersville Old Town Plan, 2012, CMAP.

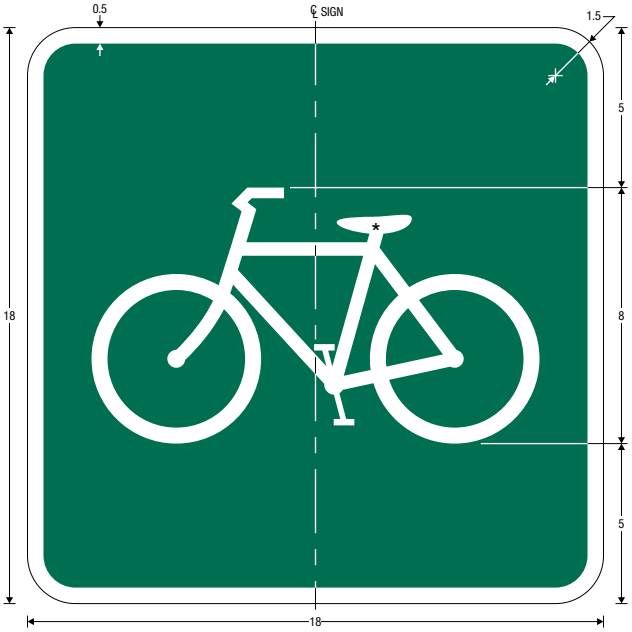
Photo of an improved pedestrian crossing consisting of an automatic bollard light activation and LED enhanced pedestrian crossing signs. Location is at the Cisco System Campus in California. Source: snipview.com.

Install additional bicycle signage

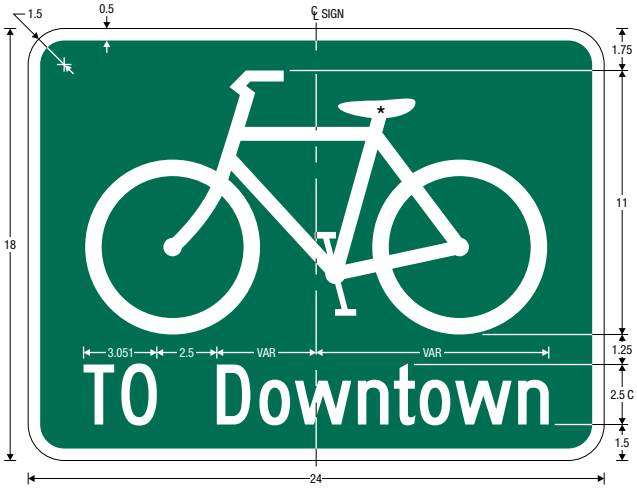
Connection improvements should also include clear and visible wayfinding or directional signage. Signing the bicycle network encourages ridership and also raises users' awareness and acceptance of bicycling. The Manual on Uniform Traffic Control Devices (MUTCD) standards should be followed when designing and installing signage. (See **Figure 5.2** as well as http://mutcd.fhwa.dot.gov/ for more information). Signs should be repeated at regular intervals so that bicyclists entering from side streets will have an opportunity to navigate the bicycle route. A variety of wayfinding signage formats should be considered including arrows with distances, full route map boards, decorative signs, and art installations. Decorative signs and art installations may take a variety of forms, and their purpose should be to identify the corridor as being "bicycle-friendly." A common logo for signage along the Fox River corridor can help create a unified corridor identity and brand. Currently, bicyclists are unsure of how to proceed from the trail into Downtown Algonquin. A key recommendation for the existing Prairie Trail access/egress points near Downtown Algonquin is to install new wayfinding signage. Local business information and distances to key destinations should also be posted, which would support the plan's goals of using the corridor's recreational amenities to help drive downtown business development.

An example of a bike trail directional and information sign in Downtown Lansing, Illinois at a gateway into the Pennsy Greenway. Source: CMAP Staff.

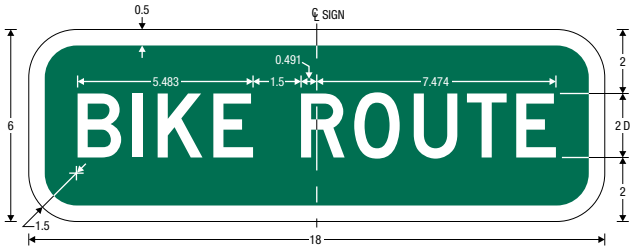
Figure 5.2. MUTCD Sign Standards



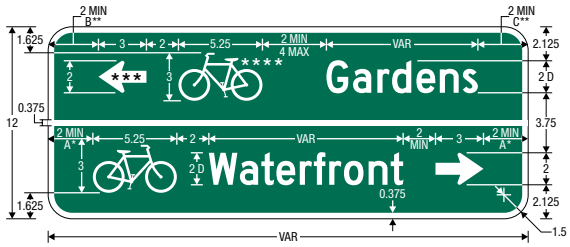
D11-1a
BICYCLE GUIDE



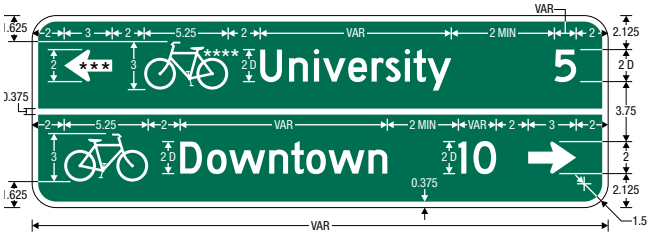
D11-1c
BIKE ROUTE (DESTINATION)



D11-1bP
BIKE ROUTE (PLAQUE)



D1-2b
BICYCLE DESTINATION (2 LINES)



D1-2c
BICYCLE DESTINATION AND DISTANCE (2 LINES)

* Controlling line of legend.
** Optically space non-controlling line.

Source: The Manual on Uniform Traffic Control Devices (MUTCD)

Figure 5.3. Proposed Longmeadow Parkway

Source: Kane County

Advocate for Corridor needs in Longmeadow Parkway design and construction process

The Kane County Division of Transportation is moving forward with plans to construct the Longmeadow Parkway, including a bridge over the Fox River. The proposed parkway would likely be a significant alteration to the Fox River Corridor. (See **Figures 5.3 and 5.4**) Stakeholders should continue to engage in each step of the planning process for the roadway to advocate for environmental, recreational, and transportation goals that are emphasized in this plan. Stakeholders should participate in the design and construction process to ensure that the future Parkway includes benefits for the corridor including best management practices for stormwater management and pedestrian and bicycle amenities.

A new pedestrian/bicycle crossing would improve connectivity across the river and enhance access to public open space on both sides of the river. Best management practices for roadway design can limit environmental impacts by retaining existing trees, planting new trees and native vegetation, and incorporating green stormwater infrastructure to help manage runoff quality and quantity. Given the complexity of the project and its current pre-construction status, changes to the Longmeadow Parkway remain possible. Remaining engaged in the process will give stakeholders the opportunity to respond to any changes in the project's timeline or status going forward.

Figure 5.4. Proposed Longmeadow Parkway

Source: Kane County

Invest in walkability

Walkability is an important factor in the health and vitality of our communities. Having the ability to walk to accomplish errands or to reach a variety of amenities is good for personal health, the environment, and for household cost savings. Several hurdles to providing safe and efficient walkability emerged from stakeholder input and existing conditions analysis, including dangerous crossings of heavily trafficked roads, poor signage, and unprotected sidewalks. Both municipalities and the counties have focused on improving walkability within their jurisdictions. Each village has made improvements to support pedestrian activity within its downtown area and the Forest Preserve and Conservation District have existing and planned trail systems within their open space areas. The following strategies should be undertaken to support the walkability of the corridor.

Install pedestrian wayfinding signage

Each village should install signs within the downtown areas to assist pedestrians in moving within the area, helping to identify nearby destinations and businesses, and helping to draw them into the downtown. Signs should include directions, distances, and may include a wayfinding map and educational information.

