

THE ECONOMIC, HEALTH, AND ENVIRONMENTAL IMPACT OF BICYCLING AND WALKING FACILITIES



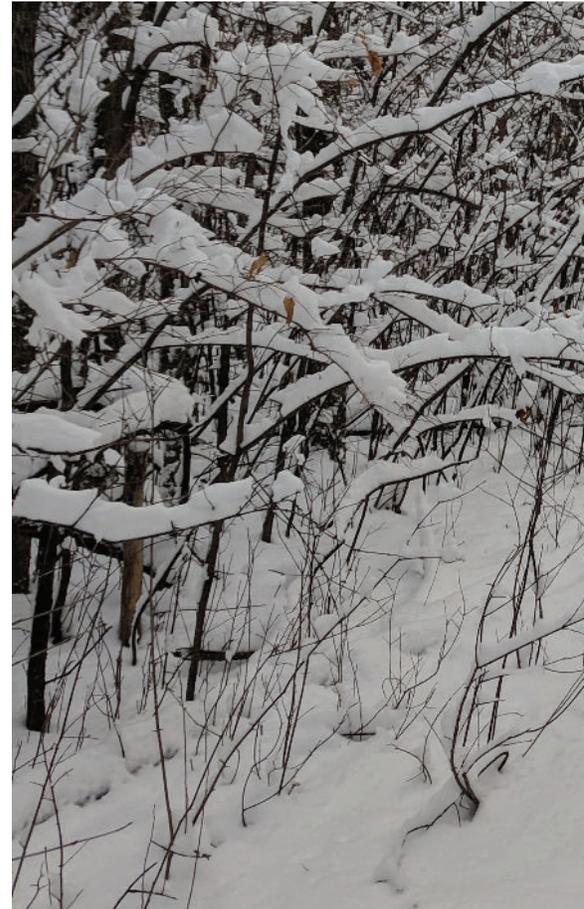
East Central Wisconsin
Regional Planning Commission
ECWRPC
Calumet • Fond du Lac • Menominee • Outagamie
Shawano • Waupaca • Waushara • Winnebago

Fond du Lac Riverwalk
City of Fond du Lac

About East Central Wisconsin Regional Planning Commission

The East Central Wisconsin Regional Planning Commission (ECWRPC) is the official planning agency for the ten counties of Calumet, Fond du Lac, Green Lake, Marquette, Menominee, Outagamie, Shawano, Waupaca, Waushara, and Winnebago in the East Central Region of Wisconsin (eight of these are members of the Commission). ECWRPC was created to transcend the political and fiscal limitations of the individual jurisdictions in its service area to provide comprehensive planning services for the region. These include environmental, economic development, open space, land use, housing, community, and transportation planning, as well as Geographic Information Systems services.

As part of ECWRPC's bicycle and pedestrian infrastructure planning, the Commission supported the creation of the existing 622 miles of municipal bicycle/pedestrian networks in Calumet County, Fond du Lac County, Outagamie County, and Winnebago County, and is facilitating the creation of a proposed 1,011 additional miles of bicycle/pedestrian trails, pathways, and new facilities. ECWRPC assists in ensuring the regional network flows seamlessly between and within municipal boundaries, includes consistent wayfinding signage, and links harmoniously with commercial areas.



Carpenter Preserve
City of Neenah



CONTENT



| | | | |
|----|---|----|---|
| 05 | An Interconnected Bicycle and Pedestrian Network | 12 | The Cost Saving Benefits of Active Transportation |
| 06 | The Bicycle and Pedestrian Network in the Four-County Study Area | 14 | Spending and Health Impacts from Bicycle and Pedestrian Network Use |
| 09 | The Construction Impacts of Completing the Network | 16 | Property Value Impacts of a Regional Bicycle and Pedestrian Network |
| 10 | Environmental Benefits of a Regional Network of Bicycle and Pedestrian Facilities | 18 | Case Studies |
| | | 23 | Conclusions |

