NWI 2050

connected
renewed
united
vibrant

NWI 2050

PREPARED BY
Northwestern Indiana Regional Planning Commission

ADOPTED
May 16, 2019

CHAIRPERSON
Diane Noll
Wanatah Clerk-Treasurer

VICE-CHAIR
Karen Freeman-Wilson
Mayor of Gary

SECRETARY
George Topoll
Union Township Trustee

TREASURER
Justin Kiel
LaCrosse Council

EXECUTIVE BOARD
Geoff Benson
Beverly Shores Council

Tim Bietry
Michigan City Council

Anthony Copeland
Mayor of East Chicago

Mark Krentz
Mayor of LaPorte

Thomas M. McDermott, Jr.
Mayor of Hammond

Greg Stinson
Porter Councilman

Ed Soliday
State Representative & Governor Appointee

James G. Ton
Chesterton Council

LAKE COUNTY
Robert Carnahan
Cedar Lake Council

Andrew Kyres
Crown Point Council

Steven Kramer
Dyer Council

Rick Ryfa
Griffith Council

Michael Griffin
Highland Clerk-Treasurer

Brian Snedecor
Mayor of Hobart

Kyle W. Allen, Sr.
Lake County Commission

Charlie Brown
Lake County Council

Bill Emerson, Jr.
Lake County Surveyor

Christopher Anderson
Mayor of Lake Station

Will Farrellbegg
Lowell Council

Richard Hardaway
Merrillville Council

Dave Shafer
Munster Clerk-Treasurer

Lori Collmar
New Chicago Council

Christian Jorgensen
St. John Council

Tom Schmitt
Schererville Council

Jack Jeralds II
Schneider Council

Joseph Stahura
Mayor of Whiting

David Anderson
Winfield Council

LAPORTE COUNTY
Mark Ritter
Kingsbury Council

Sheila Brillson
LaPorte County Commission

Mike Rosenbaum
LaPorte County Council

Anthony Hendircks
LaPorte County Surveyor

Nick Meyer
Long Beach Council

Jean Poulard
Michiana Shores Council

Joshleen Denham
Trail Creek Council

Thomas Fath
Westville Council

PORTER COUNTY
Jane Jordan
Burns Harbor Clerk-Treasurer

Jeannette Bapst
Dunes Acres Clerk-Treasurer

Don Ensign
Hebron Council

Blake Jefferson
Kouts Council

Carolyn Saxton
Ogden Dunes Council

John Cannon
Mayor of Portage

Jim Biggs
Porter County Commission

Jeff Larson
Porter County Council

Kevin Breitzke
Porter County Surveyor

Edward Morales
Porter Township Trustee

Matt Murphy
Valparasio Council

NIRPC PLANNING STAFF
Ty Warner, AICP
Executive Director

Kathy Luther
Chief of Staff

Trey Wadsworth
Director of Transportation

Mitch Barloga, AICP
Active Transportation Manager

Gabrielle Biciunas
Long-Range Planner

Charles Bradsky
Transportation Projects Manager

Dominique Edwards
Public Participation Planner

Joe Exl
Senior Water Resources Planner

Eman Ibrahim
Planning Manager

Peter Kimball
Regional Planner / Spacial Analyst

Scott Weber
Transportation Planner / Analyst

James Winters
Transit Planner

Nathan Pasyk
Intern

Table of Contents


LINES

Introduction

Northwestern Indiana (NWI) is a region rich with opportunity, natural beauty and a legacy of economic achievement. With a strategic advantage from transportation infrastructure, a business friendly economy, and environmental splendor, NWI is well positioned for a sustainable and vibrant future. Situated on the southern shores of Lake Michigan, NWI represents a wide diversity of character. This includes the environmental treasure of the Indiana Dunes; one of the nation's largest concentrations of heavy industry, urban and suburban communities; and productive farmland. In addition, the communities throughout the region boast a diversity of residents, housing values and incomes.

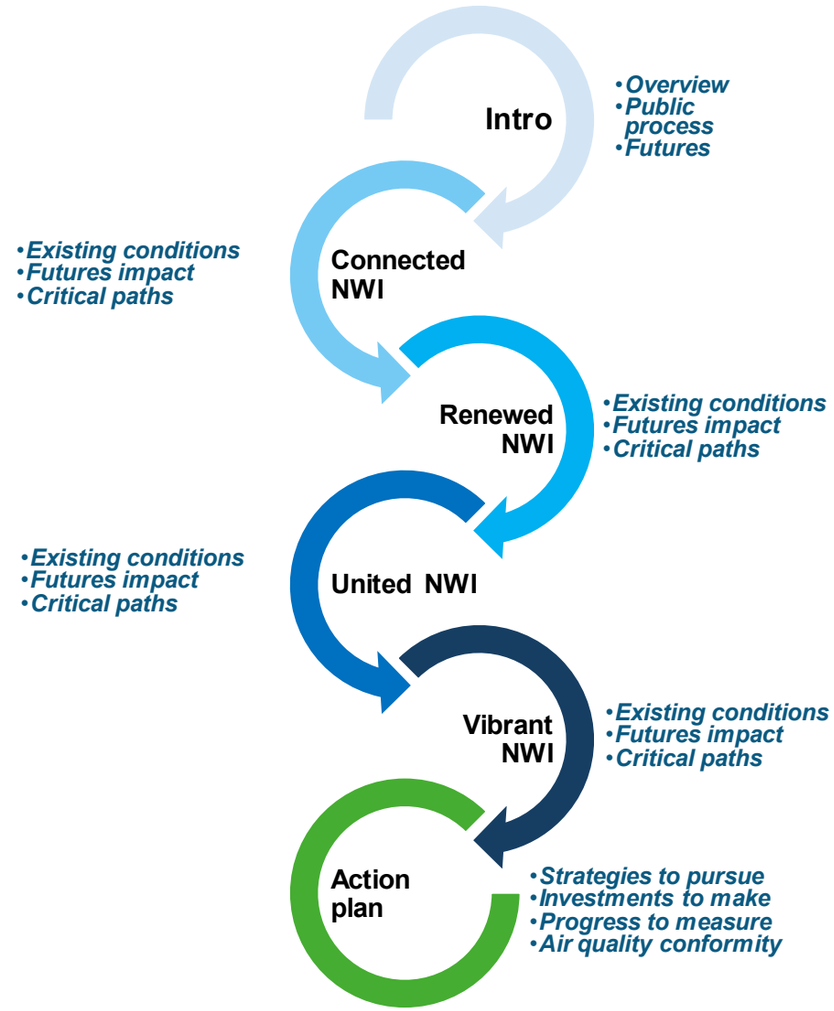
What is the region's vision for itself in 2050? What do influences of the future hold for NWI? What actions need to be undertaken to achieve the future we desire for ourselves? The *NWI 2050 Plan* seeks to provide paths towards that future with strategies to pursue, investments to make, and progress to measure.

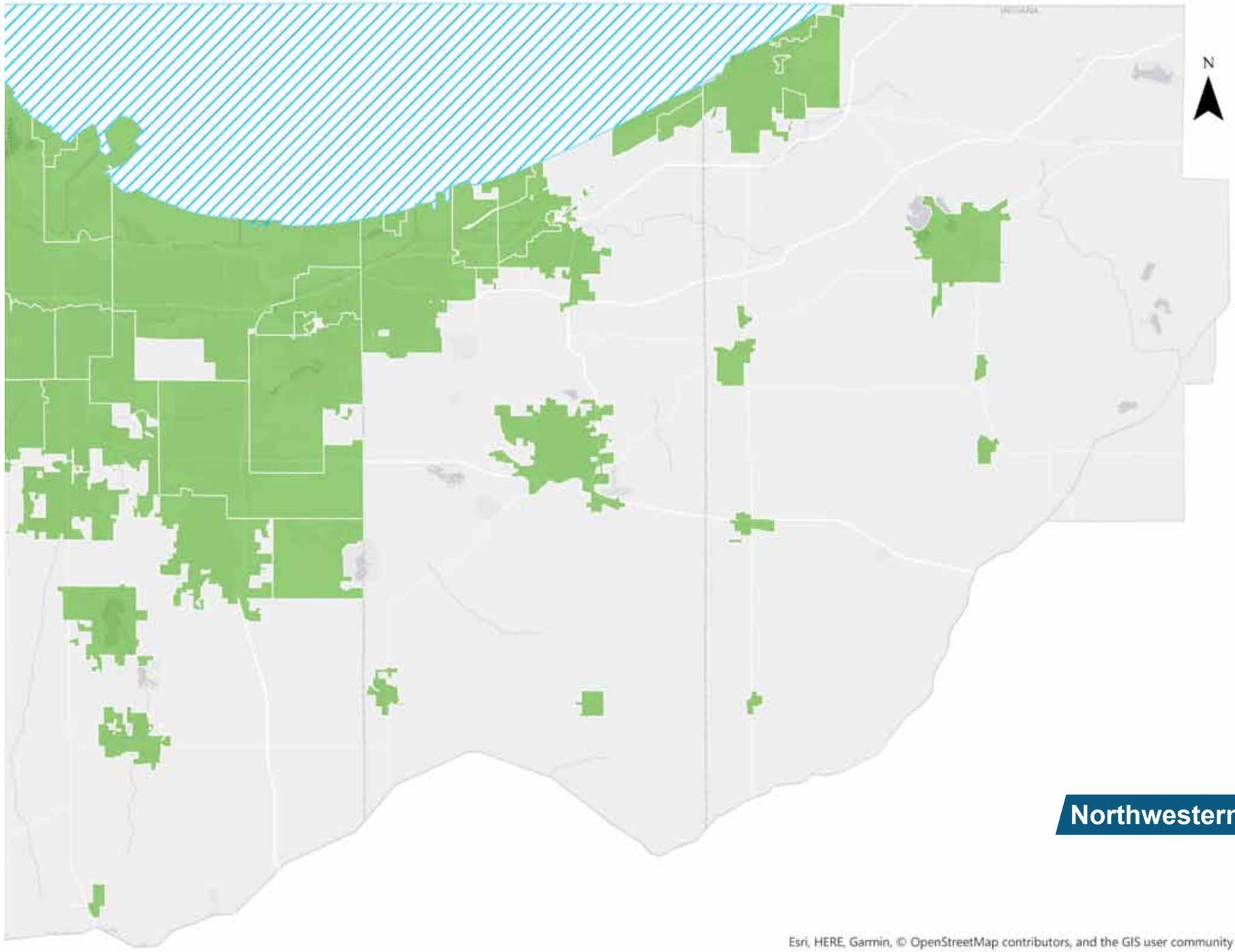
Overview of the Plan

The NWI 2050 Plan envisions a connected, renewed, united and vibrant region by 2050. These vision statements that are associated with these words inform each of the plan's focus areas of "economy and place," "environment," "mobility," and "people and leaders." These focus areas combine with the visions to produce 16 critical paths towards a reshaping of the region's quality of life.

Key Elements of the *NWI 2050 Plan*

What is in this Plan? A path towards acheiving the vision for the Region.





Northwestern Indiana

Lake, Porter & LaPorte Counties.
Our Region.

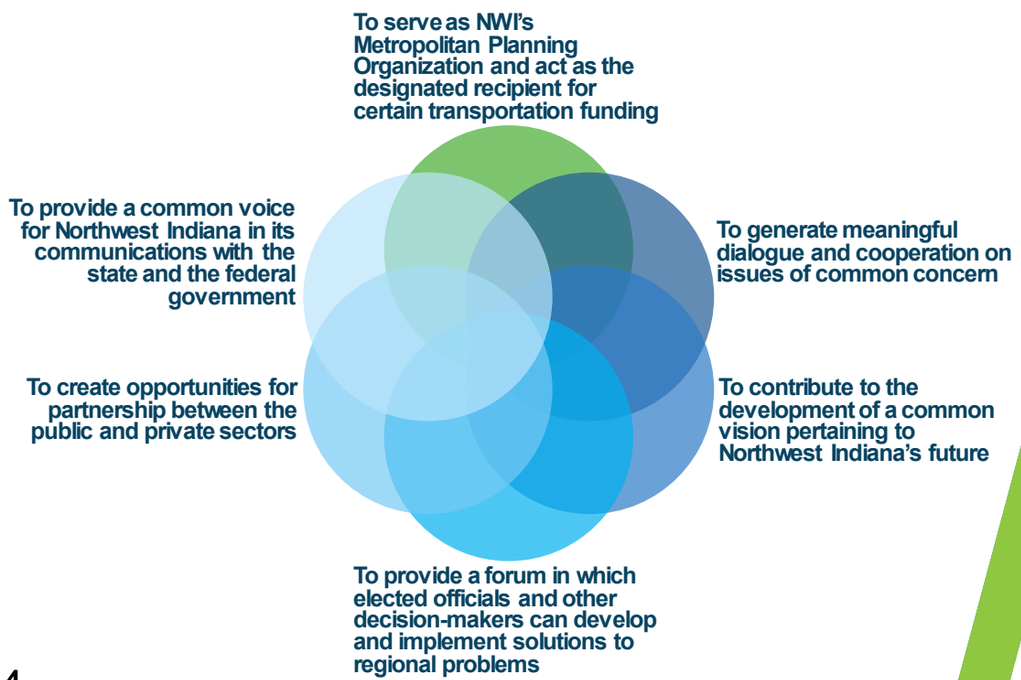
Each vision statement section is composed of a description of the vision narrative, an existing conditions report, a description of how the vision interacts with each of the future scenarios, and a statement of the critical paths to achieve the vision. The action plan identifies strategies to pursue, investments to make, and progress to measure for each of the vision statements.

Overview of the Planners

The Northwestern Indiana Regional Planning Commission is a regional Council of Governments (COG) and Metropolitan Planning Organization (MPO) whose purpose is to institute and maintain a comprehensive planning and programming process for transportation, economic development, and environmental policy and provide a coordinative management process for Lake, Porter, and LaPorte Counties. NIRPC was created by state legislation in 1965 (IC 36-7-7.6). The agency's planning area encompasses 1,520 square miles, includes 41 cities and towns, 44 townships and currently is home to almost 770,000 people (2017 Census estimates). The Commission is governed by 53 Commissioners.

NIRPC's Role in the Region

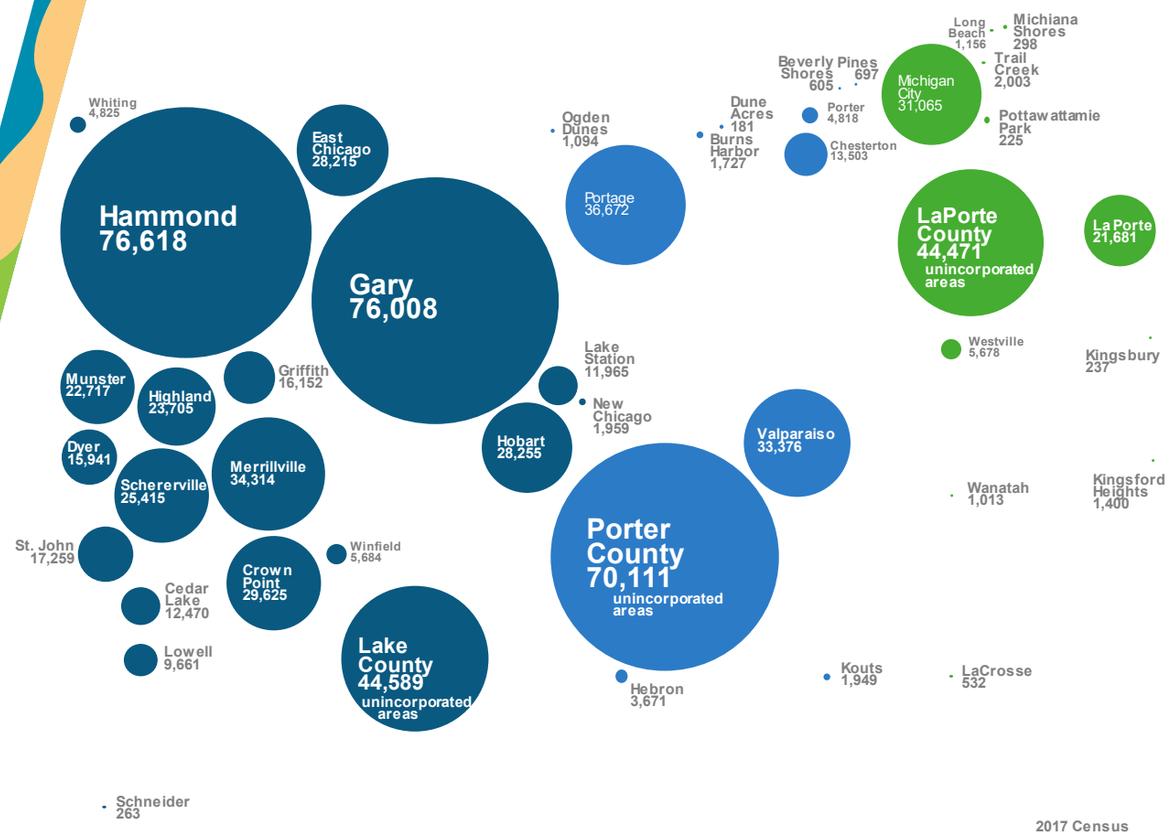
Established in 1965.
NIRPC will be 85 years in 2050



As a metropolitan area, NWI is required to prepare a long-range regional transportation plan that provides for the development and implementation of the multimodal transportation system. This includes transit, highway, bicycle, pedestrian, and accessible transportation options over the next 20 years at a minimum. The *NWI 2050 Plan* satisfies this requirement and seeks to build on the success of the nationally recognized and award-winning *2040 Plan*, which was the first comprehensive planning document for the three-county region. The *NWI 2050 Plan* attempts to mirror that bold approach by planning at the core of the linkages between transportation, the environment, land use, and economic development.

Population of NWI municipalities

Where does everyone live?



Plan Development

The NWI 2050 Plan examines the region's future, which involves analyzing trends and influences to identify strategies and investments towards realizing the stated visions. Using the 2040 document as the cornerstone for its development, the *NWI 2050 Plan* draws linkages between economic development, the environment and transportation.

NWI 2050 Plan Development Process

The path taken to develop the Plan.

Establishing the vision

Using 2040 Plan as basis to launch from, confirmed vision and goals in a round of public engagement to test vision statements and draft goals; delivered sixteen critical paths to accomplish the vision

Anticipating the future

Using the NCHRP 750: Foresight Series framework, conduct a qualitative scenario planning exercise to identify trends and influences on the future of NWI; delivered three plausible futures for NWI

Building a performance-based planning (PbP) framework

Pivoting off of federal PbP requirements and the sixteen critical paths, built a PbP framework above and beyond federal requirements; delivered PbP framework that responds to each critical path to measure progress

Investments and strategies

Re-envisioned programming framework to align the NWI 2050 Plan to underpin the visions and "put our money where our mouths are;" delivered framework that targets funding to most impactful investments and strategies that advance progress on critical paths

Action plan
(TIP + UPWP)

Build a framework for action that clearly indicates how investments and strategies can be achieved and who has the responsibility to advance them; delivered framework organized by items NIRPC is responsible for, where partnerships are needed, and where NIRPC can simply be a catalyst

What NWI said

Input from the public directly shaped the vision for the NWI 2050 Plan. A variety of outreach methods were used to solicit input across the three-county region. Activities included public meetings, pop-up events, surveys, newsletters, social media, emails, and committee meetings. The planning process was composed of four distinct stages of engagement, consisting of: input on the *2040 Plan* visions and goal statements; discussion on the influences and trends of the future; identify strategies and investments; and feedback on the draft NWI 2050 Plan.

Outreach methods

- **Website** - a website specific to the planning activities of the NWI 2050 Plan was created. Those who have access to the internet were able to observe all planning activities, milestones, events, and observe engagement results.

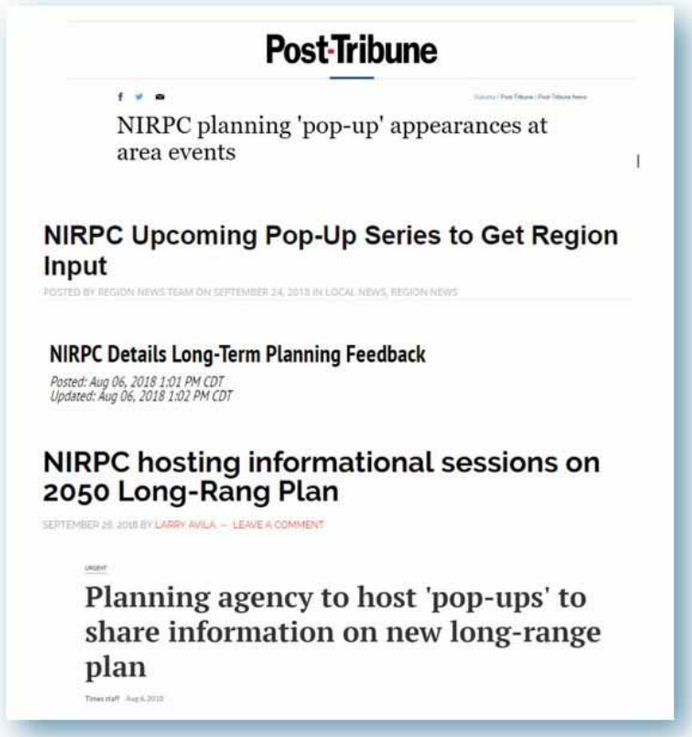
Website Outreach

The depot for plan milestones, draft content, and public outreach information

- **Traditional Media** - press releases were written, and interviews for radio shows were conducted, to inform and invite the public of ongoing planning activities and events for the development of the plan.

Traditional Media Outreach

Extra, extra! Read all about it!



Post-Tribune

NIRPC planning 'pop-up' appearances at area events

NIRPC Upcoming Pop-Up Series to Get Region Input

POSTED BY REGION NEWS TEAM ON SEPTEMBER 24, 2018 IN LOCAL NEWS, REGION NEWS

NIRPC Details Long-Term Planning Feedback

Posted: Aug 06, 2018 1:01 PM CDT
Updated: Aug 06, 2018 1:02 PM CDT

NIRPC hosting informational sessions on 2050 Long-Rang Plan

SEPTEMBER 28, 2018 BY LARRY AVILA — LEAVE A COMMENT

Planning agency to host 'pop-ups' to share information on new long-range plan

- **Social Media** - Facebook, and Twitter were utilized to advertise public events. Instagram and LinkedIn were used to share information about the plan and other NIRPC activities. Facebook was also utilized to poll NWI residents about the visions. Utilizing notification tools and event creations via Facebook yielded over 10,000 impressions from April to October of 2018.

- **Contact Lists** - email contact lists are managed and continually updated to connect planning activities to those who are interested in participating. In the early planning stages, NIRPC updated its contact list and identified stakeholders and leaders across the region to participate in events. NIRPC identified and engaged 1,200 individuals throughout the planning process.

- **Public Meetings** - there were twelve public meetings held in the three-county region to assist in the refinement of the *2040 Plan* visions and goal statements to be carried forward into the *NWI 2050*

Social Media Outreach

Facebook, Instagram, LinkedIn, YouTube, and Twitter. Five platforms to share.

Meetings & Events Outreach

12 public meeting and 21 pop-up events to hear what NWI wants for the Region

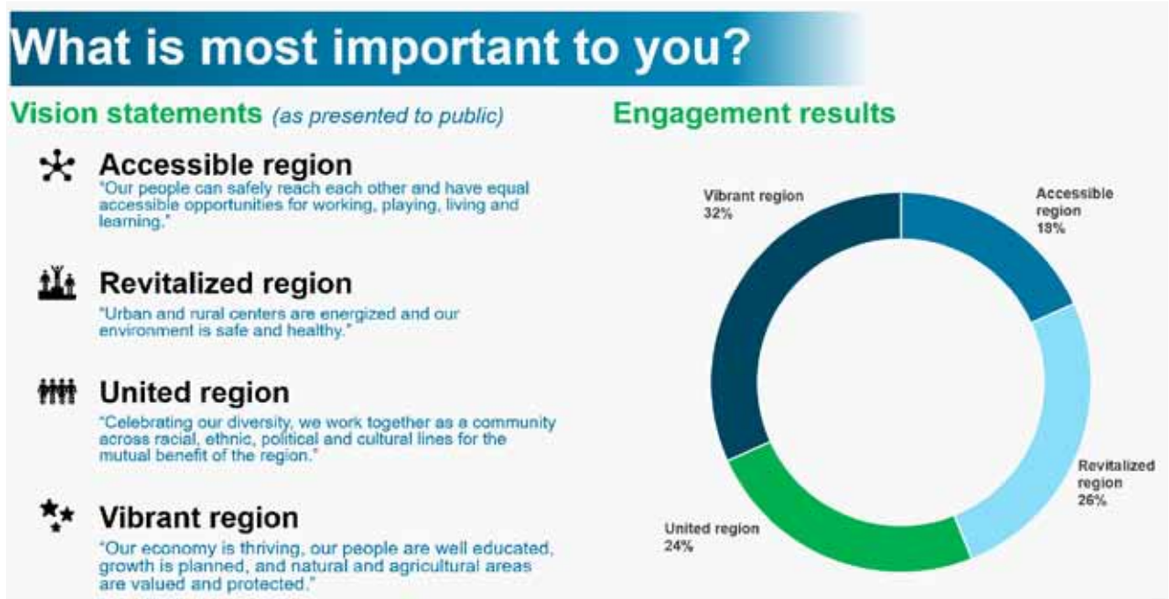
- **Pop-up Events** - fifteen pop-up events were held to bring the *NWI 2050 Plan* development directly to people at events across the region. Participants were able to discuss the influences and trends that will drive NWI's future, and to identify strategies and investments for the plan. An interactive tabletop game, described below, was created to invite participants to directly engage in the planning topics. Rich and diverse feedback was obtained from these interactive pop-up events.

- **Workshops** - technical workshops were conducted to review the draft visions, critical paths, performance-based planning framework, programming approach, future scenarios, and strategies, both internally and with the Commission's committees.

- **Surveys** - a survey was shared to obtain feedback on the vision statements and plan focus areas for the *NWI 2050 Plan*. Two-hundred and eleven participants provided feedback with this outreach method.

Survey Outreach

Do you have a moment to answer a few questions?



Outreach Summary for Planning Stages

- **Setting the NWI 2050 Plan Vision** - to help establish the vision for the plan, twelve public meetings were held, a survey was conducted, and Facebook polls were shared. The feedback from this engagement directly contributed to the revamp of the vision statements and creation of the sixteen critical paths.

- **NWI's Future** - utilizing an interactive tabletop game at eight locations across the three-county region, valuable feedback was provided by 200 participants. Participants were given a set of "playing cards" that shared information about developing trends that might influence what the three-county region may look like in the next 30 years. Participants had the ability to weigh in on influences such as the economy, regional assets, technology, the environment, and people. Participants also weighed in on trends including climate change, shared mobility, 3D printing, water demand, proximity to Chicago, labor force participation and more.

- **Investing in NWI's Future** - over 200 participants provided their perspective on how to prioritize investments in the *NWI 2050 Plan*. Utilizing the interactive table-top game, participants at seven locations across the three-county region were able to make budgetary decisions. Each participant was given cards describing thirteen different investment programs, and were asked to assign priorities with a hypothetical budget of $15 million. Participants had the ability to weigh in on programs such as complete streets, roadway improvements, transit operations, transit safety, air quality, the environment, and more. As a result of this engagement period, the public had direct impact on the programming approach for the *NWI 2050 Plan* and the 2020-2024 Transportation Improvement Program.

- **Draft NWI 2050 Plan** - . In the final round of public engagement for the NWI 2050 Plan, traditional and non-traditional methods of engagement to reach out to the public were utilized, including substantial use of methods such as radio, TV, legal ads, display ads, social media, press releases, direct mailers, and flyer drops across the region. Seven pop-up events across the region attempted to generate interest in the draft Plan from families in protected communities, women, youth, faith-based organizations, and a wide diversified audience of NWI residents. In addition, fourteen "out and abouts" were conducted across the region. These were opportunities to engage one-on-one with small groups to also generate interest in the draft Plan. Various community events and meetings were attended where staff addressed community leaders to inform them of the NWI 2050 Plan open houses and public hearings. Four open houses across the region were held in: Hammond, Gary, Michigan City, and Valparaiso. This gave participants a chance to learn more about the NWI 2050 Plan directly from staff before the traditional public hearing. Immediately after the Open Houses, four public hearings were conducted. This allowed participants to express their opinions on the NWI 2050 Plan directly to NIRPC staff.

The NWI 2050 Plan public engagement efforts resulted in valuable input that shaped the plan's development. The frank feedback received in the initial engagement round drove the development of the critical paths.

Vision for NWI in 2050

The resulting effort has updated the visions for a connected, renewed, united, and vibrant region. The Plan is presented by each of the visions and a detailed explanation of each vision is offered.

Vision for NWI in 2050

What does the Region want to be in 2050? This is the vision.

Connected — ***NWI's people have accessible, safe, and equal opportunities for working, playing, living and learning.***

Renewed — ***NWI's urban and rural centers are places people want to come to and live in, and our environment is safe and healthy.***

United — ***NWI's diversity is celebrated, and we work together as a community across racial, ethnic, political and cultural lines for the mutual benefit of the region.***

Vibrant — ***NWI's economy is thriving, our people are well educated, growth is planned, and natural and agricultural areas are valued and protected.***

Focus Areas for the NWI 2050 Plan

NWI's 2040 Plan was the cornerstone for the development of this Plan, and the public engagement helped refine the *NWI 2050 Plan's* planning focus areas into four essentials focuses from five in the *2040 Plan*.

Focus areas of the NWI 2050 Plan

Economy and Place
Focusing on NWI's economy and quality of place

Environment
Focusing on NWI's environmental quality

Mobility
Focusing on NWI's transportation choices

People and Leaders
Focusing on NWI's people and community leaders

Understanding the future

An innovative scenario planning process was undertaken to give a glimpse at some of the influences that may shape NWI's future. The scenario planning process resulted in the identification of three plausible futures for the region:

- New Chances for a New Frontier
- Sharp and In Focus
- Stay in Your Lane

Performance-based Planning

The NWI 2050 Plan sets up a performance-based planning framework that goes beyond the minimum requirements of the United States Department of Transportation (USDOT). This framework defines defensible and clear evaluation criteria, identifies strategies and investments to improve the region as informed by a robust public participation effort, and identifies partners to help the region move towards the year 2050.

Strategies and Investments

The NWI 2050 Plan equips the region for the future with actionable strategies and investments in order to face possible challenges and seize opportunities along the way. The plan brings NWI closer to a connected, united, renewed, and vibrant region for all. Finally, strategies and investments have been identified to advance the visions of the NWI 2050 Plan. With a new planning process approach, and coupled with robust public outreach and engagement, the NWI 2050 Plan recommends a series of strategies and investments as a clear action plan to best address NWI's future. Most importantly, the plan identifies stakeholders and partners who hold the responsibility to advance this action plan.

Future of NWI

For years, planners have struggled to accurately identify the specific influences that will shape a region's future. In spite of all the tools and training at a planner's disposal, there remains no measure to predict with total certainty how a region will change over time. An example of how an unanticipated shift makes an impact on planning for the future is the Internet. In the early 1990s, the Internet was a tool used by hobbyists and technology enthusiasts. In less than ten years, the Internet has fundamentally changed the way communication occurs, has reshaped the business landscape, and has altered nearly every other aspect of everyday life, such as how we shop, travel, and socialize.

Such advancements in digital computing grew from basic forms of email to the ways many enjoy today in ride-sharing, cloud-based computing, e-commerce, social media, and legions of other applications. Planners could not have predicted that a single technological advancement would have had such significant impacts. Nevertheless, metropolitan planning regulations of the FHWA and FTA require a long-range plan to maintain a twenty-year planning horizon. Planners must therefore attempt to forecast the future and its impacts on our region with the information available to them, understanding that there is much about the future that cannot be known, and anticipating that regions will regularly confront the challenge of playing catch-up to formerly unseen obstacles, problems, or opportunities.

The Transportation Research Board (TRB) funds and manages the National Cooperative Highway Research Program (NCHRP). NCHRP 750 -- the Foresight Series -- explored this precise issue: how can planners plan for the future while planning for the changes that cannot be anticipated? The recommendation was to use qualitative analysis to try and identify the influences and drivers of the future that planners can know about today, and to weigh these against each other, considering the push and pull of how these influences may affect the future. Ultimately, the question becomes this: what can the region do now to accommodate these potential influences?

The following section is a list of major influences and drivers of the future of NWI that we can know about today in the areas of regional assets, environment, people, economy, and technology. Regional assets include both "inherent assets" that were not region-made or manufactured, as well as the "created assets" that have been built by region residents and businesses throughout history. The other four categories (environment, economy, people, and technology) are identified by the nature of their influence. Each influence is described in regards to whether it is currently affecting the region, or if it is trending, emerging or speculative. The push and pull of these 36 influences were qualitatively analyzed to determine how NWI may be shaped in the next 30 years. Each influence was weighed against the critical paths identified by region residents to determine if the influence had a high, medium, or low impact on a specific aspect of the vision for NWI.

