



NWMC Multimodal Transportation Plan

Existing Conditions Analysis

10/02/19



**Sam
Schwartz**



**THE
LAKOTA
GROUP.**



NWMC IN NUMBERS

42

member communities

1.2
million

people

800,000

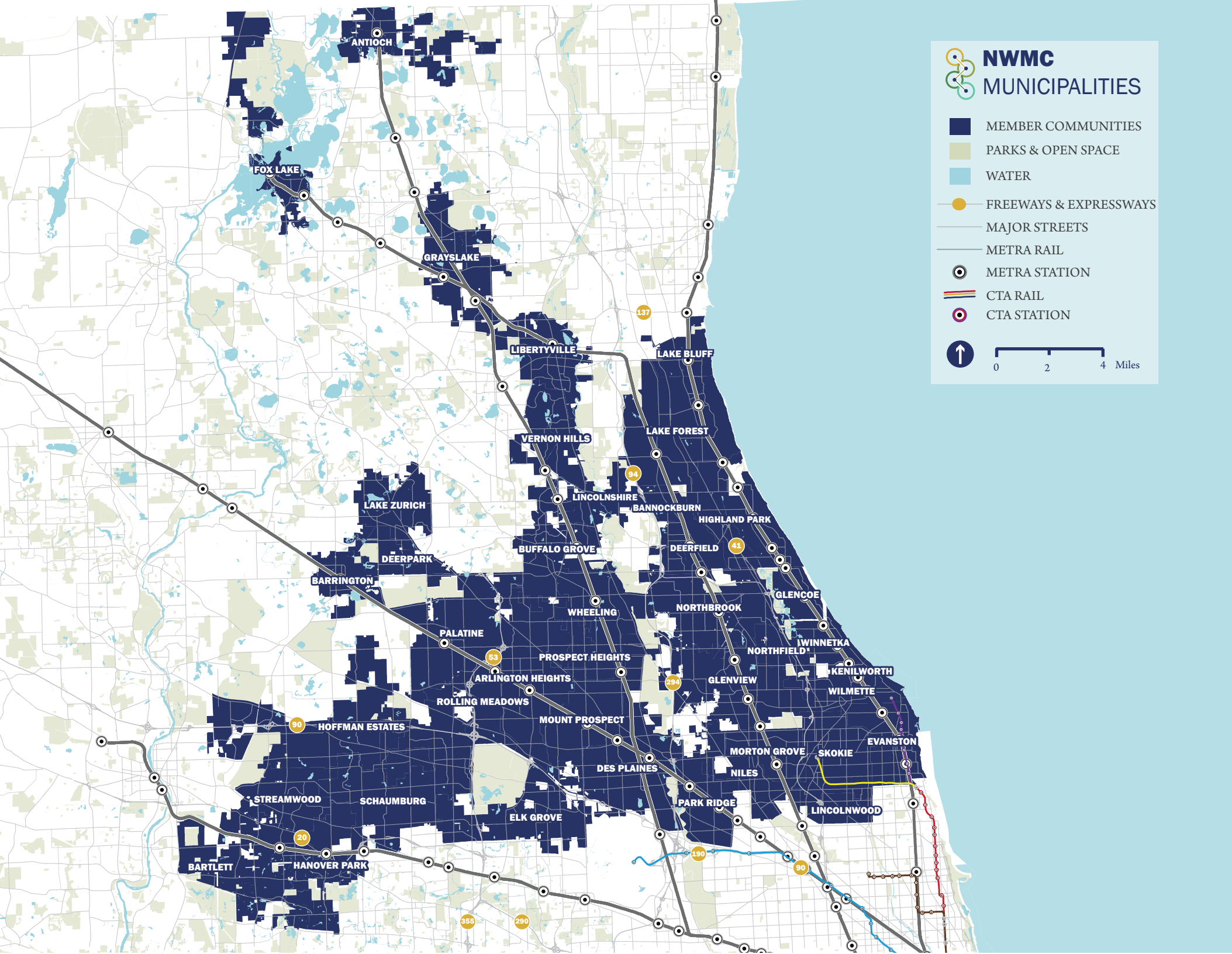
jobs

>350

square miles

The Northwest Municipal Conference (NWMC) includes more than 1.3 million citizens residing in 41 municipalities and 1 township. The membership area covers over 350 square miles in Cook, DuPage, Kane, Lake and McHenry counties. Since its founding, the NWMC has evolved from a small local forum to address specific issues such as securing parking at commuter rail stations. Today, the NWMC is a multi-faceted organization that provides its members not only a platform to address issues of regional concern but also a variety of programs and services designed to strengthen their individual communities.

NWMC Members: Antioch, Arlington Heights, Bannockburn, Barrington, Bartlett, Buffalo Grove, Deer Park, Deerfield, Des Plaines, Elk Grove Village, Evanston, Fox Lake, Glencoe, Glenview, Grayslake, Hanover Park, Highland Park, Hoffman Estates, Kenilworth, Lake Bluff, Lake Forest, Lake Zurich, Libertyville, Lincolnshire, Lincolnwood, Morton Grove, Mount Prospect, Niles, Northbrook, Northfield, Northfield Township, Palatine, Park Ridge, Prospect Heights, Rolling Meadows, Schaumburg, Skokie, Streamwood, Vernon Hills, Wheeling, Wilmette, and Winnetka.



Planning safe and comfortable mobility - for all ages and abilities



Identify priority bicycle corridors to better connect the region's existing systems of trails and create a comprehensive bicycle network that is safe and comfortable for people of all ages and abilities.



Evaluate sidewalks along major roads and surrounding transit stops to identify key gaps.



Analyze the issues that make it difficult for people to walk and bike to CTA, Metra, and Pace stops and identify scalable solutions that can be used throughout the region.

MULTIMODAL PLANNING. The NWMC works to strengthen communities and enhance intergovernmental cooperation amongst its members. While investment in road and transit improvements are major components of the NWMC's strategy to improve mobility in the region, the NWMC also emphasizes the importance of non-motorized transportation options for those traveling within and between communities. An emerging system of bicycle and pedestrian facilities—some connected, and others isolated—can be found throughout the area, maintained by municipalities, forest preserve, townships, and county agencies.

There is a growing need to provide a safe, cohesive network of facilities for people walking and biking throughout the region. Increasing numbers of NWMC residents and workers desire safe access to destinations – from children biking to schools and parks, to senior citizens who are no longer able to drive, to healthy adults tired of traffic. More and more people are choosing to engage in biking and walking to get around their communities.

This effort works to update and expand the NWMC's 2010 Bicycle Plan and the NWMC's priority corridors. **The priority corridors connect all of the NWMC member communities and provide a safe, comfortable means for people of all ages and abilities to connect to transit, jobs, schools, open space, and major destinations throughout the region.**

The NWMC region is served by a number of major trails that form the backbone of the NWMC bicycle system. The four multi-use paths along the Fox River, Des Plaines River, North Branch of the Chicago River and the lakefront collectively travel from the city of Chicago north to the Illinois-Wisconsin border. All of the trails provide a comfortable bicycling experience for people of all ages and abilities and, aside from a few small gaps, are completed.

[Below] The lakefront corridor's Robert McClory Trail



The Fox River Trail follows the Fox River and three former railroads. While the 43-mile trail does not directly intersect with NWMC communities, it serves as an important north-south connector.

DES PLAINES RIVER TRAIL:

The 51-mile trail runs along the Des Plaines River from River Grove north to the state border. The multi-use path intersects several counties.

- *NWMC members:* Buffalo Grove, Des Plaines, Libertyville, Lincolnshire, Park Ridge, Prospect Heights, Vernon Park, and Wheeling

NORTH BRANCH TRAIL: Beginning in the city of Chicago, the North Branch trail follows north to the Botanic Gardens on the border of Cook and Lake counties. Along the north branch of the Chicago River, the 24-mile multi-use path is a short distance to the region's lakefront trails.

- *NWMC members:* Glencoe, Glenview, Morton Grove, Niles, Northbrook, Northfield, Skokie, Wilmette, and Winnetka

LAKEFRONT TRAILS: Following near the Lake Michigan shoreline, the lakefront has a series of multi-use paths including the North Shore Channel Trail, Green Bay Trail and the Robert McClory Trail. Together, the paths create a unique 45-mile bicycle corridor.

- *NWMC members:* Evanston, Glencoe, Highland Park, Kenilworth, Lake Bluff, Lake Forest, Wilmette, and Winnetka