Improve pedestrian crossings

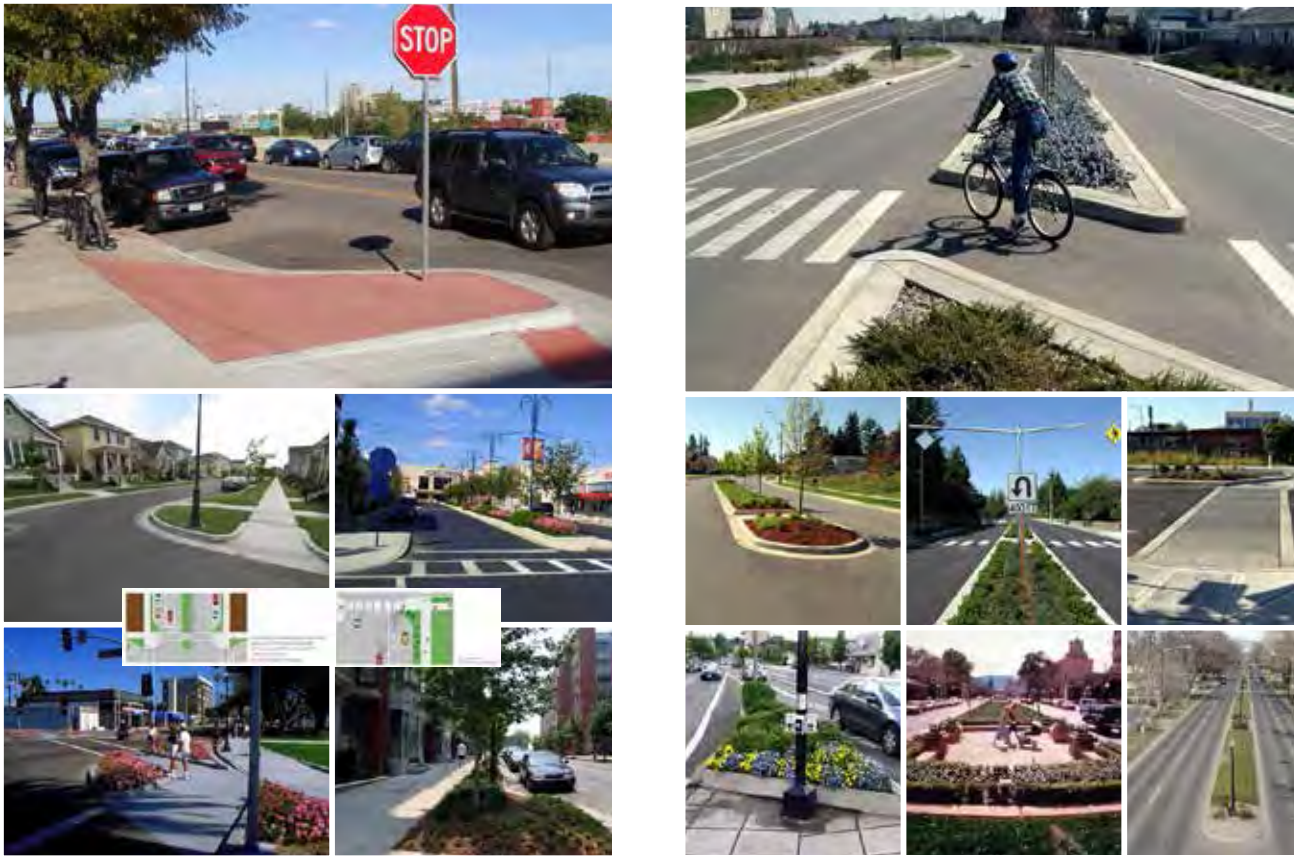
An overarching goal of this plan – and previously adopted plans – is to encourage pedestrian activity within the corridor by improving key pedestrian crossings. During the outreach process stakeholders identified a number of pedestrian crossings that presented challenges. Locations for pedestrian crossing improvements are shown on **Figure 5.1.** Improvements should be designed in accordance with MUTCD and more detailed engineering analysis should be undertaken to determine the specific improvements that should be made. The following are examples of pedestrian crossing improvements to consider (see **Figures 5.5 to 5.7**):

- ***Make pedestrian crossings more visible.*** Ways to alert motorists to pedestrian activity at intersections including decorative brick pavers, re-striped/painted crosswalk markings, and pedestrian-scaled lighting.
- ***Shorten the distance pedestrians have to travel.*** Depending on street design and right-of-way width, communities can shorten the distance and time it takes pedestrians to cross a street by installing curb bump-outs, curb ramps, medians, and refuge islands.
- ***Ensure proper signalization and signing.*** Include pedestrian-activated push buttons that are accessible to pedestrians and are designed to provide a comfortable amount of time to cross the street. In addition to installing signage that notifies motorists of pedestrian activity, directional signs should be used to inform pedestrians of nearby destinations.

Figure 5.5. High-visibility crosswalks

Source: CMAP's Complete Streets Toolkit, 2015.

Figure 5.6. Curb extensions and raised center median/pedestrian refuge island



Source: CMAP's Complete Streets Toolkit, 2015.

Figure 5.7. Pedestrian crossings and high-visibility signage

Source: CMAP's Complete Streets Toolkit, 2015.

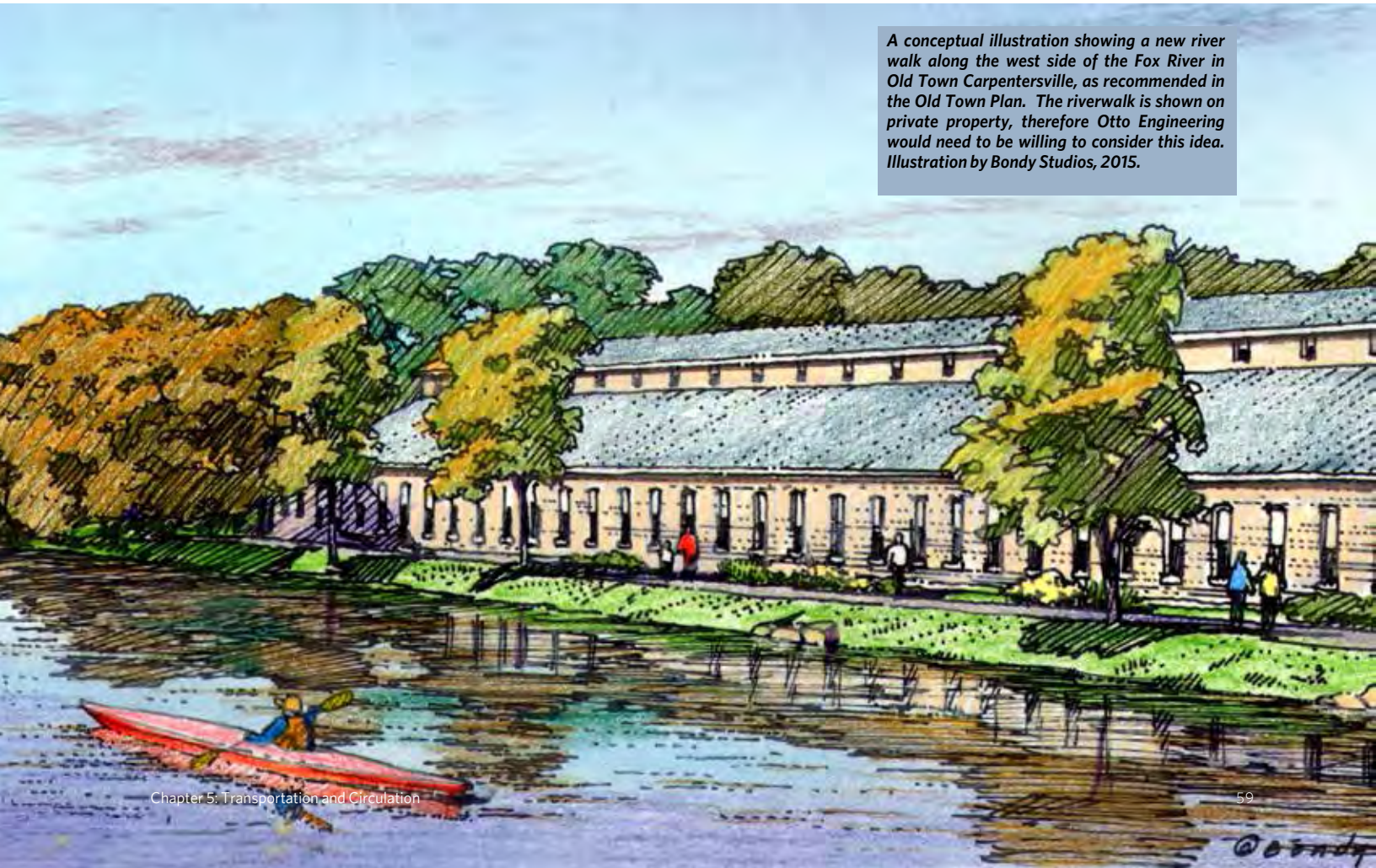
Remove sidewalk gaps

Sidewalk connectivity is important to encourage pedestrian activity. Missing sections of sidewalk ("gaps") that discourage walkability exist within both downtown areas. Most of the streets in Old Town have sidewalks on at least one side of the street. However, there are some areas with significant gaps in the sidewalk network. In downtown Algonquin, the sidewalk gaps are located north of Algonquin Road on the east side of Main Street.