The combined impact of all 36 influences were weighed against the likelihood of occurring and the values that residents have in NWI to mitigate or encourage those impacts. The result is three distinct, plausible future scenarios for NWI: "New Chances for a New Frontier," "Sharp and in Focus," and "Stay in Your Lane." No value or judgement is placed here on which future is the best for NWI. However, different strategies and investments were tested for their impact on each of the possible futures. The strategies and investments that have positive impact on all the future scenarios are preferred, while those that may have little or no impact are weighted with less importance. The intended result is that whatever future NWI faces, the region will have implemented strategies and made investments that have a greater probability of preparing us for that future, and therefore will have made a more effective use of finite resources.

Driver of the Future: Economy

What will impact the Region's economy in the future?
These are some of the influences.

E-commerce

Existing | Trending | Emerging | Speculative

E-commerce has tripled in the last decade, doubling in just the last two years. Over the last 25 years e-commerce has continued to increase its overall market-share, and is expected to continue indefinitely. As of today, Amazon accounts for 34% of the US e-commerce and will grow by 50% in the year 2021. Online shopping is driving up demand for small package home deliveries, which could substitute for many household shopping trips.

E-commerce is quickly changing American cities and suburbs. Traditional malls have been devastated and large retail stores are going out of business. In the future, as home shopping grows, malls and other shopping centers will likely need to be refurbished into logistics hubs, supply spaces, or removed altogether and the land redeveloped for other uses. Additionally, urban freight delivery growth is expected to expand 40% by 2050, and smart tech-savvy strategies will be needed to mitigate the related congestion issues.

NWI will likely not be spared from the nationwide brick-and-mortar "retail apocalypse" some are predicting. However, the changing retail environment offers plenty of opportunity. Developers are looking at NWI to establish e-commerce distribution centers and warehouses. Community leaders are investigating ways to repurpose larger, vacant retail buildings into other uses. Job placement centers and economic developers are preparing for these changes by training workers for positions in information technology, logistics, and other trending technical positions. Finally, and most importantly, region residents who are transportation-disadvantaged may find greater ability to have goods and services brought to them directly.

Global Competitiveness

Existing | Trending | Emerging | Speculative

Overall the Midwest has experienced a de-clustering of businesses. Metro economies have faced decline because of economic over-investment in a single industry. Global advancements in industrial technology or international trade policy can lead to companies offsetting the cost of production through layoffs. Advancements such as automation and off-site production with just-in-time shipping can make a product more competitive globally while having negative effects on the region's local economy.

Even outside of the trending technology identified in this scenario planning exercise, global trends may have an impact in NWI as dynamics between industrial leaders and partnerships shift over time. At the time of this document, steel production in the region is being directly affected through tariffs imposed with the United States' trade partners. As technology advances, the region will need to maintain a level of adaptation in industrial output, as well as look to new opportunities in industry to keep employment high and well-paying.

Containerization (block chain)

Existing | Trending | Emerging | Speculative

Containerization was a revolutionary development in freight technology advanced in the 1960s. This involves the process of shipping standardized intermodal containers (shipping containers) to move goods from one part of the world to another. Today the freight industry stands on the brink of another technological advancement: blockchain. Blockchain in freight is an electronic ledger system that allows interactions to be verified autonomously by computers. Blockchain would reduce delays in shipping by removing human error and other inefficiencies associated with the paperwork required to ship freight across borders.

In January 2018, Maersk and IBM announced a joint venture in creating a blockchain platform that will provide a secure and efficient collaboration between all parties involved with a shipment, which will eliminate the need for paperwork. This technology could allow for more capacity in the region by providing real-time data by analyzing check-ins, weather, tariffs, and other factors related to delivery.

Tourism

Existing | Trending | Emerging | Speculative

Tourism has enjoyed a steady presence in the United States since the mid-1800s as technology in transportation advanced. Today, almost anyone can travel hundreds of miles in a matter of hours, whether by airplane, train, intercity bus, or personal automobile. Tourism offers an economic opportunity that can be enhanced with technological advances that promote interconnectivity. Tourism ranks as the seventh largest employment industry in the United states, with projections to move to the sixth largest by 2023.

NWI is situated uniquely along Lake Michigan, within close proximity to Chicago. The region already offers the Indiana Dunes National Park, sporting events, museums, trails, resorts, shopping, and dining. NWI has a tremendous opportunity to grow jobs, and potentially the population, by attracting visitors. The region could see these benefits blossom by continuing to make investments enhancing the tourism industry.

Housing Market

Existing | Trending | Emerging | Speculative

The housing market is supply is constricting as of late with supply not keeping up with demand. This, coupled with low interest rates, are causing home prices to increase according to the Indiana Business Review. While this could impact the affordability of housing in NWI, home prices and property taxes remain lower than in the Chicago metropolitan area, which could continue to present an opportunity to NWI to welcome new residents. However, if these market trends continue, the affordability of mortgages and rental prices may be negatively affected for both existing residents and potential residents. Building new homes in existing main centers and near new transit, presents an opportunity to capitalize on housing demand, and providing living options that are convenient and that will strengthen our communities.

Trade and Tariffs

Existing | Trending | Emerging | Speculative

Tariffs are a tax on goods imported or exported to or from a country. Tariffs affect the economy nationally, regionally, and locally, and can dramatically change the landscape of the industries that they are applied to. Tariffs have been used for centuries. However, the current policies on the national level are drawing more attention to international trade policy as the U.S. attempts to reorient trade policy with China and other exporting powerhouses. Because NWI remains heavily invested in manufacturing as a core economic cluster, specifically steel production, shifts in tariffs can have a huge impact on the local economy. The current imposed tariff on steel is 25%, with 10% charged on aluminum.

Entrepreneurial Capacity

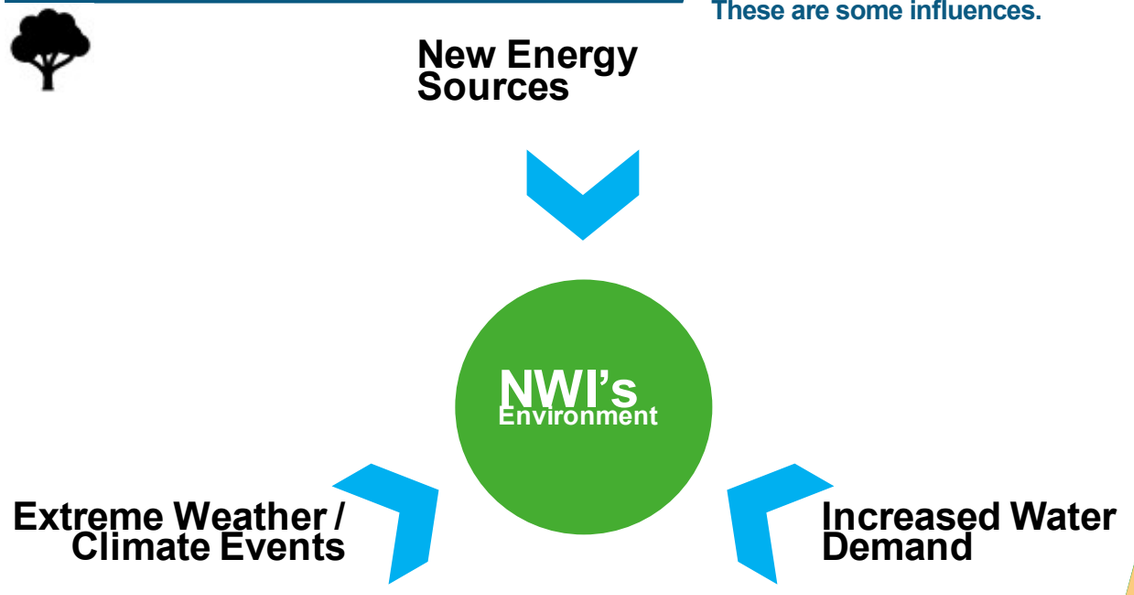
Existing | Trending | Emerging | Speculative

The ability of encouraging individuals to tap capital and human resources in order to build and expand businesses determines entrepreneurial capacity. Having quality entrepreneurial capacity in a region requires education, access to capital, and supportive policies. Connectivity between educational institutions, entrepreneurs, existing industry, and future technologies are crucial for maintaining an economically healthy community and fostering new business ventures. Entrepreneurial capacity can provide investment in communities and in turn set a positive mindset in the potential for municipalities and regions. Utilizing venture capital and incubators are key in supporting new small businesses.

NWI remains well-suited for new businesses with greater connectivity and access to Chicago, as well as an affordable cost of living. The region is interested in investing in data centers and such a step could foster tech industry jobs and advance innovations like tech incubators. If NWI is able encourage business development, then the ability to retain and attract talent within the region can be sustained to 2050 and well beyond.

Driver of the Future: Environment

What will impact the Region's environment in the future? These are some influences.



New Energy Sources

Existing | Trending | Emerging | Speculative

Renewable and clean energy sources, once on the margins of the region's energy mix, are now emerging as key opportunities. For example, there have been rapid advancements in wind energy technologies. However wind energy remains far from dominating the industry, providing roughly 2% of the global electrical demand. If growth continues at the present rate, however, wind energy could cover over 16% of the global electrical energy demand within a decade.

Advancements in wind energy have been demonstrated in NWI. In 2018, the Northern Indiana Public Service Company (NIPSCO) announced that at least one coal-fired power plant in the region will be replaced with renewable sources of energy, including wind and solar. In 2019, NIPSCO announced it is committing to be coal-free by 2028.

Increased Water Demand

Existing | Trending | Emerging | Speculative

By 2020, about 30-40% of the planet will face constant water shortages, and according to the researchers, a changing climate will worsen the effects. There will be about one billion more people worldwide by 2025, with global agriculture alone requiring another one trillion cubic meters of water per year (equal to the annual flow of 20 Nile Rivers or 100 Colorado Rivers). By the year 2040, it is estimated that there will not be enough water for earth's population if we continue with the current consumption trends.

NWI should remain largely clear of these concerns due to the immense fresh water resource of Lake Michigan. However, the balance of the Great Lakes basin could see massive growth from people migrating from water-stressed regions of the U.S. This potential spike in population would apply immense pressure to our already weakened water infrastructure network.

Extreme Weather Events

Existing | Trending | Emerging | Speculative

Climate change has contributed to significant weather events worldwide. The frequency of these events has increased, having a substantial impact on our infrastructure. Over the last 50 years, much of the U.S. has seen prolonged periods of excessively high temperatures, heavy downpours, and in some regions, severe floods and droughts. In NWI, we have been exposed to rapid winter temperature shifts wreaks havoc on regional roads. This rapid freeze and thaw cycle ruins the life expectancy of pavements and causes severe potholes. Other extreme events like recurring flooding can risk the health of our bridges and block critical road and rail corridors.

The Federal Highway Administration launched a climate change resilience pilot program with the State of Michigan leading to a Climate Vulnerability Assessment report. Given that NWI's ecosystem is similar to Michigan's, the region should experience similar impacts. These include: increased erosion from intense precipitation; seasonal precipitation changes – both amount and type (snow vs. rain); bridge scour from flooding (damage to the piers that hold bridges up); freeze/thaw; lack of Great Lakes ice cover; fluctuating lake levels; and road buckling.

Driver of the Future: People

How will people impact the Region's future? These are some of the influences.

Slow Population Growth

Jobs and Personal Income

NWI's People

Migration / Immigration

Aging Population

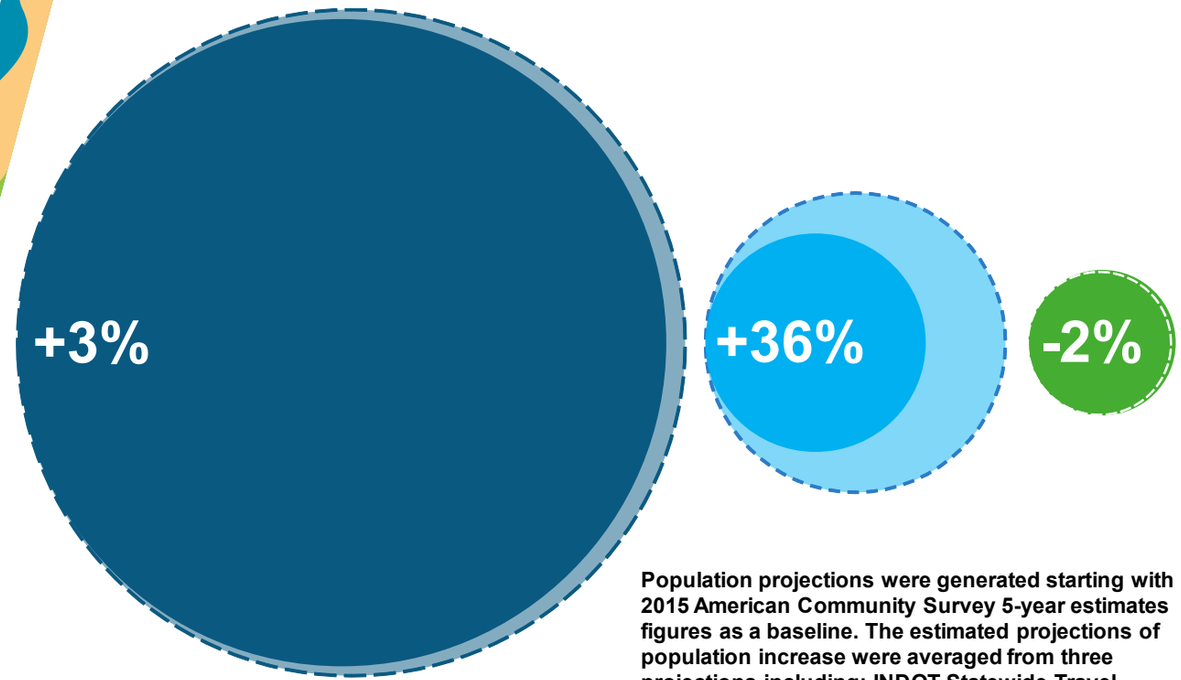
Slow Population Growth

Existing | Trending | Emerging | Speculative

Between 2010 and 2015, the population of Indiana grew by 2.1%, however in NWI, this number decreased by 1% during this time. Slow population growth also burdens the regional economy with a smaller tax base, fewer job opportunities, and a smaller labor pool. Further growth can be possibly be achieved by attracting young professionals with vibrant main centers areas, and improving services to region residents.

Population Projections by County

How much will NWI grow by 2050? Indicators today suggest slow growth.



Lake County	Porter County	LaPorte County
2015: 491,596	2015: 166,570	2015: 111,280
2050: 505,066	2050: 226,979	2050: 109,337

Population projections were generated starting with 2015 American Community Survey 5-year estimates figures as a baseline. The estimated projections of population increase were averaged from three projections including: INDOT Statewide Travel Demand Model, INDOT REMI Policy Insights, and Woods and Poole.

Migration / Immigration

Existing | Trending | Emerging | Speculative

During the 2015 – 2020 period, population estimates show that the rate of out-migration was responsible for a population loss, even while NWI's birth rate was similar to historic data. Estimates show a negative migration rate between 2019 and 2030 and a positive migration rate between 2030 and 2050. By 2050, NWI is expected to gain population - mostly in Porter County where overall regional some population gains from migration can be attributed.

Over the next few decades, immigration could lead to positive effects for both region residents and the economy. With about 15 percent of U.S. residents born in a foreign country, socio-economic data demonstrate that immigration leads to more innovation, creativity, higher education levels, and overall economic growth.

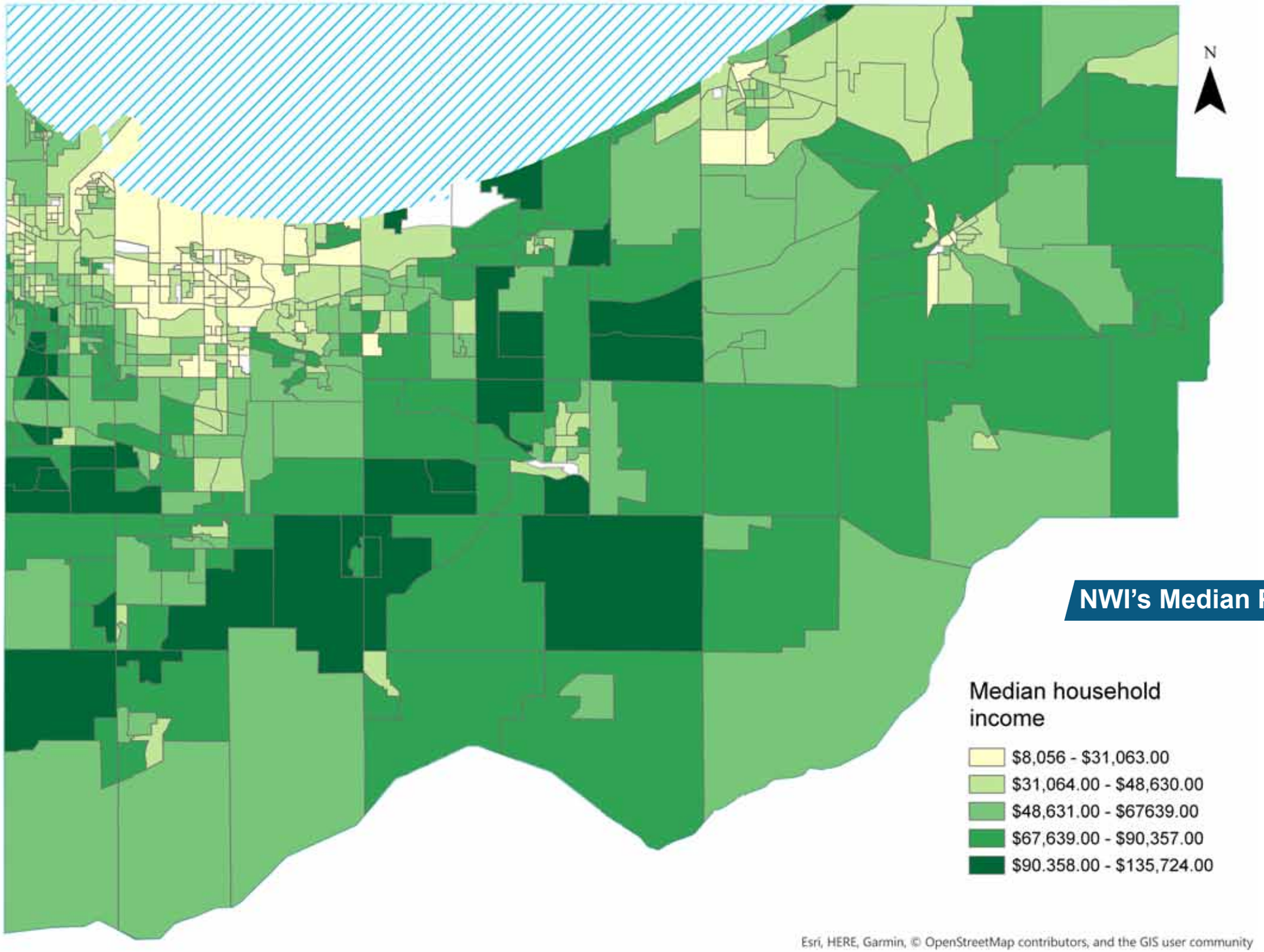
Aging Population

Existing | Trending | Emerging | Speculative

The average age of the region's population is expected to increase with a generational shift over the next few decades. The influence of Baby Boomers has gradually given way to the emerging Millennial generation. This continuing shift will change the demographics and have an impact on the region's economy, values, population size, and growth rate. Currently, population growth in NWI has remained relatively flat. Although a small increase in residents (2%) has been projected in the next ten years, the region's population is then forecasted to decline between 2030 to 2050 due to the mortality of the Baby Boomers, while still netting a small increase overall due to the migration mentioned previously.

Since population growth has slowed, the impact of aging Baby Boomers remains a matter of concern. Baby Boomers are between the ages of 54 and 72 in 2019, but the youngest of these will turn 71 in 2035. The 65 years-and-older population will increase from 14.6% in 2015 to 20.7% in 2035 through 2050. Furthermore, the Millennial birth rate has decreased overall, coupled with slower immigration rates. The potential consequences of these trends are the loss of working-age people, a deficit of workforce supply, and rising health care expenses. Combined, these influences threaten to impair NWI's economic development.

In addition, an older population has an impact on the regional transportation network. If older individuals lose the ability to drive, there will be a greater reliance on transit systems to meet mobility needs, and NWI's transit networks are currently insufficient to match this potential demand.

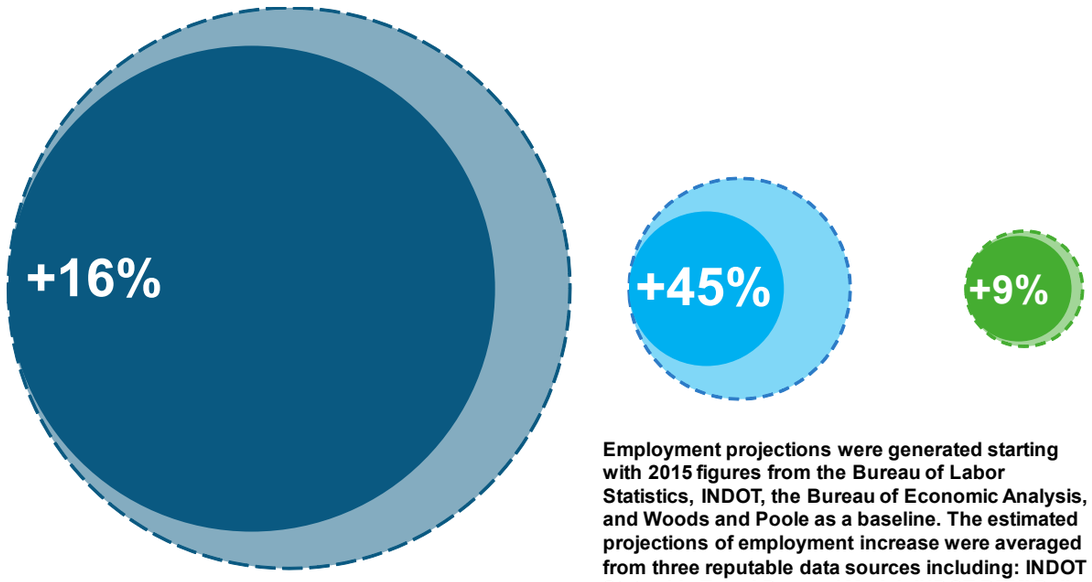


NWI's Median Personal Income

NWI's household incomes spread widely across the Region. How do we grow incomes for all?

Job projections by County

How will jobs grow in NWI by 2050?
Indicators today suggest stronger growth



Lake County
2015: 185,844
2050: 214,783

Porter County
2015: 58,715
2050: 84,846

LaPorte County
2015: 40,454
2050: 43,975

Employment projections were generated starting with 2015 figures from the Bureau of Labor Statistics, INDOT, the Bureau of Economic Analysis, and Woods and Poole as a baseline. The estimated projections of employment increase were averaged from three reputable data sources including: INDOT Statewide Travel Demand Model, INDOT REMI Policy Insights, and Woods and Poole.

Jobs and Personal Income

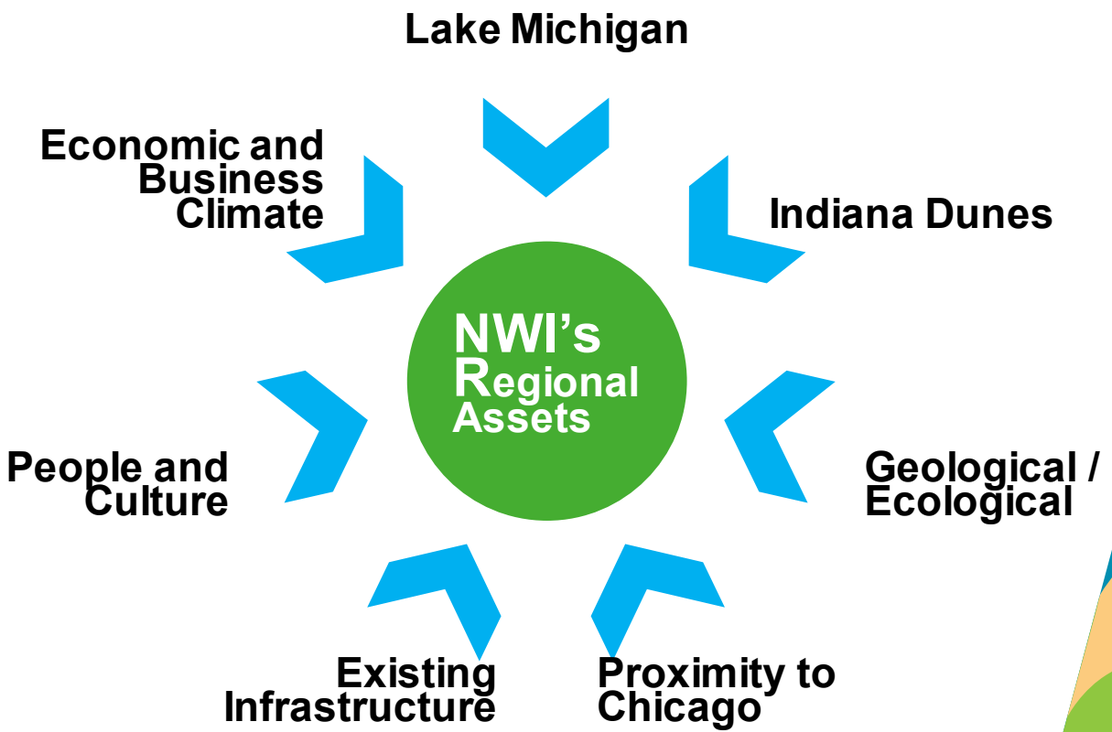
Existing | Trending | Emerging | Speculative

According to the Indiana Business Research Center, in 2017 Indiana experienced similar growth in household income compared to the U.S., with employment growth slightly lower than the national trends. Overall, Indiana should see an increase of 35,000 new jobs through the balance of 2019. Within a forecast period from the second quarter of 2018 to the end of 2021, the Indiana economy will continue to grow at a roughly equivalent rate of the nation in general. Personal income growth in Indiana is projected to reach 4.7%, with job growth achieving a 3.7% gain in both the state and nation.

In a long-range forecast (2016-2037), the total Gross State Product is expected to reach an annual rate of growth of 2.47% per year. Employment is predicted to have a positive overall growth rate at 0.63%, with employment in the manufacturing industry dropping to 0.66%, and non-manufacturing areas growing at 0.86% rate (IBRC, 2018). Risks associated with this future scenario stand as a matter of concern. NWI's economy relies heavily on steel and its related industries. A small negative shift to the steel market can have drastic impacts on regional jobs and income.

Driver of the Future: Regional Assets

How will regional assets impact the Region's future?
These are some of the seeds.



NWI's Regional Assets

What is a regional asset?
Some assets made our region; some assets the Region made.

Inherent

- Part of of landscape
- Already in place
- Helped create the region

Created

- Built by residents overtime
- Developed as a response or solution
- Needs to be fostered and sustained

Lake Michigan

Inherent | Created | Potential

Lake Michigan represents NWI's most prominent natural asset. A 45-mile coastline defines the northernmost boundary for the region and remains the only Great Lakes border for Indiana. The benefits of Lake Michigan are both recreational and commercial. The coastline provides NWI residents ample outdoor recreational opportunities with pristine beaches, parks, and marinas lining the shore. Additionally, the lake is an essential and abundant source of freshwater, not only for region residents, but including critically-important industrial centers that require large water bodies for production and shipping.

Indiana Dunes

Inherent | Created | Potential

As of February 15th, 2019, the Indiana Dunes National Lakeshore was officially re-designated a National Park. The new National Park and the Indiana Dunes State Park combined welcome over three million visitors per year. The parks contain 17,000 acres of precious dunes, oak savannas, swamps, bogs, marshes, prairies, rivers, forests, and other natural areas. The Indiana Dunes themselves climb up to 200 feet, rising and falling into miles of peaks and valleys that can be explored year-round. Residents and visitors alike enjoy abundant recreational outlets such as camping, swimming, hiking, and horseback riding.

Geological / Ecological Diversity

Inherent | Created | Potential

NWI contains a unique biodiversity, rich ecosystem, and diverse climate. According to the Indiana Dunes National Park, biological diversity ranks in the top of all National Park facilities throughout the nation. Over 1,100 flowering plant species and ferns make their homes here. From predacious bog plants to native prairie grasses, and from towering white pines to rare algal species, the plant diversity is bountiful. Wildlife habitat and world class birding (the Dunes being home to over 90% of migratory birds coming through our region), with more than 350 species nesting, can also be found in the region. Furthermore, the region contains fertile soil ideal for farming, with well over half of the region's area dedicated to agricultural purposes.

Proximity to Chicago

Inherent | Created | Potential

NWI's proximity to Chicago provides accessibility to a world-class city with amenities and economic opportunity for residents to enjoy. Chicago represents the third largest city in the U.S., and remains an economic powerhouse of business opportunity. The contiguity to major markets, along with a strong international economic center, offers vast potential for the region. NWI residents have numerous options to access Chicago, including the Indiana Toll Road, the South Shore Line, and the ChicaGo Dash commuter bus, which provides direct connections to amenities, jobs, services and entertainment. Further benefits of NWI's close location to Chicago include plentiful services, resources, banking, hospitals, and major international airports within an hour's drive or commute.

Existing Infrastructure

Inherent | Created | Potential

Situated at the crossroads of America, NWI in the "Middle of Everywhere," as observed in the NWI's Ignite the Region Plan for Economic Transformation. The infrastructure the region has built offers a comprehensive mix of transportation modes to move people and goods. The region is served by no less than four U.S. interstates; the South Shore Line commuter rail to Chicago; Amtrak service to Michigan and Indianapolis; three Class 1 freight railroads; public transit operators of bus routes and demand-response services; the Port of Indiana-Burns Harbor; the Gary-Chicago International Airport; and nearly 160 miles of off-road bicycle and pedestrian trails.

The interstates and highways in the region are some of the most traveled in the country, providing vital connections within the region and throughout the Midwest, with ample growth opportunities for businesses and services. The South Shore Line provides an important transportation link that connects NWI to Chicago with future expansion and enhancement projects in development, such as the Double Track and the West Lake Corridor, to better reach destinations quickly. Transit remains a critical travel option for region residents that needs to be maintained and expanded to enhance economic opportunities. Key to our transportation infrastructure are networks which connect all modes to one another through continuous investments.

People and Culture

Inherent | Created | Potential

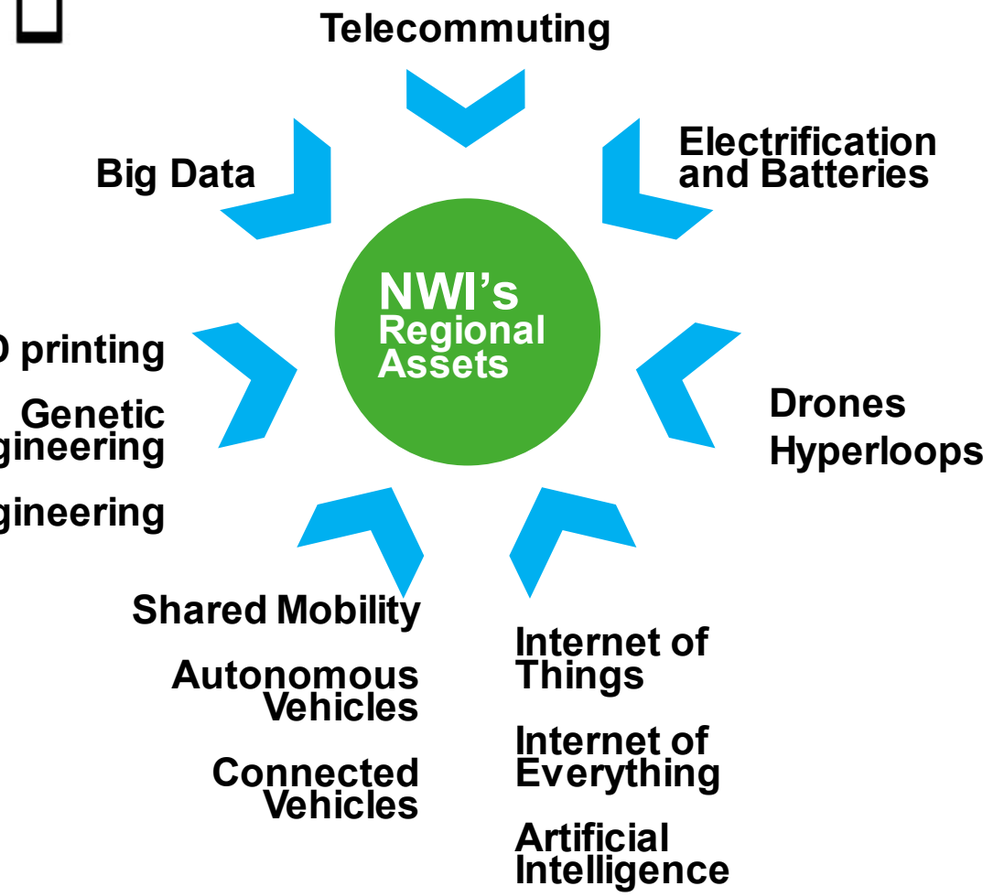
NWI celebrates its diversity through a variety of ethnic, cultural, artistic, and human capital. The region offers several options to experience these assets. These range from renowned art galleries to historic landmarks, drawing residents and visitors equally. Human capital provides the region some of its most vital health services through a number of hospitals, urgent care facilities, clinics, and private practices. In addition, the region offers abundant educational opportunities, both vocational and post-secondary. These include public, private, charter elementary and high schools, along with recognized institutions like Valparaiso University, Purdue University Northwest, Indiana University Northwest, Ivy Tech, and Calumet College of St. Joseph.