Major trails act as the backbone for the NWMC bicycle network

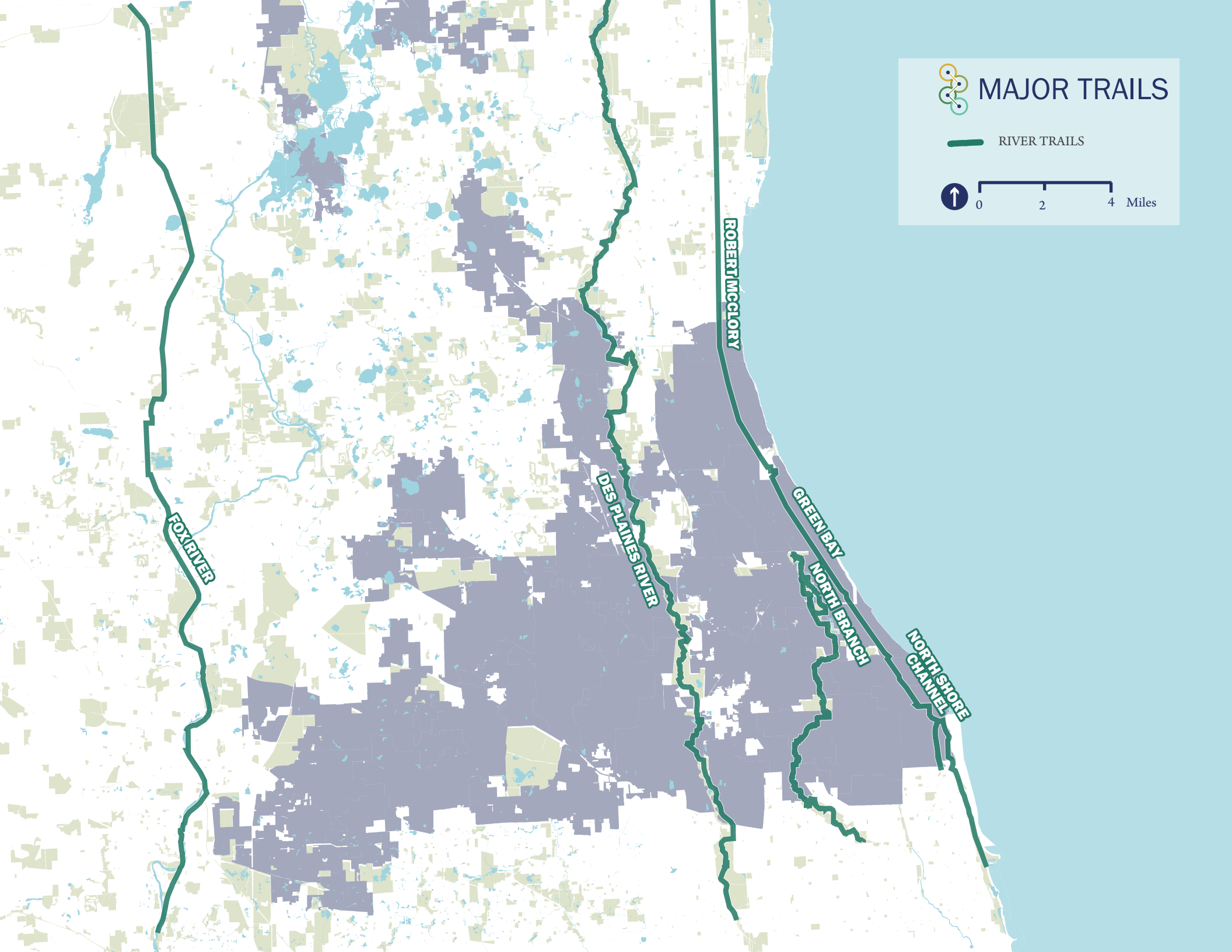


MAJOR TRAILS

RIVER TRAILS



0 2 4 Miles



FOX RIVER

DES PLAINES RIVER

ROBERT MCCLORY

GREEN BAY

NORTH BRANCH

NORTH SHORE CHANNEL

PRIORITY CORRIDORS: All of the major trails run north-south, creating a need for east-west facilities to connect all NWMC residents and visitors to travel throughout the region. These “priority corridors” serve to link NWMC members to the major trails and destinations along the corridors.

Working with the NWMC Multimodal Plan Steering Committee, a draft vision for the priority corridors was established:

The priority corridors connect all of the NWMC member communities and provide a safe, comfortable means for people of all ages and abilities to connect to transit, jobs, schools, open space, and major destinations throughout the region.

2010 BIKE PLAN: The NWMC approved its first ever conference-wide bicycle plan in 2010. The goals of the 2010 plan, as set out by the Bicycle and Pedestrian Committee, were to produce a more detailed corridor analysis and an implementation strategy for regional bicycle facilities. Complementing these larger goals are recommendations for preparing local bicycle plans and bicyclist safety, education, and encouragement programs, local and regional bikeway signage, bike facility design and implementation considerations, as well as grant and other funding opportunities. The plan:

- Identified resources on best practices, policies, programs and funding
- Focused on east-west connections to build a regional network
- Identified 16 priority corridors

2019 BIKE PLAN UPDATE: This effort serves to update and expand the 2010 Bicycle Plan, to include considerations for key pedestrian connections, bicycle and pedestrian access to transit service and facilities, and better integrating and connecting all three modes of active transportation.

2010 RATING CRITERIA

- ✓ Percent of primary corridor:
 - existing
 - programmed
 - planned
 - future
 - unknown
- ✓ Number of municipalities and number of NWMC members
- ✓ New recommendation
- ✓ Connectivity to:
 - Regional destinations
 - Trail network
 - Transit
- ✓ Directness
- ✓ Barriers

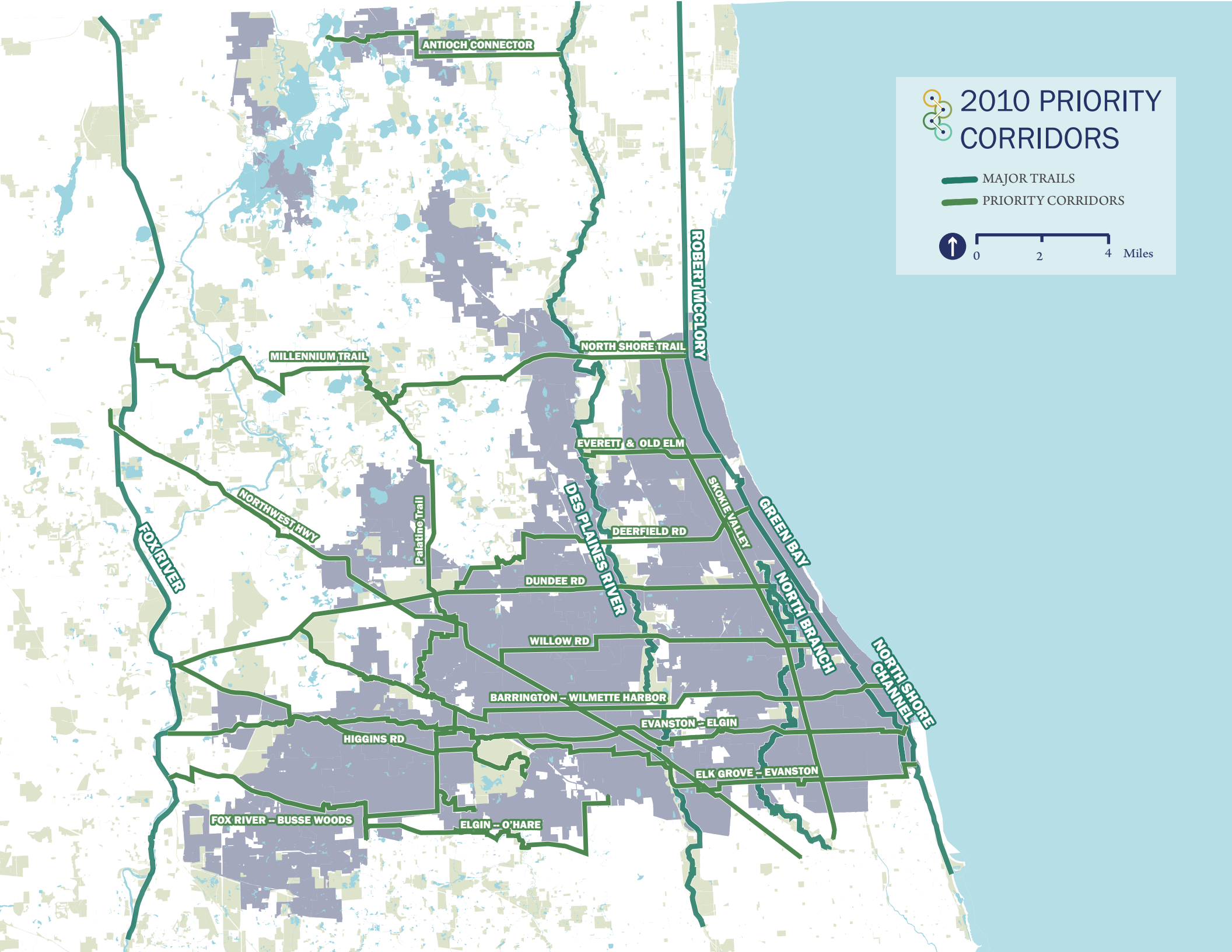


2010 PRIORITY CORRIDORS

- MAJOR TRAILS
- PRIORITY CORRIDORS



0 2 4 Miles



42%

of priority corridors completed
(136 out of 321 miles)

73%

of facilities built to-date are
separated from vehicle traffic
(e.g. sidepath or trail)

**CLOSEST
to completion**

Deerfield (78% complete)
Elk Grove–Evanston (75% complete)
Skokie Valley (72% complete)

**FURTHEST
from completion**

Northwest Hwy (4% complete)
Willow Rd (6% complete)
Antioch Connector (11% complete)