Oshkosh Riverwalk
City of Oshkosh



**Striving to Create an
Interconnected Bicycle and
Pedestrian Network that is . . .**



ACCESSIBLE

to people of all ages
and abilities



CONNECTED

for affordable,
sustainable transportation



**EQUITABLY
DISTRIBUTED**

to provide access
across all communities



**HEALTHY
AND SAFE**

to promote wellbeing





AN INTERCONNECTED BICYCLE AND PEDESTRIAN NETWORK

Bicycle and pedestrian infrastructure networks provide valuable economic, environmental, and public health benefits to the communities they serve. Research and practice show that active transportation networks are essential infrastructure which improve the economic vitality of communities. These facilities create safe and easy access to a community's natural assets and connect destinations throughout a region. When developed as a network, they support healthy living, provide affordable transportation, and improve the quality of life for residents who live nearby. In addition to providing benefits to residents, investments in bicycle and pedestrian infrastructure make the area more attractive for businesses to locate and can bolster tourism.

Completion of the network will increase economic activity and jobs associated with construction of new segments across the study area; will ultimately increase property values for residents located close to completed network; and will provide environmental service benefits in the form of flood mitigation, carbon sequestration, and other avoided costs associated with the protection of surrounding tree cover. In addition to the benefits afforded to the region by the presence of the network, the usage of bicycle and pedestrian infrastructure by residents and visitors will support healthy lifestyles by expanding walking, biking, and other active transportation options, while also improving connectivity in the region, and generating greater economic activity for local businesses located near the network.

The purpose of this report is to highlight the potential range of benefits associated with building the recommended facilities within the Appleton (Fox Cities) TMA, Oshkosh MPO, and Fond du Lac MPO, referred to as the "study area." This report will help stakeholders understand the estimated value created by completing the network, including opportunities arising for the community, workers, and local businesses.