Inherent | Created | Potential

A diverse set of businesses call the region home that have capitalized on the area's assets, transportation infrastructure, recognized business-friendly climate, and a talented and competitively-priced labor pool. NWI offers a friendly business climate with low-cost of living, low taxes and high quality of life.

Driver of the Future: Technology

How will technology impact the Region's future? These are some of the influences.



Telecommuting

Existing | Trending | Emerging | Speculative

Telecommuting allows employees to forego the typical commute in favor of working from home or at a nearby location. Telecommuting has been around for decades in some industries, but has recently become prevalent in others. Successful telecommuting in a region such as NWI has the potential to alleviate traffic congestion, particularly during peak travel periods, and to boost economic productivity. On the other hand, telecommuting can decrease productivity by disengaging employees from an accustomed work environment and isolating them from the unplanned interactions that can help spark new ideas. Whatever the impact at work, telecommuting may makes it possible for employees to live far from their brick and mortar workplace.

Electrification and Batteries

Existing | Trending | Emerging | Speculative

As climate impacts of fossil fuels become clearer, and as more automotive companies promise to deliver on electrically-operated vehicles, electrification will certainly continue to be a future trend. Electrification of mobility would not be truly viable for our region without concurrent advances in battery technologies, which continue to see billions of dollars in research and development. Smart grid technologies may soon make it possible for consumers to sell home-generated electricity back to the grid at a profit, such as from power generated from rooftop solar panels. There will also be a role for the public sector to help ensure that the charging infrastructure will be in place to support the electrification trend.

The electrification and battery development trend has already been set in motion due to competitive commitments from companies such as Volvo, General Motors, Toyota, Volkswagen, Jaguar Land Rover, and Tesla, all of which already have all-electric fleets -- or have commitments for electric fleets -- by the mid-2020s. Charging infrastructure still lags behind the supply-side pace, which could impair adoption in the short-term.

Vehicles may get more expensive to own as electric models often retail at a greater cost than traditional combustion vehicles. Consumers rely on tax credits with long-term decreased vehicle operating costs to make up the upfront price premium over time. These tax credits are expiring or are at risk due to national policy questions about their costs. This could force consumers to rely less on the traditional ownership model of cars and to depend more on shared-use mobility services. NWI's air quality may improve if autos, buses and trucks are electrified, since these emission sources account significantly towards NWI's pollution. At the same time, if the electricity needed to charge these vehicles remains largely generated by pollution-producing facilities, the offsets could be negligible or even reversed.

Drones

Existing | Trending | Emerging | Speculative

Drones are changing not only the aerospace industry, but also the fundamental way humans interact with the environment. Drones offer dramatic advances in several fields, including military and law enforcement applications, agriculture, telecommunications, media/entertainment, healthcare, urban and regional planning, and even transportation. The Federal Aviation Administration (FAA) estimates that drone usage will increase 16.9% per year for hobbyists and 32.5% per year for commercial use. Improvements in safety, security, and regulatory compliance will be critical as drone usage moves skyward. Drones promise huge benefits in efficiencies, but also impose externalities such as noise, view obstructions, privacy concerns, and aerospace safety and congestion.

Drones could enable larger and more specialized agricultural plots of land in NWI. Farmers would be able to deploy them to survey their fields and expend less costs in labor to produce a given yield. This could protect against sprawling communities in the agricultural areas of the region. Drone usage in e-commerce shipping may lower the amount of roadway traffic, but could increase aerial congestion creating view obstructions that may be considered a nuisance.

Big Data

Existing | Trending | Emerging | Speculative

The concept of big data involves data sets that are so large and complex that they cannot be analyzed using traditional tools. In a world where there are increasingly more streams of data being captured, and increasingly more tools and techniques available to analyze this information, it becomes more of a challenge to identify meaningful patterns in big data.

With more time spent online and on social media, there are increasing opportunities to collect data on preferences and behaviors. While these opportunities may be lucrative, they must be balanced with the responsibility of protecting privacy and ownership of information. In addition, the sheer volume of data being generated far exceeds the growth in the labor force of analysts. This means investments must be made in the tools and techniques for analyzing big data in order to make it useful.

The trend toward big data might cause education, skills training, and other workforce development initiatives to focus more on data analytics. Instead of colleges offering degrees in Computer Information Systems and Computer Science respectively, they might offer degrees in Data Analytics or Machine Learning, or more data-centric and less computer-generic programs. Jobs that require data analysis might become more numerous in the region, and these jobs may have less active fieldwork and more work spent near computers, or these jobs might become more specialized elsewhere with less of these jobs in NWI. Region planners will have a better idea of transportation system performance with additional information factoring into the assessment.

Internet of Things

Existing | Trending | Emerging | Speculative

The Internet of Things (IoT) is the concept of smart things communicating with each other, such as a smart home in which its residents are able to use a central interface to connect to smart objects like TVs, thermostats, lightbulbs, etc. IoT can occur through a variety of contexts. In transportation, IoT are the sensors used to advertise truck parking to truckers looking for a safe place to park for their mandatory rest hours. IoT allows passive data collection and information flow, but still requires some level of human input.

IoT improves efficiency across all contexts and is rapidly increasing. For example, smart homes are already becoming more common, electronic toll-collection transponders are commonplace handling transactions, fitness devices are able to read vital signs and alert the wearer to take action during risk events. However, the potential impact of IoT has yet to be fully realized.

Internet of Everything

Existing | Trending | Emerging | Speculative

The Internet of Everything (IoE) involves the concept of smart devices communicating with each other, thus building upon the Internet of Things (IoT). For example, a smart home in which various systems in the home are connected would be IoT, whereas the entire network of smart homes and how they interact would be IoE. IoE would be a whole new paradigm of exchanging information, whether the context be government, economy, transportation, etc. Building on the truck parking example, instead of truckers having to decide where to park based on passively presented information on road signs along their drive, their navigation systems would know when they would have to start their rest period and automatically navigate them to the most efficient, legal, and available roadside truck parking. Possibly even more helpful would be if the navigation system knew when the truck needed to refuel, in addition to when the driver needed to rest, and navigated the driver to a commercial truck plaza to get diesel and rest.

IoT is increasing, but IoE will not develop as quickly until a critical mass of IoT applications and a refined use of big data takes place. Using an example, smart homes are already becoming more common, but utilities are just beginning to offer different ways of billing customers who have smart homes, or offering these customers the ability to act as their own smart grids with other homeowners.

Artificial Intelligence

Existing | Trending | Emerging | Speculative

Artificial Intelligence (AI) encompasses the growing trend of utlizing machines to complete complex tasks once only manageable by humans. Initially, AI requires input from humans to create the program. However, at some point the program gains the ability to learn and eventually operates with minimal human intervention. AI is used in numerous fields such as business, healthcare, entertainment, and transportation. While the positive impacts of AI are significant, the potential for market disruption is high. Across all sectors, jobs could be massively displaced as workers are replaced with machines.

Shared Mobility

Existing | Trending | Emerging | Speculative

The proliferation of smartphones and similar devices has enabled people to use transportation services on an as-needed basis. This smartphone age has already spawned Transportation Network Companies (TNCs) including Uber and Lyft. Bike-sharing and car-sharing services also allow subscribers to use these modes without owning vehicles. Micro-transit companies-- essentially TNCs at the scale of buses -- are also gaining ground, especially in foreign countries. Even if progress on developing shared mobility technologies were to freeze today, these technologies have already proliferated such that usage would continue to increase.

Shared mobility has both clear and unclear impacts to NWI. TNCs and micro-transit providers will certainly increase as their services become seamlessly integrated into the smartphone environment. It remains unclear whether or not shared mobility will help public transit in NWI by solving first-and-last mile challenges, or if shared mobility will compete with existing transit services. TNCs have performed poorly in providing a viable option for individuals with disabilities in NWI as drivers lack accessible vehicles or adequate training. Also unclear is whether the shared mobility demand will drive more NWI residents to regions where it is abundant, like Chicago, or if these services will flourish within the NWI region

Connected and Autonomous Vehicles

Existing | Trending | Emerging | Speculative

Autonomous Vehicles (AVs) are vehicles that are able to drive with little or no human input. Currently, human error accounts for over 90% of vehicle crashes today. With the use of AVs, the number of overall crashes could dramatically decrease as the need for human input declines. AVs will also have an impact on the economy as on-road freight will likely be automated in the near future. Connected Vehicles (CVs) are linked either to each other, to their surrounding infrastructure, or to other objects and places. CVs may or may not be autonomous. CVs should result in safer and more efficient operation as vehicles will be immediately responsive to connected environments. Deploying CVs will require enormous levels of investment in upgrading consumer vehicles and infrastructure. However, the main benefits of CVs will only accrue once a critical mass of equipped vehicles and infrastructure exists.

Safety should dramatically improve with CVs with fewer overall crashes, fatalities and serious injuries. Congestion, particularly on signalized arterials, will decrease as efficiency increases. Increased efficiency could lead to an uptick in road capacity as near-instantaneous response times allow for shorter stopping distances. CVs can time vehicles to arrive precisely when a traffic light turns green, or weave opposing flows of traffic through each other without the use of signals at all.

Hyperloop

Existing | Trending | Emerging | Speculative

A hyperloop involves a pod traveling through vacuum-sealed tubes used to transport people or freight. Since pods travel along charged magnets in a frictionless, vacuum environment, they can travel at speeds exceeding 300 mph and estimated to reach as much 700 mph across long distances. Hyperloop systems could thus dramatically decrease travel times. Whether hyperloops and related infrastructure are truly built for commercial use remains to be seen, but the technology is attracting substantial private, state and federal investment.

The company Hyperloop One awarded the Mid-Ohio Regional Planning Commission (MORPC) $2.5 million to develop plans for a Chicago-Columbus-Pittsburgh hyperloop corridor that would traverse NWI. Also, the Northeast Ohio Areawide Coordinating Agency (NOACA) in conjunction with the Illinois Department of Transportation is exploring the feasibility of a Chicago-Cleveland corridor. While it is uncertain and perhaps unlikely that there will be any stops or entry points in NWI itself, region residents would not have far to travel to Chicago to receive very high-speed service to Columbus, Pittsburgh, or Cleveland in dramatically less time than other existing modes of mass transit.

3D Printing

Existing | Trending | Emerging | Speculative

3D printing allows a user to bring three-dimensional designs from their computer to the physical world, introducing many potential disruptions in the consumer goods and manufacturing industries. In the last decade 3D printing has been used in prototyping and in niche hobbyist fabrication, but mass-market consumer goods and manufacturing use could happen in the near future. Consumers could be able to print everyday goods at home without needing to shop, and large-scale manufacturers could reduce their material costs and streamline production with an immediate ability to print necessary parts and components. However, 3D printing could also negatively impact the manufacturing industry by displacing many well-paying jobs.

Genetic Engineering

Existing | Trending | Emerging | Speculative

Genetic engineering allows humans to pick and choose traits in other living organisms, potentially from other humans. Already widely used in agriculture and medical testing, new trends are emerging to allow the selection of traits in humans and animals. Genetic engineering can be used to eradicate disease, improve the overall health of individuals and animals, and potentially increase longevity, affecting future demographics. However, the potential for abuse is high, and the ethics of using genetic engineering on humans remains hotly debated.

Geoengineering

Existing | Trending | Emerging | Speculative

Geoengineering involves the concept of humans altering the physical environment to create characteristics that they deem desirable. Geoengineering has the potential to literally reshape NWI. Geoengineering could allow humans to mitigate the risks of climate change by offering technological solutions to reducing its impacts. Geoengineering is likely a distant technology with unknown impact and a high risk of unintended consequences. Additionally, the costs involved in associated technologies remains very high.

New Chances for a New Frontier

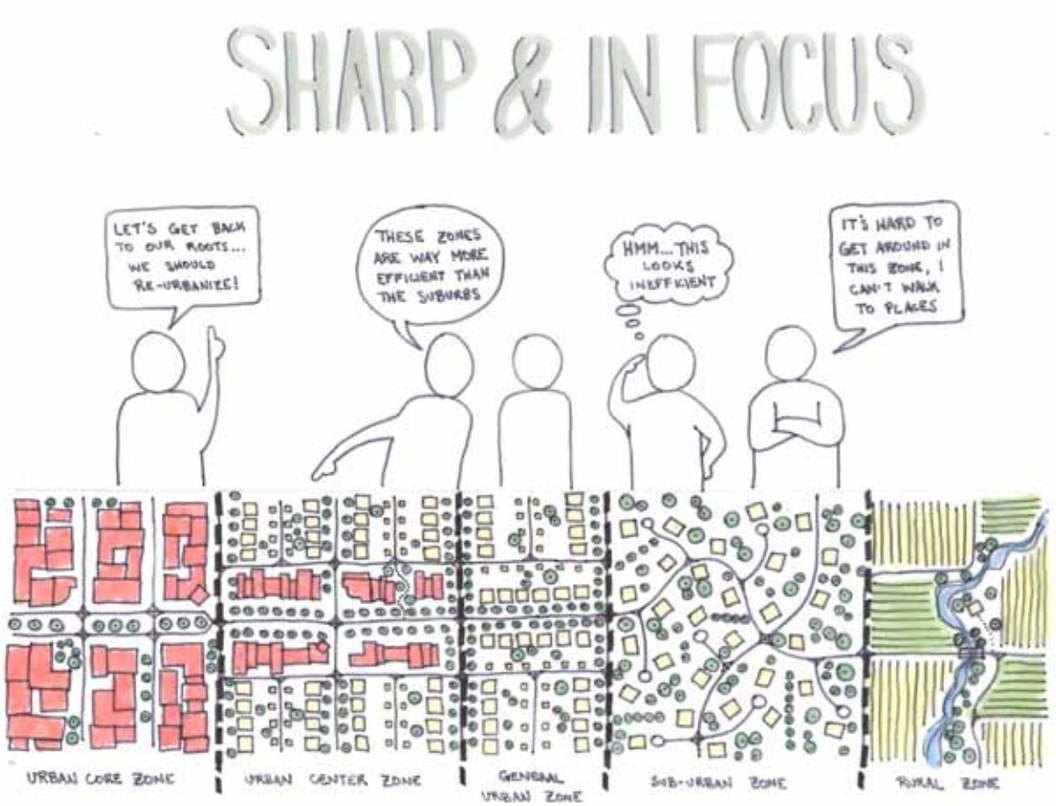
Credit: Nick Vojvodich

New Chances for a New Frontier is a scenario where the landscape of NWI changes dramatically. The "pull" of some influences the region could face might be mitigated by the "push" of other influences. While climate change and increased water demand have dire economic consequences in other regions, NWI's access to Lake Michigan remains a critical asset in a difficult time, as well as an attractor for new residents and industries alike. In-migration of new residents to the region seeking water would offset today's forecasted loss in population from the aging population. Advancements in technology will create new jobs in the region, new mobility opportunities, and have less negative impact on the environment. It allows NWI to become more independent from Chicago economically.

New Chances for a New Frontier represents a scenario teeming with possibilities. However, with rapid population growth, coupled with new advancements in technology, this scenario requires NWI's regional leadership to move quickly to accommodate a rapidly changing landscape.

In this scenario, the future of NWI is driven by:	Economy	Environment	People	Regional assets	Technology
Economy	The economy has diversified and the benefits are enjoyed by more of the population	The economy of NWI is strong but the impacts to the environment are less severe	The strong economy of NWI is buoyed by the growth in people, mitigating the aging population	The strong economy of NWI is most impacted by Lake Michigan as a regional asset w/ water	The economy of NWI is different from today and assisted by new technology
Environment	The environment has changed with chronic droughts elsewhere forcing people to seek fresh water	People are flocking to places with abundant sources of fresh water like NWI	Lake Michigan provides the region a new draw for people seeking fresh water	Tech advances in energy and batteries reduce the economies impact on the environment	
People	Population growth is strong, and the region is more diverse, and better educated	Our people and culture grow, people are better educated and healthier	People enjoy new efficiencies in their jobs and mobility brought about by technology		
Regional assets	Lake Michigan is the strongest regional asset, drawing people seeking fresh water	Technological advances let NWI be more "independent" from Chicago's economy			
Technology	Technology has dramatically changes our lives through innovation and automation; NWI is ready				

The *New chances in a new frontier* future is one of significant and rapid change that the Region acknowledges and prepares for. Change is driven by a large influx of residents in need of fresh water, and technological innovation. The economy is strong due to fast growth of the population, but changes in technology allow for a balance between the economy and the environment.



Credit: Nick Vojvodich

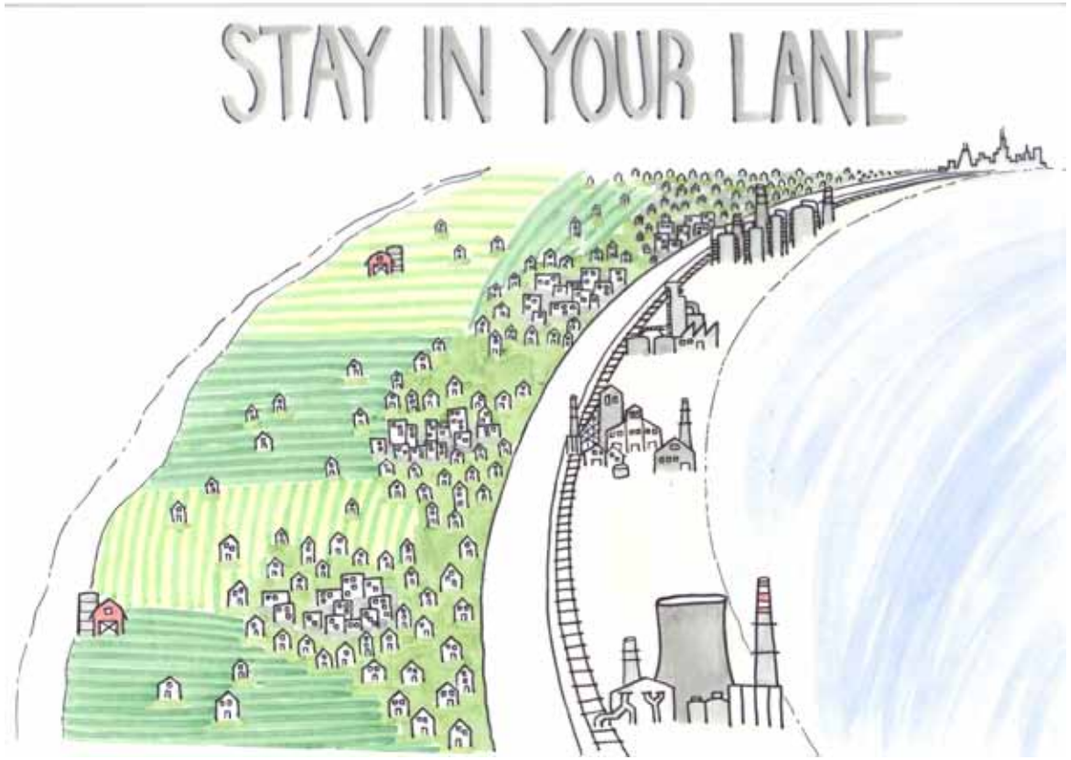
Unlike *New Chances for a New Frontier*, growth in the ***Sharp and in Focus*** scenario would be less rapid. In this outlook, moderate growth continues, and some of the challenges facing NWI persists. Climate change negatively affects most of the United States and the rest of the world, so Lake Michigan becomes an invaluable asset attracting new residents and industry. This takes place as a rate less rapid than New Chances for a New Frontier. The population is still aging, but because in-migration increases at a reduced rate, the economy slows as fewer workers can support an elderly population. Connections to Chicago remain strong, and technology has advanced enough to protect and preserve green space. NWI leaders are still playing catch-up to technology advances and the region lags somewhat behind in meeting the growing demand for drones and autonomous/connected vehicles.

Sharp and in Focus is more of a pragmatic future for NWI. The region has many assets, but ultimately, success will be dependant on how those assets are leveraged to meet the demands of the future. Likewise, advancements in technology remain important in this scenario, but regional leaders cannot rely on technology to mitigate the challenges that face the region. Moderate change continues steadily at a rate that can be anticipated, planned for and accepted by regional leaders.

In this scenario, the future of NWI is driven by:	Economy	Environment	People	Regional assets	Technology
Economy	The economy is healthy and resembles today but with more diversification	The moderate and well-planned economic growth protects the environment	The aging workforce and only moderate migration to NWI hampers the economy	The economy is strengthened by stronger connections to Chicago	The economy diversifies some with changing technology, but not dramatically
Environment	The environment is protected and development does not threaten green space	People are attracted to existing centers and the environment is not further harmed	The Dunes and Lake Michigan continue to be a significant asset for our environment	Technology helps the environment but not significantly, other policies are needed	
People	Population growth is moderate w/ aging population and moderate in-migration	Investments in NICTD connect Chicago to NWI allowing for some migration	Technology further enables people to work where they want, enabling them to move to less costly NWI		
Regional assets	NWI plays to its strength with Chicago and attracts some residents and business	Existing infrastructure needs to be updated to further harness tech changes			
Technology	Technological changes happen, but not as rapidly as others predict				

The *Sharp and in focus* future is one that has a healthy economy with diversification, a protected environment, moderate growth, with a still aging population, but more in-migration, strong connections to Chicago, but not a dependency, many innovations, but not so rapidly it dramatically changes the way we know the Region today.

Stay in Your Lane



Credit: Nick Vojvodich

The ***Stay in Your Lane*** scenario has the NWI of the future appear like the NWI of today. The balance between economic growth and the environment remains imbalanced. The region has gained very little independence from Chicago and relies on its economy for employment and goods and services. Regional population growth remains stymied by out-migration and an aging population, which produces a sluggish economic outlook. Instead of actively preparing for impacts from changing technology, NWI leaders respond passively, and the region's infrastructure fails to accommodate new mobility.

Stay in Your Lane could be viewed pessimistically from the mix of outcomes regarding the "pushes and pulls" of the 36 influences; however, another perspective would see a future where the catalysts of change simply do not materialize in the way that futurists and technologists had envisioned.

In this scenario, the future of NWI is driven by:	Economy	Environment	People	Regional assets	Technology
Economy	The economy resembles that of today; manufacturing is extremely important for NWI	A balance between the economy and the environment is still elusive, and the environment is at risk	Immigration to the USA slows and new NWI residents need to be attracted from other parts of the USA	The economy depends significantly on regional assets to help the economy grow	Technology does not play a strong role in economic growth and endangers jobs
Environment	The environment struggles like it does today; growth continues on green-space	People continue to spread out in NWI risking the environment	Environmental regional assets are at risk, but are exploited for tourism	Slow adoption to technological changes in the region do not help the environment	
People	Our population growth is slow; lack of immigration and aging population keeps workforce small	The region does not aggressively pursue quality of life improvements and struggles to attract new residents	People in the region resist changes in technology and the future threatens to pass the region by		
Regional assets	Our existing infrastructure is NWI's greatest strength and Chicago is biggest opportunity	Existing infrastructure is not modernized in a way to use new technology			
Technology	Technological change is resisted and NWI is not ready for some of the biggest changes				

The *Stay in your lane* future resemble the economy of today, the environment is at risk, our population growth is slow, with an aging workforce, and the region depends on our infrastructure connections to Chicago to sustain the economy, and changes in technology are resisted, risking NWI's place in future.

A Connected NWI

NWI's 2040 Plan's vision statements remain the foundation for the NWI 2050 Plan. These vision statements and goals were reviewed early in the NWI 2050 Plan development by residents, NIRPC Commissioners, and NIRPC's topical committees. All were asked "what is most important to you" regarding plan focus areas and vision statements.

Vision statements and goals were revised based on the input given. Public feedback resulted in four refined vision statements, two former 2040 plan focus areas combined into one, and the development of 16 critical paths aimed at achieving the vision statements. Conventional goal statements were replaced by these critical paths. Each plan focus area links to a vision statement that creates a critical path.

A long-range transportation plan has a strong vision that guides development, transportation programming, and the overall direction of the region for the next thirty years. A shared vision sets priorities throughout the planning process and informs decision makers about community and regional values, translating those values into actions.

NWI's people have accessible, safe, and equal opportunities for working, playing, living and learning.

The vision statement of A connected NWI primarily speaks to the region's transportation network. Most importantly it serves as the bridge of a connected transportation network to other components of the plan.

How "A Connected NWI" Evolved:

In the 2040 Plan, this vision statement was summed up in the term "Accessible." Based on public feedback, the word "Connected" better addressed linking the plan's focus areas. Only 18% of respondents weighted "Accessible" as the vision word most important to them. "Connected" serves as a fundamental component of the vision and provides the foundation for an accessible and safe region as it relates to being linked to opportunities residents may seek from employment, recreation, quality of life, and higher-learning. The transportation system operates as a key organizational feature of the region, and represents the shared public realm facilitating social and economic activity of our daily lives.

Why is "A Connected NWI" Important?

A Connected NWI brings benefits to people and provides access to opportunities. It supports a robust transportation network and its interaction with land uses and the environment. This vision is all about better transit, finishing the multi-use trail network, implementation of "complete streets" that accommodate a variety of transportation modes, and the removal of barriers in our transportation system.

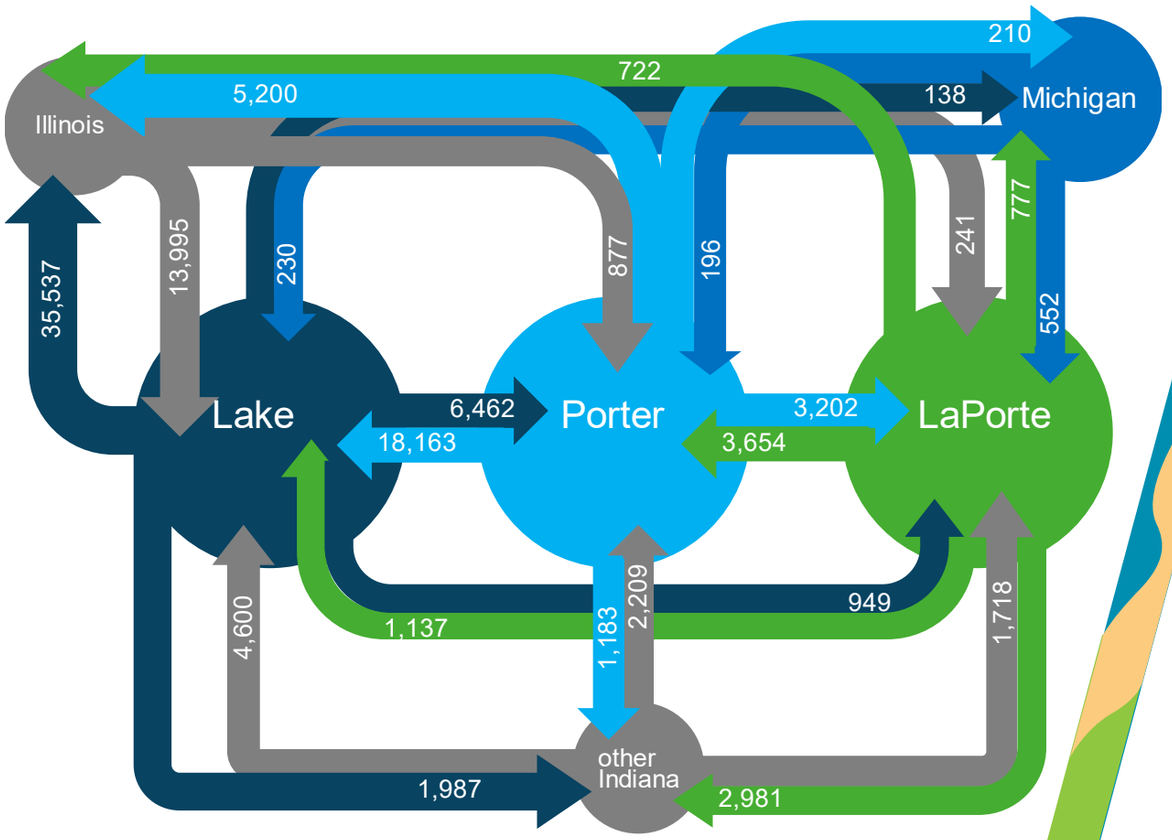
Existing Conditions

Economy and Place

NWI represents an interconnected region stretching across county and municipal boundaries. While the region comprises 41 distinct cities and towns, the lives of everyday residents depend on the interconnectivity of the transportation network. The region generates approximately 60,000 residents from NWI commuting into Illinois every day for work. Within the region residents depend on connectivity. Every day, 24,625 residents commute between Lake and Porter Counties and 6,856 individuals commute between Porter and LaPorte Counties. Commuting data only accounts for two daily trips of working population. The total number of trips an average NWI resident makes is far more significant, with frequent travel between municipalities and counties.

NWI Daily Commuting Patterns

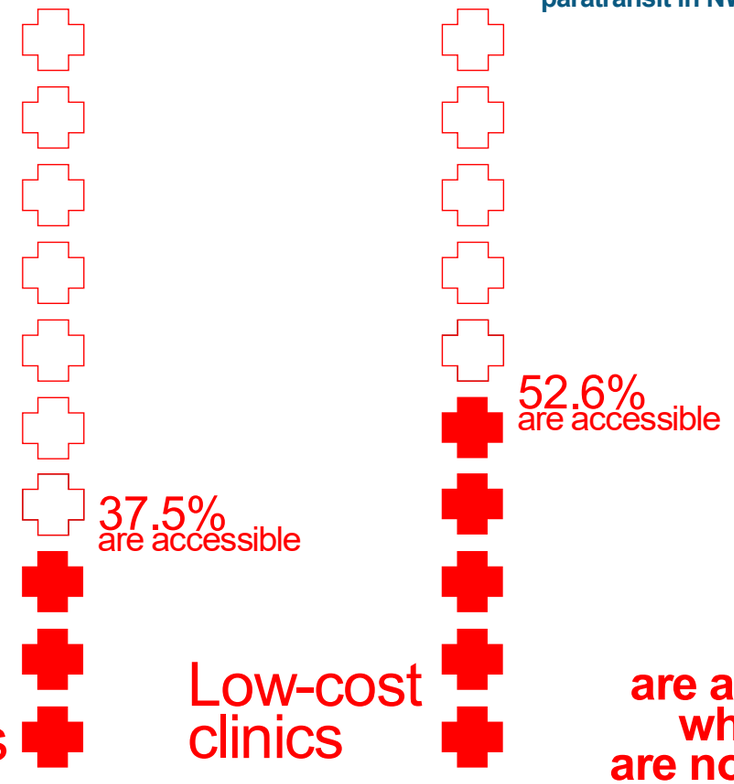
Let's go to work! You go this way; I'll go that way.



Access to healthcare facilities remains an essential aspect of the region's connectivity. Connections between low-income communities and health care facilities constitute a key element behind the vitality of the region. Currently, 37.5% of NWI hospitals are within fixed route transit service areas with complementary paratransit. These fixed route services provide users with the most freedom and flexibility. Additionally, 52.6% of the region's low-cost clinics are located within fixed-route service areas. The percentage of hospitals and medical facilities outside of fixed-route service areas rely on demand response transit operators, who operate with fewer resources and limited availability for frequent trips. Some facilities have no transit access at all.