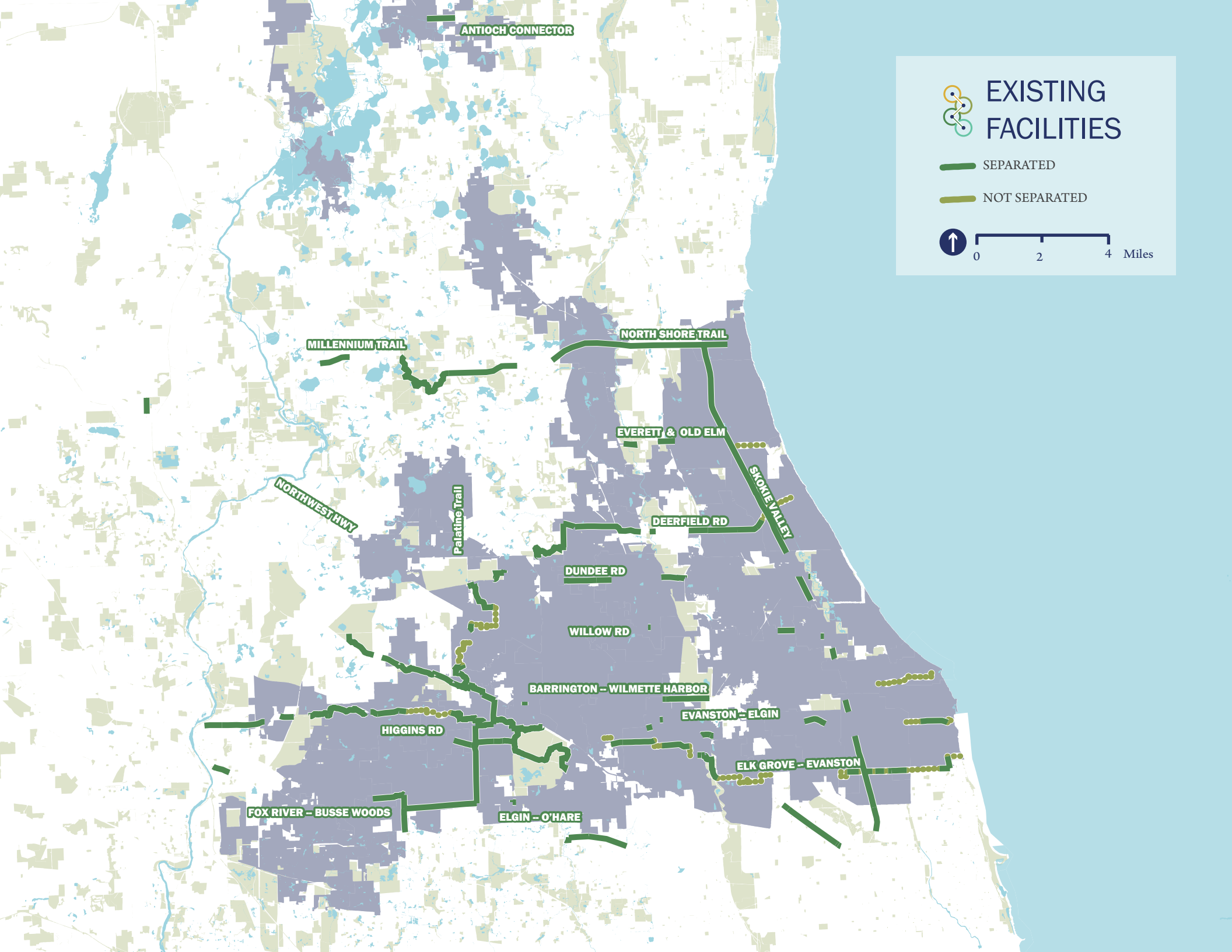
Existing Bicycle Facilities on NWMC Priority Corridors

Level of separation
↓

Facility Type	Length (miles)	% of Existing Facilities
Sidepath/Trail	97	71%
Protected Bike Lane	2	2%
Bike Lane	12	9%
Shared Lane	5	4%
Bike Route	20	15%

UPDATED RATING CRITERIA

- ✓ Percent of primary corridor:
 - existing
 - programmed
 - planned
 - future
 - unknown
- ✓ Number of municipalities and number of NWMC members
- ✓ New recommendation
- ✓ Connectivity to:
 - Regional destinations
 - Trail network
 - Transit
- ✓ Directness
- ✓ Barriers
- ✓ **Level of traffic stress for people biking**
- ✓ **Population within half mile**
- ✓ **Jobs within half mile**
- ✓ **Crashes where a person walking/ biking was seriously injured or killed**



ANTIOCH CONNECTOR

MILLENNIUM TRAIL

NORTH SHORE TRAIL

EVERETT & OLD ELM

DEERFIELD RD

SKOKIE VALLEY

DUNDEE RD

WILLOW RD

BARRINGTON - WILMETTE HARBOR

EVANSTON - ELGIN

ELK GROVE - EVANSTON

ELGIN - O'HARE

FOX RIVER - BUSSE WOODS

HIGGINS RD

Palatine Trail

NORTHWEST HWY



POPULATION DENSITY

DENSITY SCALE



PRIORITY CORRIDOR



0 2 4 Miles

800,000

More than 800,000 residents live within a half-mile of the NWMC Priority Corridors.



JOB DENSITY

DENSITY SCALE



LOWER (250 jobs/sq. mi.)

HIGHER (20,000 jobs/sq. mi.)



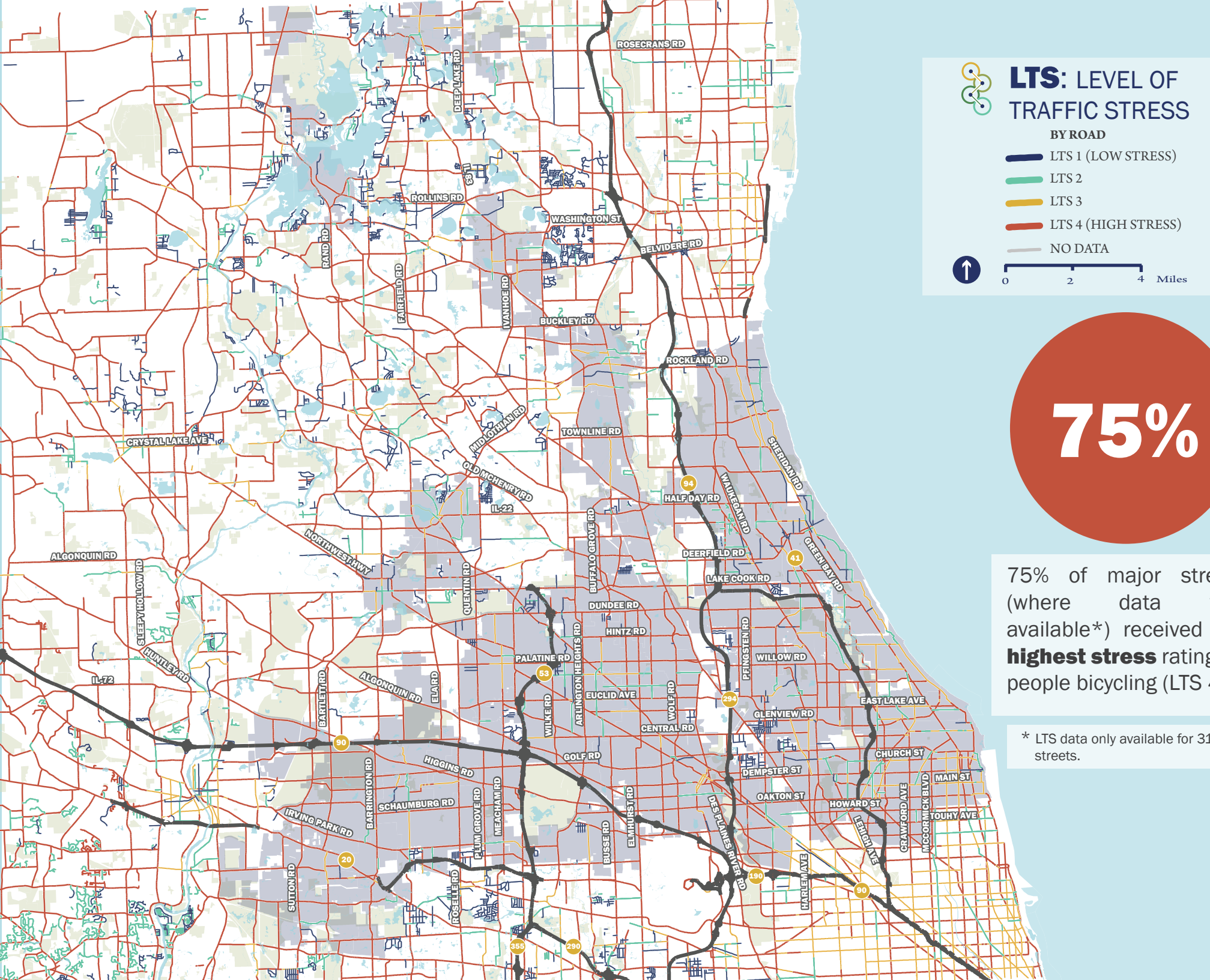
PRIORITY CORRIDOR



0 2 4 Miles

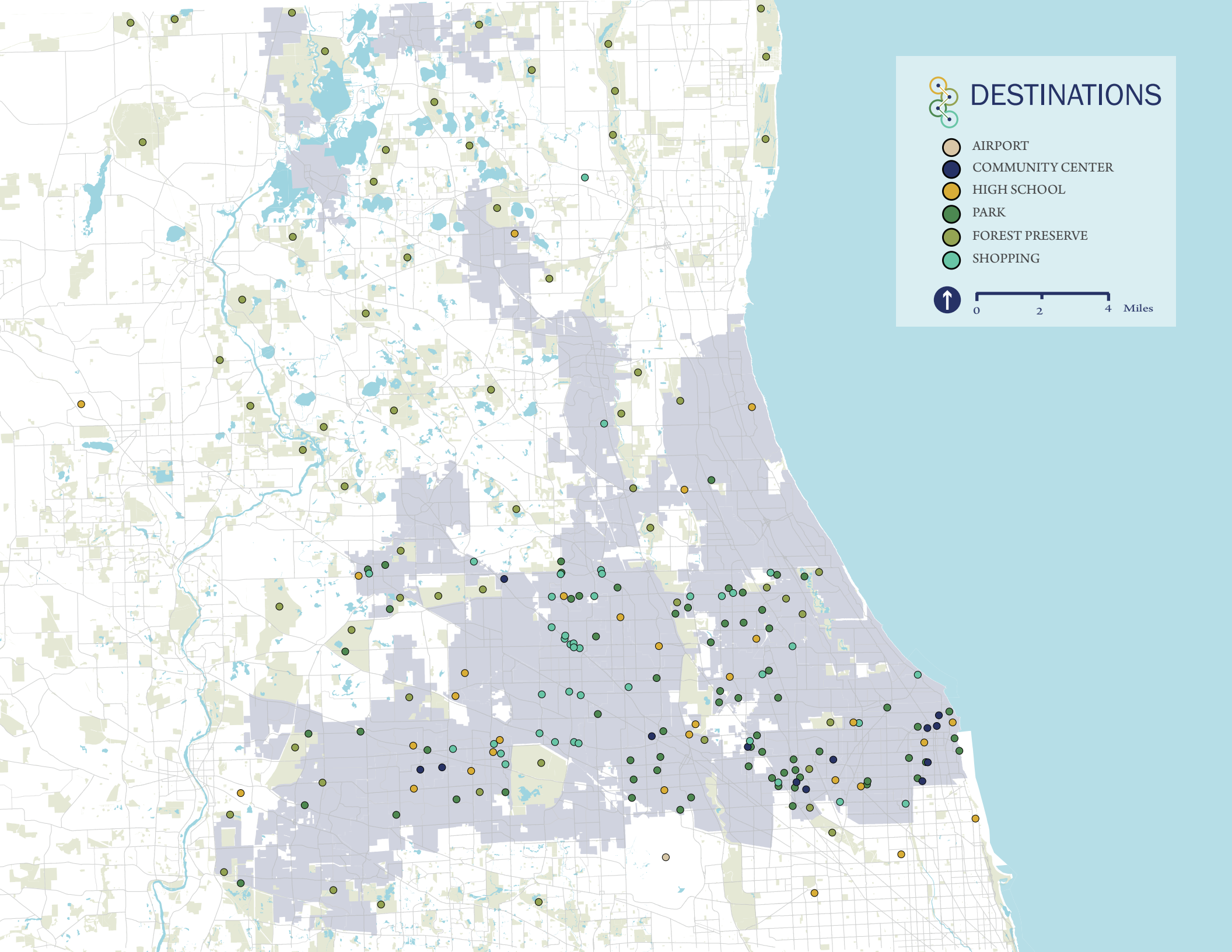
450,000

More than 450,000 jobs are located within a half-mile of the NWMC Priority Corridors.