 **Safe Routes to School**
Village of Greenville

THE BICYCLE AND PEDESTRIAN NETWORK IN THE FOUR-COUNTY STUDY AREA

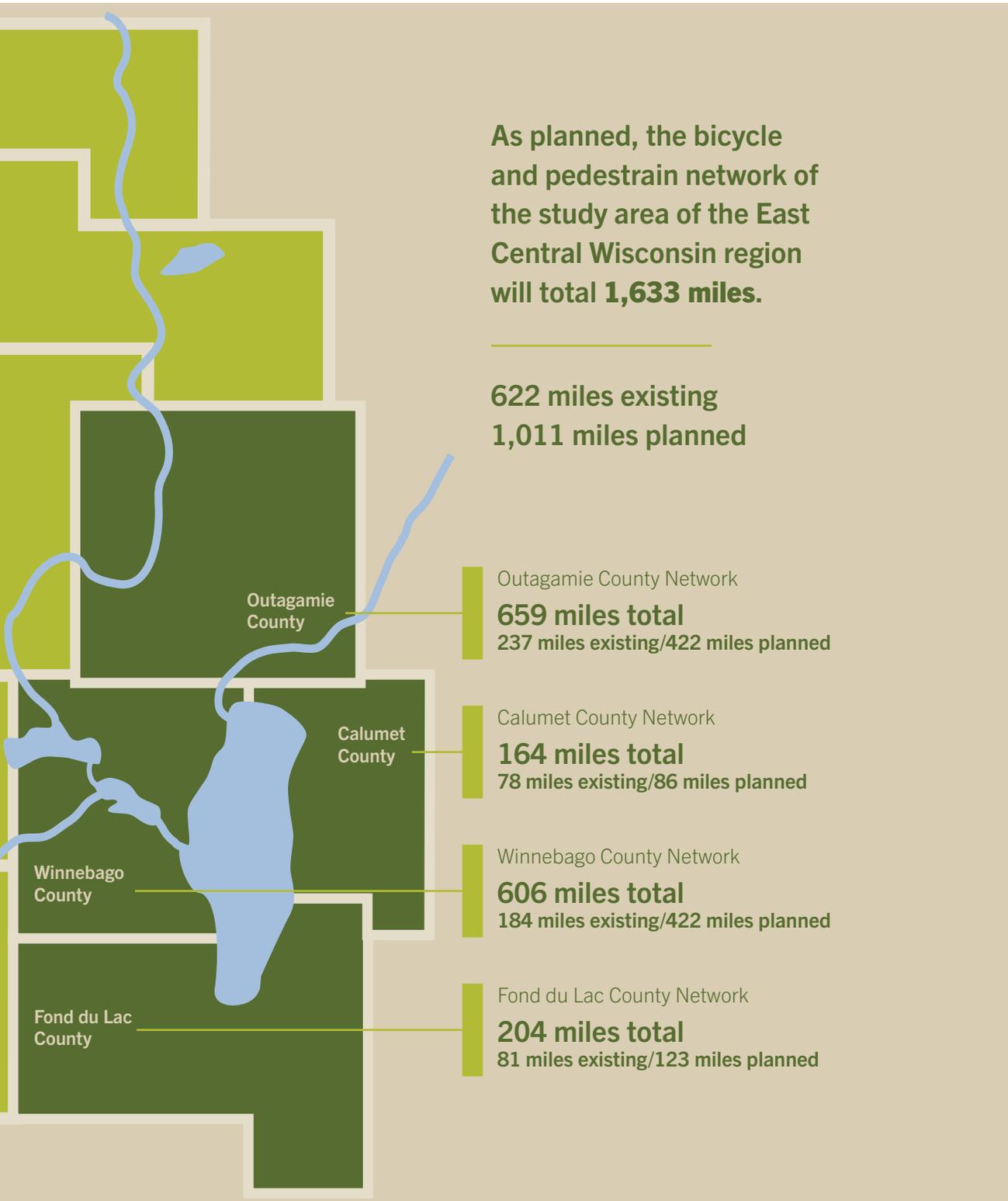


 Pedestrian and Bicycle Infrastructure
City of Fond du Lac

The existing network across the four-county study area encompasses 214 miles of off-road paved trails, 214 miles of off-road unpaved trails, 137 miles of bike lanes, and 58 miles of signed bike routes.¹ There are an additional 1,011 miles of planned facilities across the study area. Upon completion of the full bicycle and pedestrian infrastructure network, there will be 1,633² miles connecting Calumet, Fond du Lac, Outagamie, and Winnebago counties.

¹ As of August 2021

² May not sum due to rounding



Source: ECWRPC (2021)



THE CONSTRUCTION IMPACTS OF COMPLETING THE NETWORK

According to cost estimates provided by ECWRPC, the expansion of the region’s bicycle and pedestrian network will represent a significant boost to the Wisconsin economy through the upfront investment of \$1.3 billion to construct 1,011 miles of new facilities. The total investment in the network will create a \$2.3 billion economic impact. This includes support for 12,970 jobs, \$776,000 in employee compensation throughout the state, and more than \$85 million in state and local taxes. This equates to a tax impact of approximately \$84,000 per mile of network constructed.

Economic impacts of these capital investments were calculated using the industry standard input-output economic model IMPLAN, estimating impacts on the four-county study area and state of Wisconsin. Input-output modeling accounts for the direct impacts (i.e. the construction activity itself) as well as the spillover of spending within a regional economy through indirect and induced impacts. Indirect impacts result from direct spending on the purchase of goods and services from local vendors who in turn require additional purchasing from their own set of vendors. The portion of direct spending which goes to labor income—some of which will be spent locally by employees on goods and services, like purchasing fuel or snacks at which goes to labor income—some of which will be spent locally by employees, and on goods and services, like purchasing fuel or snacks—generates induced economic impacts, further stimulating the local economy.



\$1.3B INVESTMENT

to build
1,011 mi. of
new trails



\$2.3B ECONOMIC IMPACT

12,970 jobs
\$776K employee
compensation



\$85M TAXES

local and state tax
revenues

The tax impact of the constructed network amounts to \$84,000 for each completed mile.

Fritse Park
City of Neenah



ENVIRONMENTAL BENEFITS OF A REGIONAL NETWORK OF BICYCLE AND PEDESTRIAN FACILITIES

Upon completion of the full network, the estimated economic value that ecosystem benefits provide to the region on an annual basis amounts to \$437.9 million

Woodland Prairie Park
Village of Fox Crossing

Bicycle and pedestrian networks, including those in East Central Wisconsin, provide environmental benefits for the communities they serve by bolstering natural resource management through active environmental conservation efforts. These networks help to preserve the surrounding natural environment, which otherwise may be at risk for development. Environmental benefits include air pollution removal, the provision of water supply, water quality improvement, flood mitigation, wildlife habitat conservation, and carbon sequestration and storage.