Figures 5.9 and 5.10 illustrate areas where new sidewalks should be installed in the downtown areas. In addition to removing gaps, two new "walkways" are recommended.

- ***Creek walk.*** As recommended in Algonquin's Downtown Plan, the Crystal Creek waterway should include a "creek walk" along its northern bank. Starting at the existing pedestrian bridge in the northwestern portion of Towne Park, the creek walk may link to the municipal parking lot behind Historic Village Hall. Future extensions may include the creek bank between Main Street and Harrison Street, terminating in Cornish Park.
- ***River walk.*** As recommended in the Village's existing Old Town Plan, a new river walk is recommended on the west side of the river south of Main Street (see **Figure 5.8**). The river walk is envisioned to run along private property. Therefore, the Village of Carpentersville should begin discussions with Otto Engineering (the owner of the majority of the parcels) to determine whether such a project is desirable and feasible and, if Otto Engineering (and other owners) are interested, the Village should consider entering into a public/private partnership to construct and maintain the river walk. The proposed river walk could connect to the Village of Carpentersville's existing path in John "Jack" Hill Memorial Park, which connects with the Village of West Dundee's trail system.

Figure 5.8. Conceptual river walk in Old Town



A conceptual illustration showing a new river walk along the west side of the Fox River in Old Town Carpentersville, as recommended in the Old Town Plan. The riverwalk is shown on private property, therefore Otto Engineering would need to be willing to consider this idea. Illustration by Bondy Studios, 2015.

Add new and maintain existing pedestrian amenities

Creating a high-quality pedestrian environment through design and physical infrastructure encourages more people to walk in the corridor, enhancing quality of life and increasing environmental sustainability, safety, and mobility. Examples of pedestrian amenities that should be promoted in the corridor include benches, shade trees, outdoor dining areas, pedestrian-scale lighting, public art, plazas and parks, drinking fountains, awnings, trash receptacles, walkways, and high-quality landscaped areas. Downtown Algonquin has invested a significant amount of effort and funds into installing attractive; high-quality amenities that help draw pedestrians through the area.

In June 2015 the Village of Algonquin hired Christopher Burke Engineering to create a concept plan design for downtown streetscape. The design was funded through the Village's Street Improvement Fund. The plan will detail a project scope that will include pedestrian elements, bikeway access, lighting, elimination of overhead utilities, overall parking consideration in the entire area, historic Village Hall plaza improvements, incorporation of public art, and walkability.

Stakeholders in both villages should continue to look for opportunities to add new amenities while maintaining existing features. Both villages should also encourage business owners within the corridor to add amenities, as discussed in **Chapter 6**, and encourage developers to design future projects to incorporate pedestrian amenities.

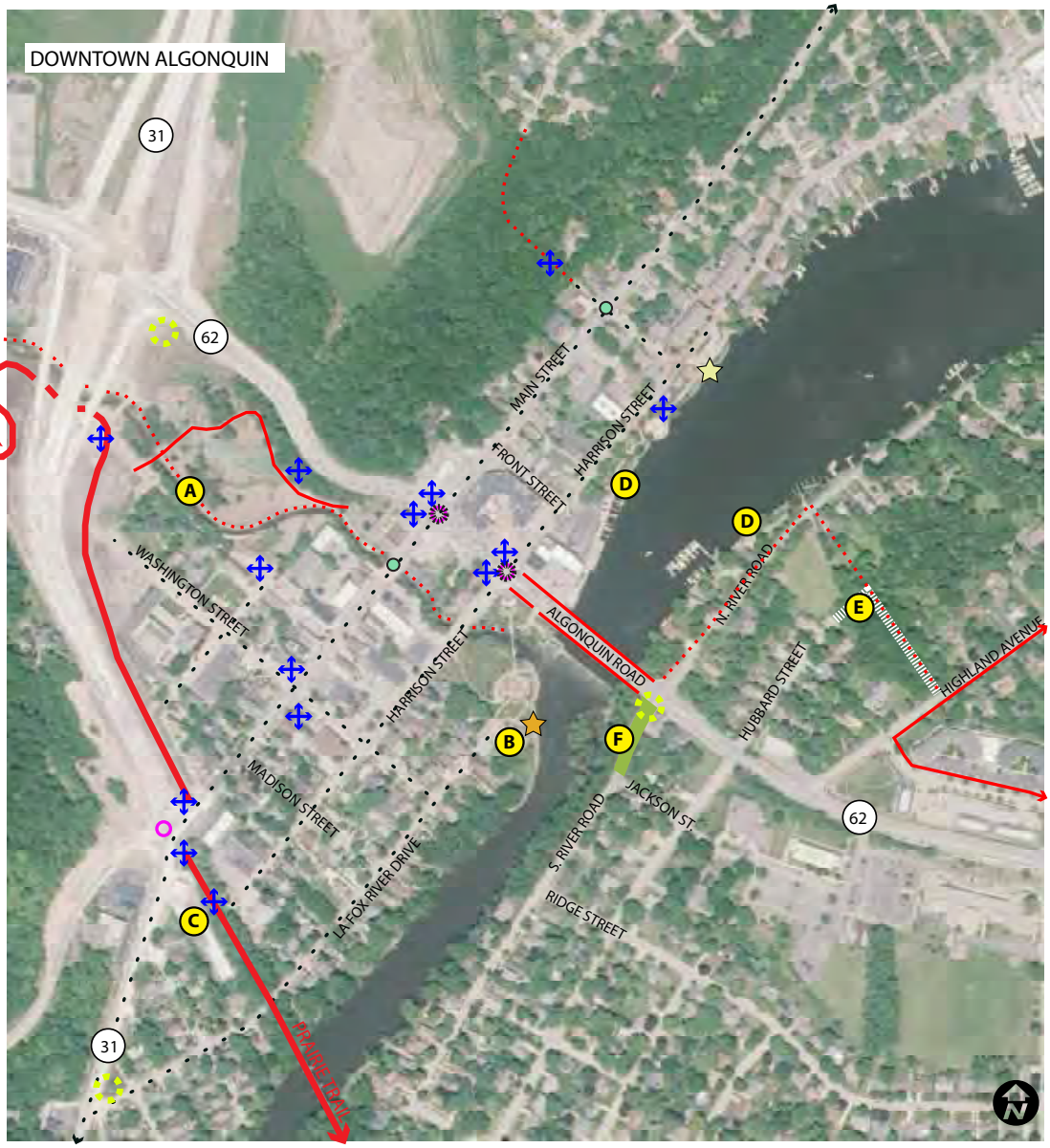
Example of the use of sculptures to educate visitors about a community's history in Downtown Naperville. Photo by CMAP staff.

Example of high-quality pedestrian amenities in Niagara-on-the-Lake, Ontario, Canada. Photo by CMAP staff.

Example of high-quality pedestrian amenities in Naperville, Illinois. Photo by CMAP staff.

Example of high-quality pedestrian amenities in downtown Algonquin along the Fox River. Photo by CMAP staff.