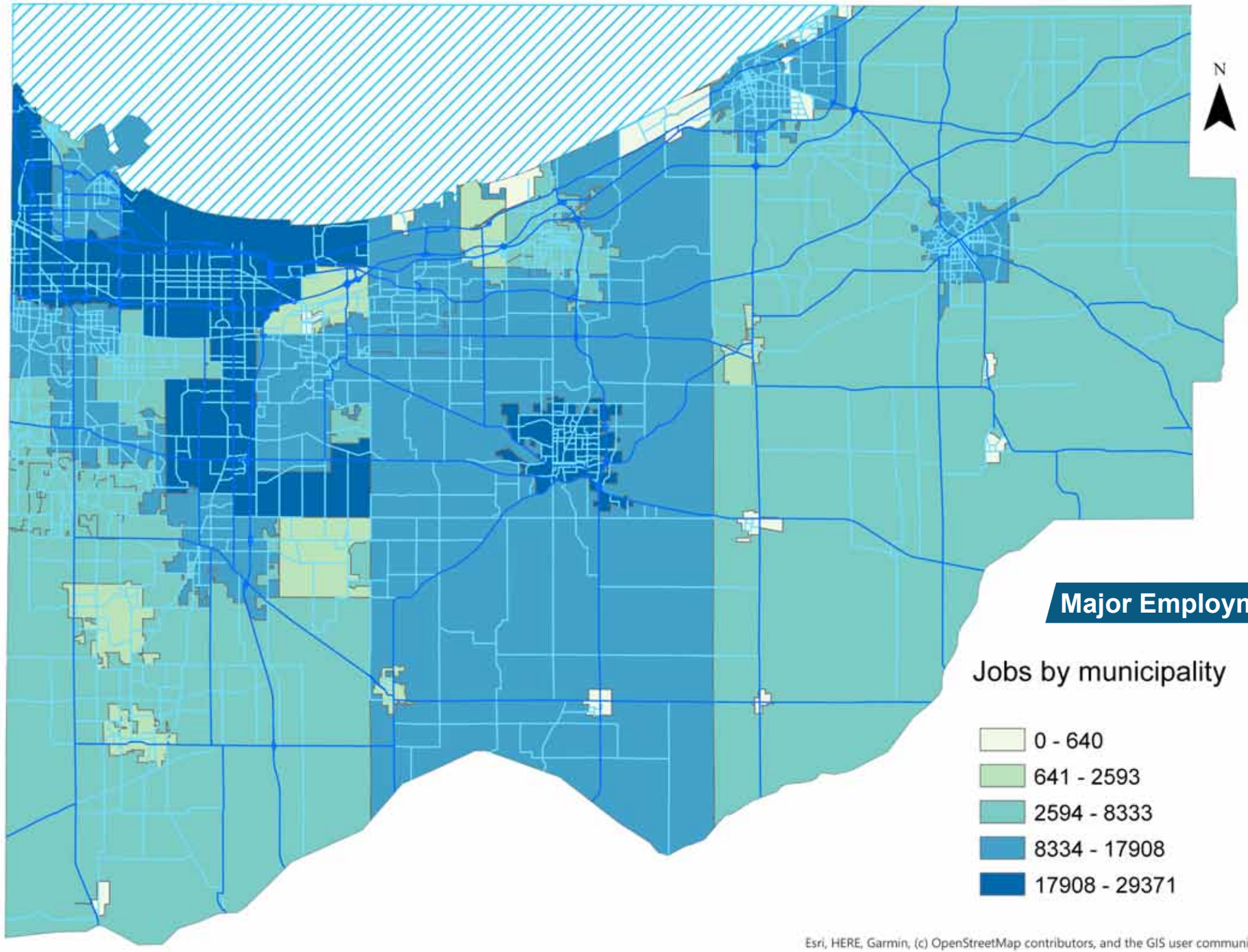
Medical Care Access by Transit

Can you get to a hospital or low-cost clinic on a fixed route bus or paratransit in NWI?



0%

are accessible when buses are not running



Major Employment Centers in NWI

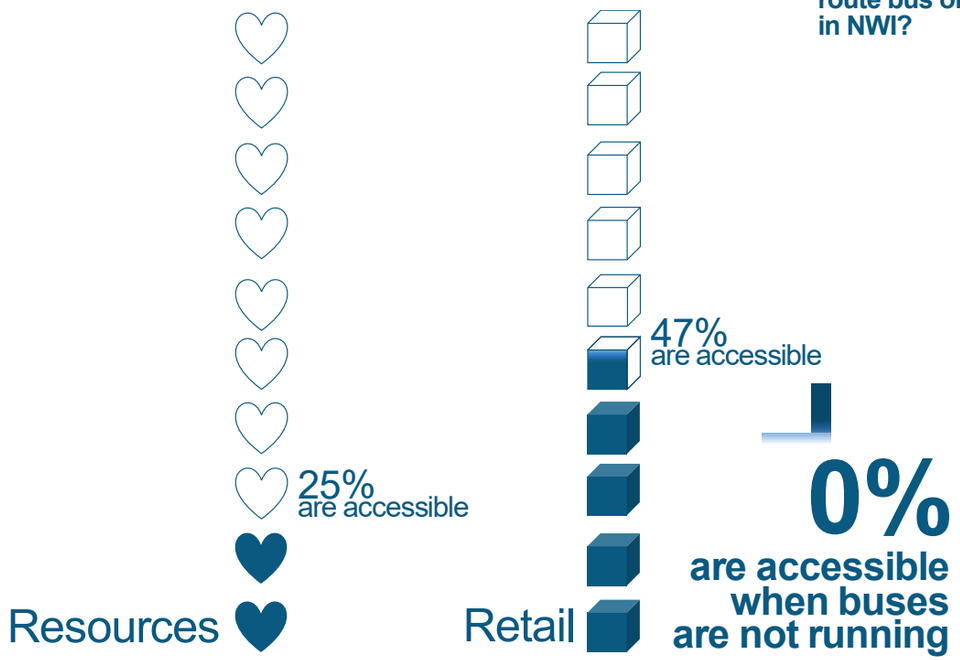
Where does everyone work?

Other human service-related centers are equally as important to a community as access to healthcare. As the region's population gets older, fewer individuals will have access to a vehicle. This results in individuals needing access to human service centers that offer assistance. These include disability-resource centers, senior centers, and veteran facilities, with only 25% of these facilities located along fixed route transit routes today.

Retail centers can be an important part of securing services and goods for a household, and also function as employment destinations. Major retail centers in NWI are usually not common in low-income areas, requiring individuals to travel greater distances to access opportunities. Currently, 47% of major retail centers are accessible along fixed route transit. When important resources like health care facilities or employment centers are built outside of the urban environment, it puts additional pressure on the transportation system, and negatively affects users who rely on transit for their daily trips.

Resources and Retail Access by Transit

Can you get to retail or get resources on a fixed route bus or paratransit in NWI?



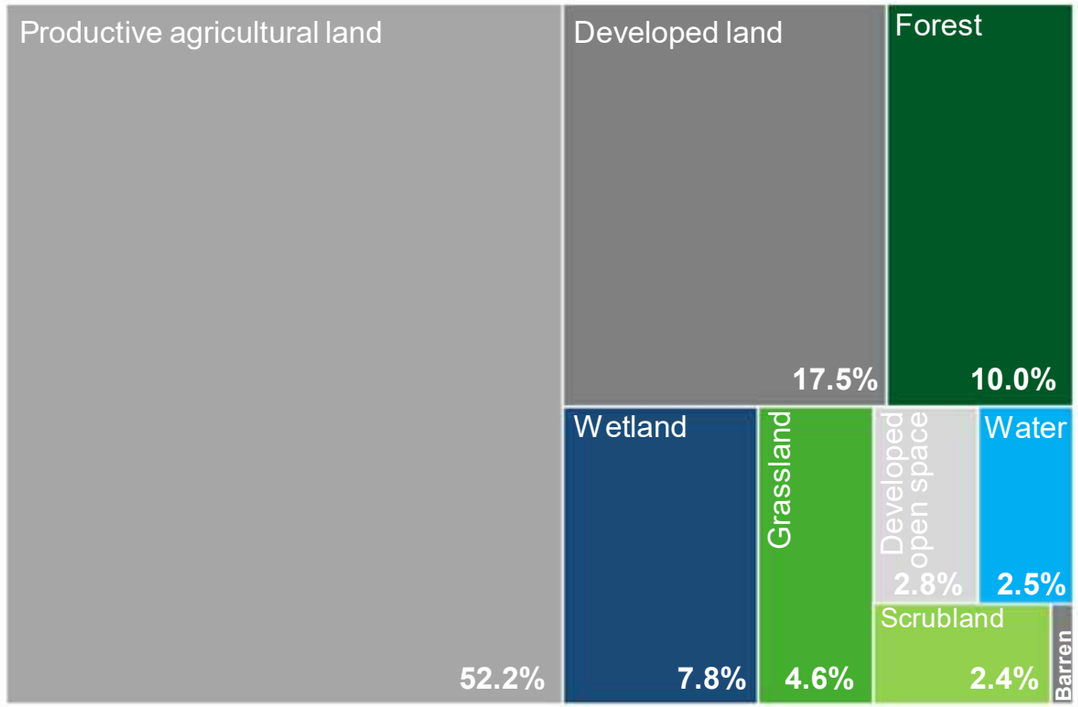
Environment

NWI residents frequently travel from one corner of the region to another for outdoor recreation, dining, shopping, or other activities. In 2016, NIRPC surveyed 760 people as part of the Marquette Action Plan to understand where individuals and families utilize the lakeshore. That outreach process revealed NWI residents frequent beaches and shore amenities outside of their own counties. For example, when survey participants were asked which NWI lakeshore locations they visited in 2016, lakeshore locations outside of the participants home county were frequently listed. In the Indiana Dunes State Park, 59% of those surveyed traveled from outside of Porter County, 39% of Miller Beach visitors were out of county, and 41% of beachgoers at the Portage Lakefront were from Lake or LaPorte Counties.

200 years of constant development has scattered the environmental connections that once existed in NWI. Habitats that stretched throughout the entire region became divided by roads, highways, rail, and cities. Human-related land cover accounts for nearly 73% of the regional landscape today. The pattern of development over time means that natural land areas are not contiguous, but rather consist of patches of complex ecosystems scattered throughout the region. While the interspersed nature of the natural environment means that NWI residents can live, work, and travel within pockets of natural environment, it also leads to habitat fragmentation. A fragmented habitat has an increased threat risk for invasive species.

Land Cover in NWI

Are we using the land to its highest and best use? Don't pave paradise; reuse that parking lot!



Efforts are underway to connect pockets of natural areas through a system of trails surrounded by restored natural land. These "greenways" allow for greater transportation access for humans and allow wildlife to utilize routes for travel and to better access food, water, mates and nesting spaces. Animal species require different habitats at various points in their lifecycle. For example, many amphibians require wet areas for breeding, but eventually move upland into dryer forests or grasslands as adults. Additionally, populations that share genetic material have increased resilience to disease and changing conditions in the environment. Since species have different mobility habits, including habitat and shelter needs, corridors need to be carefully planned to maximize their benefits to wildlife.

Trees and their habitats represent vital parts of the NWI greenway network. Approximately 20% of NWI is covered by tree canopy, though uneven across the region. Urban forest canopy for the region range from a low of 6% to over 25%. These reports indicate substantial room for additional tree cover in the region, particularly within commercial and residential areas. The recent loss of ash trees due to the invasive emerald ash borer insect has demonstrated the perils of allowing a single tree species to dominate regional forests. Tree species diversity must be improved to prevent such events associated with pests or disease. Communities have several tools available to improve the health of their trees. Eight communities within NWI have been designated a "Tree City USA" community. These communities are required to designate local leadership responsible for tree care, adopt a tree care ordinance, maintain an forestry program annual budget of at least $2 per capita, and hold an annual Arbor Day ceremony.

Road Ownership in the Region

Isn't a road just a road? Nope. Roads are owned by different entities and eligible for differnt funding. Local governmentas are responsbile for the majority of NWI's roads.

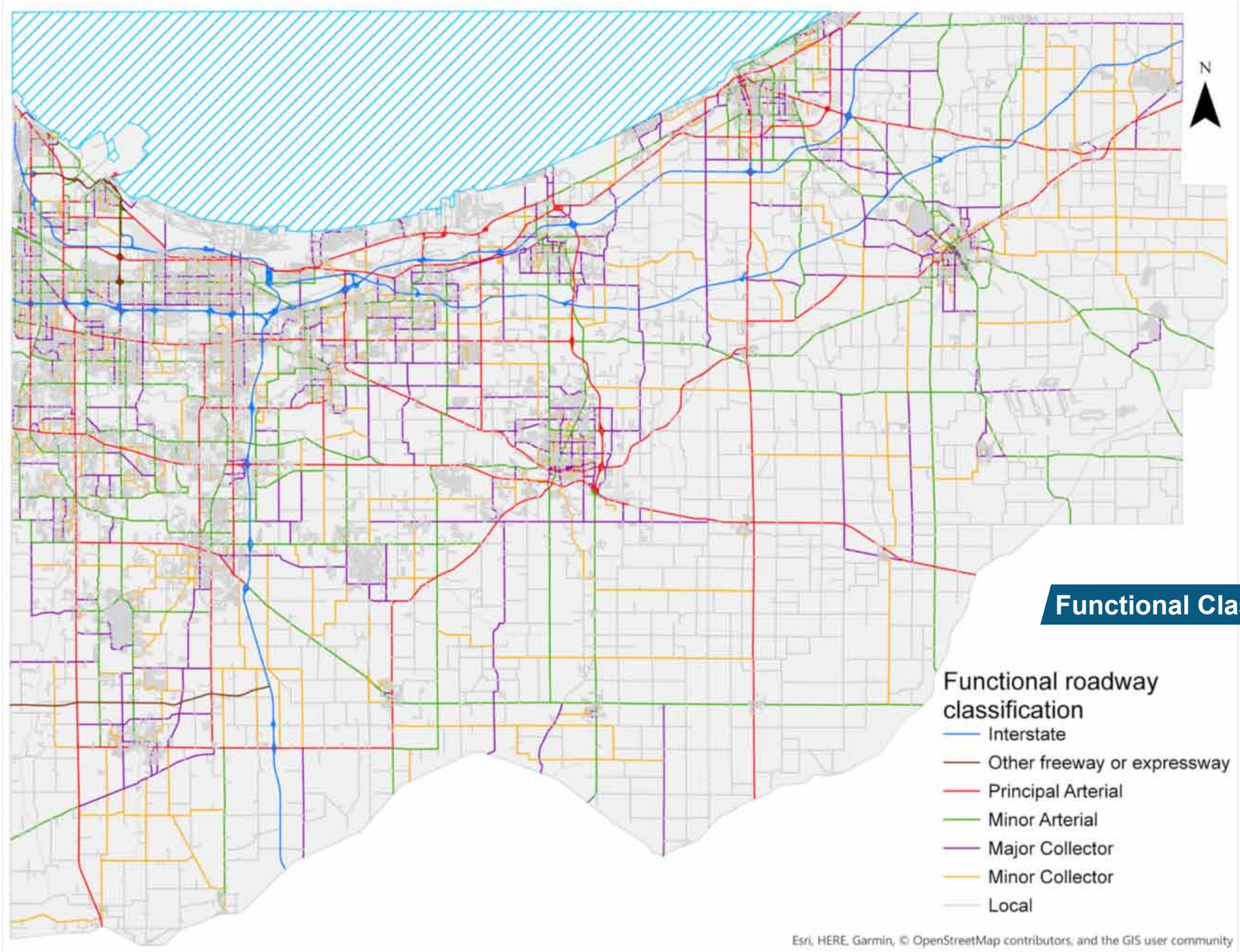
Example road	Classification of Road	% of Total Lane Miles in NWI	Who owns & maintains it?	Who funds improvements?	Who designs improvements?
65 80 94	Interstates	1.5%	INDOT	FHWA and INDOT	INDOT
912	Principal arterials other freeways	<0.001%	INDOT	FHWA and INDOT	INDOT
20 149	Principal arterials other	2.6%	INDOT	FHWA and INDOT	INDOT
Willowcreek Rd. or Mississippi St.,	Minor arterials	7.8%	County or local	FHWA thru MPO and county or locals	County or local
35th St., 700 N. St., or Lake St.	Major collector	11.6%	County or local	FHWA thru MPO and county or locals	County or local
White Oak Ave., 19th Ave., or Jackson St.	Minor collector	14.7%	County or local	FHWA thru MPO and county or locals	County or local
Everything else	Local	61.5%	County or local	County or locals	County or local

What role does the MPO play? The MPO evaluates project applications for potential funding according to the project's impact on the region's vision. The goal is to leverage all federal funding available to NWI for transportation improvements every year.

Mobility

NWI's transportation network employs many modes that accommodate travel needs. Currently, the region is home to 5,800 linear miles of roadways equaling over 13,000 total lane miles, 168 miles of off-road trails, approximately 70 miles of commuter rail, ten independent transit operators, and an untallied number of miles of sidewalks. Even with these modal options available to residents, an overwhelming number (approximately 85%) rely on personal vehicles to commute to work. Depending on the county, the remaining 15% of trips are split between carpooling, transit, walking, bicycling, working from home, or some other mode.

Despite a multi-modal transportation network, NWI largely requires reliance on personal vehicles, due in part to land development patterns and a lack of connections between transit systems. If a resident works in Lake County but lives in Porter County, there are very few transportation options available to get to work besides driving. Most of the available transit in NWI comes with limitations that may not be conducive for the average resident's travel needs. While the transit system in NWI covers a large geographic area, there are several limitations imposing impacts on those who rely on transit as their only source of transportation, including those who would choose to use transit as another option than their vehicle.

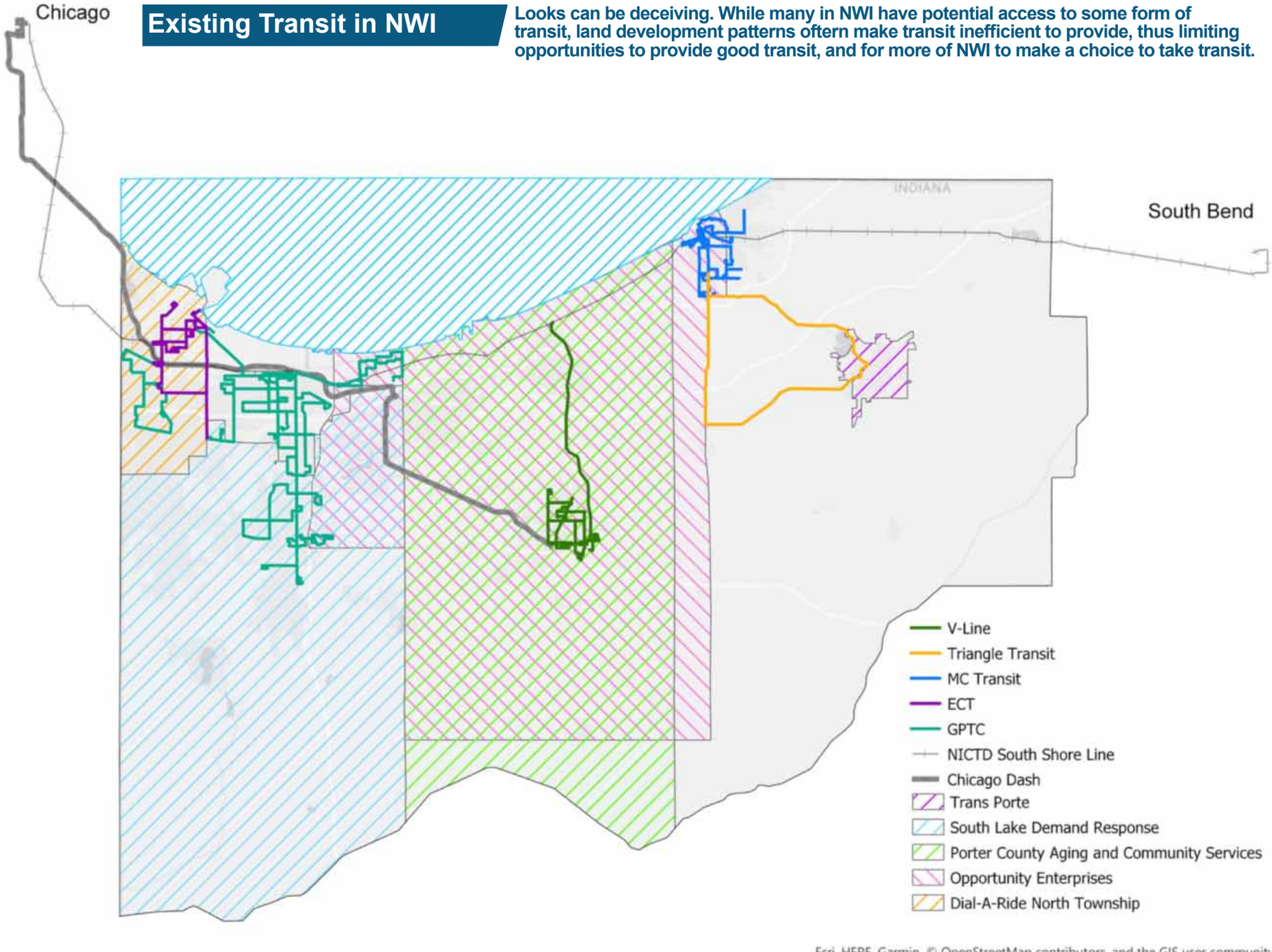


Functional Classification of Roads

What type of road do you use most often?

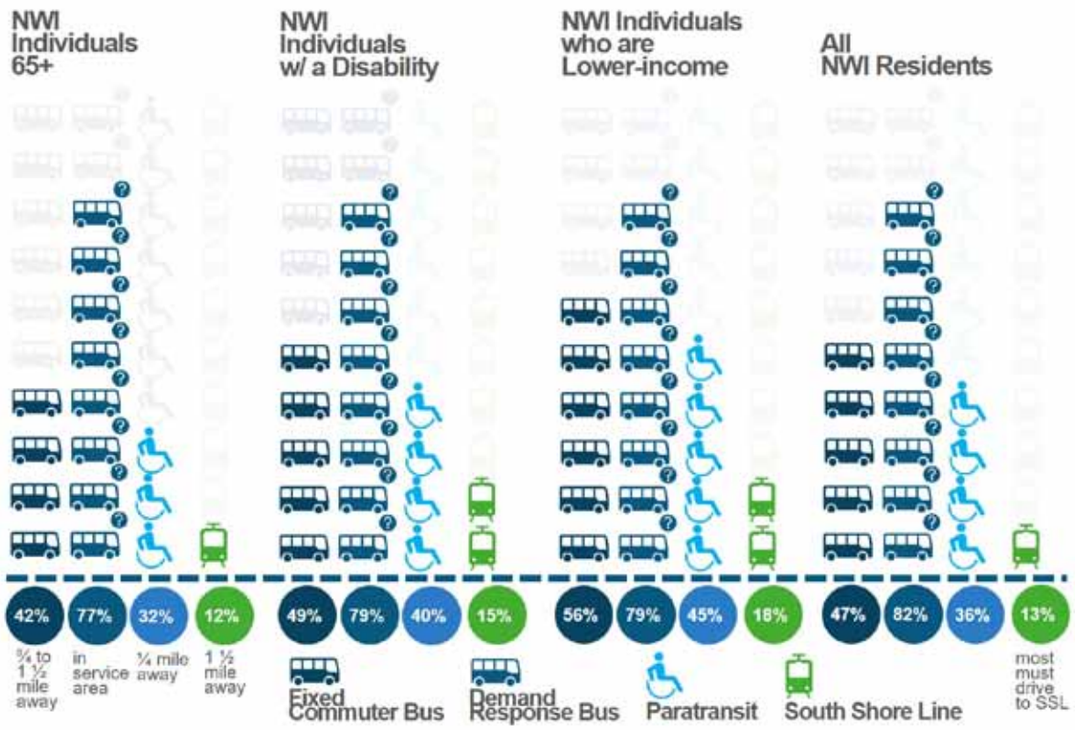
Existing Transit in NWI

Looks can be deceiving. While many in NWI have potential access to some form of transit, land development patterns oftern make transit inefficient to provide, thus limiting opportunities to provide good transit, and for more of NWI to make a choice to take transit.



NWI Transit Needs

Who lives nearby transit service?
(from 2018 *Coordinated Transit Plan*)



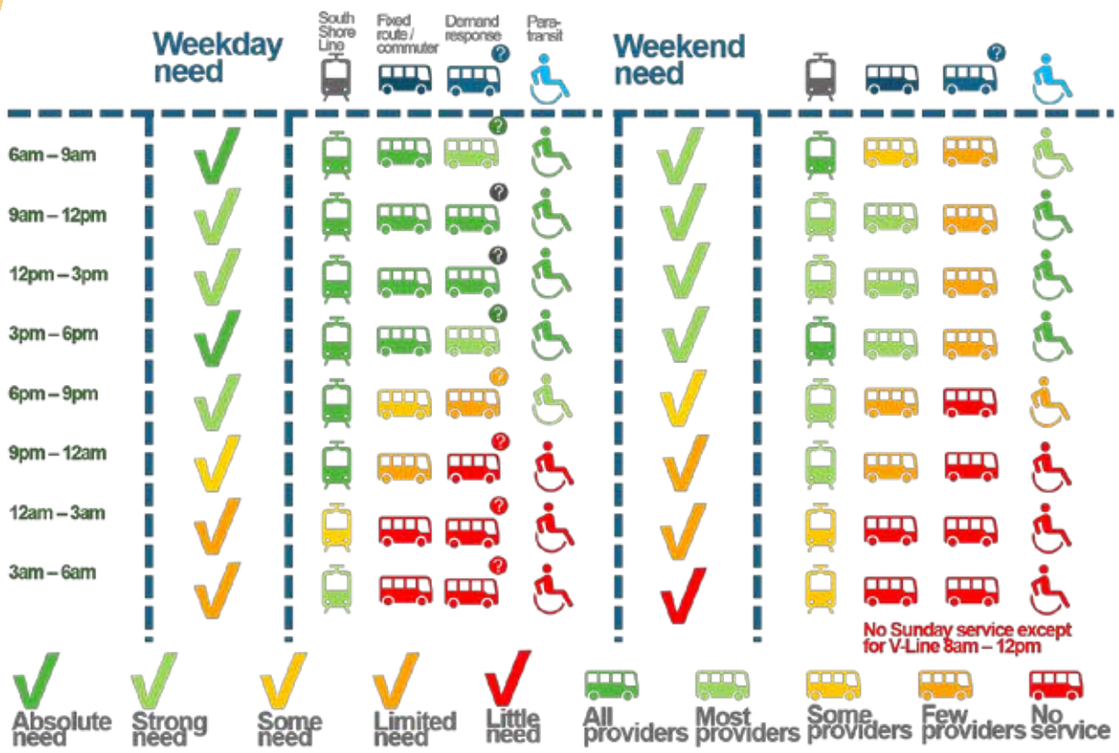
Demand response services cover a majority of the region; however, these services do not provide the same level of freedom and flexibility as a fixed route systems with complementary paratransit. Additionally, individuals who rely on demand response are limited in their travel by the limitations of the network's service area and operational hours. Some operators provide service during peak hours accommodating work schedules, but few offer services on weekends or in the evenings to aid second-shift workers. In most cases, a user needs to call and request a ride 72 hours in advance of needing to travel.

Additionally, the ability to use transit to travel across county or municipal boundaries is limited. These problems are increasingly aggravated when new land development continues to be built outside of the urban core and into unincorporated areas or on the fringes of our main centers. Such development patterns increase the cost of running and managing transit to new housing, hospitals, retail destinations, and amenities due to low density of development and routing inefficiencies.

Developing further into unincorporated areas can be problematic for NWI in other ways. Growth without adequate infrastructure in place can strain the overall transportation network. A less-dense development pattern means a greater need for individuals to use personal vehicles, since walking or bicycling beyond two miles is not realistic, especially if they are traveling with elderly parents or their children.

NWI Transit Needs

What time of day do people want transit? Is the span of service available?
(preference survey from *2018 Coordinated Transit Plan*)



Examining regional travel demand growth versus population growth highlights the correlation of lower density patterns with increased traffic. From 1992 to 2017, population grew 0.27% per year, while vehicle-miles traveled grew 2.2% per year. However, nearly 40% of trips are less than two miles according to the National Household Travel Survey. However, without Complete Streets and development patterns that provide residential areas with nearby services, schools, and other destinations, trips in NWI will likely continue to be lengthy in distance. The result of a car-reliant system increases congestion, traffic delays, and air pollution.

NWI lies in an epicenter of freight movement that benefits not only the region itself, but a larger national and international network. The Indiana Department of Transportation (INDOT) developed the Indiana Multimodal Freight Plan Update 2018 that provides a framework to support all freight movement in the state of Indiana including four main goals.

The first goal seeks identification of opportunities to improve and maintain Indiana's transportation infrastructure. The 2018 INDOT Freight Plan flagged NWI as having a "major concentration" of jobs in advanced materials, including plastic, steel, and lightweight metals. This concentration includes the biomedical sector involved with medical devices and pharmaceuticals, fabricated metals used primarily in construction, and food production. The common thread in all of these industries is a reliance on over-the road freight trucking. The INDOT Freight Plan also estimated that freight volumes on major NWI roads climb from 13,000 to 44,000 trucks a day. Increased reliance on automobiles means more congestion and more delays for the industries that support the regional economy.

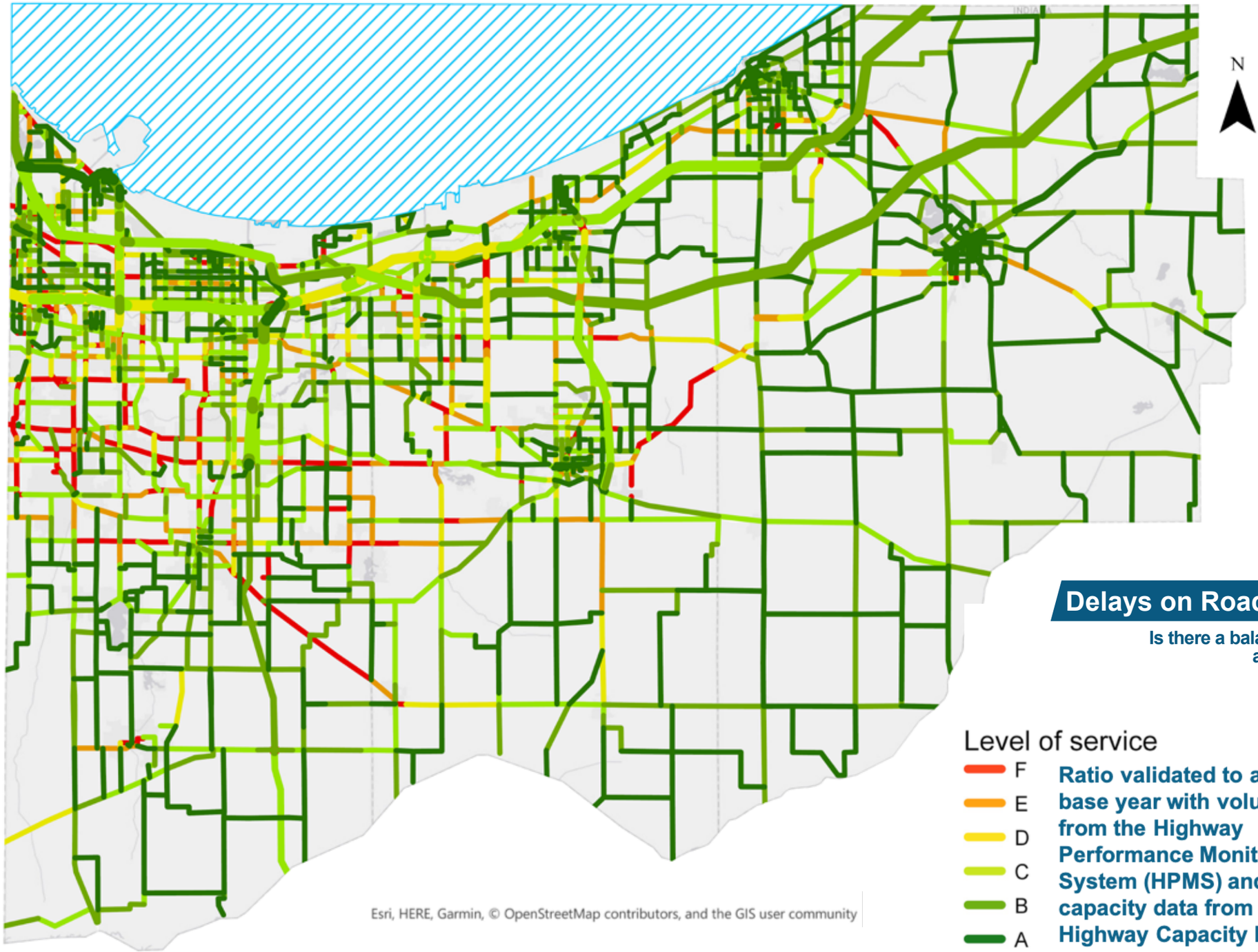
Current measures of congestion, known as Level of Service, rate roads from 'A' to 'F,' like grades in school. While this measure is reported in a way that individuals can easily relate to, the measure too quickly allows someone to arrive at the conclusion that a roadway rated as 'F' needs to be widened, and immediately. *However, the reality is that assigning a poor "grade" to a road does not reveal the entire story,* especially since traffic engineers consider a 'D' a "passing grade" in urban areas. There are solutions available to potentially save NWI scarce resources, like implementing *access management techniques*, or adopting more careful land uses before a roadway becomes congested. However, several corridors in the region do need attention due to bottlenecks, railroad crossings, and lack of roadway connectivity and this resonates with the INDOT Freight Plan's second goal calling for the reduction of bottlenecks to improve the reliability and efficiency of freight movements.