These benefits combined create ecosystem functions that would require costly measures to replicate if lost. In sum, the estimated economic value these ecosystems provide for the completion of the full network on an annual basis would be \$437.9 million. Additionally, the existing tree canopy on the fully completed network is estimated to be valued at \$90.9 million over the lifespan of the tree canopy; in other words, it would cost \$90.9 million to replicate carbon storage if the tree canopy did not exist or was removed.



\$90.9 Million
total lifetime carbon storage

It is estimated that, when completed, the East Central Wisconsin Bicycle and Pedestrian Network will protect 50,000 acres of tree cover.

”

For eons, the Riverfront was more of an industrial function. However, the city has since moved towards greater walkability and trails. The community gave feedback that they want public access to the waterfront and the key is for everyone to have access to the trail system.

THE COST SAVING BENEFITS OF ACTIVE TRANSPORTATION

The East Central Wisconsin bicycle and pedestrian infrastructure network expands mobility options for people who live and work in the region, providing a safe, extensive network for non-motorized transportation that is connected and routed through major destinations. The potential increase in users due to the proposed expanded network within the study area provides crucial support for the region's transportation system, including the reduction of Vehicle Miles Traveled (VMT) and safety improvements. It is estimated that users of the completed network who replace automobile trips with biking and walking trips could reduce annual VMT in the region by 17.5 million miles, yielding associated reductions in carbon emissions of 6,900 metric tons and avoided social costs of carbon emissions of around \$352,000.

A shift to active transportation modes not only has environmental impacts, but financial impacts for individual households as well. Car ownership and the attendant maintenance expenses cost an average household around \$11,000 a year. As the transportation network of the study area grows and continues to be interconnected, communities and workplaces become even more accessible. The reduction of VMT is associated with over \$3.15 million in operating costs for vehicles and 800,000 gallons saved on gasoline annually.

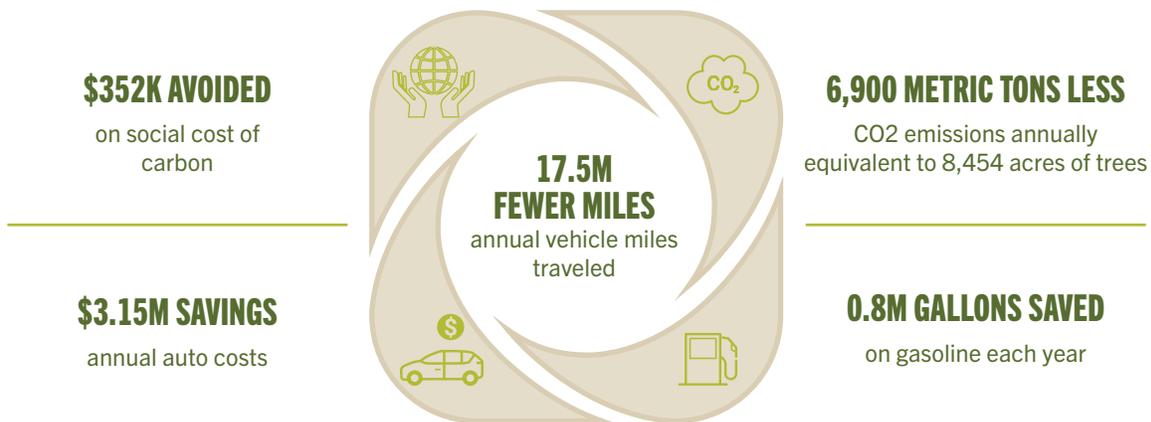
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I like the concept of trails and biking and walking. I like the concept of everyday use. You can use the same trail to go to work, to walk your dog, and for your exercise. A lot of neighborhood groups are downtown. There's a coherence there and a way to make this work for everybody.