Figure 5.9. Key transportation improvements in Downtown Algonquin



Aerials: 2014

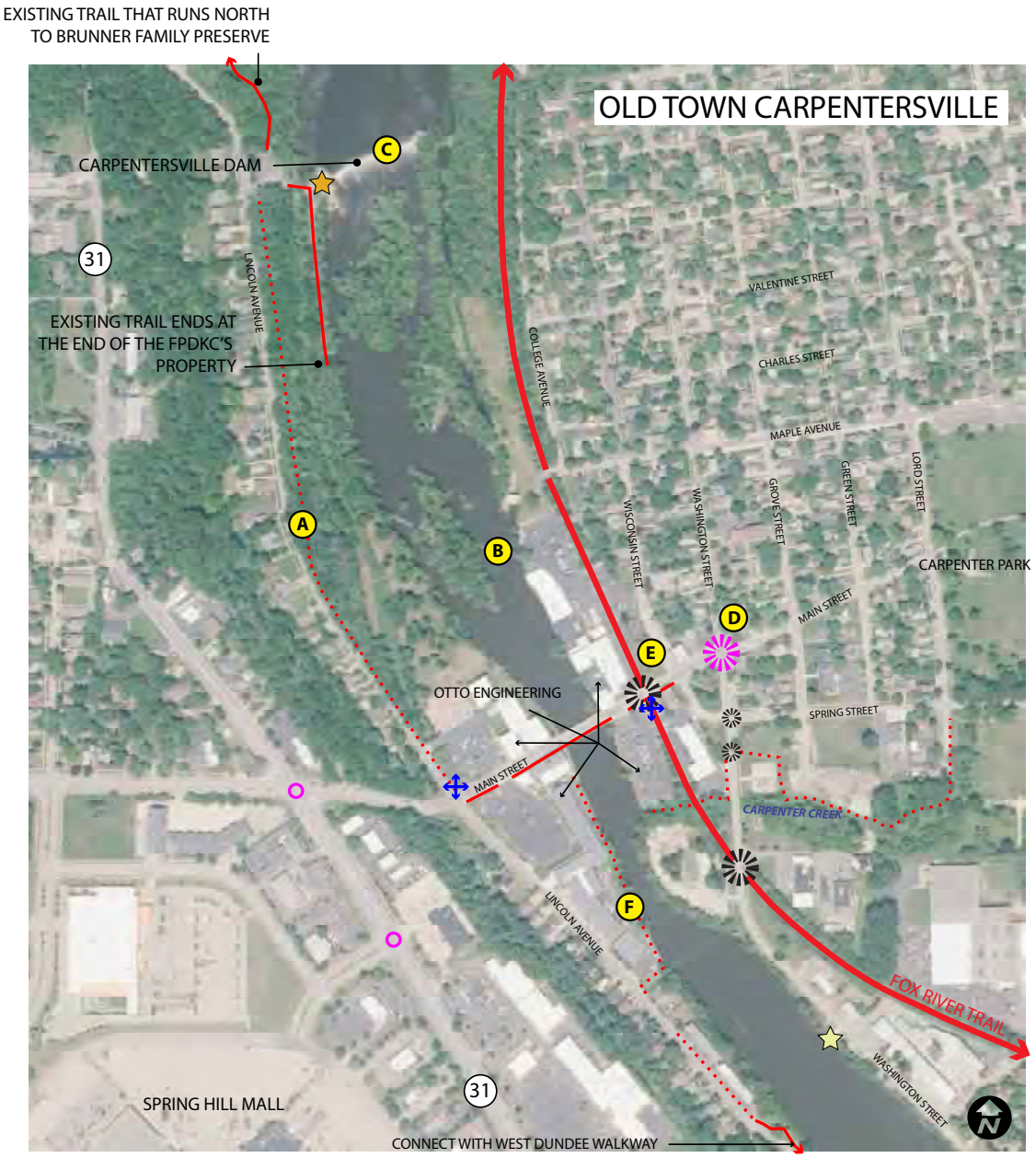
Miles
0 0.075 0.15 0.3

DOWNTOWN LEGEND

- Proposed path
- Proposed bicycle connections
- Wayfinding signage
- Gateway signage
- Mid-block crossing
- Improved pedestrian signal
- Existing signalized intersection
- Regional Trail
- Existing path/route
- Improved launch
- Existing canoe/kayak launch
- Future open space/parking
- Future road connection

(A) Create a creek walk
(B) Improve the canoe/kayak launch
(C) Improve wayfinding signage
(D) Add additional visitor boat slips
(E) Consider connecting Hubbard Street with Highland Avenue as part of potential redevelopment.
(F) Consider closing South River Road's connection with Algonquin Road to allow for parking and additional open space for future scenic overlook and public park.

Figure 5.10. Key transportation improvements in Old Town Carpentersville



OLD TOWN LEGEND

- Proposed path
- Wayfinding signage
- Improved regional trail crossing
- Improved pedestrian crossing
- Existing signalized intersection
- Improved intersection
- Regional Trail
- Existing path/route
- Improve existing launch
- Existing canoe/kayak launch

A Consider a combination of onstreet trail near Main Street and off-street on forest preserve property.

B If the existing abandoned rail bridge cannot be turned into a pedestrian bridge than ownership should be determined and the bridge should be removed.

C A long-term strategy based upon the removal of the dam is to create a new canoe launch. A short-term strategy should be to improve the existing launch to be more visible and user friendly.

D Improve the intersection of Washington Street and Main Street.

E Improve the visibility of the Fox River Trail crossing.

F Work with Otto Engineering to create a riverwalk.

Implementation strategies

Improving transportation and circulation within the corridor will require a combined effort from many stakeholders in the corridor including both villages, both counties, private property owners, and the Illinois Department of Transportation (IDOT). The following are actions for each key recommendation that would help to strengthen the corridor's transportation system.

Table 5.1 Transportation and circulation implementation

Key Recommendation	Action	Implementation	Description
Connect local bicycle trails to the regional network	Create and strengthen trail connections Timeline: 0-2 years	Village of Algonquin, Village of Carpentersville, FPDKC, MCCD, IDOT, DTPD	The Village of Algonquin should study whether there is appropriate right-of-way to install a bike route (either a signed route and/or striped lane) from Downtown north following Cary Road to connect with Fox Bluff. As prescribed in the Village of Algonquin Downtown Plan, the Village should re-stripe the rights-of-way and crosswalks under its jurisdictional control to provide easily recognized bike lanes or shared lanes and pedestrian crosswalks throughout the downtown. Carpentersville should work with the owner of the railroad bridge to determine the viability of preserving the structure. If it is possible to save the bridge, it could be converted to a bicycle/pedestrian bridge. If it is damaged beyond repair, the bridge should be removed for safety reasons.
	Improve regional trail crossings Timeline 0-2 years	Village of Algonquin, Village of Carpentersville, FPDKC, MCCD, IDOT	The FPDKC should take the lead in working with IDOT to install a signal at the intersection of IL Route 31 and Miller Road. An engineering study should be completed to determine its feasibility and potential costs. Moving forward the FPDKC should begin negotiations to acquire an easement along the west side of IL Route 31 to connect with the Raceway Woods trail system. The Village of Carpentersville should add the installation of brick-pavers for the crossing over Main Street into its capital improvement plan.
	Install additional bicycle signage Timeline 0-2 years	Village of Algonquin, Village of Carpentersville, FPDKC, MCCD, IDOT	Stakeholders should work together to design a consistent theme and look for bicycle signage. Depending on the location of the sign, the appropriate stakeholder should create, install, and maintain the sign.
Advocate for Corridor needs in Longmeadow Parkway process	Work with Kane County to ensure needs are met whenever feasible Timeline: ongoing	All stakeholders and Kane County	Stakeholders should continue to stay engaged in the planning process for the roadway to advocate for environmental, recreational, and transportation goals that are emphasized in this plan. Stakeholders should participate in the design and construction process to ensure that the future Parkway includes benefits for the corridor including best practices for stormwater management and pedestrian and bicycle amenities.
Invest in walkability	Install pedestrian wayfinding signage Timeline: 0-2 years	Village of Algonquin, Village of Carpentersville, FPDKC, MCCD	Pedestrian wayfinding signage should be designed to replicate the same themes and identity as the recommended bicycle signage. Depending upon where the signs are located, the appropriate stakeholder should fund the creation, installation and maintenance of the sign.
	Improve pedestrian crossings Timeline: 0-2 years	Village of Algonquin, Village of Carpentersville, FPDKC, MCCD, IDOT	Stakeholders should work together to improve the recommended pedestrian crossings. Additional engineering studies may be necessary to determine the scope of the improvements.