The third goal calls for the promotion of better connectivity between all modes of freight transportation. NWI is the nexus of many multimodal assets including: access to major interstates- I-90, I-94, and I-65; several Class I railroads- Canadian National, CSX, and Northfolk Southern; Gary/Chicago International Airport; and several ports including Burns Waterway Harbor, Buffington, and the Indiana Harbor. The region can build upon these resources and improve their efficiencies.

The fourth goal of INDOT's Freight Plan addresses the development and implementation of transportation networks that support direct ruck and rail access, water-borne freight expansion, and air cargo expansion. NWI plays a key role in freight movement beyond the region and even the megaregion. NWI's collaboration with Southeastern Wisconsin, Northeastern Illinois, and Southwestern Michigan regions through the "Wingspread Accord" of mega-regional cooperation, is also key to ensuring a smooth flow of freight within the region. The multimodal transportation network across these four regions ties together a nationally significant regional economy spread across four states, provides critical connections between eastern, southern, and western regions of the United States, and serves as a major gateway for international trade.

In addition, a sprawling development pattern negatively affects industries reliant on freight. The 2018 INDOT Freight Plan flagged NWI as having a "major concentration" of jobs in advanced materials, including plastic, steel, and lightweight metals. This concentration includes the biomedical sector involved with medical devices and pharmaceuticals, fabricated metals used primarily in construction, and food production. The common thread in all of these industries is a reliance on over-the road freight trucking. The INDOT Freight Plan also estimated that freight volumes on major NWI roads climb from 13,000 to 44,000 trucks a day. Increased reliance on automobiles means more congestion and more delays for the industries that support the regional economy.

Between 1992 and 2011, sharp increases in suburban growth have placed additional strains on the regional transportation network from the repurposing of agricultural spaces and conversion to residential or commercial use. While this growth was occurring, underutilized spaces remained ripe for redevelopment within the urban core. More than 20% of NWI's population now resides in unincorporated areas, largely on converted farmland. In Porter and LaPorte counties, the rate has nearly doubled.



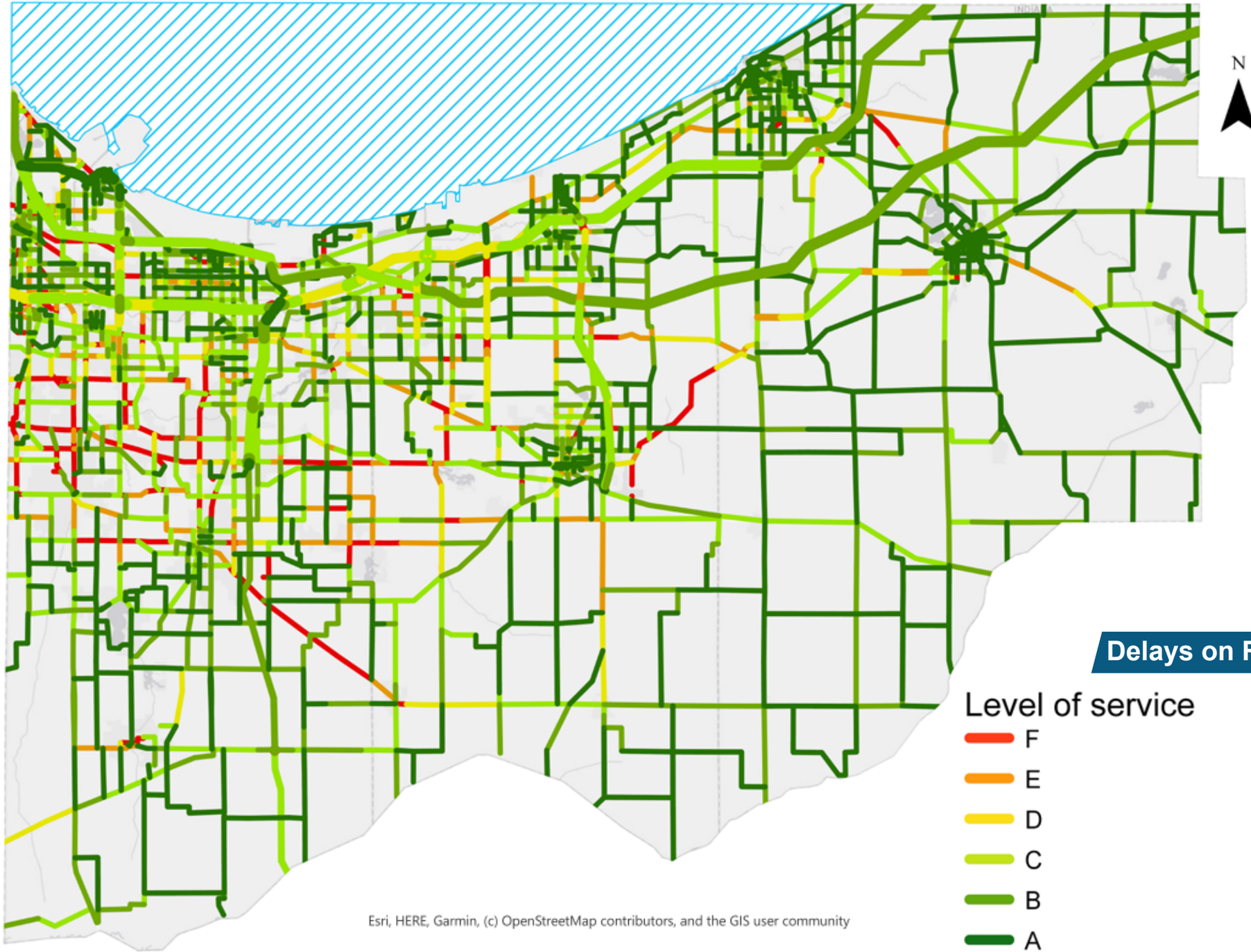
Delays on Roadways in NWI

Is there a balance between land development and available roadway capacity? Some corridors say no.

Level of service

- F
- E
- D
- C
- B
- A

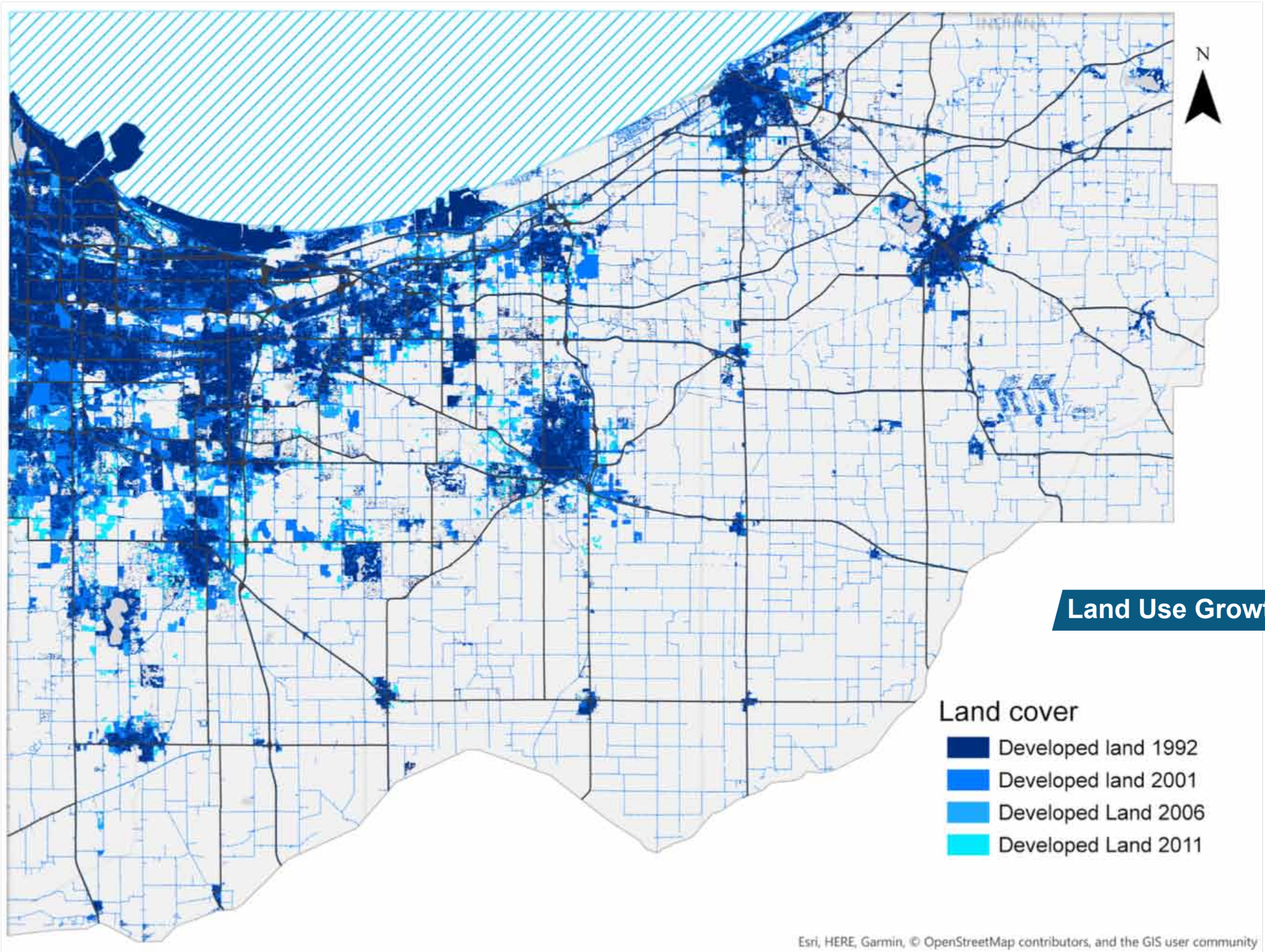
Ratio validated to a 2015 base year with volume data from the Highway Performance Monitoring System (HPMS) and capacity data from the Highway Capacity Manual.



A travel demand model is employed to forecast future travel demand based on projected demographic and employment patterns. By 2050, travel demand is expected to increase overall with increased population and economic activity, resulting in congestion in pockets of the region. The Delays on Roadways in 2050 map indicates the level of service estimated for the major corridors in NWI. The results appear to be mixed depending on where growth is anticipated, but I-65, I-80/94, and I-90 appear to perform better than today.

Delays on Roadways in 2050

Where will your navigation system redirect you to in the future to avoid congestion?



Land Use Growth Since 1992

Moving south and out from existing main centers.

As people move from concentrated urban centers to suburban and rural areas, residential densities have decreased and more land per household is consumed. This development pattern will continue to put stress on the transportation network and will ensure the inefficiency transit, trail, and other modal connections. Building infrastructure without addressing inefficient land use patterns results in expensive transportation investments that could have been avoided.

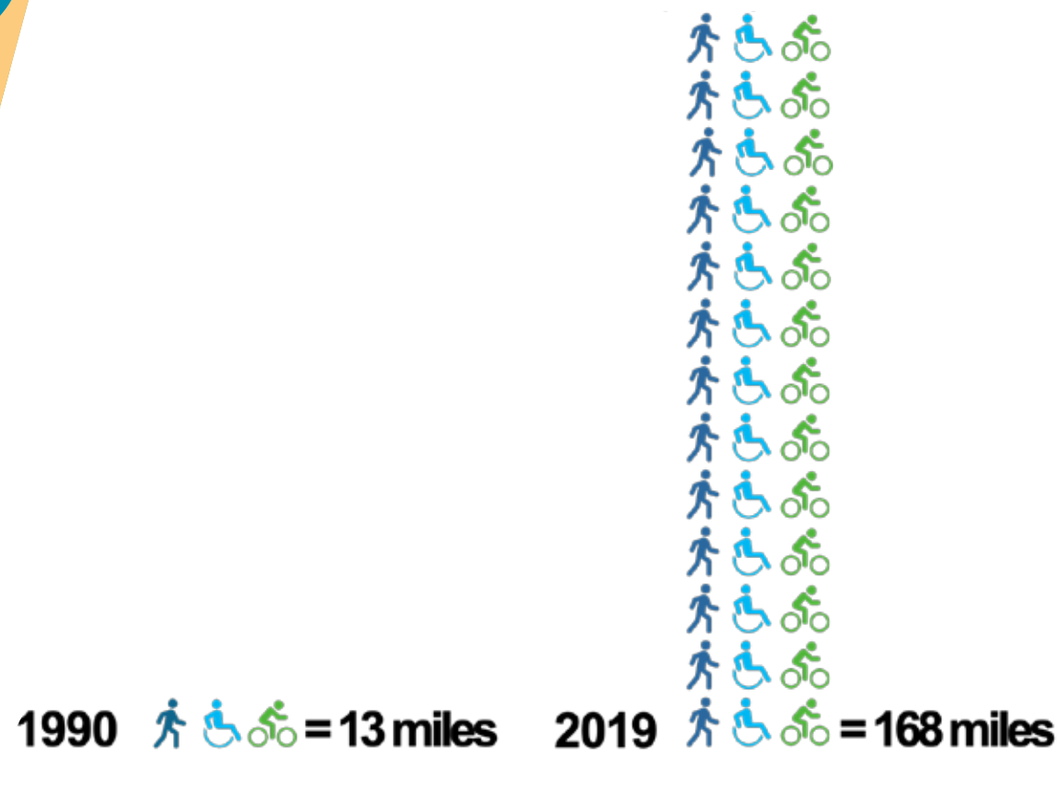
As a Transportation Management Area (TMA) conducting metropolitan transportation planning for an Urbanized Area greater than 200,000 in population, the region's Metropolitan Planning Organization (MPO) is required to follow a Congestion Management Process (CMP) pursuant to 23 CFR 450 Part 322. The CMP is a process that the MPO uses to select transportation projects to effectively manage congestion by ensuring that capacity adding transportation projects such as new roads or added travel lanes only be selected after considering non-capacity adding alternatives. Examples of non-capacity adding alternatives include both supply and demand management strategies. Examples of supply management strategies include better land uses that generate less travel demand, overhead traffic message signs, more transit, and electronic tolling, while examples of demand management strategies include carpooling and flexible work scheduling. The capacity adding projects included in the NWI 2050 Plan have been filtered through the CMP and are strategy of last resort per the CMP.

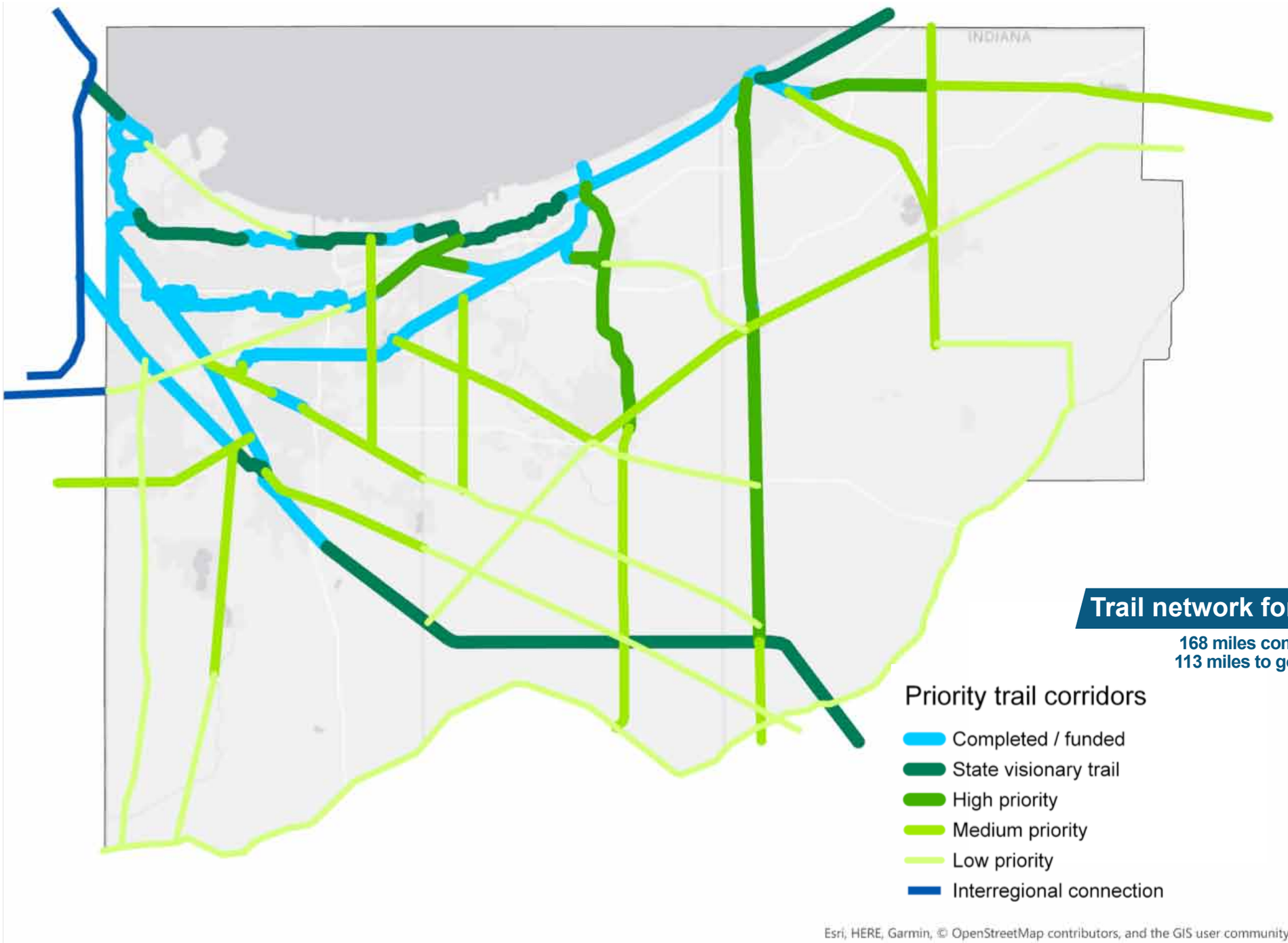
NWI has made its way to becoming a connected region by expanding its 13 miles of off-road trails in 1900 to well over 160 miles in 2019. Regional leaders were able to leverage the abandoned rail corridors with federal funding to create an expansive trail network. However, gaps in the regional bicycle and pedestrian infrastructure network are still commonplace, especially in the region's main centers. These gaps are known as the "first-mile and last mile" problem. It is a term that summarizes a chronic issue where to start or end a trip by bicycle, foot, or bus. On a route, the trip is complicated because critical infrastructure at the beginning or end of the trip is missing. The missing infrastructure could be sidewalks connecting to and from a bus stop, a protected bicycle lane on a street to or from a multi-use trail, or a bus from the South Shore Line to a neighborhood beyond walking distance from a station. This is a critically important issue for NWI's transportation network because it too often makes the travel choices of bicycling, walking, or taking transit unsafe. This is especially problematic for individuals with disabilities in the region that must have accessible infrastructure to provide mobility options.

Creating an active transportation culture in NWI will not be possible without officials and leaders committing to implementing first-mile and last-mile connections with sidewalks, protected bike lanes and signage. Taken together these represent a network approach, with trails continuing to be an important NWI connector. As connections between trails and communities become more commonplace, it is important to have regional wayfinding signage and trail standards to orient along these trails. Since regional trails are often managed by local municipalities, users can easily lose their way with varying signage standards when crossing into the next community. To aid with this issue, NIRPC created a Unified Trail Wayfinding Guide to link region communities together with a mutual signage design.

Regional Trail Network

168 miles completed, 44 miles funded, and 113 miles to go. NWI's active transporation users have a bright future!





Trail network for the Region

168 miles completed, 44 miles funded, and 113 miles to go. NWI's active transporation users have a bright future!

People and Leaders

NWI is reliant on roadway networks for both inter-regional and intra-regional travel. Three of the seven major east-west interstate highways converge on NWI ,resulting in significant concentrations of national traffic on the regional highway system. Current and proposed transformative investments may significantly change NWI's reliance on automobiles. In February 2018, Gary Public Transportation Corporation launched an 11-mile express bus route branded as the Broadway Metro Express, or "BMX." The BMX offers a 20-minute service, connecting downtown Gary employment and recreation centers in Merrillville and Crown Point. This route serves as a model for service standards within the region.

Individuals with disabilities that are unable to drive have limited transportation choices. The connections between their homes to available transit, trails, or their jobs represent an essential part of their quality of life. NWI lacks true connections when individuals with disabilities are left behind. Efforts to fill the first-mile and last-mile connections are ongoing with Americans with Disabilities Act (ADA) transition planning. ADA transition plans are an inventory of known deficiencies with roadway and sidewalk infrastructure that prevent full access to individuals with disabilities. However, a concerted effort to advance the ADA transition plans is necessary to be truly connected. Ride-share programs such as Lyft and Uber may fill the gap for unmet transit needs for some, but not all, since accessible ride-share programs that meet the needs of individuals with disabilities are still lacking in NWI. Regardless, the distance between municipalities and counties makes ride-sharing an expensive alternative.

The Northern Indiana Commuter Transportation District (NICTD) continues to make progress on two significant investments, Double Track and the West Lake Corridor. Both are expected to dramatically improve intra-region access and links to Chicago. The Double Track project will add a 25-mile second track between Gary and Michigan City. The extra track will significantly diminish delays on the South Shore Line and will open up opportunities for additional express services to Chicago. The West Lake Corridor is a nine-mile extension, branching south off the South Shore Line from Hammond to Dyer. While these major investments are transformative in their own right, their beneficial impacts will hinge on the cooperation and coordination of regional and local partners. Transit-oriented development (TOD) increases density around stations, and in turn provides an increased municipal tax base and a supply of riders.

Future Scenarios and a Connected NWI

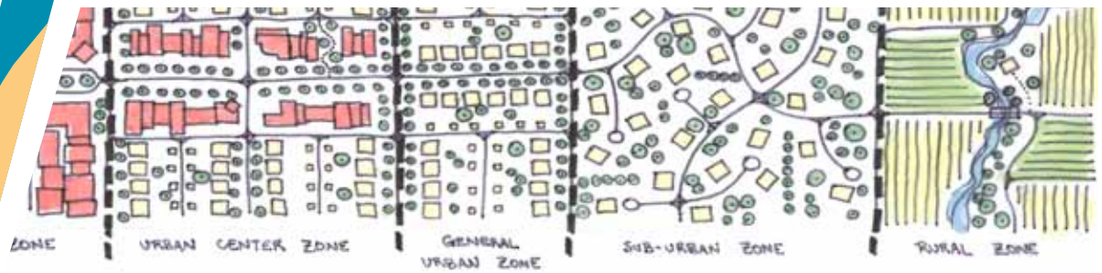
What might a connected NWI be in 2050? Presented below are a further description of the three plausible futures described previously.

A Connected NWI in the Scenario *New Chances In a New Frontier*

NWI's transportation network has advanced extensively in the New Chances for a New Frontier scenario as compared to today. In this scenario, leaders have positioned the region for an efficient transition towards the technological advancements that will drive NWI's economy and everyday life. Autonomous and connected vehicles are commonplace, and utilize technology embedded within the regional infrastructure to safely transport residents. As a result, human error disappears from nearly all transportation systems, and the number of crashes decreases significantly. Vehicles move in a steady stream. Each vehicle communicates with sensors in the road network and similar sensors in other vehicles, and even with bicyclists and pedestrians. Traffic organizes and travels at optimum efficiency, dramatically decreasing congestion throughout the region.

Regional transit systems and shared mobility platforms, like transportation network companies, leverage the available technology to provide low-cost and efficient travel throughout the region. Car sharing programs are commonplace. Users simply schedule their rides as needed, with driverless vehicles taking them to their destinations. Individuals with disabilities have more freedom than ever before, as technological improvements provide them with a myriad of choices that are accessible and affordable. Transit systems seamlessly integrate with this technology. The challenges of first-mile and last-mile connections are easily navigated when a fleet of driverless shared-ride taxis wait at regional transit hubs for passengers. A vehicle's computer has already sorted which users live near each other and has optimized the most efficient route of travel. Users are updated with instructions on how to find their designated taxi, depart the South Shore Line, and are taken home. Driverless technology becomes prevalent throughout the transit network on buses, shared-ride vehicles, and trains, and has dramatically decreased the cost for ongoing operations, allowing more funding for service expansions.

The private sector has also leveraged the New Chances in a New Frontier opportunities. Driverless technology, coupled with the proliferation of electrified vehicles and high-efficiency batteries, has transformed the long-haul trucking industry. Even with the advancements made in mitigating congestion, computer systems use real-time data to find the most efficient routes for autonomous trucks. Without human limitations, such as sleep or the need for rest stops, trucks travel during non-peak times (late evening and early morning hours), diminishing congestion even further.



A Connected NWI in the Scenario *Sharp and in Focus*

While some advancements have improved the transportation network, advancements in technology are gradual in the Sharp and in Focus scenario. While technology may not be on the leading edge as speculated today, this scenario has provided moderate, controlled growth with a transportation network well-suited for regional needs.

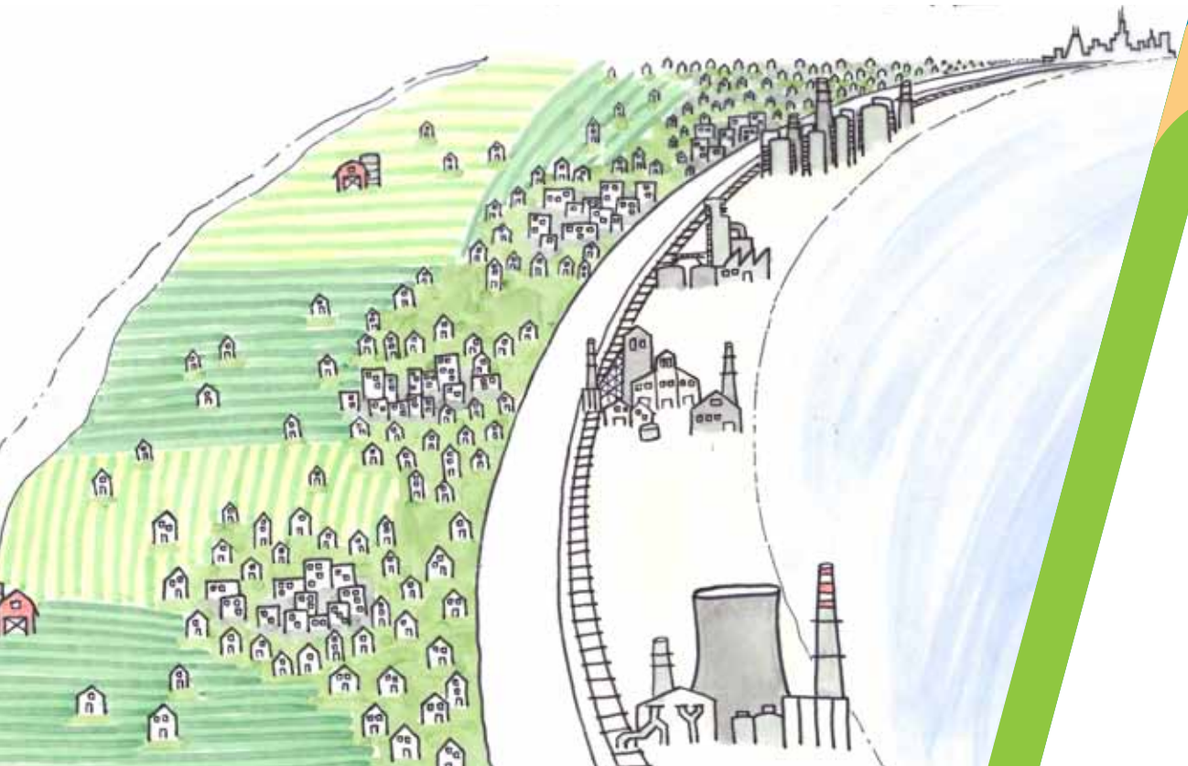
Connections within the system define the transportation network. Linking to Chicago remains important, as NWI still interconnects strongly with this vast economic engine. Connections in and throughout urban centers are complete and multi-modal, creating safe access for pedestrians, bicyclists, and individuals with disabilities. Transit hubs link urban centers together with efficient service between cities. First-mile and last-mile sidewalk and trail connections weave outward, lacing throughout neighborhoods and shopping districts.

Outside the urban core, the NWI landscape transitions smoothly to suburban areas and to rural communities, with their own unique transportation needs being met according to their development patterns. In the suburban communities, regional connections are made possible through park-and-ride facilities for transit and a robust off-road trail network connecting communities. Farmland and NWI's agricultural heritage are preserved, and regional farmers can readily take their goods to market through the use of county, state, and interstate highways.

A Connected NWI in the Scenario Stay in Your Lane

In the Stay in Your Lane scenario, the future of NWI remains similar to the region of today. Major advancements in technology do not manifest as suggested by technologists, with no “silver bullet” to curb the negative effects of road congestion. Regional leaders and residents still have to work hard to ensure major thoroughfares are not bogged down with excessive traffic as the region’s economy remains dependent on Chicago and local heavy industries. In this scenario, those connections remain as important as ever.

The internal transportation network still faces the same problems as today. Gaps in pedestrian and bicycle infrastructure limit the first-mile and last mile connections to transit networks, particularly to regional destinations such as outdoor recreation and the lakeshore. The transportation network continues to feel the strain of uncontrolled growth, as regional corridors are dotted with new housing developments outside the urban core in a pattern that requires unconnected, non-autonomous, internal combustion engine automobiles for everyday travel. Transit networks remain disparate and unlinked, becoming stagnate as the region turns less dense, making transit systems more inefficient. As Baby Boomers continue to age and in-migration slows, the housing vacancy rate grows. Housing prices decline, and density continues to disperse, increasing the strain on the region.



Critical Paths to a Connected NWI

What are the paths to a Connected NWI?

Connected — NWI’s people have accessible, safe, and equal opportunities for working, playing, living and learning.

Economy and Place

Update land development policies and strategies to emphasize accessibility between people and opportunities.

Environment

Connect fragmented natural areas and integrate links between people and green spaces to increase resiliency and health outcomes.

Mobility

Complete roadway, bicycle, sidewalk, and transit networks across municipal and county lines to enhance safe and efficient access to opportunities for all.

People and Leaders

Commit to removing barriers and obstacles to guarantee equal and accessible opportunities.

A Renewed NWI

NWI's urban and rural centers are places people want to come to and live in, and our environment is safe and healthy.

The Renewed NWI vision statement focuses primarily on land use and infrastructure state of good repair, and the associated impacts and benefits to the communities and people of NWI. To be effective, the vision must weave together key aspects of all other elements of the plan. Concepts involving urban growth, development, conservation, and strategic infrastructure planning, when properly guided, create an investment framework that builds communities and strengthens regional economies.

How "A Renewed NWI" Evolved:

NWI's 2040 Plan highly emphasized focused revitalization and investment in the region's urban core areas, which is critical to long-term regional social and economic stability. The 2040 Plan also recognized that the improved economic health of the region's communities included focused growth and infill development. The protection of natural and agricultural areas through green infrastructure was also emphasized. Urban revitalization and main centers address long-term land use planning by directing population growth into established urbanized areas, where development pressures on "greenfields," or open lands, can be alleviated.

During the development process for the NWI 2050 Plan, public feedback suggested the vision be renamed to "renewed" rather than the previous term "revitalized." This new name reflects accomplishments to date in revitalizing communities, with a focus towards renewing all urban and rural centers. As in the 2040 Plan, the NWI 2050 Plan continues to champion growth in existing communities, and to revitalize the region's main centers with livable urban, suburban, and rural strategies as a tool for protecting and preserving the region's unique landscapes.

Why is "A Renewed NWI" Important?