Ahnaip Street Bike Lane
City of Menasha

A Connected Regional Bicycle and Pedestrian Network will Increase Active Transportation which Results in Savings



SPENDING AND HEALTH IMPACTS FROM BICYCLE AND PEDESTRIAN NETWORK USE

58,300 users

are physically active due to the presence of bike paths and trails

\$69 million

aggregate annual healthcare cost savings by frequent users

\$84 million

economic impact from user spending

690 jobs

supported by user spending

\$145.3 million

productivity cost savings due to workers using bike paths and trails



Wild Goose State Trail
City of Fond du Lac

A bicycle and pedestrian network user survey conducted in early 2022 by ECWRPC was completed by approximately 1,000 respondents who live or work in one of the four counties in the study area. The survey included questions on bike path and trail usage frequency and spending patterns. These results were used to extrapolate patterns for the study area overall. Over 75 percent of survey respondents reported using the network for physical activity.

Bicycle and pedestrian infrastructure network usage has two direct benefits on the region and state: 1.) users benefit from access to low-cost options to engage in physical activity and users often spend some of their money on amenities; and 2.) retail options that are located within close proximity of the network while on their trip.

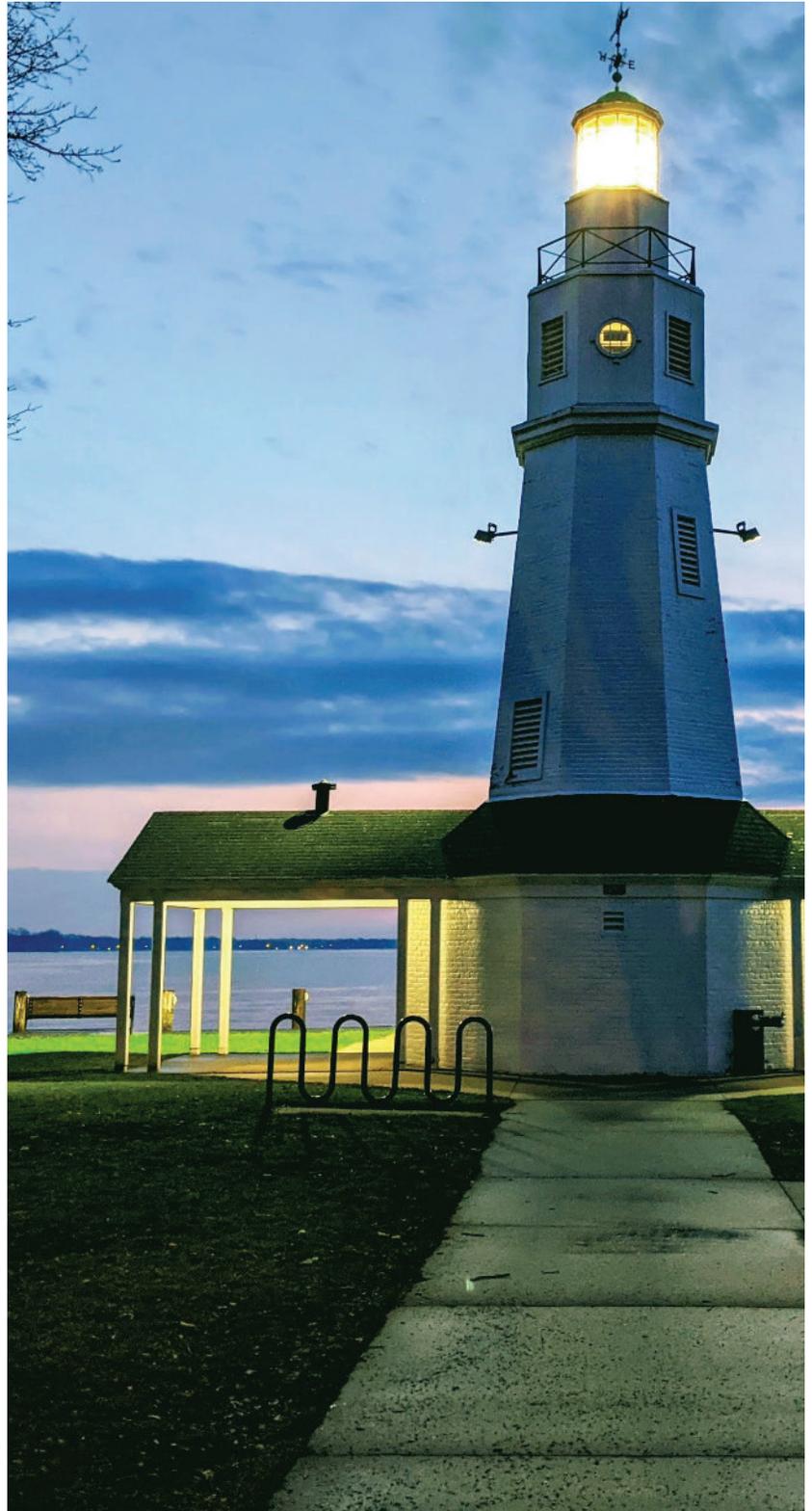
Physically active people typically enjoy a variety of health benefits and tend to achieve higher rates of productivity at work. It is estimated that the completed network will support approximately 58,300 physically active users annually, enjoying an aggregate annual health care cost savings of nearly \$69 million. Workers who meet recommended physical activity levels using the completed network achieve associated benefits in workplace productivity, which could yield total productivity cost savings of \$145.3 million annually.