75% of major streets (where data was available*) received the **highest stress** rating for people bicycling (LTS 4).

* LTS data only available for 31% of streets.



DESTINATIONS



AIRPORT



COMMUNITY CENTER



HIGH SCHOOL



PARK



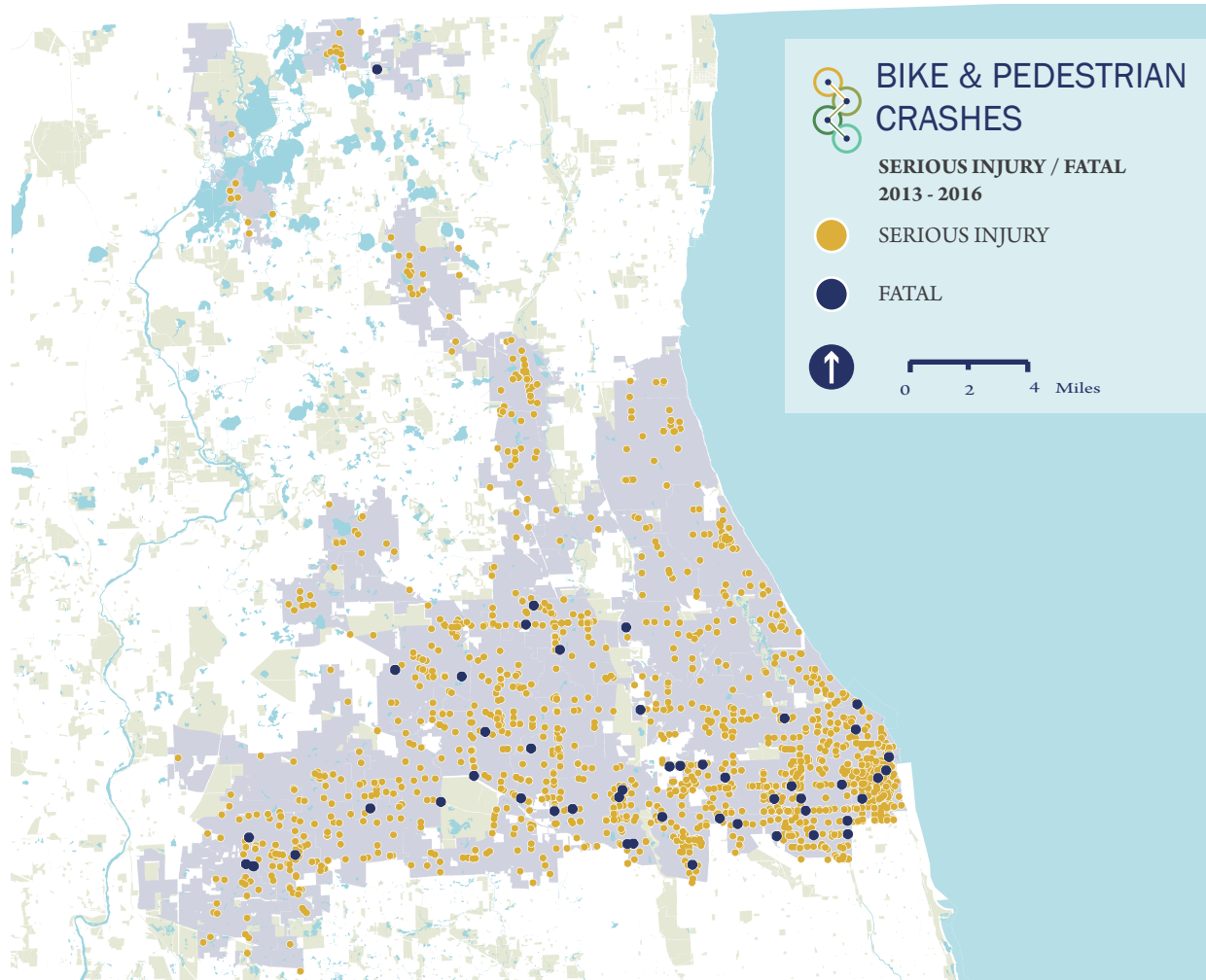
FOREST PRESERVE



SHOPPING



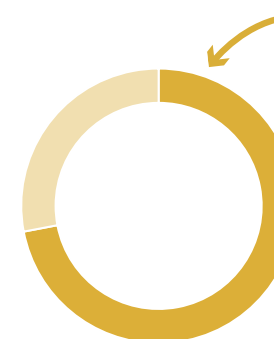
0 2 4 Miles



There were more than 1,800 traffic crashes within the NWMC region between 2013-2016 (according to data provided by IDOT) where someone walking or biking was killed or seriously injured. Of all the crashes involving a person walking or biking, 72% resulted in a fatality or serious injury. People walking and biking also accounted for 31% of all fatalities in the region, even though they account for a much lower share of all commuting trips (2%).

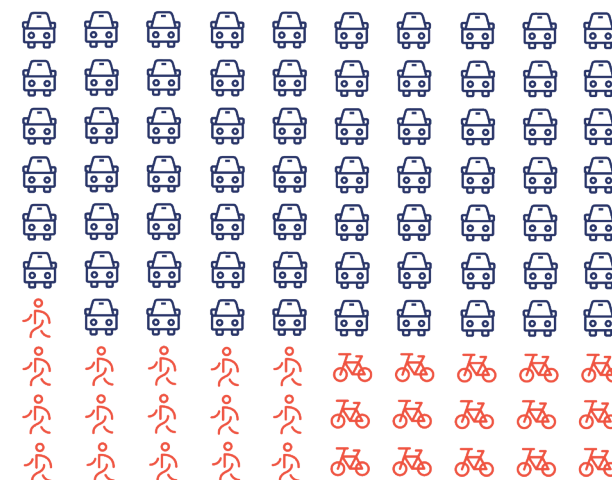
1,800

traffic crashes from 2013-2016 where a person walking/ biking was killed or seriously injured

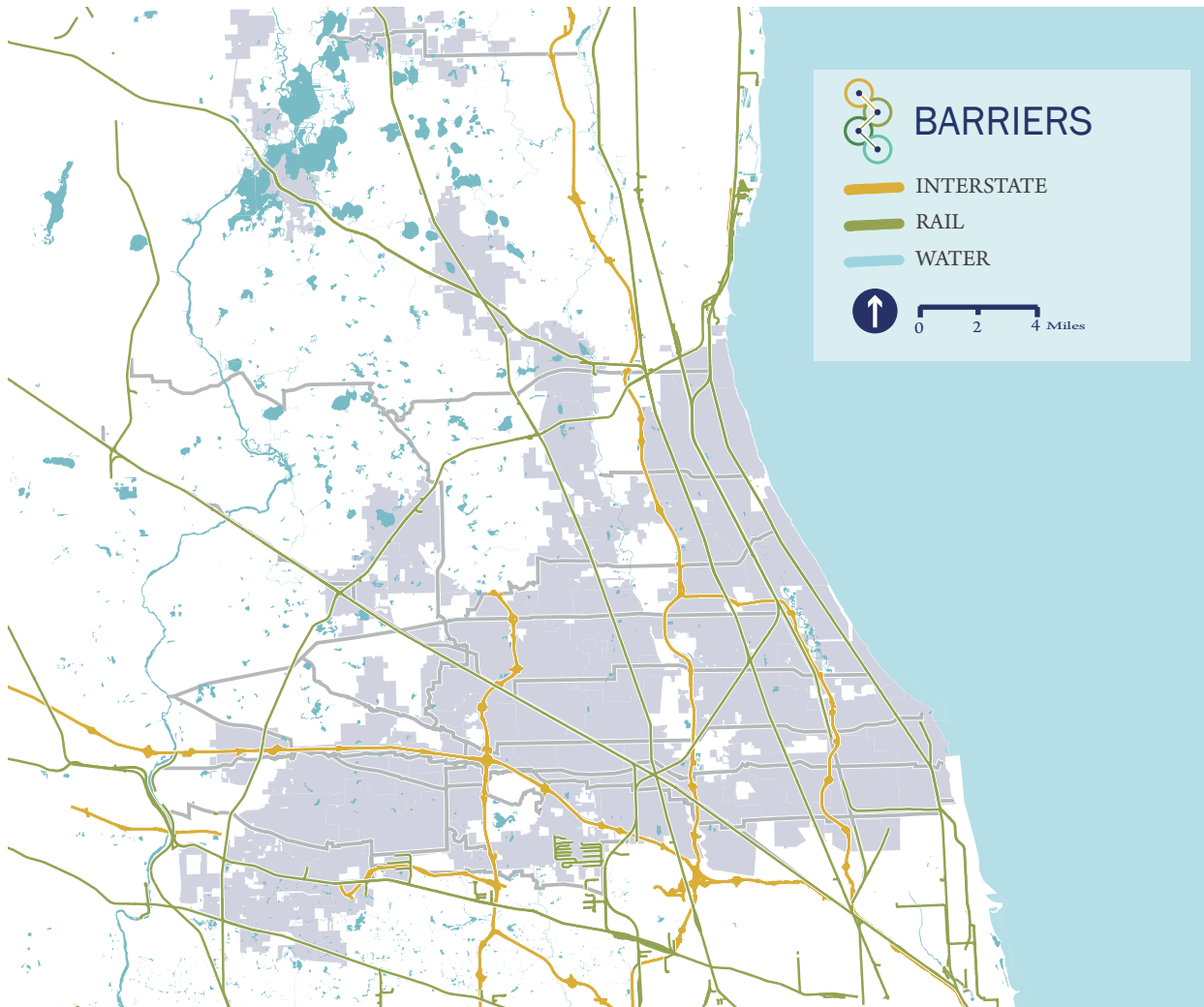


72%

of crashes involving a person walking/ biking result in a serious injury or fatality



31% of all fatalities involve a person walking/ biking



Interstates, railroads, and water features create major barriers for the NWMC's bicycle network and inhibit the overall connectivity of the system. Providing safe, comfortable bicycle facilities that overcome these barriers can provide major benefits for the region and the safety of people biking and walking but also increases the cost and complexity of these projects (often dictating the inclusion of bridges or underpasses). Where existing streets already traverse these barriers, the available right of way is often constrained, making the inclusion of high-quality bicycle and pedestrian facilities challenging.