Key Recommendation	Action	Implementation	Description
	Remove sidewalk gaps Timeline: 2-5 years	Village of Algonquin, Village of Carpentersville, Otto Engineering	The Villages should add the creation of new sidewalks as recommended into their respective capital improvement plans. The Village of Carpentersville should add the recommendations into its annual sidewalk replacement program. The Village of Algonquin should begin to install the recommended creek walk when funds become available. The Village of Carpentersville should meet with Otto Engineering to see if the recommended river walk is desired and feasible, and if so consider the creation of a public/private partnership for construction and maintenance.
	Add new and maintain existing pedestrian amenities Timeline: 2-5 years	Village of Algonquin, Village of Carpentersville, FPDKC, MCCD, property owners, businesses, developers	Stakeholders, including the private sector, should incorporate pedestrian amenities whenever feasible. New developments should be designed to include pedestrian amenities whenever feasible. The Village of Algonquin should implement the future recommendations that will be part of their current Downtown Streetscape Plan with assistance from Christopher Burke Engineering, Inc. Algonquin should use its Street Improvement Fund for implementation.

Note: Forest Preserve District of Kane County (FPDKC), McHenry County Conservation District (MCCD), Illinois Department of Transportation (IDOT), Dundee Township Park District (DTPD)


GMC

Chapter 6
PLACEMAKING AND ECONOMIC DEVELOPMENT

Illustration by Bruce Bondy - Bondy Studios, 2015

Chapter 6:
Placemaking and Economic Development

Goal: Create two thriving downtown districts oriented to the Fox River through programming, open space, and recreational attractions that draw residents and visitors and build on the unique history and sense of place in the corridor.

In addition to the many environmental features and trail connections the Fox River Corridor offers, it also features two historic downtown areas that each have the potential to be vibrant, mixed-use districts. The presence of the Fox River and the extensive, high-quality areas of open space along its banks can attract a wide variety of users to the corridor, all of whom represent potential residents, shoppers, diners, and patrons for Downtown Algonquin and Old Town Carpentersville. In many areas, however, the corridor lacks clear wayfinding between natural attractions and downtown areas. Residents and community stakeholders see the Fox River corridor as a great economic opportunity and would like to attract people to the area through outdoor-oriented development and community events, expanded retail and food options, and the addition of businesses such as outdoor outfitters for bike and paddle boat rentals. This plan promotes development along the corridor in balance with the area's ecological system and community character.

This chapter offers economic development strategies drawn from this planning process and compiled from recent existing plans that will help attract new users to the corridor and provide connections along the corridor to Old Town and downtown Algonquin.

Summary of existing conditions

The following are key conclusions regarding the existing economic and public space within the corridor.

- ***Land use in Downtown Algonquin is primarily residential along the river, with a mix of commercial and open space downtown.*** The residential areas of Downtown Algonquin include a mix of single- and multi-family housing of varying densities. Additionally, several popular riverfront parks, retail stores, and restaurants exist within Downtown Algonquin, providing opportunities for community events that attract visitors from the rest of the Village. Algonquin has set a goal of increasing the number of downtown residents to better support a diversity of downtown businesses.
- ***Land use in Old Town Carpentersville is primarily industrial and lacks public access to the river.*** The Otto Engineering complex lines the Old Town riverfront. A few residential properties directly front the river, and several commercial properties exist along Main Street. The Otto Engineering property that fronts the river includes office space, private open space, and surface parking areas, and is popular for fishing. The lack of significant public open space limits Carpentersville's ability to host community events that take advantage of its riverfront setting.
- ***Both Old Town Carpentersville and downtown Algonquin have historic architecture and character.*** The traditional layout of these areas, with gridded streets, sidewalks fronting businesses, and charming architecture, offers a historic character that can accommodate a vibrant downtown atmosphere. Many newer communities that hope to develop new downtowns seek to replicate the type of built environment that Algonquin and Carpentersville already enjoy.
- ***The Fox River Corridor is host to a vibrant collection of civic groups.*** Numerous non-profit organizations and community groups have formed along the Fox River, including in Algonquin and Carpentersville. The environmental, bicycling, paddling, and economic development advocates who already operate within the study area offer considerable energy and commitment to improve conditions in the area. The Algonquin/Lake in the

Hills Chamber of Commerce, Northern Kane County Chamber of Commerce, Carpentersville Business Development Commission, and Algonquin Economic Development Commission represent a large number of interested stakeholders who can collaborate to implement effective and innovative placemaking and economic development strategies that benefit the corridor as a whole.

- ***Algonquin and Carpentersville have large youth populations.*** Compared to the Chicago region as a whole, both villages have high numbers of residents under the age of nineteen and low numbers of residents over 65. The younger population has implications for community services, retail, and recreation activities.
- ***The Prairie/Fox River Trail can bring people from a wide area to the corridor's downtowns.*** Many workers commute from communities along the Fox River. In both Algonquin and Carpentersville, a large number of workers reside in other communities along the Fox River such as Elgin, St. Charles, Geneva, and Aurora. The Fox River Trail offers a potential commuting option from these communities that could bring workers and visitors to the corridor. Within the corridor, the trail offers connections between destination natural amenities and downtown businesses.

Recommendations

Pursue downtown economic development

Both Algonquin and Carpentersville have increased their focus on economic development Downtown Algonquin and Old Town Carpentersville in recent plans. As featured in the plans for each area, the presence of the Fox River is a key asset for revitalizing these neighborhoods. The villages should continue to coordinate planning efforts that complement one another and incorporate new economic opportunities the river offers, including ways to retain and attract new businesses.