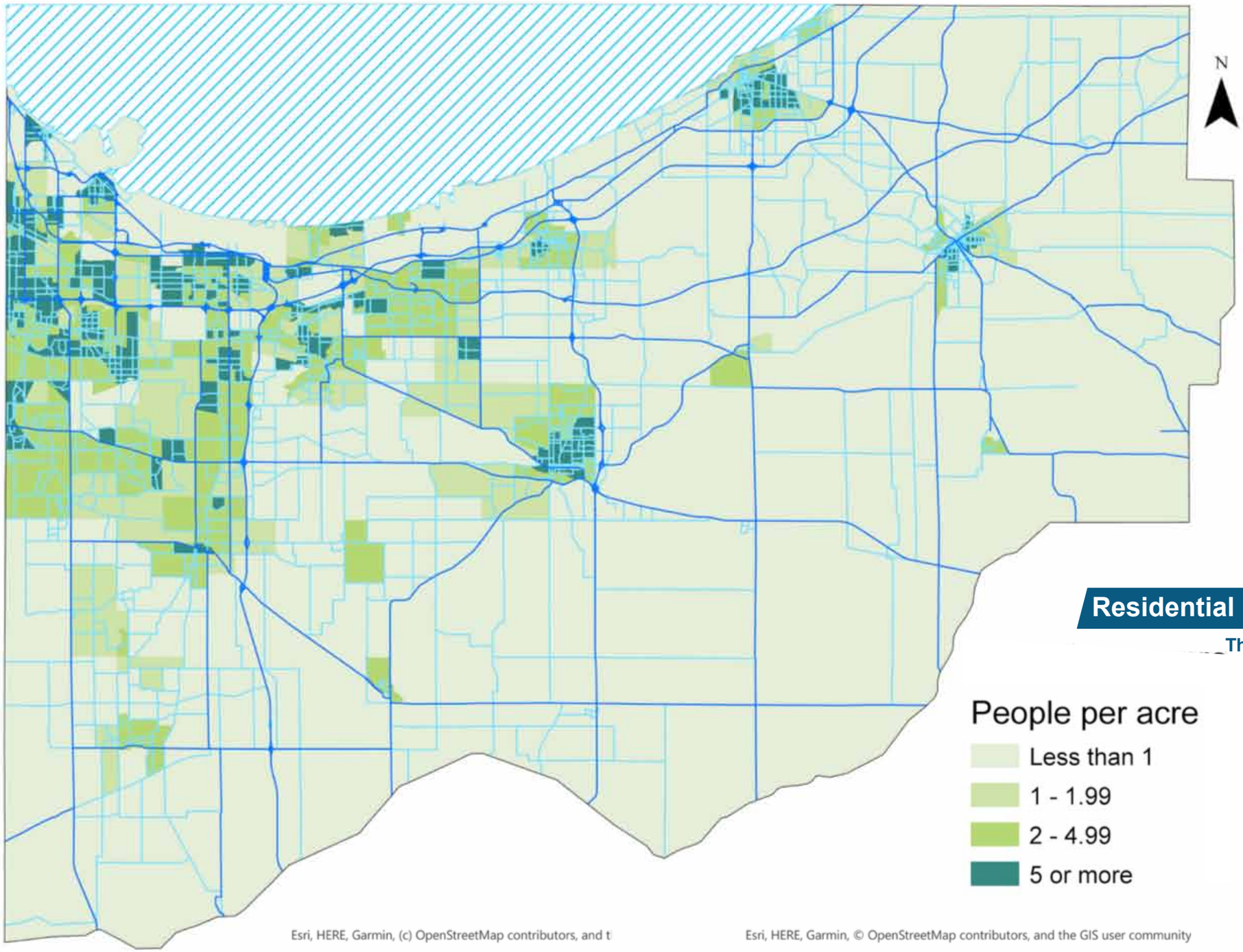
A Renewed NWI reflects a region that transforms abandoned buildings and brownfields to create community centers that inspire residents to remain in the region and that help attract new residents and businesses. Culture can be included here as a catalyst for social transformation, where great architecture remains preserved as a testament to the region's history. A Renewed NWI envisions a future where residents can live without a constant fear of crime and can prosper in places free from environmental risk. *The NWI 2050 Plan* focuses implementation efforts on managing growth by encouraging the concentration of development around existing infrastructure, including the redevelopment of infill sites within the region's established livable centers. A Renewed NWI serves to focus resources in a manner that enables the entire region to become economically competitive and successful.

Existing Conditions

Economy and Place

The 45-mile stretch of the Lake Michigan shoreline makes up the northern border of NWI. While much of the built environment remains near the lake, development trends have been moving further south into prime agricultural lands. If these trends continue, growth will occur on greenfields and prime farmland at the urban fringes while the region's urban and northern core -- the oldest, densest, and most diverse communities -- will continue to lose population.

The movement of people out of these existing communities and into undeveloped areas has created challenges for the region. This outward growth away from the existing centers is costly, stretching needed services such as water and sewer extensions, increased patrols, and emergency response, with miles of additional asphalt to maintain. While the region's population migrates outside of the existing urban areas, employment has generally remained within established employment and activity centers supported by existing facilities, services, and transportation. The disconnect between employment centers and new residential development has increased the distance between people and their workplaces and is causing longer commutes, with an increase in travel demand and associated congestion on the region's roadway network.



Residential Densities in NWI

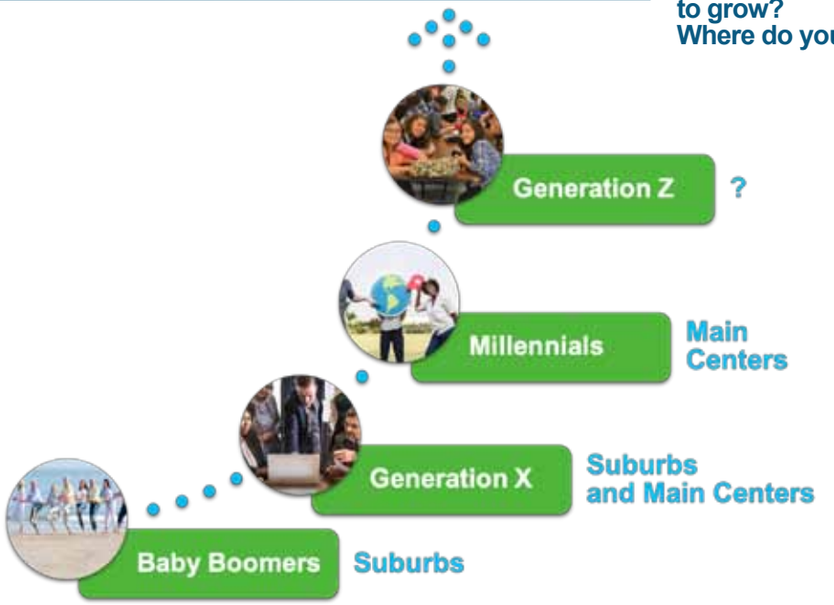
The hubs of the Region are anchored by our neighborhoods.

Population across the three counties has stayed generally stagnant, with Porter County alone showing a slight increase in population. Lake County's population shrank by 2.1% in 2017 from 2010; however, south Lake County communities show growth in Crown Point (6.4% increase), St. John (15.8% increase), and Winfield (25.5% increase). The spreading out of population and development of land, regardless of population growth, burdens taxes and infrastructure beyond what any increased valuation may be able to sustain.

With the movement out of existing centers, a greater percentage of housing vacancy exists within the northern sections of the region and older communities. However, a number of urban communities are addressing vacancy concerns, including housing redevelopment in Whiting and downtown redevelopment in Michigan City. The region is currently placing a greater emphasis on renewing and concentrating growth within existing communities and main centers. These centers are ideally compact in form, mixed-use, walkable, and transit-accessible, with a wide choice of affordable and accessible housing options developed at a density and scale appropriate to their community context, whether urban, suburban or rural. Main centers vary widely in scale, use, mix, and purpose within each community, but all represent areas of regional significance.

Generational Living Preferences

Does the Region offer the types of neighborhoods and housing to grow?
Where do you want to live?



There are a number of communities focusing attention on their downtowns and main centers. Main centers were identified through intensive meetings with elected officials, planners and other municipal staff who identified, defined and mapped the geographic boundaries of livable centers in their communities based on place-making principles. The designation of main centers was based on customized "livability parameters" that included data such as block length, street grid, residential and employment density, transit availability, land use, and zoning codes.

Still, many communities struggle in reviving their downtown districts, which has resulted in a fragmented network of thriving and dense main centers in the region. Adequate amenities and infill redevelopment are needed to create the built environment necessary for people to live, work and play within main centers. The provision of downtown housing and mixed land use allow for such concentration and density. Many main centers have become limited to one type of use, restraining the ability to provide a mix of uses and diverse options. A significant number of large chain stores are closing across the country, leaving behind large, vacant buildings. Outside of the region some communities have converted these abandoned big-box stores into other uses, such as schools, recreation centers and offices. The region has numerous empty storefronts and big-box buildings that could be repurposed; while these structures remain vacant, they risk losing tax revenue to support essential services.

According to the National Association of Realtors, more Americans are expressing a desire to live in communities with access to public transit, shorter commutes, and greater walkability. Studies have also shown generational preferences of younger individuals desiring to live in more dense, walkable environments, creating a regional urgency to renew NWI's main centers.

Main Center Classifications in NWI

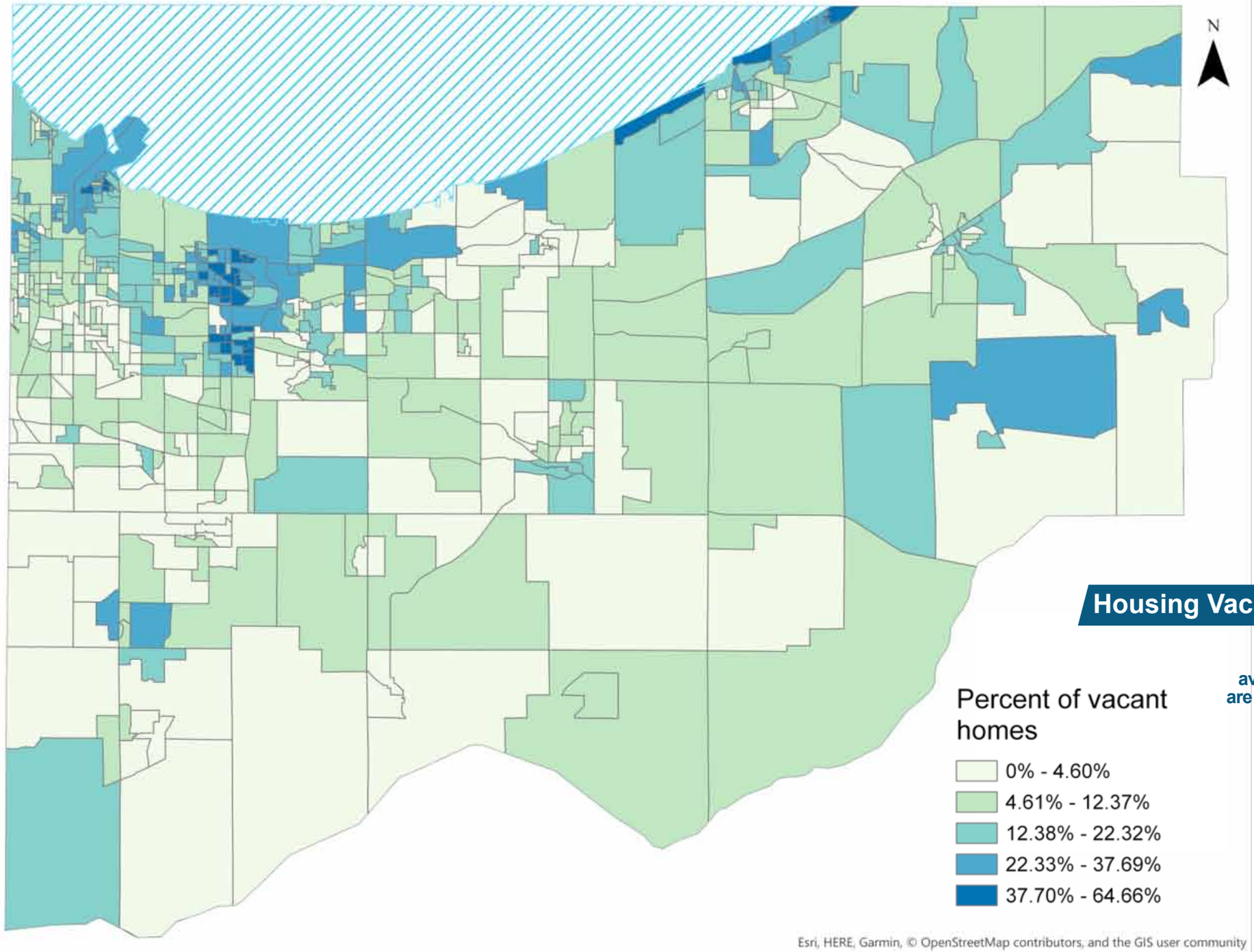
The Region's communities have a diversity of neighborhoods and main centers. There is something for everyone.

Metropolitan center
- Population greater than 70,000

Large center
- Population between 20,000-70,000

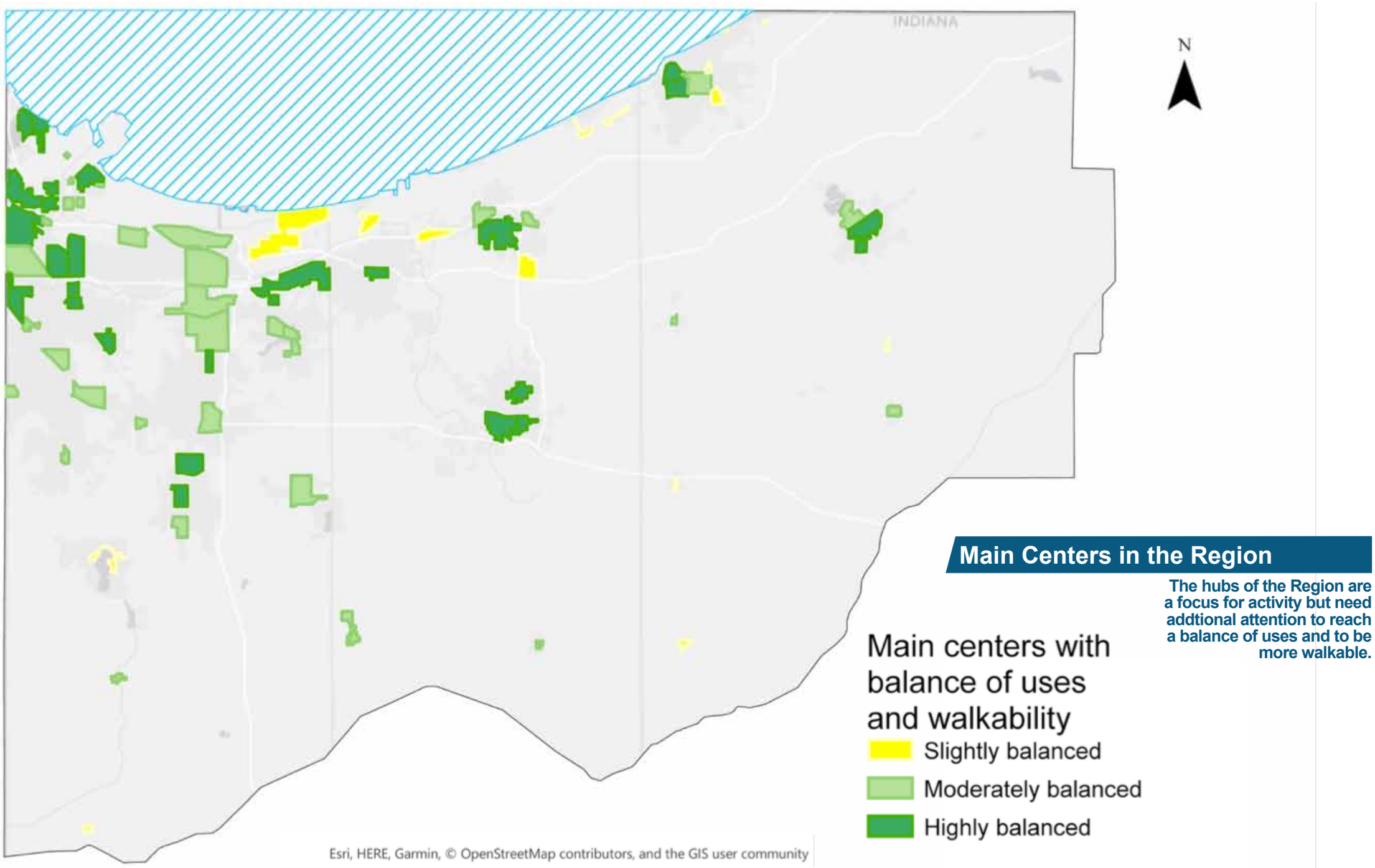
Medium center
- Population between 6,000-20,000

Small center
- Population less than 6,000



Housing Vacancy in NWI

There is a fine balance between housing affordability and housing availability. Some NWI communities are imbalanced in this regard and the vacancy rate is harmful.



Main Centers in the Region

The hubs of the Region are a focus for activity but need addtional attention to reach a balance of uses and to be more walkable.

Environment

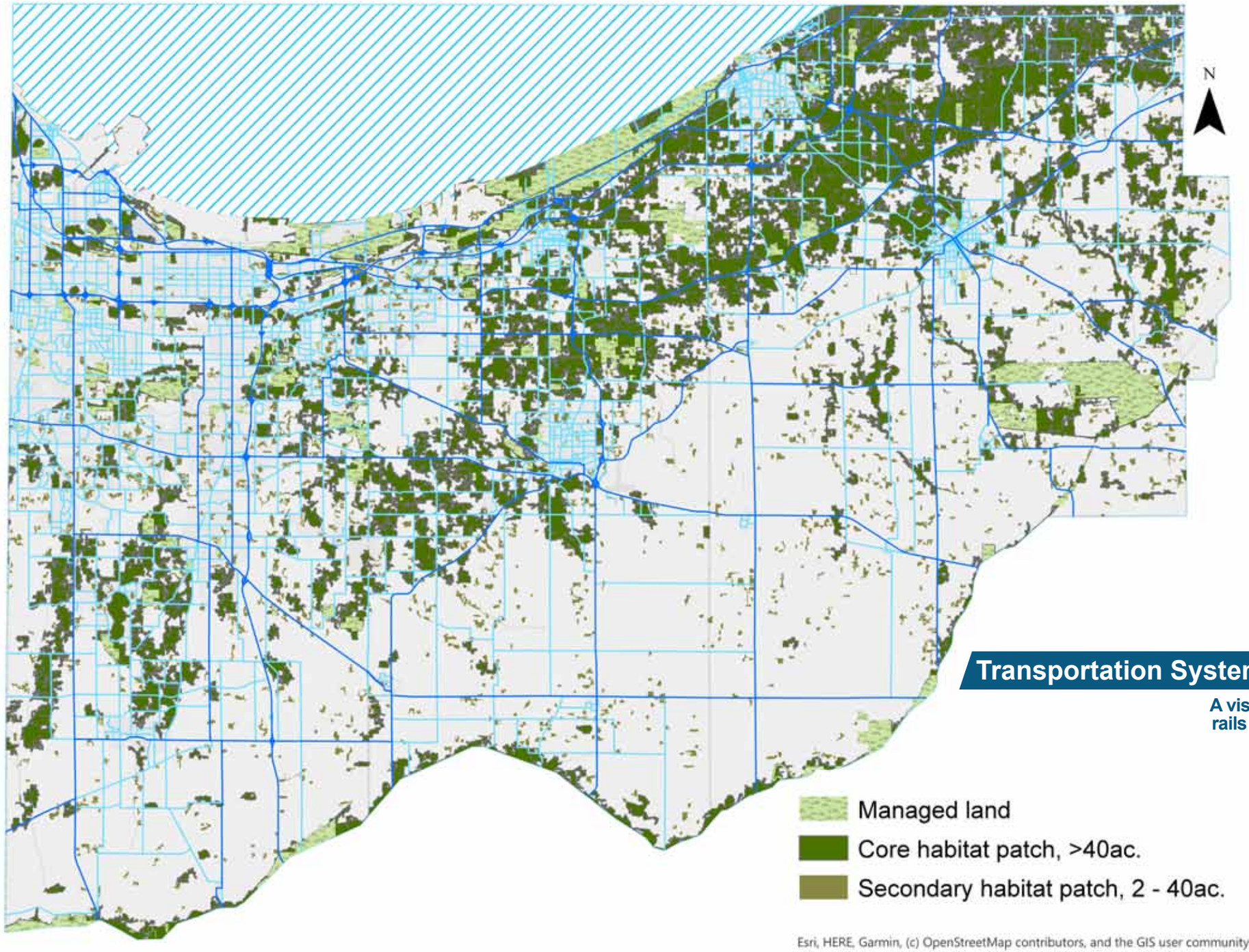
NWI is fortunate to have a rich and fertile soil that is ideal for farming. With the region's predominantly flat land, infrastructure has typically been easy to build in prime farmland areas. As a result of human activity and the built environment, ecosystems have been greatly impacted, becoming fragmented and under constant and diverse stressors. Protection and restoration of the function of these ecosystems and the preservation of prime agricultural lands are both vital in maintaining the long-term viability of these resources. It is increasingly recognized that agriculture preservation plans should be a component of overall community planning efforts. Agricultural and rural areas are key components of a green infrastructure network, preserving natural and aesthetic qualities that enhance community character and wellbeing, meeting locally produced food demands, and maintaining the aesthetic value of rural landscapes.

The expansion of urbanized areas places pressure on agriculture and impacts quality of life and regional sustainability, requiring higher taxes to support more infrastructure projects and maintenance. There are numerous organizations working to protect and restore significant ecological natural areas, as well as supporting agriculture in the region. Regulation remains an essential tool for protecting conservation lands. As of today, 39% of local governments have ordinances requiring conservation easements between developments. These encourage native plants and natural areas to be preserved, and 48% of these allow for cluster or conservation subdivisions to be permitted. Planning for green infrastructure and open space is an identified strategy to reduce environmental impacts and habitat fragmentation. Detailed information can be found in the conservation section of the *Greenways and Blueways 2020 Plan.*

In urban areas many parcels of land can be considered brownfields. Most think of brownfields as giant abandoned factories, piles of chemical drums, or an abandoned gas station. In reality, brownfields are any piece of property where redevelopment is complicated due to actual or potential environmental contamination. Indiana defines a brownfield as a parcel of land that has been abandoned or inactive; may not be operated at an appropriate use; and on which expansion, redevelopment, or reuse is complicated. Reasons for a brownfield designation include the presence or potential presence of a hazardous substance, a contaminant, petroleum, or a petroleum product that poses a risk to human health and the environment.

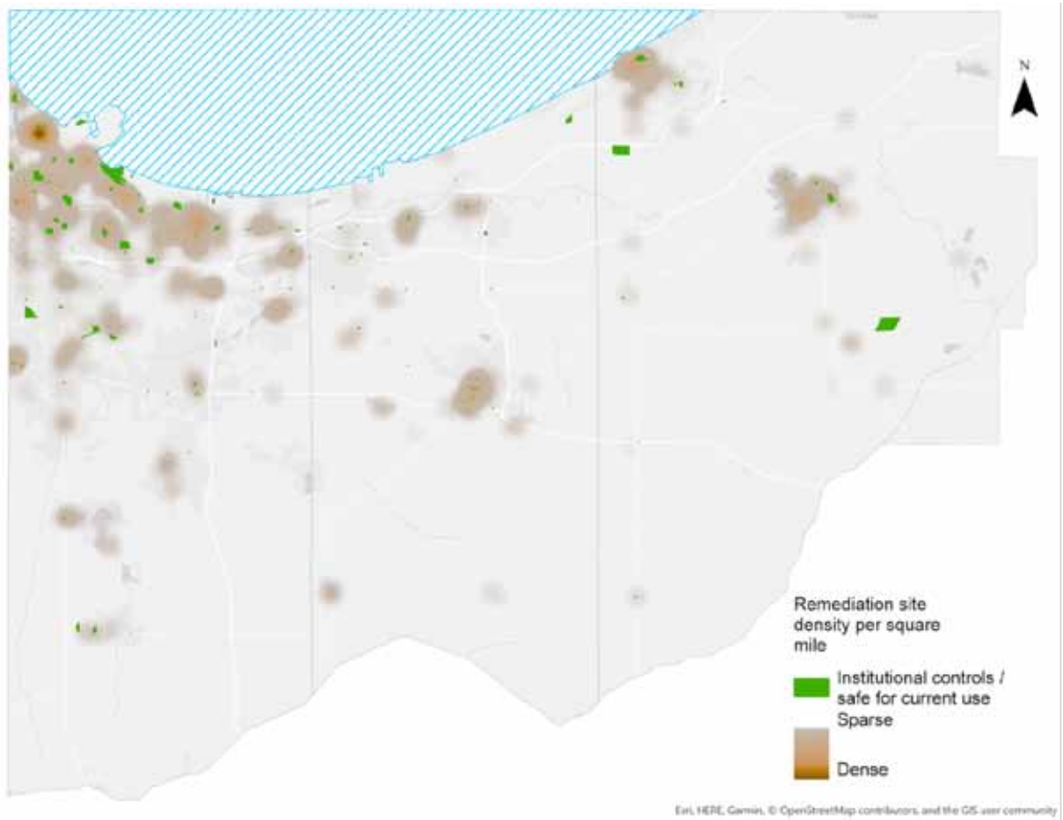
A brownfield site may or may not be contaminated, and it may or may not be possible to identify a brownfield just by looking at what currently exists on site. A property itself may have never been contaminated, but if certain polluting uses occurred nearby, the site could be a brownfield. Buildings older than a certain year might be brownfields due to the presence of asbestos or lead paint. Retail buildings may be brownfields if they ever housed dry cleaning operations. To ascertain whether a site is truly a brownfield, an experienced environmental professional must be contracted to conduct a Phase I Environmental Assessment. These assessments review past uses of a property to establish the likelihood of any "Recognized Environmental Conditions" present and require sampling and possible remediation in order to reuse the property.

There are many historically-developed communities in the region where past land uses could have led to contamination. Without assessing each property, a comprehensive list of brownfields cannot be created. However, there are sites that state and federal agencies have found contaminated and that may or may not be remediated. The density of these sites across the region, showing where the highest concentration of known brownfield sites are located, is shown on the following map.



Transportation System and Natural Lands

A visual snapshot on how our roads, rails and trails interact with sensitive environmental lands.



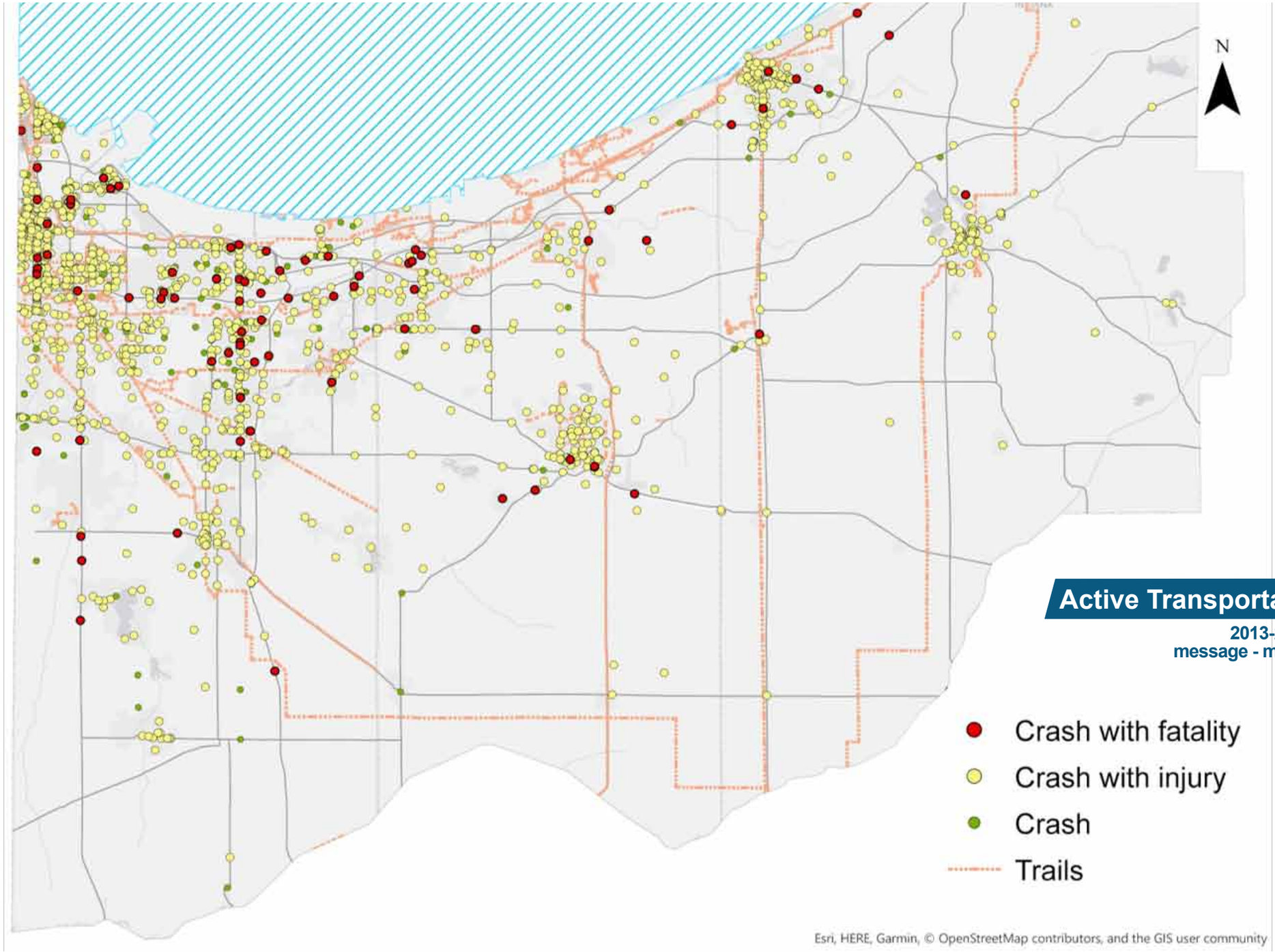
Density of Brownfields in NWI

NWI has a proud industrial heritage, but this success has left its mark.

Mobility

The region's infrastructure and mobility are in need of renewal. With a separation and distance between living, working and playing destinations, NWI's infrastructure has seen extensive wear and tear. Development away from main centers has diverted infrastructure investment to new, previously undeveloped areas. For decades, infrastructure has been focused on the movement of cars, without adequate consideration for sidewalks, protected bicycle lanes, or transit, limiting choices. The results are a lack of infrastructure accommodating safe walking and biking in existing communities. Understanding the condition of sidewalks and pavement can assist in the need to renew main centers. The availability of data on this issue is poor, and the collection of better data is identified here as a strategy to build up that capacity in order to create a regional data and analysis framework. Such a framework will aid better understanding of the conditions, causes and remedies for asset management.

In addition, safety continues to be a critical piece of the renewal of communities and main centers. The crashes of highest severity typically occur within heavily traveled roadways. To better understand the reasons for crashes, the root causes must be identified, which could include physical infrastructure designs, intersections issues, design failures, speed limits, and other factors. Collecting data on the causes of crashes, whether physical or human behavior, will better determine the strategy to lessen occurrences. The Indiana State Police Crash Risk Map begins to tell the story of why crashes occur in particular areas, and a strategy of building regional data capacity and analysis frameworks will help to tell this story among other stakeholders.

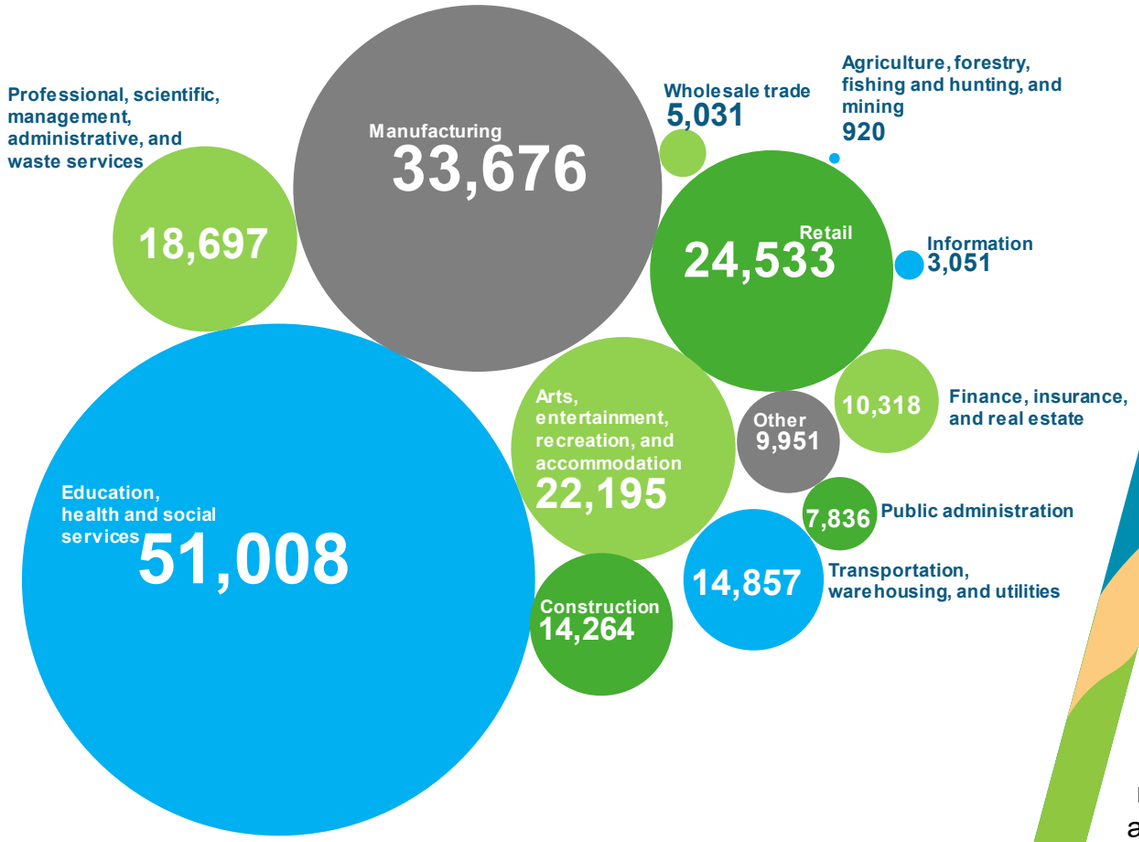


Active Transportation Safety

2013-2017 crash data has a simple message - more bicycling and pedestrian infrastructure is needed.