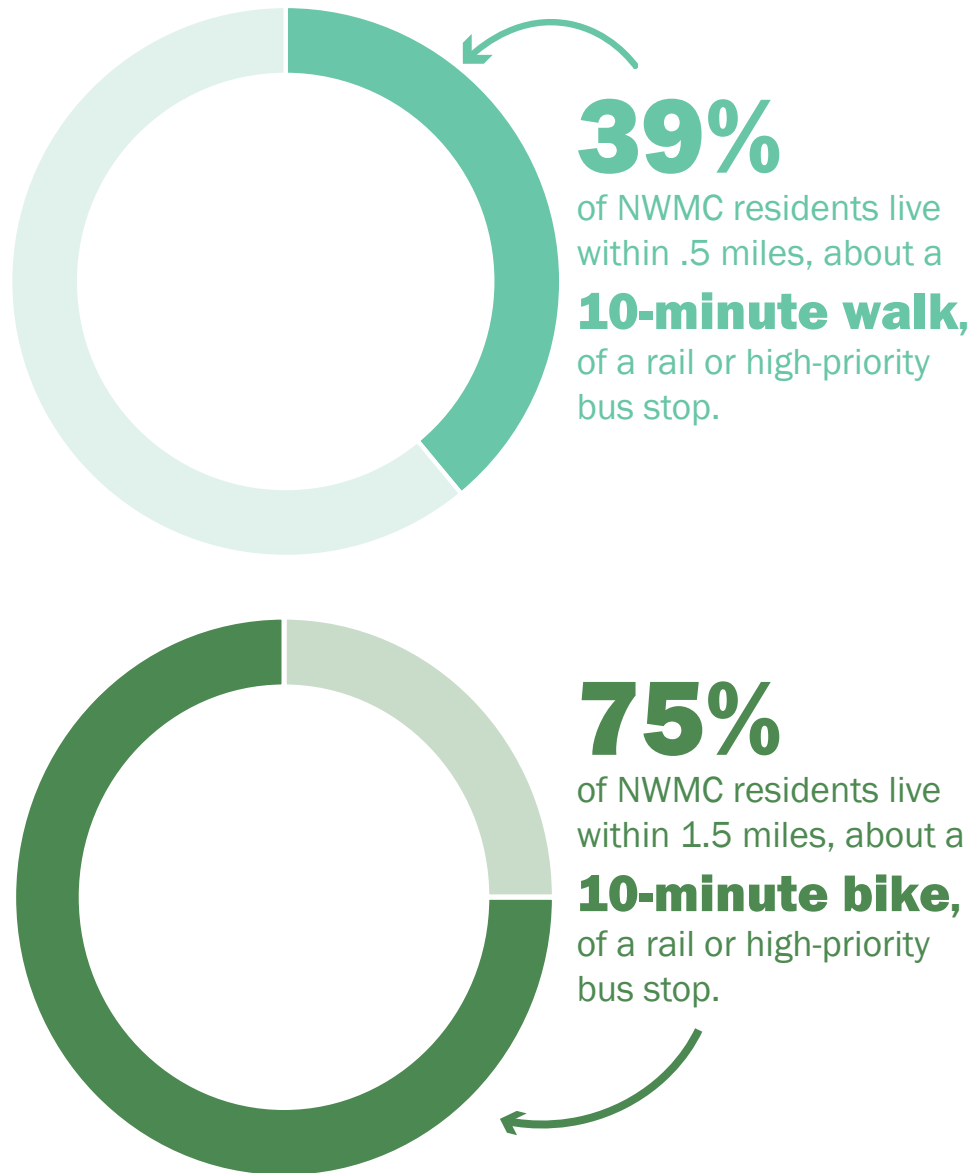
240 miles of railroads within the NWMC region.



100 miles of interstates within the NWMC region.

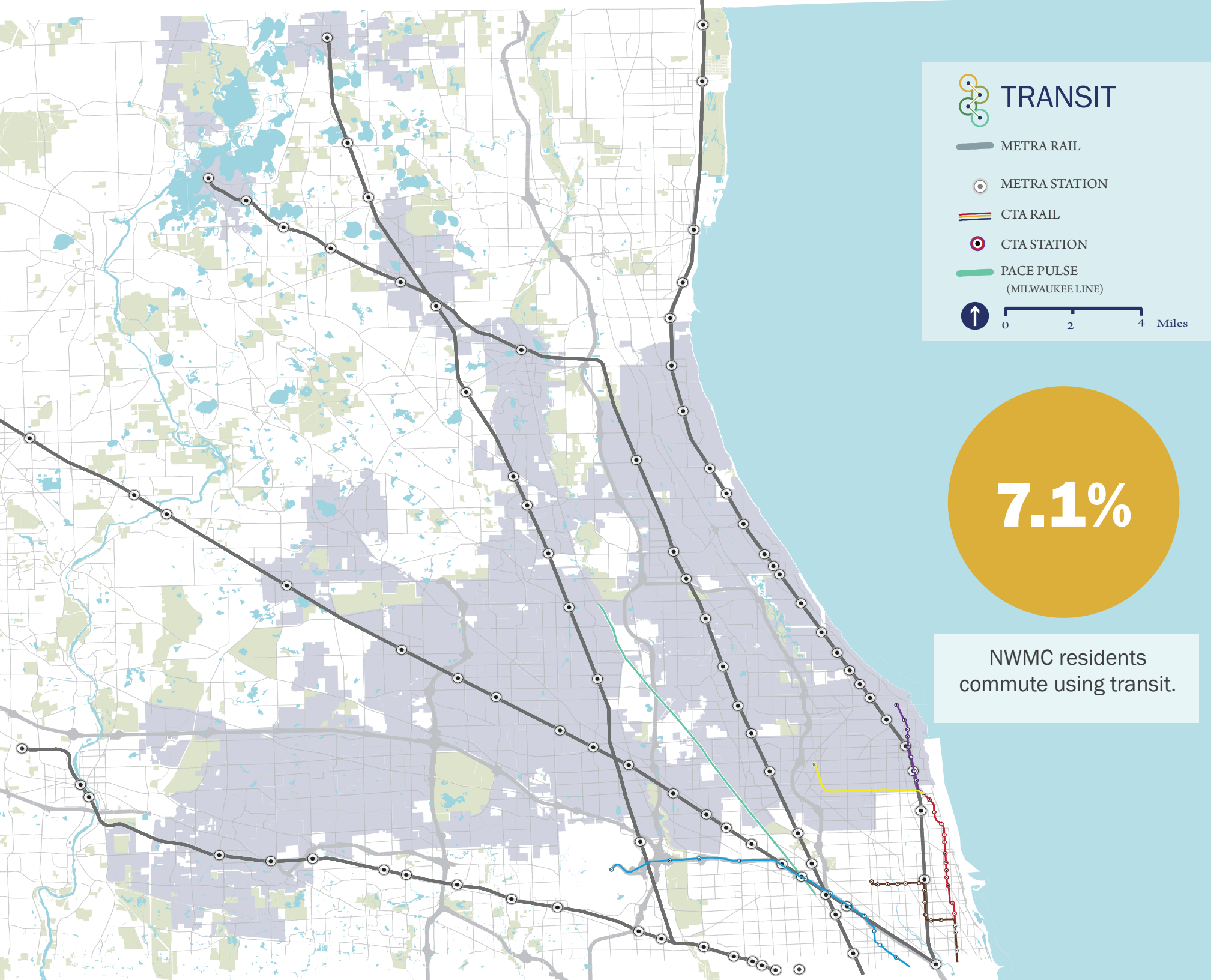


ACCESS TO TRANSIT



Making it easier for people to combine bicycling and transit in the NWMC offers numerous positive benefits: improving access to jobs and schools, enabling more active lifestyles, and reducing household transportation costs. For example, 39% of residents in the NWMC region live within a half-mile, typically about a 10-minute walk, of a rail or high-frequency bus stop; however, 75% of residents live within 1.5 miles, typically about a 10-minute bicycle ride, of a rail or high-frequency bus stop. As nearly half (46%) of jobs within the NWMC region are within a half-mile of a rail station or a high-frequency bus stop, combining bicycling and transit would provide more opportunities for traveling to and from work.

Providing high-quality bicycle facilities that connect to transit is the most important step in making it easier for people to combine bicycling and transit, and, as such, connectivity to transit is included in the criteria for identifying and prioritizing the NWMC priority corridors. In addition to building high-quality bicycle facilities that connect to transit, a number of additional strategies can make it easier for people to combine bicycling and transit, such as targeted safety improvements or interventions at conflict points, wayfinding, bicycle access through parking lots, and bicycle parking. These additional strategies will be further analyzed in latter stages of the project.