Local spending by active users will generate additional economic benefits for businesses located near the network as well as retailers selling recreational activity-related products. Residents and visitors who access the region's network often spend money on both goods for and during their trips. It is estimated that direct spending by users on the completed network in the study area will total over \$44 million annually. These direct expenditures are projected to generate approximately \$84 million in total economic impact in the state each year, supporting 690 jobs with \$21.3 million in earnings annually.

”

They created signs on the existing sign post that said, “did you know you are only a 4 minute walk from a coffee shop?” That’s a revelation. I’m a 3 minute walk from getting a sandwich.

■ Kimberly Point
City of Neenah





PROPERTY VALUE IMPACTS OF A REGIONAL BICYCLE AND PEDESTRIAN NETWORK

Loop the Little Lake
Winnebago County

Numerous studies have shown that homeowners are willing to pay a premium to live near recreational outdoor space. As a result, the bicycle and pedestrian infrastructure are viewed as active transportation routes and safe spaces for walking and biking that increase the overall value of housing stock for their

neighboring communities. This increased wealth is captured by residents through higher sales values of homes and also generates increased government revenues through increased property tax collections and greater transfer taxes at time of sale.

8% home value premium is due to proximity to recreational outdoor space

Properties within a half mile of a pedestrian and bicycle facility within the four-county region have an approximate 8 percent premium on their property. The current network's premium results in an aggregate increased property value of \$507 million, producing \$9.6 million in additional county property taxes each year. For the segments of the system that are still in planning stages, the total property value impact totals \$137 million and would result in an additional \$2.6 million in county property taxes each year upon completion of the whole network.

 **CE Trail**
Outagamie County

”

I don't want to undersell the connection to campus. We have seen such an uptick of students and university folks who have come out and gravitated to this part of the community. Even though it is two blocks away the trail has broken that down. I think that's been great to see and will continue.



Case Study

City of Oshkosh, Winnebago County



Oshkosh Riverwalk



\$3.2M

economic impact from construction of remaining segments



18 FTE*

jobs supported by remaining construction



\$773K

annual environmental services benefits upon full completion



\$450K

in annual healthcare cost savings achieved by active users



\$485K

economic impact from local spending



51K MILES

reduced VMTs annually



\$9M

increased assessed value



\$184,390

increased County tax revenue

* "FTE" is Full-Time Equivalent.



The Fox River has long been recognized as a great asset for the City of Oshkosh, and with increased downtown revitalization efforts, the city developed a comprehensive Riverwalk plan in early 2006. The first phase of the Riverwalk was completed in 2008 and was gradually expanded in several phases to create a 3.5-mile contiguous Riverwalk that today links important Oshkosh amenities along the Fox River like the Leach Amphitheater, University of Wisconsin Oshkosh, William A. Steiger Park, and the South Shore Redevelopment Area. The South Shore Redevelopment Area includes the former Jeld-Wen industrial site which the City plans to redevelop as gathering point for the local community and visitors, with transient docks for watercraft, added space for anglers, and rows of benches that will allow residents and visitors to stop and enjoy the riverfront area. A portion of the Riverwalk at the Oshkosh Corporation Global Headquarters is connected to the 3.5-mile contiguous Riverwalk via the Tribal Heritage Trail and the Wiouwash State Trail. This portion of the trail was not considered in this case study.