Regional Jobs by Industry

Like the multitude of inputs into strong steel, a strong economy has a diverse balance of jobs. Where do you work?



People and Leaders

Strategically located along Lake Michigan, the steel industry has played an important role in the region's economy, capitalizing on the area's assets and transportation infrastructure. However, the region is not equipped with the proper infrastructure, amenities, and services to meet the demands of emerging employment sectors. The Ignite the Region plan for NWI's economic transformation identifies numerous strategies and initiatives to renew existing employment sectors while identifying emerging sectors. These sectors include entrepreneurship and startup possibilities.

The region lacks fundamental support structures necessary to make entrepreneurship a reality. According to the Ignite the Region plan, creating such an ecosystem will require a new economic development focus on entrepreneurship that helps to connect resources, create networks, and raise awareness. The region already boasts highly advanced research and development (R&D) commercialization assets, including the Purdue University Northwest (PNW) Center for Innovation through Visualization and Simulation (CIVS), the PNW Composites Manufacturing and Simulation Center, and the ArcelorMittal R&D facility in East Chicago. However, the innovation ecosystem needs to be mapped to provide a path for people with ideas for businesses to opportunities to start their businesses.

The region contains a wealth of existing assets, and with sustained initiatives for renewal, NWI possesses great potential. Critical to this potential requires maximizing growth by investing in main centers, creating transit-oriented developments, protecting the environment with sustainable growth, mitigating hazards by understanding asset vulnerability, linking green infrastructure, and remediating areas for best use potential.

Future Scenarios and a Renewed NWI

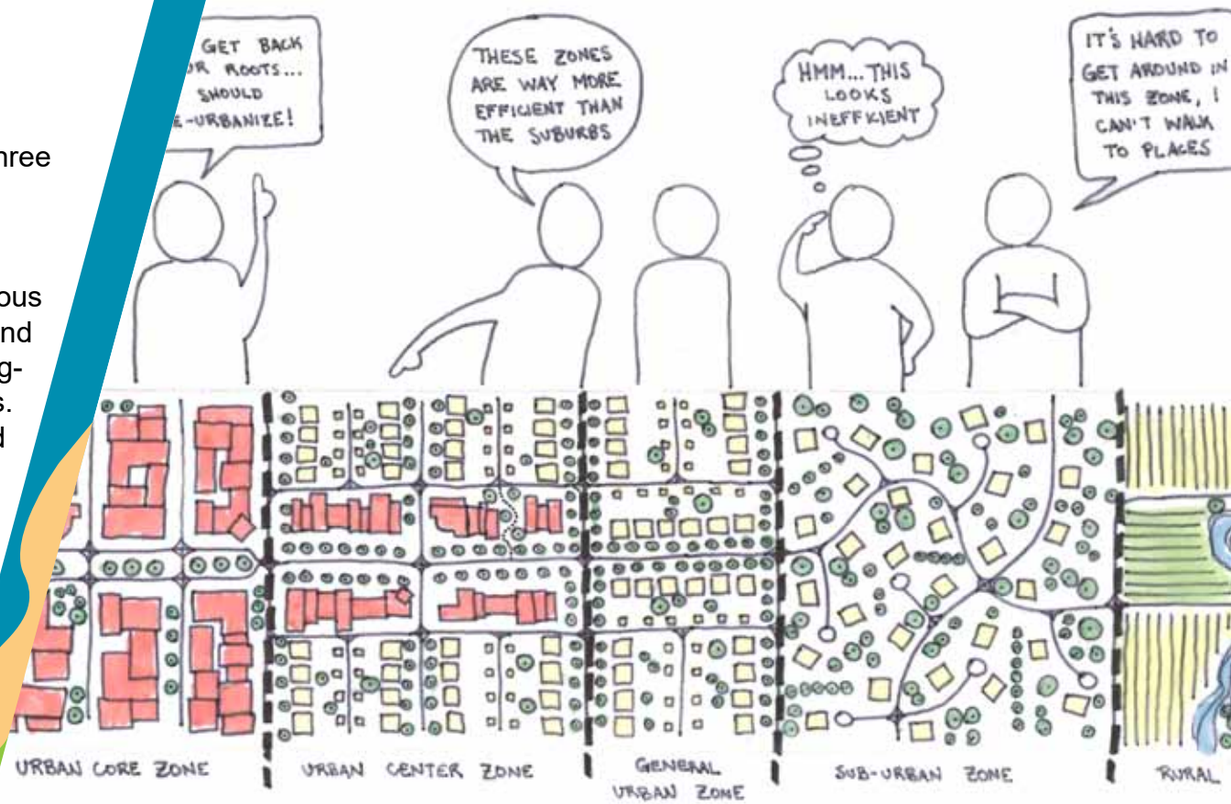
What might a renewed NWI be in 2050? Presented below are a further description of the three plausible futures described previously.

New Chances in a New Frontier

In this scenario, roadway use has increased as a result of the advancements in autonomous vehicles, but traffic now moves quickly and efficiently. Advancements in electrification and batteries dramatically decrease the amount of pollution from regional congestion. Cutting-edge advancements in green energy allow the region to diminish its reliance on fossil fuels. With the ongoing commitment to preserve the vast biodiversity of the region, the restored natural environment thrives.

Downtowns across the region are reshaped as technology permits new development patterns that renew our central places. Shared autonomous and connected vehicles do not require to be parked while their users run errands; instead, vehicles are shared by many individuals and remain constantly in circuit, darting from place to place in continuous activity. Large parking lots are therefore outdated, with valuable real-estate formerly used for parking now available to create denser urban landscapes. On-street parking becomes unnecessary, and the pedestrian right-of-way widens, allowing extra room for cyclists, sidewalk cafes, and linear parks. Businesses leverage the new development patterns to cluster together for peak efficiency.

As NWI becomes technologically advanced, employment lost to automation is replaced by new jobs in emerging fields. Fleets of driverless vehicles require operators, mechanics, software engineers, and technicians. NWI leaders have fostered entrepreneurship partnerships with residents of the region by opening businesses and start-ups. In this scenario, NWI's economy does not rely on Chicago, and strikes out on its own to become more diverse with increased opportunities. The primary draw of in-migration involves the fresh water supplied by Lake Michigan for households fleeing sustained drought regions like the Southwest, increasing NWI's population.



Sharp and in Focus

Even with the slower growth defined by the Sharp and in Focus scenario, recognizing and protecting NWI's environmental assets remains paramount. Lake Michigan's abundant fresh water supply represents the primary driver for residential and industrial growth, and the Indiana Dunes National Park continues to lead the way for tourism. In this scenario, regional leaders unite to preserve, protect, and restore NWI's natural assets.

NWI's downtowns are preserved with the curbing of uncontrolled suburban sprawl. The NWI economy diversifies further but is still dependent on Chicago's economic base. A united strategy against urban sprawl, along with implementation of the modest advances in technology that have come to fruition for our transportation system, allows the region to reduce reliance on car travel. Green spaces are preserved for recreation, conservation and agricultural purposes. This results in a diverse region offering a place for everyone, from dense urban centers to smaller village centers that provide inviting walking distances to desired amenities.

Stay in Your Lane

In the Stay in Your Lane scenario the most important NWI assets remain at risk. Population growth stays stagnant, even decreasing. Advancements in green technology and mobility have stalled throughout the region. NWI continues struggle to balance the negative side effects of our transportation system and industries, threatening regional environmental assets and local economies. NWI still exists as a desirable place, and a solidly good place to raise a family, but risks are still prevalent. The renewed NWI vision of a safe and healthy environment remains elusive, and it will require the urgent attention of regional leaders and residents alike to catch up to missed opportunities.

Critical Paths to a Renewed NWI

What are the paths to a Renewed NWI?

Renewed

NWI's urban and rural centers are places people want to come to and live in, and our environment is safe and healthy.

Economy and Place

Maximize growth in existing centers to enhance civic and economic life and to protect natural areas and farmland.

Environment

Clean and protect the air, land, water, and natural habitats to sustain and enhance the environment's safety and health for all.

Mobility

Improve roadway, bicycle, sidewalk, and transit networks to revitalize existing urban and rural centers and enhance equity.

People and leaders

Focus educational and workforce development initiatives on expanding skills that the modern economy requires.

A United NWI

NWI's diversity is celebrated, and we work together as a community across racial, ethnic, political and cultural lines for the mutual benefit of the region.

A united NWI vision speaks to the region's people in all sectors while celebrating and embracing diversity. It also emphasizes the important role local government maintains in bringing officials together to achieve regional goals. Key elements in achieving a united region involve communication, awareness, collaboration and education.

How "A United NWI" Evolved:

NWI's *2040 Plan* placed an emphasis on bringing the region together to solve problems and identify solutions for the mutual benefit of all residents. Regional partners have a role in coordinating and collaborating towards achieving a shared unified vision.

Why is "A United NWI" Important?

A united NWI seeks to preserve and encourage the region's diversity. This helps enhance our unique identity to achieve desired vibrancy. Our diversity brings multiple cultures together, which enhances our livability. A united NWI promotes affordable and accessible housing across the region, and works together for the outcomes enjoyed by all. People and leaders collaborate to achieve the best for the region. The vision aims to reduce traditional patterns of inequity and support communication and revitalization efforts in areas experiencing impacts of prolonged disinvestment. It also prioritizes investments that attract a diversity of residents and reduces burdens. A lot has been accomplished since the *2040 Plan* through its focus areas of economy & place, the environment, and mobility. While these are celebrated in the existing conditions section, more needs to be done to advance outcomes for everyone.

Existing Conditions

Economy and Place

There are a number of initiatives currently taking place with the shared vision of uniting together to enhance NWI's quality of life. These efforts demonstrate regional collaboration welcoming diverse talents and realizing balanced growth. Some of these initiatives include the NWI Food Council, the Ignite the Region plan for economic transformation, as well as NIRPC's Creating Livable Communities initiative.

The NWI Food Council was created in December 2015. The Council's mission is to build a just, sustainable, and thriving locally-oriented food system through networking, education, advocacy, and projects. The Council serves Lake, Porter, LaPorte, Newton, Jasper, Starke, and Pulaski Counties, while serving as a regional clearinghouse. The Council connects with other food organizations and initiatives across the region to provide guidance and build resource partnerships between communities. The NWI Food Council currently holds two main events per year to connect, build and strengthen the food system. These include the "Food Expo and Discussion (FED)" event and FarmHop. The Council represents collaboration across multiple sectors and creates partnerships with the common goal of enhancing the local food system. The NWI 2050 Plan has identified a number of strategies that strengthen the regional food system.

A broad coalition of regional partners and stakeholders came together and guided Ignite the Region: Northwest Indiana's Strategy for Economic Transformation, spearheaded by the NWI Forum. This initiative involves an effort to foster connected and sustained regional economic development partnerships. The goals of the initiative are built around enhancing and unifying future economic vitality in the region. Every goal consists of strategies and action items needed to realize success. These goals address business development and marketing, entrepreneurship and innovation, infrastructure, talent, and placemaking. A new implementation coalition of multiple organizations and leaders has been established to lead, coordinate, and champion the regional strategies. The NWI Forum, as the region's multicounty economic development organization, plays a central role in coordinating the overall implementation effort. This strategy strives for successful implementation by focusing on a collective effort that breaks down traditional barriers of cooperation.

The *Creating Livable Communities (CLC)* initiative was a collaborative effort to identify livable centers within 40 communities in the region. The CLC represents a strong model for organizing place-making resources that inform local planning decisions and create better connections with NWI communities. The CLC program enhances the sense of community among residents, and provides communities with an excellent opportunity to work together in creating livable, walkable, and energetic downtown areas. The CLC exemplifies the type of innovative approach for communities to strengthen, revitalize and provide quality of life improvements for all residents.

Mobility

Transformative transportation projects continue to advance through united efforts from communities across NWI. These projects are emerging from collaborative efforts targeting a unified vision enhancing the region's opportunities. Projects highlighting a unified spirit of collaboration include NICTD's West Lake Corridor commuter rail expansion and the Double Track project, Gary Public Transportation Corporation's (GPTC) Broadway Metro Express, NIRPC's I-65/Rt 30 study, the Marquette Greenway, the Transit Triangle lead by La Porte, Michigan City and Westville, and a wayfinding (signage) project along two major regional trails.

NICTD's South Shore Line remains a vital transportation connection for the region to Chicago and to South Bend. The West Lake Corridor Project proposes a southern branch extension reaching the Town of Dyer. Combined, these commuter rail lines help connect the highly dense areas of south Lake County to Chicago, and in turn stimulate economic development opportunities. The West Lake is an approximate nine-mile extension between Dyer and Hammond, and new stations along this extension are ripe for transit-oriented development opportunities, adding increased livability and quality of life opportunities. These projects have been decades in development, with significant collaboration between multiple entities including the Regional Development Authority, NICTD, and multiple municipal entities. Additionally, the Double Track project constructs a second track from Gary to Michigan City, Indiana. The project's purpose improves capacity, travel time, service, reliability, and safety along the South Shore Line by adding more trains.

GPTC launched the Broadway Metro Express, the "BMX," in February 2018 after the completion of the Livable Broadway Regional Plan. The BMX is Northwestern Indiana's first rapid bus service, connecting Gary to Merrillville in 20-minute service intervals. The BMX advances a vision for growth and development for the Broadway corridor in the Gary, Merrillville and Crown Point. The BMX integrates transit and land use planning through transit-supportive land development. The improvement in bus frequency, speed, and reliability in the corridor has reaped dividends. GPTC has posted ridership gains rarely seen in the United States, as most transit agencies are reporting declining passengers.

The Marquette Greenway is an ambitious project to finish a regional, multi-use trail which will span 58-miles in length along the "South Shore" region of Lake Michigan from Calumet Park in Chicago, Illinois, eastward through the heart of NWI, and into downtown New Buffalo, Michigan. Today, twenty-eight miles of the Marquette Greenway have either already been built or have received funding. The remaining thirty miles exist in Chicago, Hammond, Gary, Portage, Michigan City, and New Buffalo; the towns of Ogden Dunes and Burns Harbor, and counties of Porter, LaPorte in Indiana and Berrien in Michigan. Major federal grant applications, while not yet successful, brought together all of these municipal partners to support completing these remaining miles with a total federal request of $23 million.

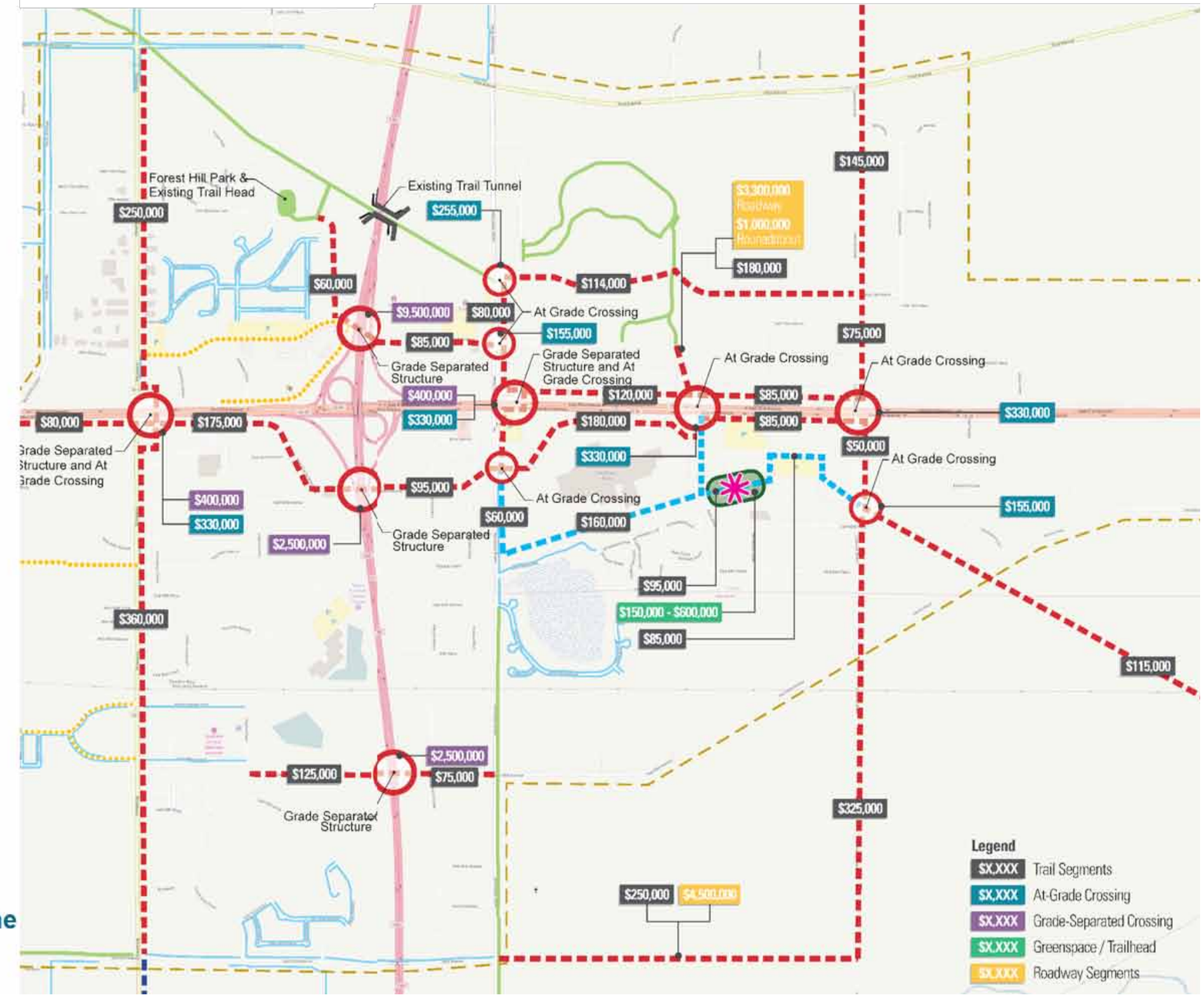
The I-65/US 30 Safety Study presents opportunities for increased connectivity and multi-modal accessibility by creating a safe, non-motorized (walking and bicycling) transportation network that connects all major destinations in the project area. The study identified ways to reduce pedestrian and auto conflicts by connecting walkways, creating safe pedestrian street crossings, and consolidating driveways if needed. Key to accomplishing these projects involves reimagining the existing commercial land uses to create destinations that are friendly to non-motorized travel, connecting residential land uses (origins) to commercial uses (destinations). The plan increases the aesthetics of these area transportation networks to improve the sense of place. The plan recommendations alleviate roadway congestion by providing bypass routes for automobiles and bikes north and south of U.S. 30, and creates safe crossings for pedestrian and bicycle traffic.

Collaborating on Transformative Opportunities

What does self-improvement take?
Time and resources.

- New trail
  $3,509,000
- At-grade Intersection Crossings
  $1,885,000
- Grade-separated Intersection Crossings
  $15,300,000
- Greenspace / Trailhead
  $500,000
- New Road Extensions
  $8,880,000
- Relocate utilities
  $3,000,000
- Medians
  $5,000,000
- Native Plantings along US 30
  $825,000
- Plantings along Trails
  $1,650,000

$40,469,000
Estimated in safety and livability improvements for the US 30 / I-65 area



In 2015, the Transit Triangle began operation as a commuter service linking Michigan City, LaPorte, and Purdue Northwest's campus in Westville. Before the Triangle service, Michigan City and the City of LaPorte were essentially unlinked transit islands with no transit connections between each system. Through an innovative partnership with Purdue Northwest, Michigan City, LaPorte and Westville, the major population centers of the county have been linked by commuter service. Ridership has increased since the launch of the service and recent efforts to streamline transfers between systems, lower fares, and make schedules more efficient should boost ridership even further. Buying a fare on the Transit Triangle allows a rider to transfer to any Michigan City bus route for free, providing an additional incentive for use of transit.

In the summer of 2019, a long-awaited signage project will be installed along two regional trail systems in NWI. Since their openings, the Erie-Lackawanna Trail from Hammond to Crown Point and the Prairie-Duneland Trail from Portage to Chesterton have both been devoid of signs, leading to confusion and hampering law enforcement and EMS responders. In 2015, NIRPC brought together 10 government entities along both trails to begin the process of designing and installing signs to identify communities and streets, mile markers, destinations, and map kiosks at trailheads. With the help of the Town of Highland serving as the fiduciary agent, these 10 entities, together with the South Shore Convention and Visitors Authority, combined on a federal grant representing one of the largest governmental collaborations on a single infrastructure project in the history of NWI.

Through municipalities, agencies and INDOT working together to improve safety on the region's roadways, emergency responders will rapidly travel through intersections thanks to the installation of emergency vehicle preemption systems in South Lake County. Taking five years to implement, the communities of Merrillville, Hobart, Crown Point, Schererville, Highland, Dyer, Griffith, St. John, New Chicago and Lake Station will install emergency signals to increase the safety of emergency responders and motorists at intersections and roadways. The emergency vehicle preemption technology allows vehicles, such as firefighters, police officers, and EMT units to disrupt the normal traffic light signal in order to proceed through an intersection quickly and safely. By collaborating together, NWI will incorporate some of the latest technology increasing safety on the region's roadways.

Environment

A number of efforts to improve NWI's environment have been successfully achieved through a united approach. Examples include the NWI Brownfield Coalition, Shirley Heinze Land Trust, Calumet Collaborative, establishment of the nation's 61st National Park, and the Marquette Plan. These efforts strive to build coalitions, both regional and across state lines, to advance environmental sustainability for the benefit of current and future generations.

In 2012, as a result of the 2040 Plan priority for reinvesting in urban core communities, the Northwest Indiana Regional Development Authority, NIRPC, and the cities of Gary, Hammond, and East Chicago formed a Brownfield Coalition with the goal of securing federal brownfield grant dollars. In 2013, the Coalition was successful in obtaining a $600,000 Brownfield Revolving Loan Fund (RLF) Grant for borrowing funds to clean up properties for reuse. These loans are intended to help "fill the cost gap" between new construction in undeveloped areas and revitalization of urban properties. Currently, these funds have remediated asbestos containing materials from the Ambassador Apartments in Gary, leading to its safe demolition. The location has been improved and now provides green infrastructure for the neighborhood.

Pending RLF projects include asbestos remediation for the City Methodist Ruin Garden in Gary, and a new senior housing project in East Chicago. In 2014, the NWI Brownfield Coalition received an $800,000 Brownfield Assessment Grant. This funding can be utilized for Phase I and II Environmental Assessments (where the latter represents the phase that determines if contamination warrants clean up), and can also be used for Clean Up Planning. The coalition was able to complete pre-Phase I Transaction Screening on over 600 parcels in the Miller neighborhood of Gary and 18 Phase I Assessments, of which two properties were determined to have no recognized environmental conditions. Phase II Assessments were completed, three of which have resulted in active private sector clean up or redevelopment projects. These include the Lost Marsh Estates, a new residential subdivision in Hammond near Calumet College, a new dialysis clinic under construction in East Chicago, and a third East Chicago site being remediated by the developer.

The Shirley Heinze Land Trust works to protect and restore ecologically significant natural areas in NWI. Since 1981, the Trust has acquired more than 1,100 acres of natural lands surrounding southern Lake Michigan for preservation. This includes 900 acres that it owns and manages, 100 acres held as conservation easements, and roughly 30 acres transferred to the National Park Service and the Indiana Department of Natural Resources.

The Calumet Collaborative represents a strong example of bi-state coordination, involving innovative partnerships between Indiana and Illinois communities, government, business and non-profit stakeholders unified to advance a thriving Calumet region. Their vision aims to advance a thriving Calumet region through transformative sustainable development by fostering a stronger collaboration across multiple agencies and organizations to leverage resources, establish and promote a shared identity, leverage unique sustainable development opportunities, and to empower communities and stakeholders through engagement

After nearly 103 years, the Indiana Dunes National Lakeshore officially became Indiana Dunes National Park, Indiana's first National Park. The effort was led by U.S. Rep. Pete Visclosky with the support of U.S. Senators, the entire Indiana congressional delegation, and numerous Northwest Indiana organizations. The redesignation was signed by President Donald Trump in 2019, and created America's 61st National Park. The first director of the National Park Service, Stephen Mather, recommended in 1916 that the Dunes become a national park due to its unique biological diversity and geological features. Those efforts, while widely supported, were derailed by the start of World War I. A much-deserved recognition, the Indiana Dunes National Park will be a significant boom to Indiana's economic development, especially tourism, as well as a benefit to the Great Lakes region and beyond.

The *Marquette Plan* illustrates a compelling long-term, united vision to guide future decision making encompassing the Lake Michigan shoreline. This comprehensive vision intends to create a lasting legacy that examines each community individually and collectively, addressing both community-specific needs and broader regional objectives. The plan is action-oriented and focuses on achieving tangible quality of life improvements for the residents of NWI. While the first three iterations of the Marquette Plan highlighted individual and collective efforts to advance the goal of a livable and accessible lakefront, the *Marquette Action Plan (MAP)* aims to build on those plans by identifying specific steps to make the lakefront more accessible. The MAP identifies land that may feasibly transform into new publicly-accessible areas for conservation, recreation, amenities, and livable communities. The plan defines different categories of access across the lakefront and identifies a means for accommodating those different uses on a region-wide level.

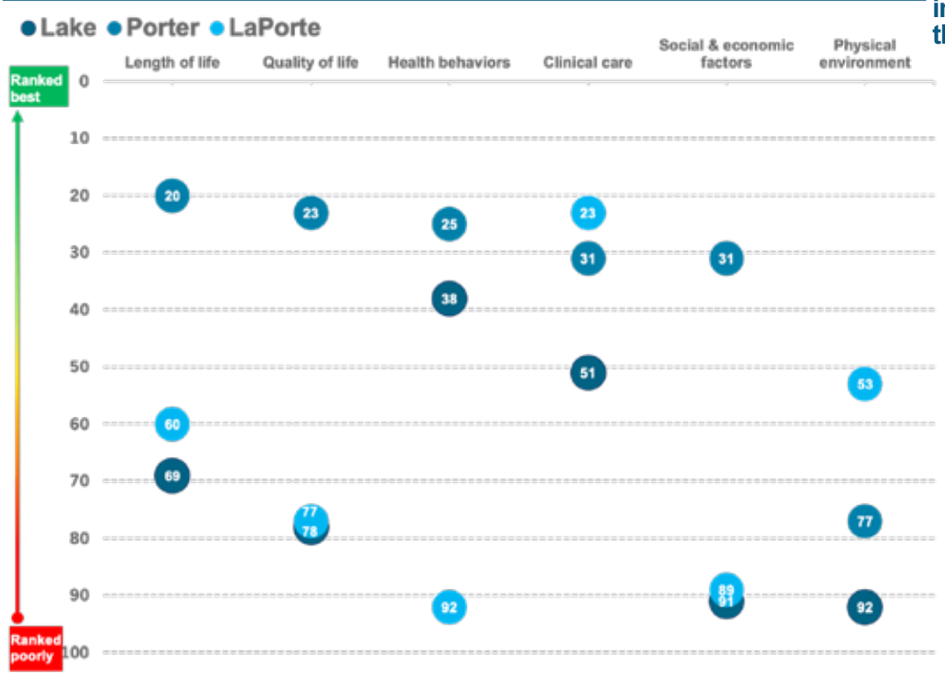
People and Leaders

Opportunities differ across the region based on where someone might live or where they might be, affecting issues such as quality of life, public health, and socio-economic outcomes. In order to promote and gauge progress, health indicators should be measured along with conducting a robust Environmental Justice analysis (defined and described below).

Health equity remains an important indicator in understanding a united region. According to the Indiana County Health Rankings and Roadmaps, Lake and LaPorte Counties rank low or poorly compared to other counties across the state for overall health, while Porter County ranks among the highest counties in the state. The chart below illustrates the region's ranking out of the 92 counties in Indiana, with 1st being the best-ranked and 92nd ranked last. Understanding these factors and their root causes can help unite the region. Inactive lifestyles contribute to rising obesity rates, with much of this attributed to physical inactivity. Where multi-use trails and sidewalks are present, people tend to use them frequently. This in turn increases one's physical fitness, and better health may reduce ailments and thus fewer medical bills.

NWI Health Rankings vs Other Indiana Counties

There are mixed health indicators in the Region.



Lake Michigan Public Access

The goal to provide public access to 75% of Lake Michigan is within reach.

Current Access Locations

1. Hammond Lakefront Park and Marina
2. Whihala Beach
3. Whiting Lakefront Park
4. Jeorse Park
5. Miller Woods (IDNL)
6. Marquette Park
7. Miller Beach
8. West Beach (IDNL)
9. Ogden Dunes
10. Portage Lakefront Park and Riverwalk (IDNL)
11. Port of Indiana Boat Launch
12. Cowles Bog (IDNL)
13. Dune Acres (IDNL)
14. Porter Beach (IDNL)
15. Indiana Dunes State Park
16. Kemil Beach (IDNL)
17. Lakeview Beach (IDNL)
18. Beverly Shores (IDNL)
19. Central Avenue Beach (IDNL)
20. Mount Baldy (IDNL)
21. Washington Park
22. Long Beach

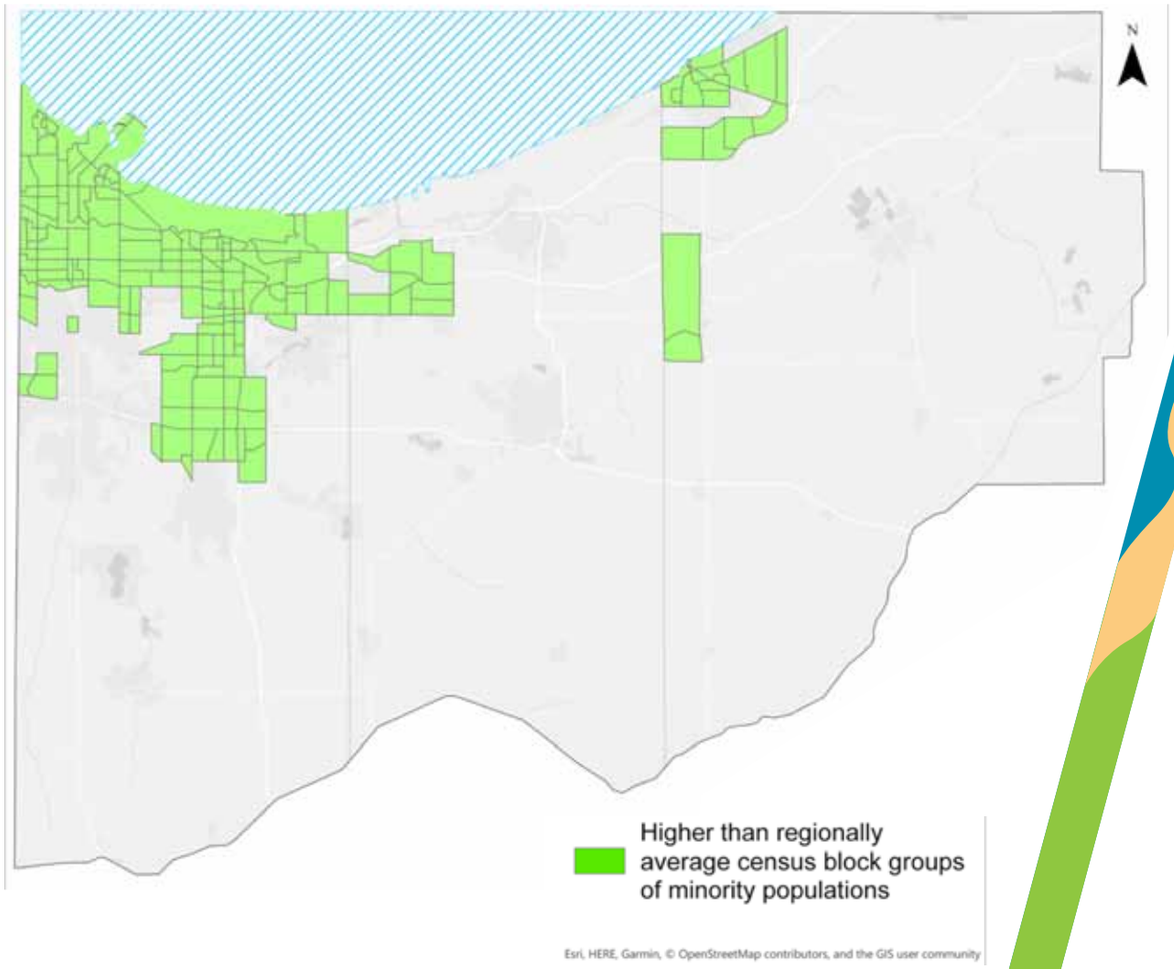
- **Accessible** – *for public use and needs further investigation through private public partnerships.*
- **Inaccessible** – *an area that is not currently available for public use.*
- **Explored Opportunities** –*has a potential*

The U.S. Department of Transportation identifies three fundamental principles of Environmental Justice in transportation planning from the 1994 Executive Order. The principles are to avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations; to ensure the full and fair participation by all potentially affected communities in the transportation decision-making process; and to prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations. NWI strives to follow these principles by ensuring that minority and low-income populations are included in the transportation planning process while also ensuring that they may benefit equally from the transportation system without experiencing a disproportionate share of its burdens. This was in part accomplished by considering Environmental Justice in the scoring and prioritization of projects for funding -- the strongest tool available to an MPO in Indiana.