NWMC Region Transit

CTA	Metra	Pace
2 rail lines	5 rail lines	73 routes
10 stations	46 stops	1 Pace Pulse route*
>13,000 average weekday riders	>33,000 average weekday AM boardings	>22,500 average daily boardings

* plus 1 in planning, 3 mid-term projects, and 8 long-term projects

Residents, workers, and visitors in the NWMC region have several transit options with CTA, Metra, and Pace. While the CTA Yellow and Purple rail lines and several bus lines reach communities bordering the city of Chicago, five Metra lines and 73 Pace routes service the entire NWMC region.

In order to improve connections to transit throughout the region, it is important to understand how riders access their respective stations. In looking at Metra ridership data, driving alone is currently the predominant mode of transportation in connecting to rail transit. At 30 NWMC region Metra stations, over half of the riders drive alone to access the stations.

While driving is a predominant mode, active transportation, particularly walking, is a main mode of transportation to access several Metra stations.

Below are the top five stations using active transportation (walking or biking):

1. Hubbard Woods (80%)
2. Main St Evanston (76%)
3. Kenilworth (70%)
4. Indian Hill (63%)
5. Davis St Evanston (62%)

WALK

Hubbard Woods (82%)
Main St. (71%)
Indian Hill (62%)
Kenilworth (59%)
Davis St. Evanston (59%)

BIKE

Kenilworth (11%)
Central St. (9%)
Hubbard Woods (8%)
Wilmette (7%)
Prospect Heights (6%)

DROP OFF

Washington St. Grayslake (25%)
Libertyville (23%)
Wheeling (21%)
Prairie View (20%)
Antioch & Bartlett (19%)

DRIVE ALONE

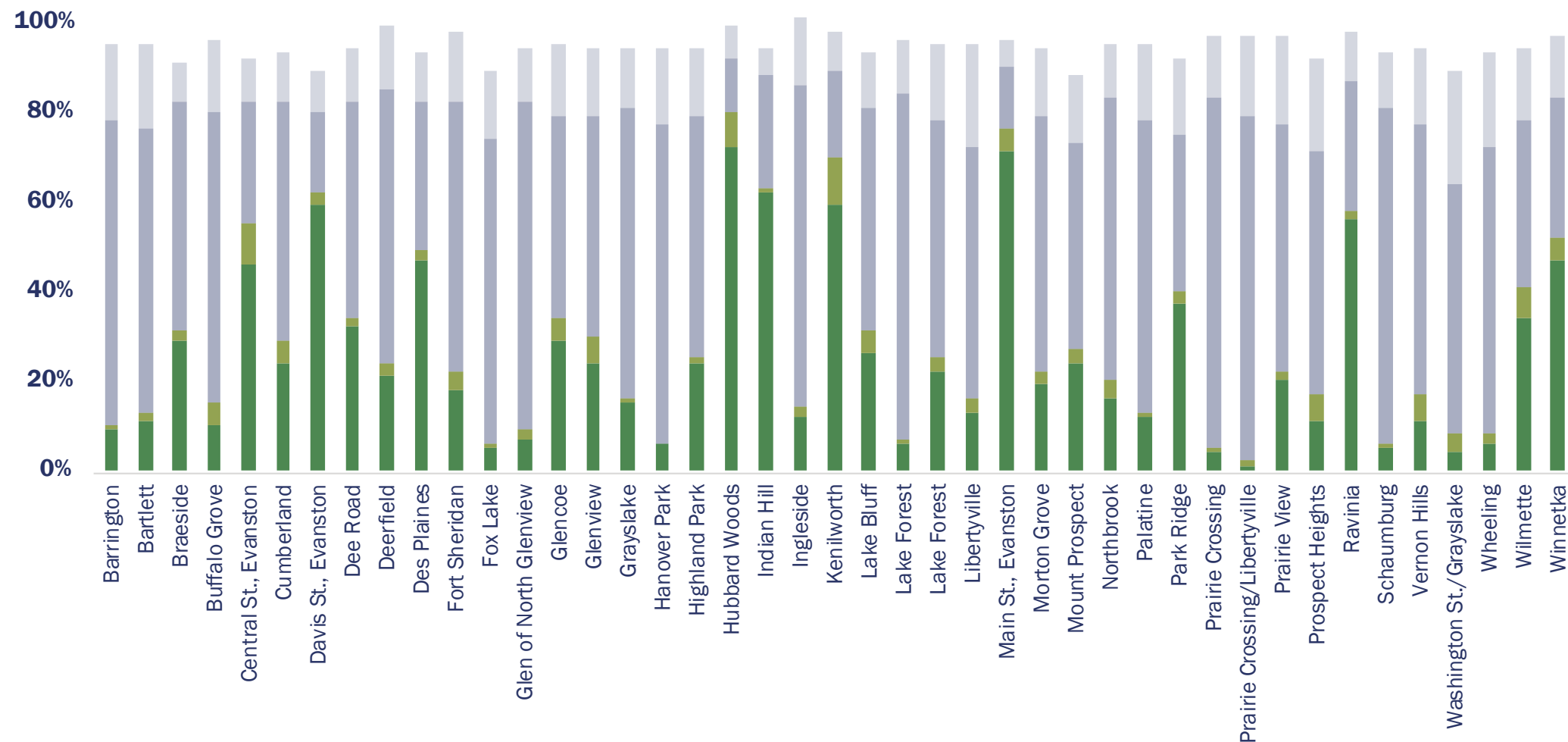
Prairie Crossing (78%)
Lake Forest (77%)
Prairie Crossing / Libertyville (77%)
Schaumburg (75%)
Glen of North Glenview (75%)

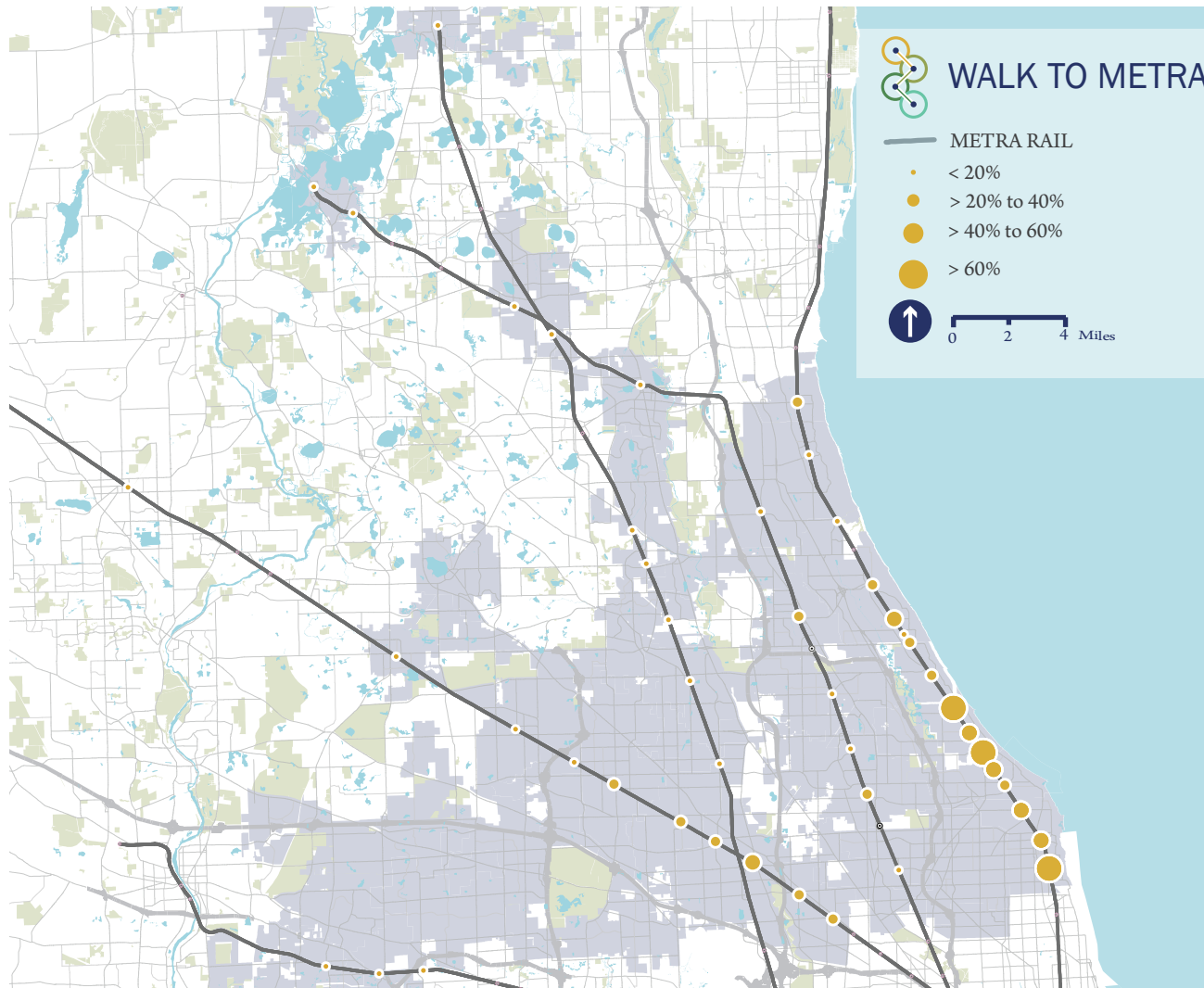
Mode of Travel to Metra Stations



MODE OF TRAVEL TO METRA STATIONS

WALK DRIVE ALONE
BIKE DROP OFF





Many Metra riders access stations via walking. At nine stations, predominantly along the Union Pacific North line, more than 40% of riders access the stations via walking. In order to continue to support walking to access transit, it is important sidewalks and crossings are present, accessible, and safe. Barriers, such as a lack of sidewalk, may inhibit people from walking to/from transit. Similarly, the lack of bicycle facilities, such as protected bike lanes or bike racks, may prevent people from riding their bicycles to transit. For example, while all NWMC region Metra stations have bicycle racks, many stations only offer spaces for two bicycles.