Align riverfront planning and economic development planning

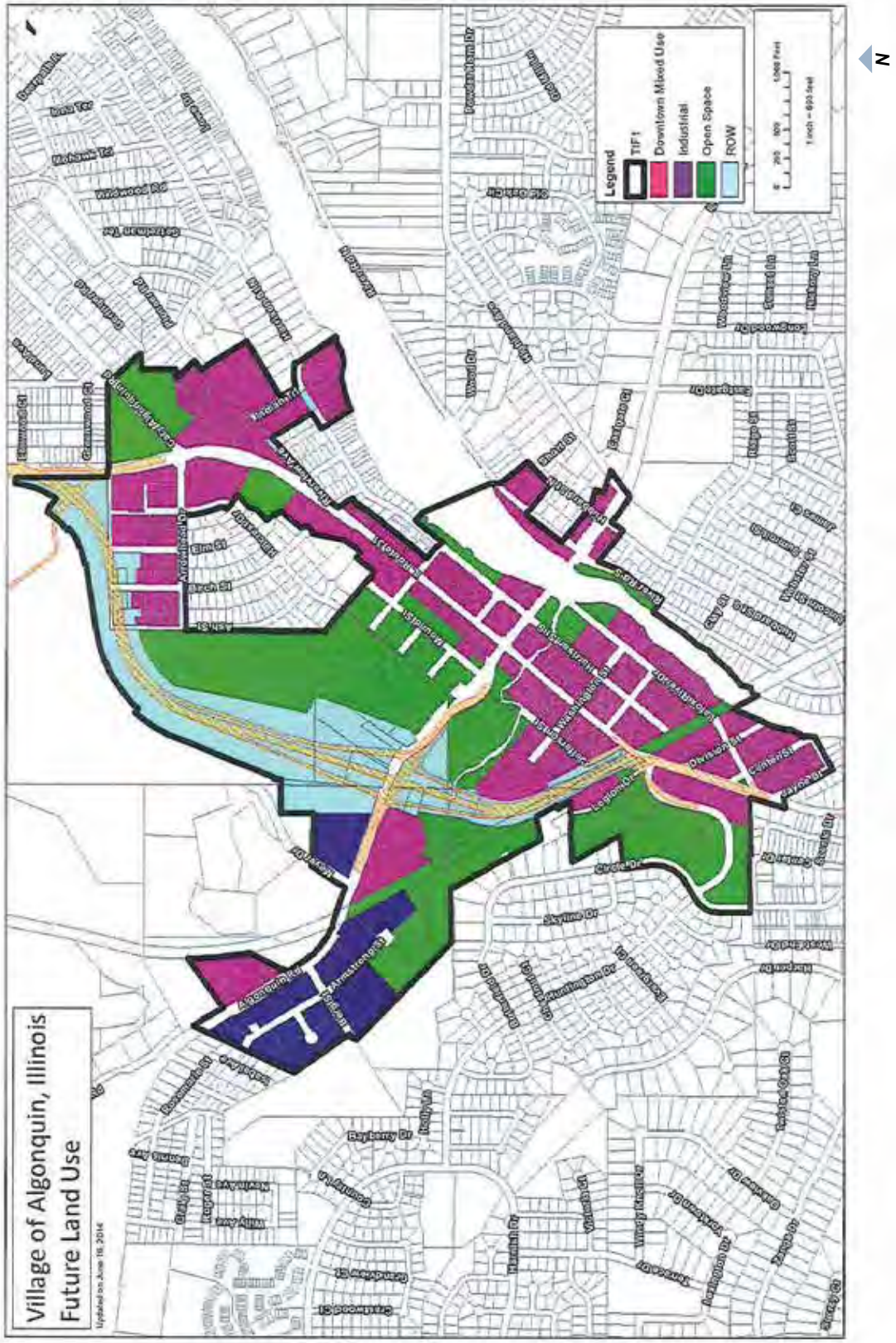
The riverfront can be more than a recreational asset and visually attractive amenity – it can also support the ongoing efforts to promote and attract businesses and economic growth. It can drive unique events that bring visitors from around the region and can be another doorway to the downtowns. The villages should work together to add commercial development and new businesses along the riverfront to strengthen existing commercial areas in both downtowns and build a critical mass of destinations along the corridor. Algonquin's creation of a downtown tax-increment finance (TIF) district and Carpentersville's ongoing implementation of the Old Town plan, including its recent contract with Hitchcock Design Group to assist with implementation and its ongoing efforts to create a TIF district, offer prime opportunities to incorporate riverfront planning.

As part of its TIF District designation, the Village of Algonquin included a future land use map (**Figure 6.1**) that illustrates the vision of a mixed-use area within its downtown and riverfront.

Listed below are other strategies that the municipalities can undertake to create new economic opportunities along the corridor and downtown areas:

- **TIF districts.** As Carpentersville continues to explore the creation of a TIF district that includes the Old Town area, the Village should work to ensure that the policies associated with the TIF advance the consistent vision for the area captured by this plan and the Old Town plan. Any plans and policies for the downtown TIFs in each village should emphasize attractive streetscaping, pedestrian improvements, mixed use development, and design guidelines that are consistent with their historic character. If the villages offer incentives for businesses and developments to locate within the TIF, these incentives should encourage businesses that complement to current uses and meet pre-established criteria developed by the Village. Both municipalities should collaborate to identify and prioritize potential projects, and analyze the potential for new mixed-use development opportunities along the corridor.
- **Set realistic retail expectations.** The villages should engage the Urban Land Institute (ULI) to hold a retail workshop for municipalities regarding realistic expectations for attracting retail. During the planning process many stakeholders expressed the desire for attracting an outfitter of outdoor gear that would provide paddling supplies, boat rentals, and other equipment that could capitalize on the corridor's outdoor opportunities. Currently, no business or

Figure 6.1. Future land use in Downtown Algonquin



Source: Village of Algonquin, 2015

recreational area within the corridor rents canoes, kayaks, or paddleboards. The villages should explore the viability of such enterprises in order to provide a more compelling retail mix.

- **Attract new businesses.** The villages should be proactive in their efforts to attract new businesses to the downtown areas. It is important to support existing desirable businesses, but attracting new businesses will help to foster existing businesses while providing additional employment opportunities and retail sales tax dollars. The villages should create an inventory of vacant storefronts or key redevelopment parcels with information on their basic attributes. The resulting list will help the villages identify potential sites for redevelopment, as well as market them effectively to potential developers and existing businesses looking to expand their facilities. The villages could organize tours with potential lenders to showcase the assets of the building stock and the unique characteristics of the corridor.
- **Recruit destination businesses.** As recommended in the Village of Algonquin's Downtown Plan (2013), both villages should add businesses that are destinations, which attract new users to their respective downtown areas who specifically seek out these businesses. With cooperation from individual property owners, the villages may begin to attract destination businesses such as family-oriented businesses and dining businesses.
- **Develop a shop local campaign.** The shopping habits of Algonquin and Carpentersville residents play a significant role in the economic health of each of their respective downtown areas. Residents frequently visit downtown Algonquin and are potentially the easiest group of people to attract to patronize local businesses. In the short term, this recommendation is primarily for Algonquin, because very few shopping opportunities exist in Old Town. Residents in both communities do have a vested interest in thriving downtowns, which offer nearby amenities and services, but could also increase their residential property values and help diversify the tax base. The benefits of shopping locally have been documented by a number of different organizations and research groups. Several studies have shown that money spent at a locally owned business stays in the local economy and continues to strengthen the economic base of the community.[1] This initiative would have a number of components, including establishing a shop local brand, promoting local businesses through advertising and promotions, and hosting community events. In the short term, the Village of Algonquin should establish a steering committee composed of successful and visible retailers from the community as well as residents who have expertise in this matter.
- **Activate vacant storefronts with public art.** Many municipalities struggle with how to reactivate vacant storefronts in between tenants. Installing art in storefront spaces can be a great way to draw positive attention to an empty retail space and allow an artist to exhibit his or her work. This program allows a property owner to reinvigorate a space and spark interest in how a space may be used. It also allows local artists and art organizations to increase the opportunities to experience art in the community. The municipalities should consider creating a public art program to enliven the windows of vacant spaces throughout their downtown areas.

Enhance coordination with local business owners

The villages should continue to 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 local businesses and attract businesses that will thrive in the downtown, riverfront environment. The villages should continue working with the Algonquin/Lake in the Hills Chamber of Commerce and Carpentersville Business Development Commission to take an active role in attracting new businesses while enhancing the aesthetics of the corridor to create a cohesive identity.

1. Source: Civic Economics, "Economic Impact Case Study: Local Merchants and Chain Retailers" 2002, accessed Feb.1, 2013, http://www.civiceconomics.com/app/download/5841748704/Lamar+Retail+Analysis.pdf.

- **Maintain a database of available sites and properties.** An online database provides an essential mechanism for promoting available properties in the downtown areas. Maintaining this database will help the villages identify potential sites for redevelopment as well as effectively market them to potential developers and existing businesses looking to expand their facilities. The database could also be expanded to market buildable sites along the riverfront. This database should be advertised on the villages' websites, the Chamber of Commerce website, and other real estate websites.
- **Foster communication with local businesses.** Increased coordination between the municipalities and the local business community can help existing businesses grow and will lead to a stronger local economy. Staff from both municipalities and local business owners should regularly work together to communicate their needs and share knowledge concerning available resources in order for businesses to become more successful.

  A regular meeting between business owners and the municipalities can help improve service provision, tackle issues as they arise, and provide a mechanism for sharing information about resources or funding sources. The Chamber of Commerce and/or the Business Development Commission could devote a segment of their regular meetings for this type of information exchange with municipal staff. This type of forum could also provide an opportunity for municipal staff to inform business owners of new municipal procedures, potential funding opportunities from grants or outside sources, availability of commercial properties, and the status of other projects in the corridor.