”

Living in downtown Oshkosh within an apartment building without access to greenspace, being able to walk and bike to a trail is important. People who don't have backyards, being able to get to those publicly accessible places, whether they are biking or walking, is important too.

Case Study

Village of Fox Crossing, City of Menasha, and City of Neenah, Winnebago County



Loop the Little Lake



\$731K

annual environmental services benefits



\$450K

in annual healthcare cost savings achieved by active users



\$485K

economic impact from local spending



88K MILES

reduced VMTs annually



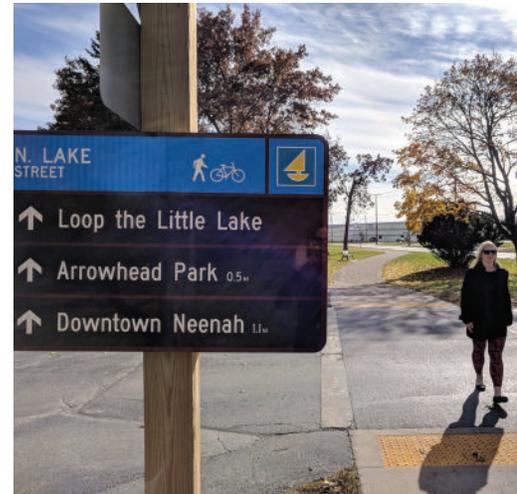
\$6M

increased assessed value



\$123,170

increased County tax revenue



Loop the Little Lake, referred to as the “Loop,” is a 3.5-mile route dedicated to active transportation and recreation, with four trestles, immediate access to five parks, places to observe nature, and dedicated areas to fish. The Loop links three communities, Village of Fox Crossing, City of Menasha, and City of Neenah, and connects bicyclists and pedestrians with scenic vistas and access to Little Lake Butte des Mort. It was begun with the construction of the Fox Cities Trestle in the early 2000s to connect Broad Street in the City of Menasha to Fritse Park in the Town of Menasha (now the Village of Fox Crossing). The popularity of this east-west connection spurred subsequent construction of a trail along North Lake Street in the Village of Fox Crossing during a street reconstruction project, and construction of a trail through Herb and Dolly Smith Park and Arrowhead Park in the City of Neenah. The Loop was completed in 2018 with the construction of two additional trestles and a combination of on-road and off-road facilities.



We had a bunch of people to meet and take the loop. To me it’s about finding those opportunities to take advantage of the trails and paths and finding someone to do it with them to get them off the roads and allow them to explore a bit.

Case Study

Multi-Municipality Link to High Cliff State Park, Calumet County



High Cliff State Park Connection



\$12.5M

economic impact from construction of remaining segments



71 FTE

jobs supported by remaining construction



\$3.7M

annual environmental services benefits upon full completion



\$2.2M

in annual healthcare cost savings achieved by active users



\$2.4M

economic impact from local spending



282K MILES

reduced VMTs annually



\$28M

increased assessed value



\$511,610

increased County tax revenue

* "FTE" is Full-Time Equivalent.



We had monthly programs where we explored a trail each month. High Cliff State Park was one of them. Even if they are running the neighborhood, they are looking for a place to grab a coffee or a beer afterwards.