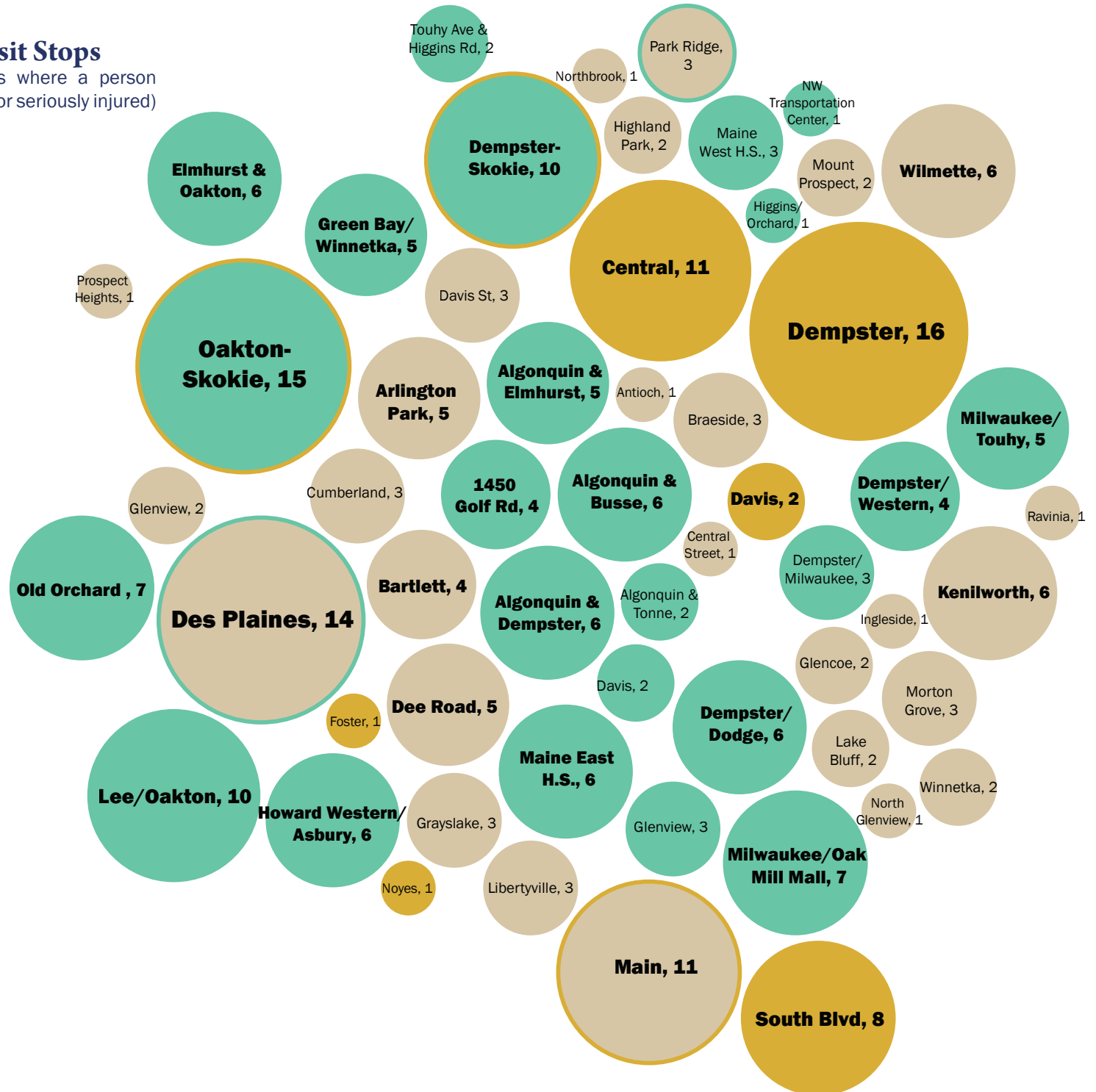
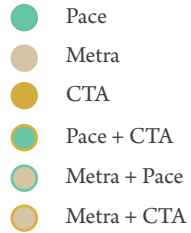
All Metra stations in the NWMC have bike parking ranging from two to over 70 available spaces.



[Above] Bicycle parking at Wilmette Metra station

Crashes Near Transit Stops

(IDOT: 2013-2016, crashes where a person walking or biking was killed or seriously injured)





72

people walking were killed or seriously injured in traffic crashes within a half-mile of a priority transit stop, about a 10-minute walking distance
(IDOT: 2013-2016)



219

people biking were killed or seriously injured in traffic crashes within 1.5 miles of a priority transit stop, about a ten minute biking distance
(IDOT: 2013-2016)

93%

of crashes where people walking or biking were killed or seriously injured occurred on roads more than two lanes

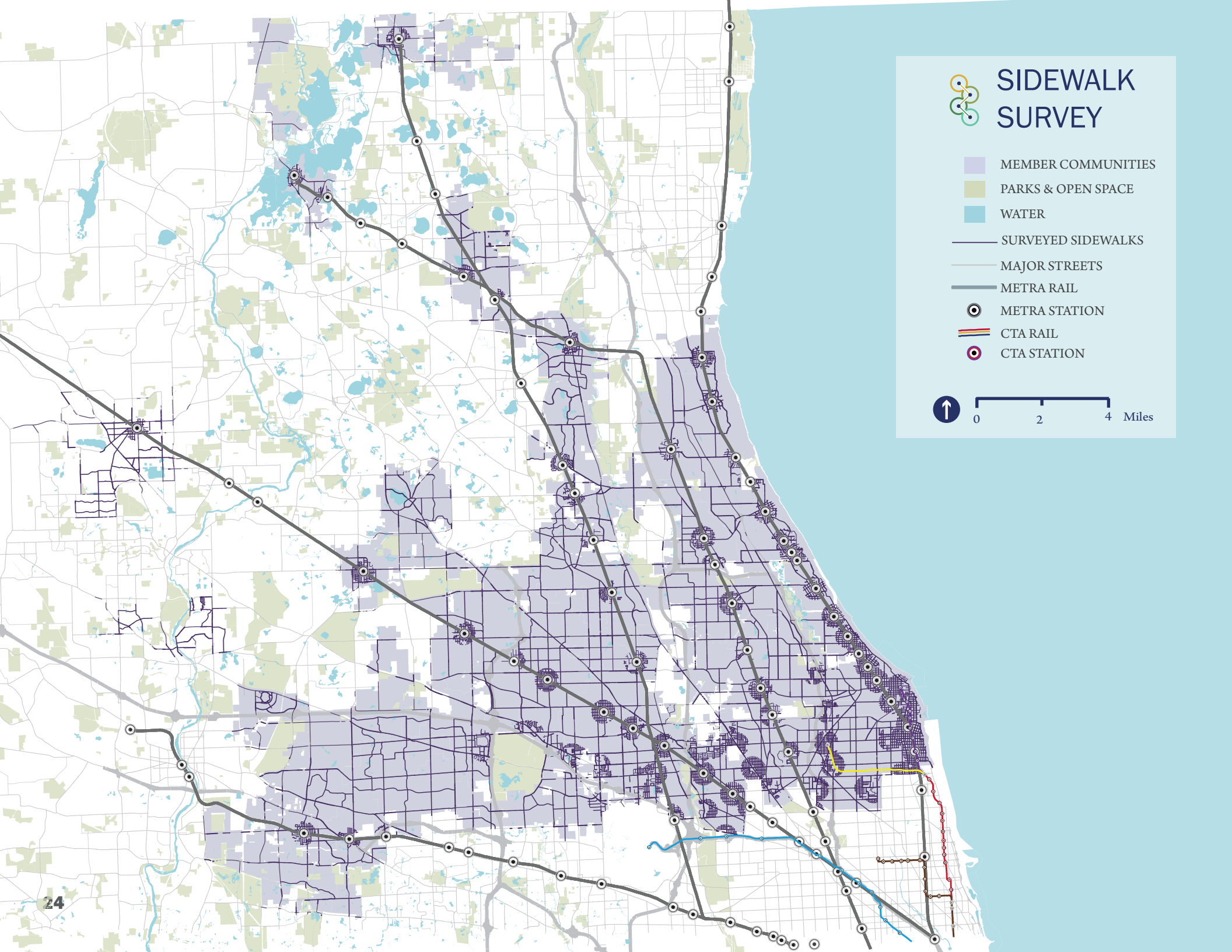
96%

of crashes where people walking or biking were killed or seriously injured occurred on roads with a speed limit of 30 MPH or greater

Over 250 people walking or biking were killed or seriously injured within half a mile of a Metra station, CTA station, or high priority Pace stop. The image on the previous page displays the number of crashes within a half mile from high priority transit stops.

Stations with the greatest number of crashes include the Dempster CTA Purple Line station, Oakton-Skokie Yellow Line Station, and Des Plaines Metra Station/ Pace stop. This is particularly concerning as these stations are in areas with higher levels of walking and biking in comparison to other NWMC communities. For example, nearly half of the Metra riders at the Des Plaines Metra stop (49%) access the station via active transportation.

Nearly all of crashes where people walking or biking were killed or seriously injured occurred on roads with a speed of 30 MPH or greater or on roads with more than two lanes. In order to promote bicycling and walking to connect to transit, safety and comfort must be a top priority. Changes must be made in order to eliminate pedestrian and bicycle crashes, such as implemented or improved sidewalks, safe intersection crossings, bicycle facilities, and reduced vehicle travel speeds.