- **Reorganize and empower the Algonquin Downtown Business Group.** As recommended in the Village of Algonquin's 2013 Downtown Plan, the Algonquin Downtown Business Group should be reorganized and empowered as the recognized Downtown oversight and advocacy organization. The group should comprise a highly diversified collection of Downtown and municipal stakeholders and staff that will positively contribute to meeting the needs of local businesses and institutions and making the Downtown Plan recommendations a reality. (Page 132 of the Village's Plan)

Draw people to the Fox River through programming and open space

While stakeholders universally praise the Fox River as an asset to both communities, many residents reported that they visit the riverfront infrequently. The plan recommends ways that the villages can take advantage of the natural features and open space in the corridor to attract visitors to the area. Many of the recommendations in the other chapters of the plan are aimed at increasing use of the corridor and improving connections along it, two strategies that are integral to the plan's economic development approach. With the proposed improvements to wildlife habitat and public access to conservation land, the Fox River Corridor should see an increase in visitors for activities such as hiking, paddling, and birdwatching. Within the downtown areas, the presence of businesses and open space along Crystal Creek and Carpenter Creek offers an opportunity to use these features to connect the riverfront with popular parks and destinations throughout downtown Algonquin and Old Town. Both communities should continue to work together to create events and programs that serve their current mix of residents, increasing use of the riverfront and downtown areas.

Acquire properties for additional open space

While the Fox River offers an extensive network of open space and natural amenities, some residents and locations lack access to the riverfront and open spaces. In Carpentersville, there is little public open space to host riverfront events, as most of its riverfront land comprises private industrial businesses. Developing public open space on future land acquisitions could help draw residents and visitors to Old Town. The villages should work with partners (primarily IDNR, FPDKC, MCCD, McHenry and Kane Counties, Dundee Township, and the Land Conservancy of McHenry

County) to strategically acquire additional acres that are sensible locations for public open space. The villages may use development impact fees to fund the acquisition of land. In addition, there are several grant programs that could provide funding, including the Illinois Department of Natural Resources' (IDNR) Open Space Lands Acquisition and Development (OSLAD) program and the Illinois Trails Grant Program. Private funders, such as Openlands and the ComEd Green Region program, may be another option.

Initiate a strategy that implements placemaking amenities

Some strategies to attract people to riverfront areas include supporting the installation of public art, community gathering and event spaces, and water features such as fountains and waterfalls that contribute to a unique river-oriented sense of identity for the corridor. The Village of Algonquin convenes a Public Art Commission, which could partner with the Village of Carpentersville to promote art and sculpture that builds a consistent, attractive sense of place along the Fox River. Listed below are some strategies that the villages should pursue to implement placemaking amenities:

- **Support community events.** The villages should work with local groups to plan community events throughout the year that bring residents and visitors into the Fox River corridor. These events will highlight the natural and built beauty of the area and bring potential customers to existing businesses. The villages should look for ways to strengthen the connection between community events and riverfront businesses through direct engagement during events. During the planning process, residents envisioned creating additional community events that engaged the local youth population and visitors, showcased the environmental assets of the corridor, and brought the community together. Some possible ideas include outdoor movies along the Fox River, a holiday craft fair, food truck festivals, or a farmer's market. The villages should continue to work with local community groups to harness volunteer energy as it develops these events.

It is important to continue to market the corridor as a year-round destination. One of the most popular winter activities within the corridor is the Raging Buffalo snowboarding facility. Photo by www.tripjumper.com

In 2015, a "Slide the City" was set-up in Downtown Algonquin that included a water slide along North Main Street into the downtown area. The event drew thousands of visitors into the community over a weekend. Both village's should be open to similar type events in the corridor to continue to attract visitors and shoppers. Photos by Social Tech Pop.

Increase public access from the river to the downtown areas

Another popular idea among participants in the project's engagement activities is to increase the number of piers and boat access points in downtown areas, making it easier for passing boaters – whether power boaters above Algonquin Dam or paddlers below it – to park their vessels and patronize riverfront businesses. Adding piers, canoe tie-ups, and boat access points at different parts of the river will help to connect these users to the downtown areas while attracting more residents to the riverfront for water-based activities, and in turn, benefit local businesses.

An example of a water fountain installation on a river, the Ross Landing Fountains in Tennessee. Photo by pictoramio.com.

Promote educational and recreational programs

Algonquin and Carpentersville have large youth populations and an active number of non-profits and community groups. The villages should leverage the educational opportunities of the corridor's environmental features by partnering with school districts and other education providers. Building relationships with schools offers some of the most fertile ground to make the Fox River an environmental education destination dedicated to creating awareness, understanding, and appreciation of the local ecosystem. Boosting environmental education would not only benefit students, but also potentially engage a wider range of funding opportunities. The creation of community event spaces connected with walking trails and interpretive signage will allow groups to move from those spaces into guided tours of the nearby natural areas.

An illustration of an outdoor movie in a park. Illustration by Bondy Studios, 2015.

An illustration of food trucks as part of a special event at a new park along the Fox River in Old Town Carpentersville. Illustration by Bondy Studios, 2015.

The Villages should also explore collaboration with MCCD, FPDKC, DTPD, Friends of the Fox River, and the Village of Algonquin Recreation Division to develop and promote recreational programs that take advantage of the Fox River. Some recreational program ideas residents noted during the planning process include high school cross-country running competitions, water-based sports tournaments, and triathlons, half-, and full marathons.

Market the Fox River Corridor as an outdoor recreation destination

The Fox River Corridor has the potential to be a recreational resource not just for residents of the study area, but for the broader region as well. The corridor's unique features – its calm current, natural surroundings, and accessible location – are attractive to paddlers who live throughout the region. As a cycling destination, it offers high-quality trails along the river and in nearby regional open space, as well as connections to the extensive area connected by the Grand Illinois Trail. The villages should embark on a joint marketing campaign with community groups formed along the river, such as local paddling, cycling, and economic development advocates to explore a recreational marketing campaign to bring recreational users to the river. The villages should work with Visit McHenry County and the Elgin Area Convention and Visitors Bureau to coordinate a marketing campaign themed around outdoor recreation in the corridor.

An increase in river tourism could help to bring patrons to businesses in Downtown Algonquin and Old Town Carpentersville. Potential targets for marketing efforts could include canoe and kayak clubs in the region, general outdoor outing groups, summer camps, and school districts that may be seeking environmental education opportunities. In the longer term, gaining a designation through the National Park Service's National Water Trails System would help raise regional and national awareness of the Fox River as a recreational destination.

Develop signage and wayfinding

Despite the excellent access to Old Town Carpentersville and Downtown Algonquin that the Prairie/Fox River Trail provides, many people reported difficulty getting from the trails to downtown destinations. Improving signage and wayfinding will allow bicyclists and pedestrians to more easily navigate the area by showing clear routes and providing directions to shops, restaurants, and

An example of a canoe "livery" in Ann Arbor. Photo by Flickr user Cheryl Saam.

A water trail map beside a canoe launch area in Downtown Oswego along the Fox River.

An outdoor seating area along the banks of the Fox River in Oswego, Illinois.

An illustration of a floating stage off of Riverfront Park in Downtown Algonquin.

community facilities. The communities should consider the establishment of a common symbol or logo that would help unify the Fox River Corridor. The symbol or logo could be used on signage and marketing materials to strengthen the image and identity of the corridor. The villages should analyze TIF district revenues and budgets to allocate funding for streetscape changes to include new pedestrian-scale lighting, landscaping, and wayfinding signage to improve connections while enhancing the natural look and feel of the corridor in a way that complements the local character whenever possible.

Establish clear wayfinding signage

Clear wayfinding between downtown areas and the parks and boat launches of the riverfront will also benefit visitors and businesses. Key locations that would benefit from improved signage include the Prairie/Fox River Trail (particularly where it meets Main Street near downtown Algonquin), boat launches, and along Route 31, where people may be unaware of their proximity to the river. Destination signs should also be installed to help direct users to such areas as Raceway Woods Forest Preserve, Fox Bluff Conservation District, and the Hackmatack National Wildlife Refuge.

Use interpretive signage to promote education, environmental features, and safety.

Interpretive signage can also be used to promote the natural history of the Fox River Corridor. During our canoe/kayak tour of the study area, many steering committee members also suggested installing signage along the riverfront. Signs could be used to educate river users about the history of the Fox River and both communities, environmental features, geography and natural history (including land formation by glaciers), and river safety.

An example of a trail signage system on the Cal-Sag Trail. Photo by the regionalnews.com.

An example of an existing trail wayfinding sign. Photo by www.kansascyclist.com.

An example of a portage sign. Photo by www.traveljournals.net.