Case Study

City of Appleton, Outagamie County



Newberry Trail



\$501K

annual environmental services benefits



\$308K

in annual healthcare cost savings achieved by active users



\$333K

economic impact from local spending



61K MILES

reduced VMTs annually



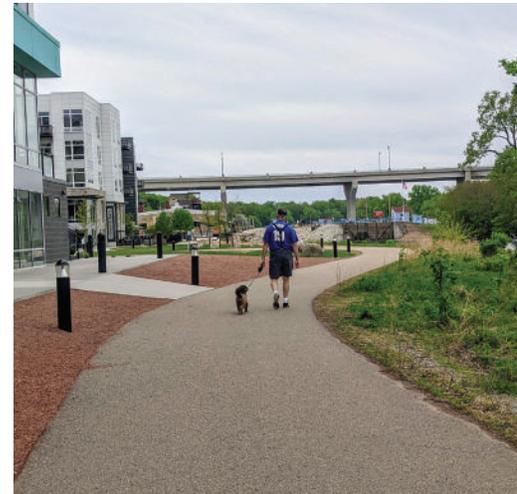
\$12M

increased assessed value



\$220,040

increased County tax revenue



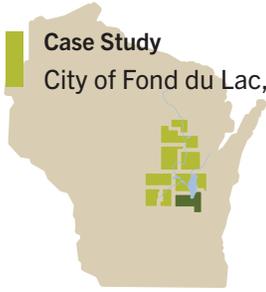
Appleton's Newberry Trail follows the Fox River, its navigational canal locks, and an active rail line. Once an industrial hub, the 2.4 mile trail is now beautifully landscaped with mature trees in a natural woodland theme, giving the impression of being in the wilderness even though it is in the center of an urban area. Adjacent to the trail are a number of amenities, including kayak launches, restaurants, coffee shops, and multi-family housing units. Itl runs through Telulah Park where playground, skate park, disc golf course, picnic pavilions, baseball diamonds, and soccer fields can be found. There are a number of amenities, including kayak launches, restaurants, coffee shops, and multi-family housing units that have been recently developed along the trail.

”

In Appleton, we are building a more friendly and pedestrian friendly corridor which is great for the businesses. 462 residential units have been either built or proposed. It's an exciting time to focus in on the walkability and livability. Adding bike racks and fix stations along the routes. We are seeing that as a needed amenity.

Case Study

City of Fond du Lac, Fond du Lac County



Fond du Lac Loop



\$6.2M

economic impact from construction of remaining segments



34 FTE

jobs supported by remaining construction



\$8.2M

annual environmental services benefits upon full completion



\$1.5M

in annual healthcare cost savings achieved by active users



\$1.5M

economic impact from local spending



332K MILES

reduced VMTs annually



\$27M

increased assessed value



\$504,950

increased County tax revenue

* "FTE" is Full-Time Equivalent.

The Fond du Lac Loop is a 16-mile bicycle and pedestrian pathway designed to facilitate a safe, healthy, enjoyable way for community members to explore Fond du Lac. Comprised of a variety of trails that connect around the city, the Fond du Lac Loop provides a variety of scenic vistas, access to businesses, and connects to regional trail systems. With ninety percent of the route separated from traffic, it is a cost-effective alternative system of transportation, and one of the safest bike and pedestrian infrastructure systems in the Midwest.



”

Secondly, [visitors] want to know more about Fond du Lac County while they're here, about outdoor recreation and bike paths ... that's exciting to me because we have that.

CONCLUSIONS

The community value of pedestrian and bicycle network connectivity

The development of bicycle and pedestrian infrastructure make a profound economic impact on the region that surround them. The benefits are far-reaching and bring powerful outcomes to communities, including connecting people to jobs and other opportunities, creating opportunities for people to be physically active and outdoors, protecting natural resources, and revitalizing economies. However, these valuable impacts are often understated or overlooked when considering investment in active transportation networks within communities.

Economic impacts and environmental benefits are measurable

This report analyzes the potential economic, environmental, and public health impacts of building out the planned pedestrian and bicycle network in the Appleton (Fox Cities) TMA, the Oshkosh MPO, and Fond du Lac MPO. The research shows that public investments in pedestrian and bicycle infrastructure within and between communities in East Central Wisconsin will deliver myriad benefits once completed. The range of benefits from bicycle and pedestrian infrastructure may seem too good to be true, but the evidence is there—as this report demonstrates.

Summary of the Economic Impacts and Environmental Benefits of a Completed Pedestrian and Bicycle Network in Calumet, Fond du Lac, Outagamie, and Winnebago Counties



\$2B

economic impact from construction new facilities



12,970 FTE*

jobs supported by remaining construction



\$438M

annual environmental services benefits upon full completion



\$69M

in annual healthcare cost savings achieved by active users



\$84M

total economic impact from local spending



\$352K

reduced carbon emissions due to reduced auto trips



\$644M

premium for land in the proximity of the network



\$11.8M

increased County property tax revenue

* "FTE" is Full-Time Equivalent.



Friendship Trail
Town of Clayton



Calumet • Fond du Lac • Menominee • Outagamie
Shawano • Waupaca • Waushara • Winnebago

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[Return to Contents](#)