SIDEWALK SURVEY

- MEMBER COMMUNITIES
- PARKS & OPEN SPACE
- WATER
- SURVEYED SIDEWALKS
- MAJOR STREETS
- METRA RAIL
- METRA STATION
- CTA RAIL
- CTA STATION



0 2 4 Miles

Walkable Block Length



Average Block Length Surrounding NWMC Priority Transit Stations



The presence of sidewalks and form of the built environment have a major impact on how likely people are to walk and whether they feel safe and comfortable doing so. One key measurement of walkability in the built environment is the length of street blocks. Shorter blocks give people walking more route choices, opportunities to cross the street, and decrease the distance of trips; longer blocks can force pedestrians to make lengthy detours or cross the street at unmarked locations. While blocks as long as 600 feet may be considered fairly walkable, the average block length surrounding transit stations in the NWMC region is approximately 1,000 feet. Walking throughout the NWMC region, residents and visitors may come across various barriers such as:

- Lack of mid-block crossings
- Lack of wayfinding
- Sidewalk gaps
- Stressful intersections and highway ramp crossings

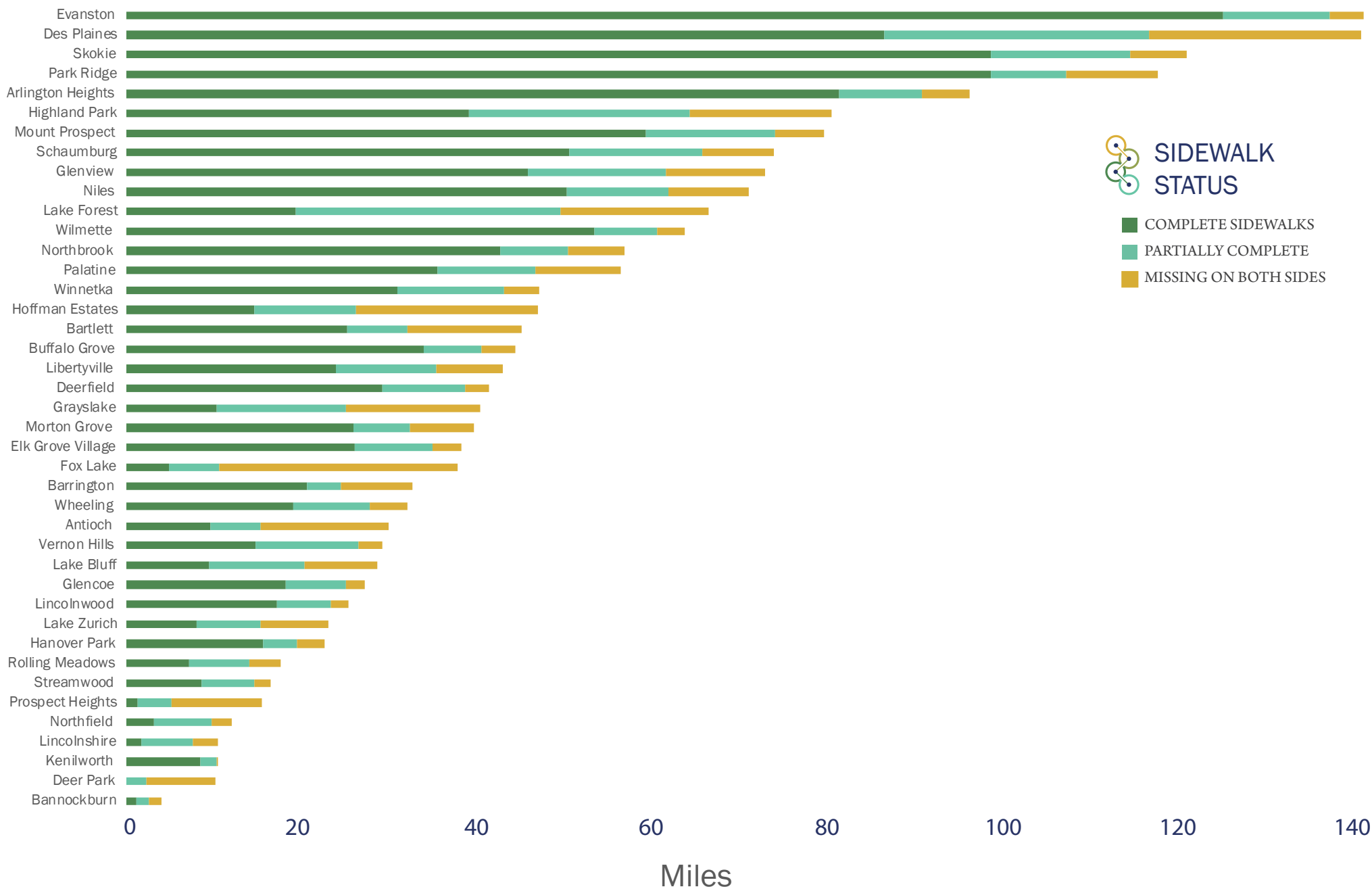
In order to assess the connectivity of sidewalks within the NWMC region, a sidewalk survey assessment was conducted on more than 2,200 street miles. The survey looked for sidewalk gaps on either side of a street.

All roads designated as collectors and arterials within NWMC communities were surveyed. The survey also assessed all roads within a half-mile of:

- CTA Rail Station
- Metra Station
- High Priority Bus Stops (stops in the top 5% of daily boardings and Pulse routes)

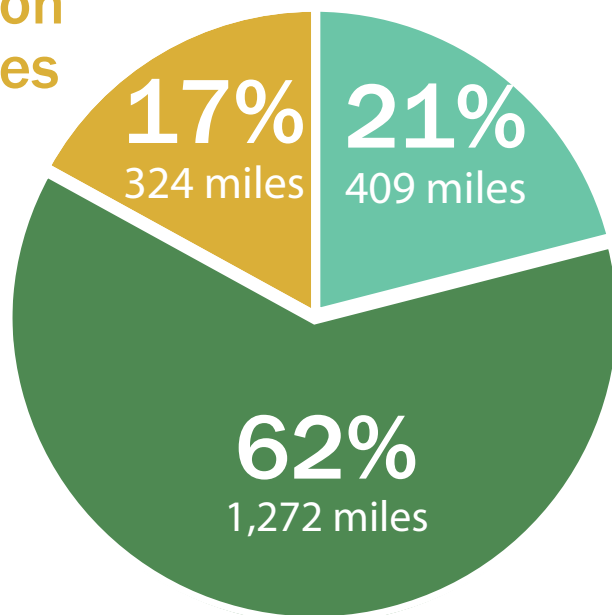
Sidewalks create the region's pedestrian network.

Miles of Sidewalk Surveyed and Status by Municipality



Sidewalk Status for NWMC Region

Missing on
both sides



Partially
complete
only on one side
or intermittent gaps

Complete sidewalks
on both sides

Over half of the streets surveyed across the NWMC had sidewalks complete on both sides of the street. However, over a third of the surveyed streets have sidewalks missing on one or both sides of the street. The lack of a complete sidewalk network inhibits NWMC residents and visitors from walking in their communities, to transit stops, and to other key destinations. Sidewalks not only create a connected pedestrian network, but also an accessible network. A patchy sidewalk network makes it difficult for people, particularly with wheelchairs, walking aids, or strollers, to navigate a thoroughfare. In addition to sidewalk gaps, the condition of sidewalks, presence of driveways and curbcuts, and safe crossings should also be community concerns for a connected pedestrian network.

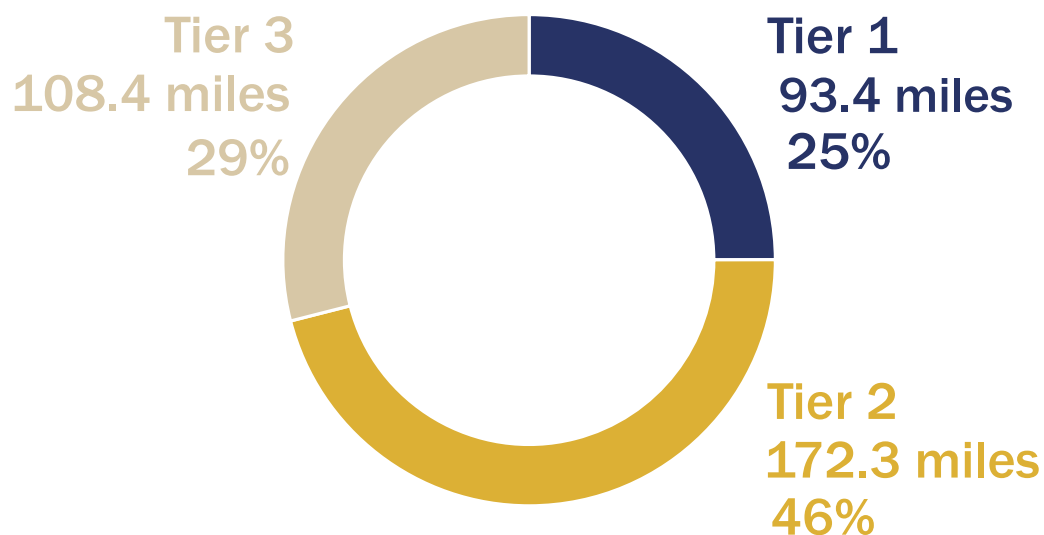
[Below] No sidewalk connection to bus shelter, Golf Rd in Schaumburg



[Below] Sidewalk along arterial, Central Rd in Mount Prospect



Sidewalk Gap Prioritization Tiers



Gap Prioritization Methodology

Criteria	Weighting
Proximity to Schools	2x
Proximity to Transit	2x
Within Mixed use/ Commercial Area	1x
Within Job Center	1x
Street Classification	1x

To help NWMC communities focus their resources on the most impactful gaps in the sidewalk network, the 374.1 miles of streets with sidewalks missing on both sides of the street were prioritized into three tiers.

Sidewalk gaps near schools and transit were given the highest need score to enable more children to safely walk to school and more people throughout the region to walk to transit. Sidewalk gaps within mixed use and commercial areas and job centers, along with busier street classifications, were also given high need scores. Nearly a quarter of the sidewalk gaps, 93.4 miles, are identified as Tier 1— the highest priority.

Filling these critical gaps would provide significant benefits for residents throughout the region and help create a more connected network for people walking. NWMC communities should first focus resources on these Tier 1 gaps, which will enable more people to walk to school, the bus or train, their jobs, or the store.

To create a more connected sidewalk network, NWMC communities will also need to address Tier 2 gaps. Although these segments are a lower priority than the Tier 1 gaps, they are still critical to ensuring people walking and people using wheelchairs, strollers, or other walking aids are able to safely navigate their communities. While all NWMC communities should be aiming to build out a fully connected, accessible sidewalk network, Tier 3 gaps are the lowest priority, as they are typically located in areas with lower levels of pedestrian activity or on local streets that serve fewer people.

Sidewalk Gap Prioritization by Municipality