An example of environmental signage. Photo by www.idahocampgroundreview.com.

Implementation strategies

Pursuing place-based economic development within the Fox River corridor will require coordination between a number of stakeholders, including both villages, both counties, local chambers of commerce, and business owners. The following are actions for each key recommendation that stakeholders should pursue to strengthen business opportunities within the corridor.

Table 6.1 Placemaking and Economic Development implementation

Key Recommendation	Action	Implementation	Description
Pursue downtown economic development	Align riverfront planning and economic planning Timeline: 0-2 years	Village of Algonquin, Village of Carpentersville, ULI Chicago, Local businesses owners, and building owners.	Convene a ULI retail workshop with several neighboring communities to identify realistic expectations for attracting retail.
	Enhance coordination with local business owners Timeline: ongoing	Village of Algonquin, Village of Carpentersville, Algonquin/Lake in the Hills Chamber of Commerce and Carpentersville Business Development Commission, local business owners.	Staff from both communities should work alongside the Chamber of Commerce and Carpentersville Business Development Commission to identify opportunities to interact with local business owners.
	Maintain a database of available sites and properties Timeline: ongoing	Village of Algonquin, Village of Carpentersville, Algonquin/Lake in the Hills Chamber of Commerce and Carpentersville Business Development Commission	Algonquin and Carpentersville staff should each include on their website a list of available sites and properties. List should be maintain regularly and promoted at business group meetings and through other local economic development websites.
Draw people to the Fox River through programming and open space	Acquire properties for additional open space Timeline: 5+ years	Village of Algonquin, Village of Carpentersville, IDNR, FPDKC, McHenry and Kane Counties, Land Conservancy of McHenry County	The villages should pursue the purchase of available parcels and meet with property owners to consider additional parcel acquisition for open space.
	Initiate a strategy that implements placemaking amenities Timeline: 0 -2 years	Village of Algonquin, Village of Carpentersville, Algonquin's Public Art Commission, local artists, youth, businesses, and residents.	Stakeholders, including the private sector, should incorporate placemaking amenities whenever feasible. New developments should be designed to include streetscape amenities.

Key Recommendation	Action	Implementation	Description
	Increase public access from the river to the downtown areas Timeline: 0 -2 years	Village of Algonquin, Village of Carpentersville.	The Villages should work with FPDKC and McHenry County to advocate for amenities such as additional and improved canoe/kayak launch sites, piers, and boat access points at different parts of the river. The villages should work with the open space districts to identify locations accessible from the river. These sites should be clearly marked on maps and easily identified from the river.
	Promote educational and recreational programs Timeline: ongoing	Village of Algonquin, Village of Carpentersville, McHenry County Conservation District, FPDK, Dundee Township Park District, Village of Algonquin Recreation Division, Community Unit School District 300, Barrington Community Unit School District 220	Public open spaces and signage at key points along the Fox River Trail would help promote educational and recreational programs. These educational programs could be part of Fox River Ecosystem Partnership (FREP)'s National Water Trail effort or an OSLAD grant.
Market the Fox River Corridor as an outdoor recreation destination	Explore a recreational marketing campaign Timeline: ongoing	Village of Algonquin, Village of Carpentersville, Visit McHenry, Elgin Area CVB, Algonquin/Lake in the Hills Chamber of Commerce, Carpentersville Business Development Commission , FREP	Algonquin and Carpentersville should work with local economic development groups to promote recreational and community events through forms of social media, online calendar of events, and community advertising using posters/flyers. The villages should also support FREP's efforts to develop the Fox River Water Trail Plan.
Develop signage and wayfinding	Install wayfinding and interpretive signage Timeline: 0 -2 years	Village of Algonquin, Village of Carpentersville	Stakeholders should work together to design a consistent theme and look for wayfinding and interpretive signage. Depending on the location of the sign, the appropriate stakeholder should create, install, and maintain the sign. Signage at key locations, such as between the Prairie Trail and downtown Algonquin, at piers, and along Route 31, should be highest priority.

Note: Forest Preserve District of Kane County (FPDKC), McHenry County Conservation District (MCCD), Illinois Department of Transportation (IDOT), Dundee Township Park District (DTPD), Fox River Ecosystem Partnership (FREP), Urban Land Institute (ULI)

Chicago Metropolitan
Agency for Planning

233 South Wacker Drive, Suite 800
Chicago, IL 60606

312-454-0400
info@cmap.illinois.gov

www.cmap.illinois.gov

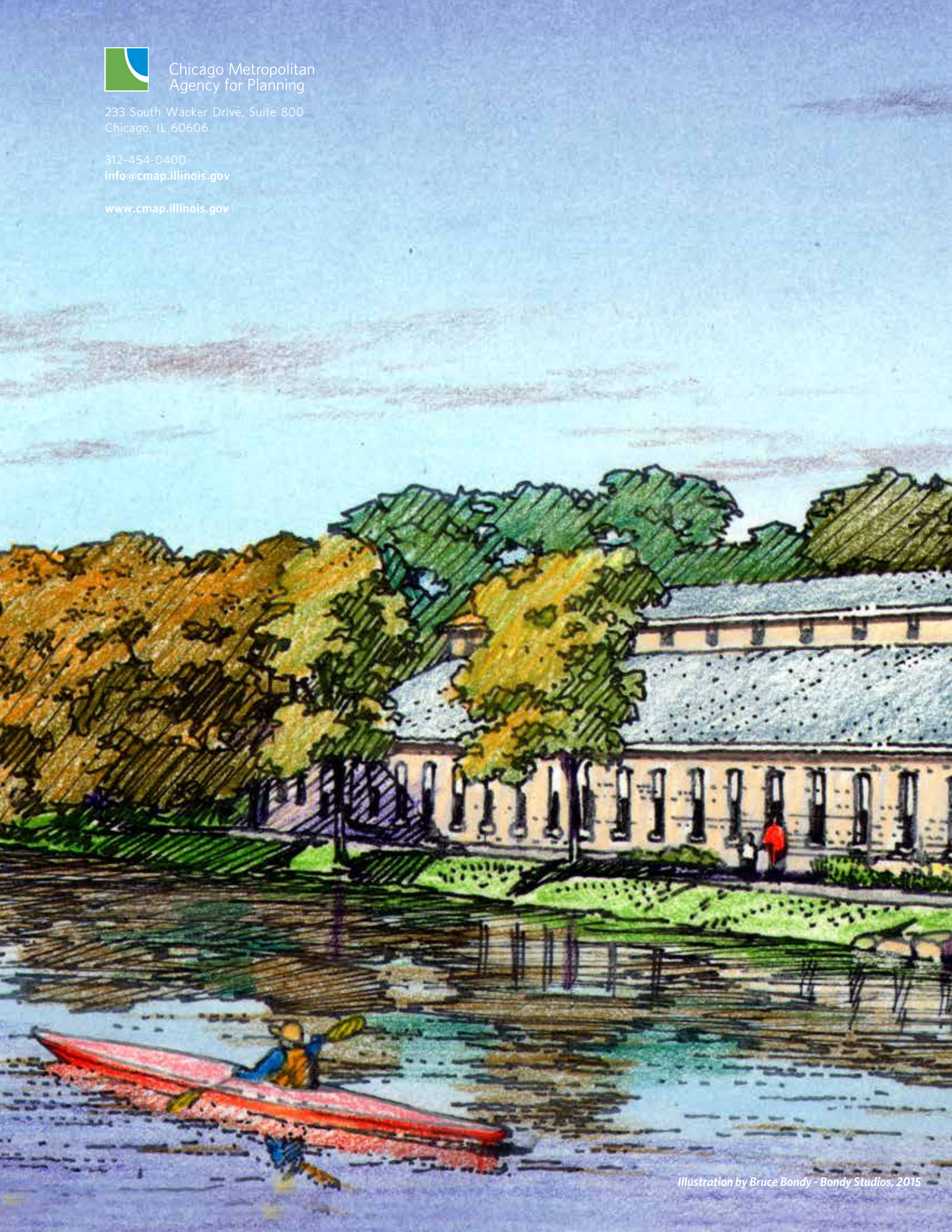


Illustration by Bruce Bondy - Bondy Studios, 2015