During the development of the *NWI 2050 Plan* and the 2020-2024 Transportation Improvement Program, an analysis was conducted to understand neighborhoods that include minority, low-income, and low-English proficient residents above the regional average, as well as concentrations in zero-car households, individuals with disabilities, residents over 65, veterans, and households with low or no data access. Understanding this information can guide better decision-making ensuring that all populations are considered in regional decision making.

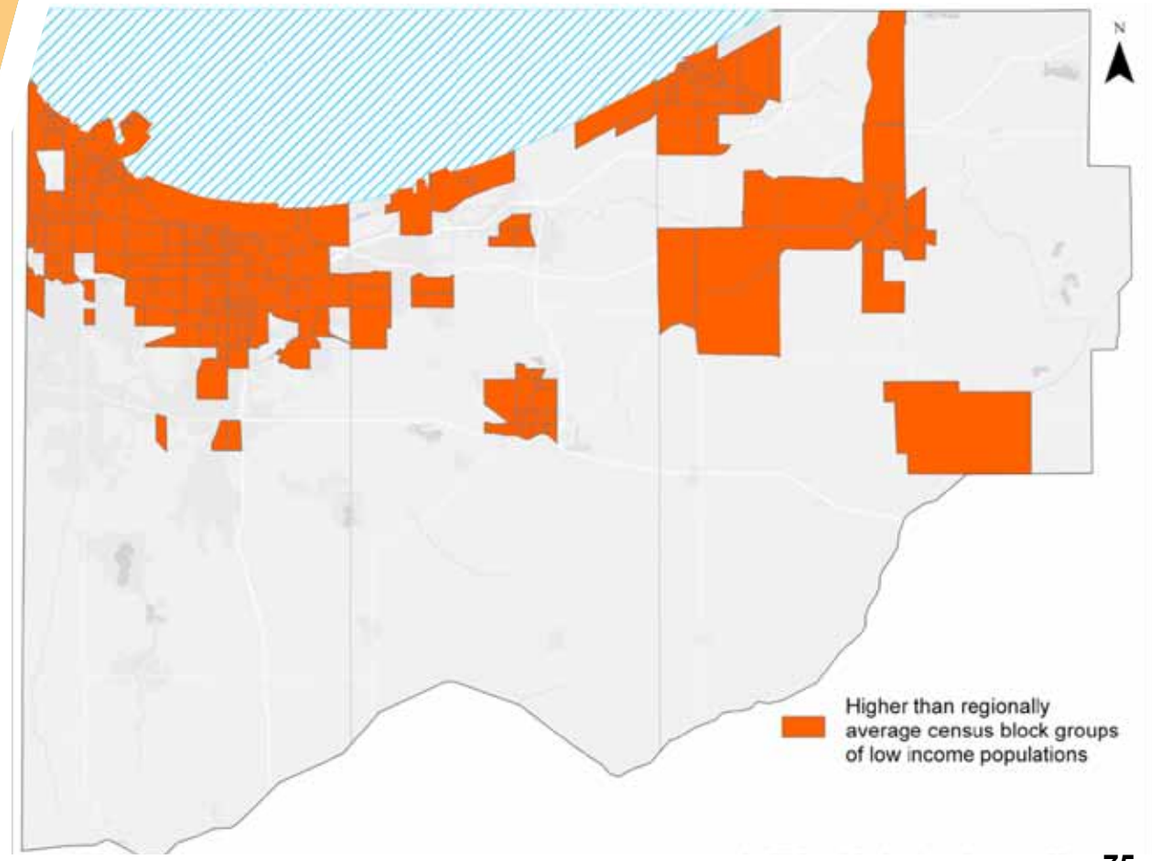
Communitites in NWI to Emphasize Planning

Areas with higher than regionally average populations with individuals who are minorities.



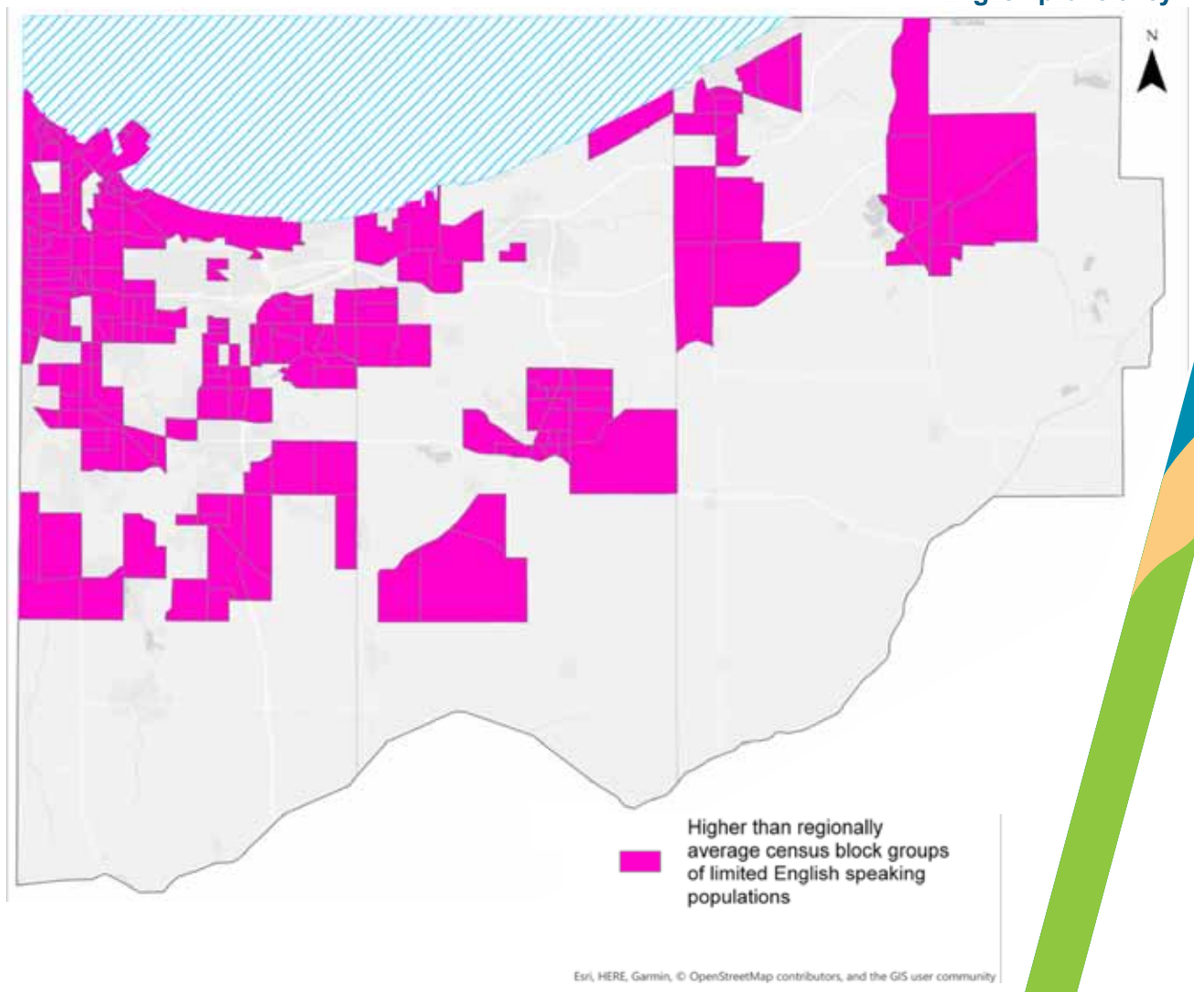
Communities in NWI to Emphasize in Planning

Areas with higher than regionally average populations with individuals who are lower income.



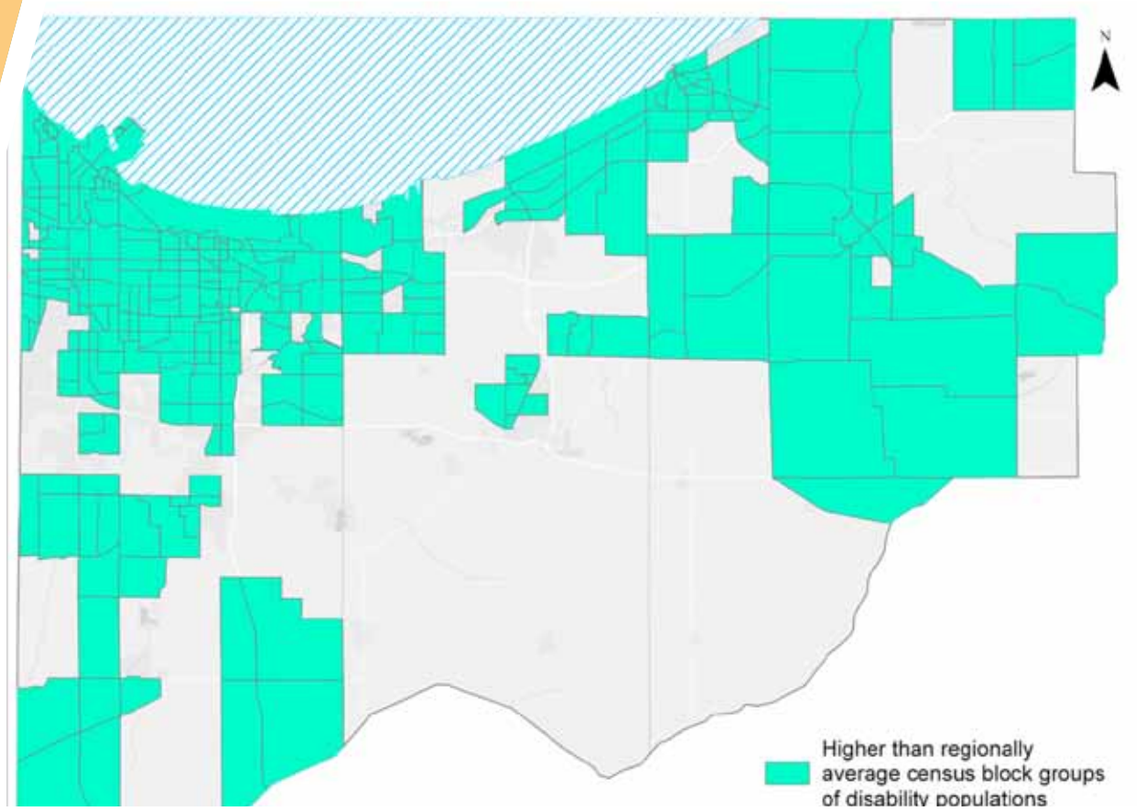
Communitites in NWI to Emphasize Planning

Areas with higher than regionally average populations of limited-English proficiency.



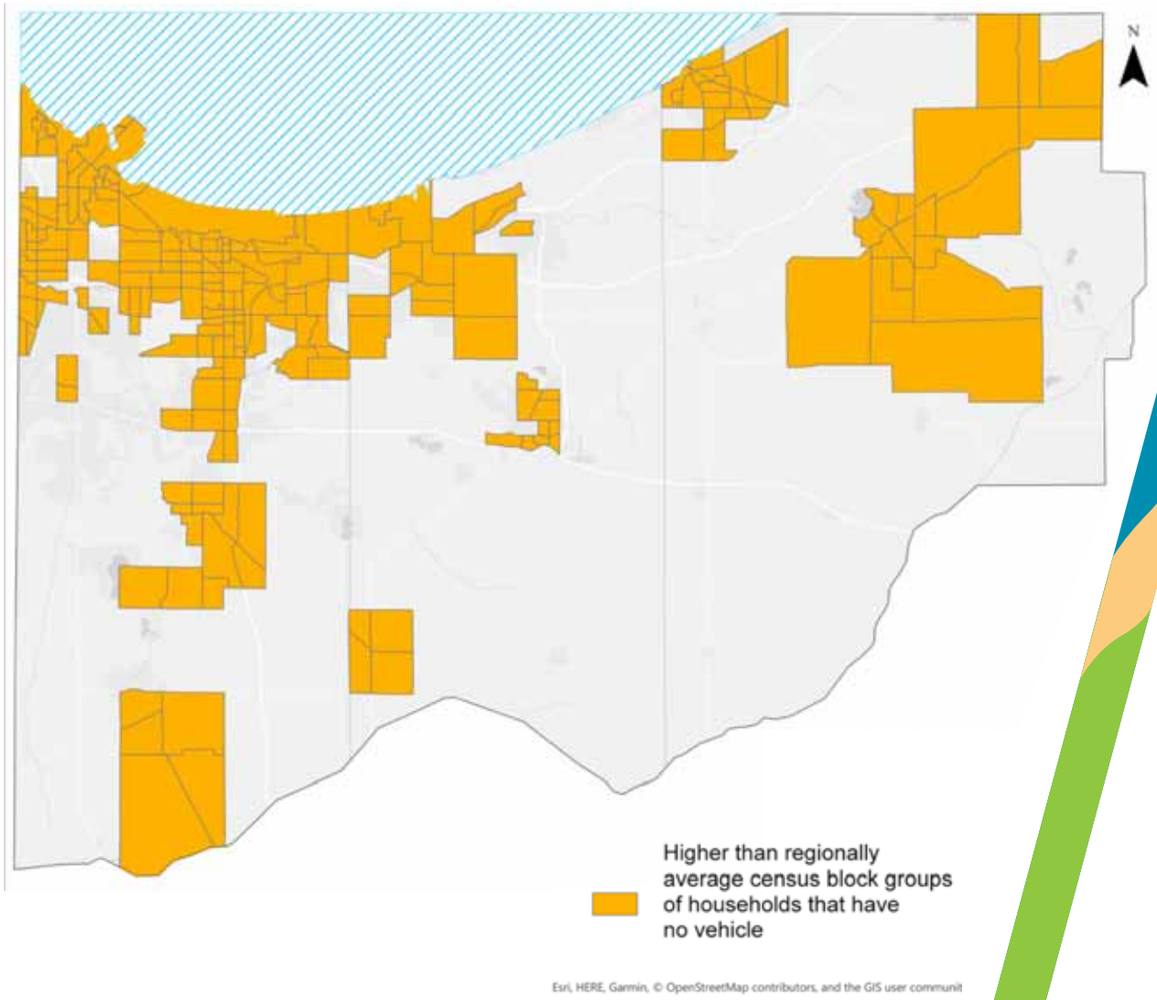
Communities in NWI to Emphasize in Planning

Areas with higher than regionally average populations of individuals with disabilities.



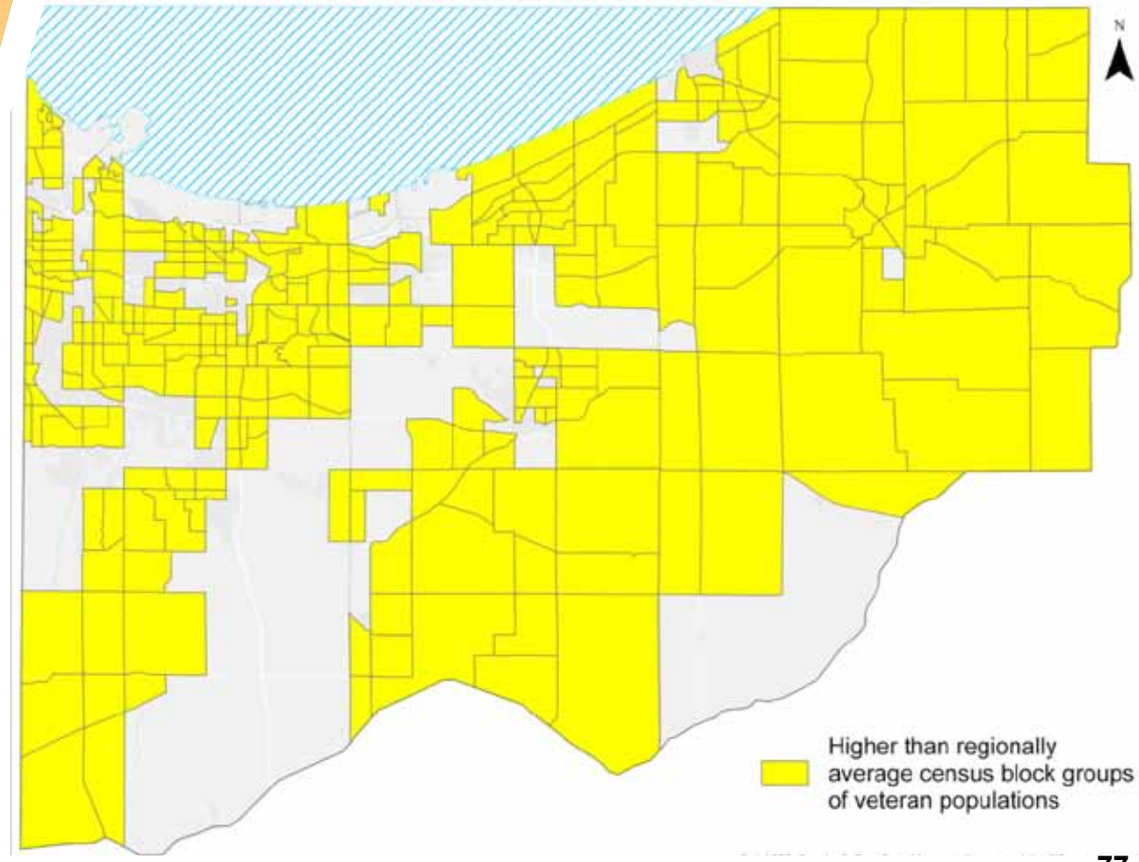
Communitites in NWI to Emphasize Planning

Areas with higher than regionally average populations with individuals who are minorities.



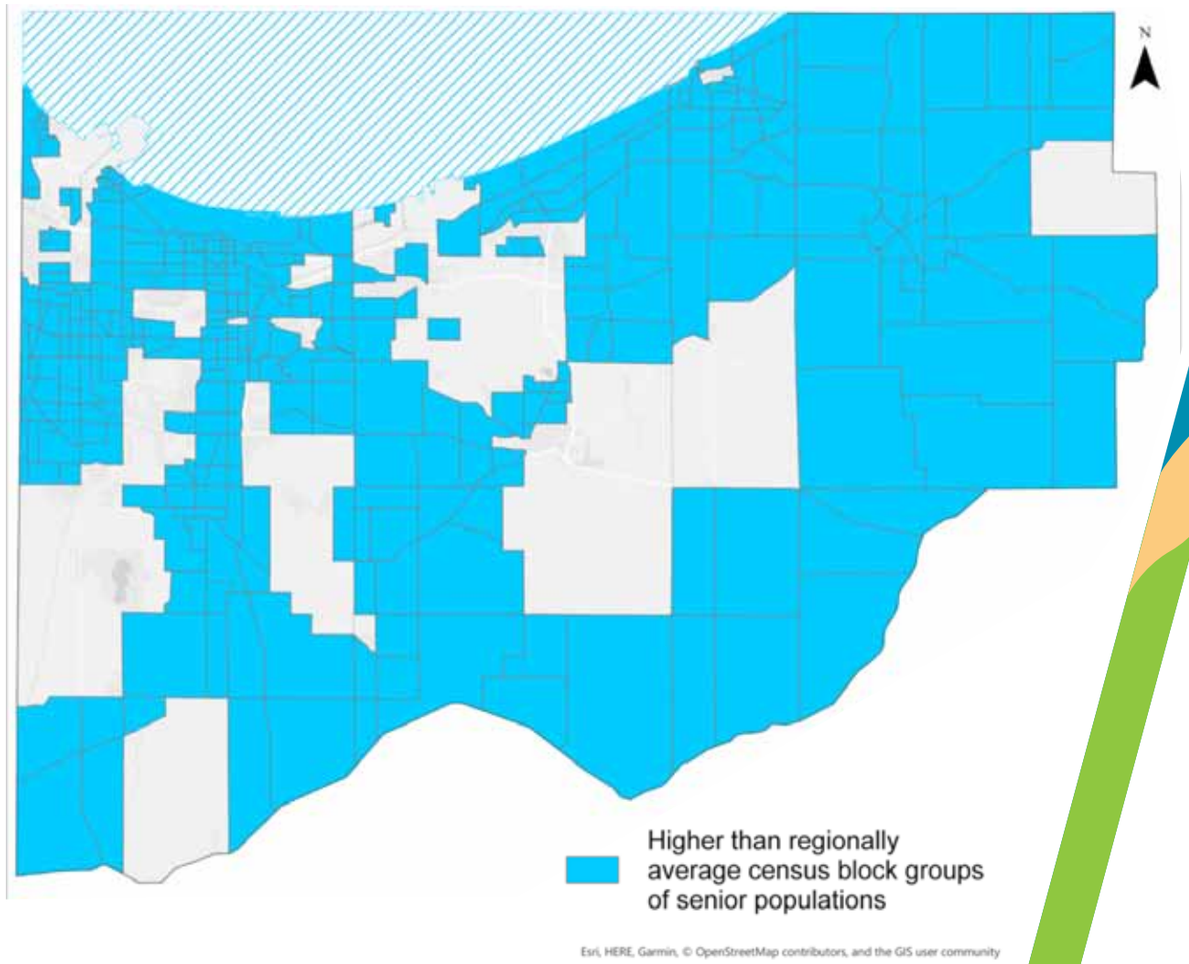
Communities in NWI to Emphasize in Planning

Areas with higher than regionally average populations who are veterans.



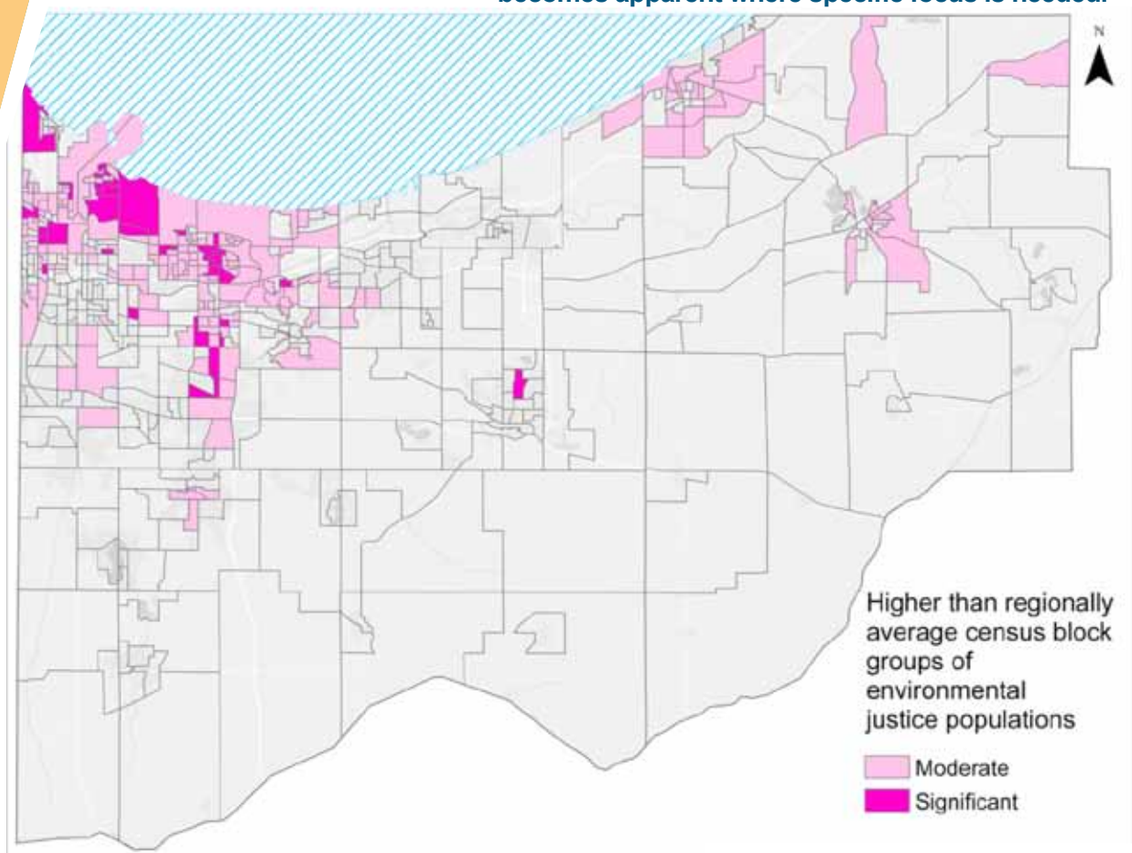
Communitites in NWI to Emphasize Planning

Areas with higher than regionally average populations with individuals who are 65+



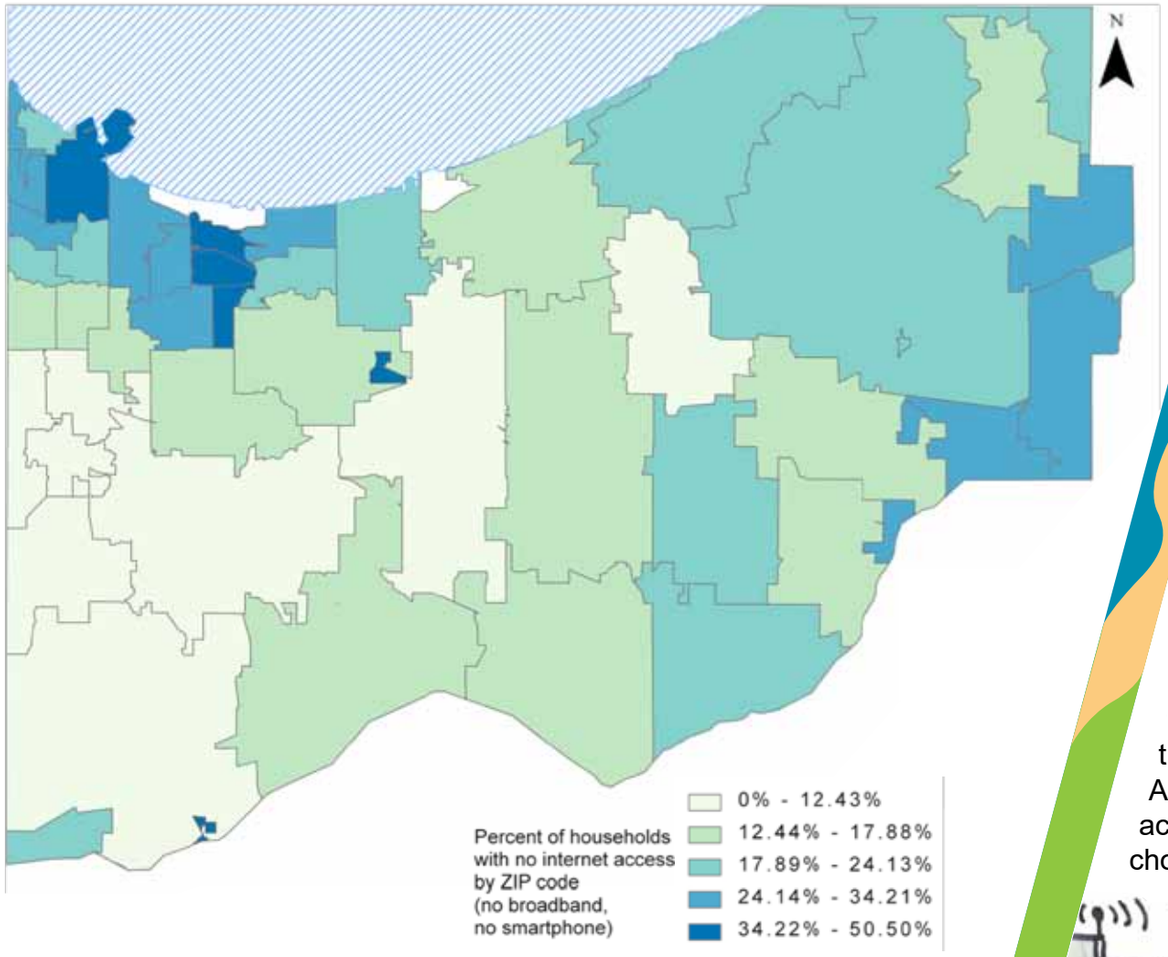
Communities in NWI to Emphasize in Planning

When all communities are factored into a single anaylsis, it becomes apparent where specific focus is needed.



Communitites in NWI to Emphasize Planning

Areas with low or no data access.



While NWI has witnessed recent successes from united approaches, the region faces many challenges in uniting for improved health outcomes, for growth in average personal income and for increased diversity, in considering an aging population and those who do not have access to a vehicle, and in providing greater access for people with disabilities. Promoting a regional data and analysis framework will provide valuable information as a foundation to foster better communication, engage all residents, and collaborate on achieving a united NWI.

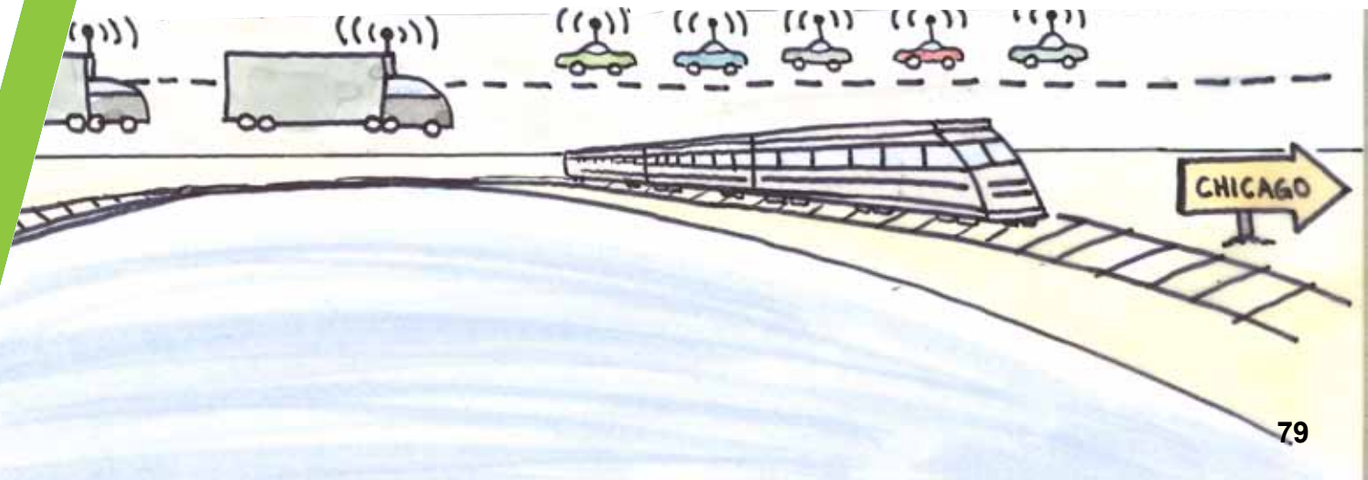
Future Scenarios and a United NWI

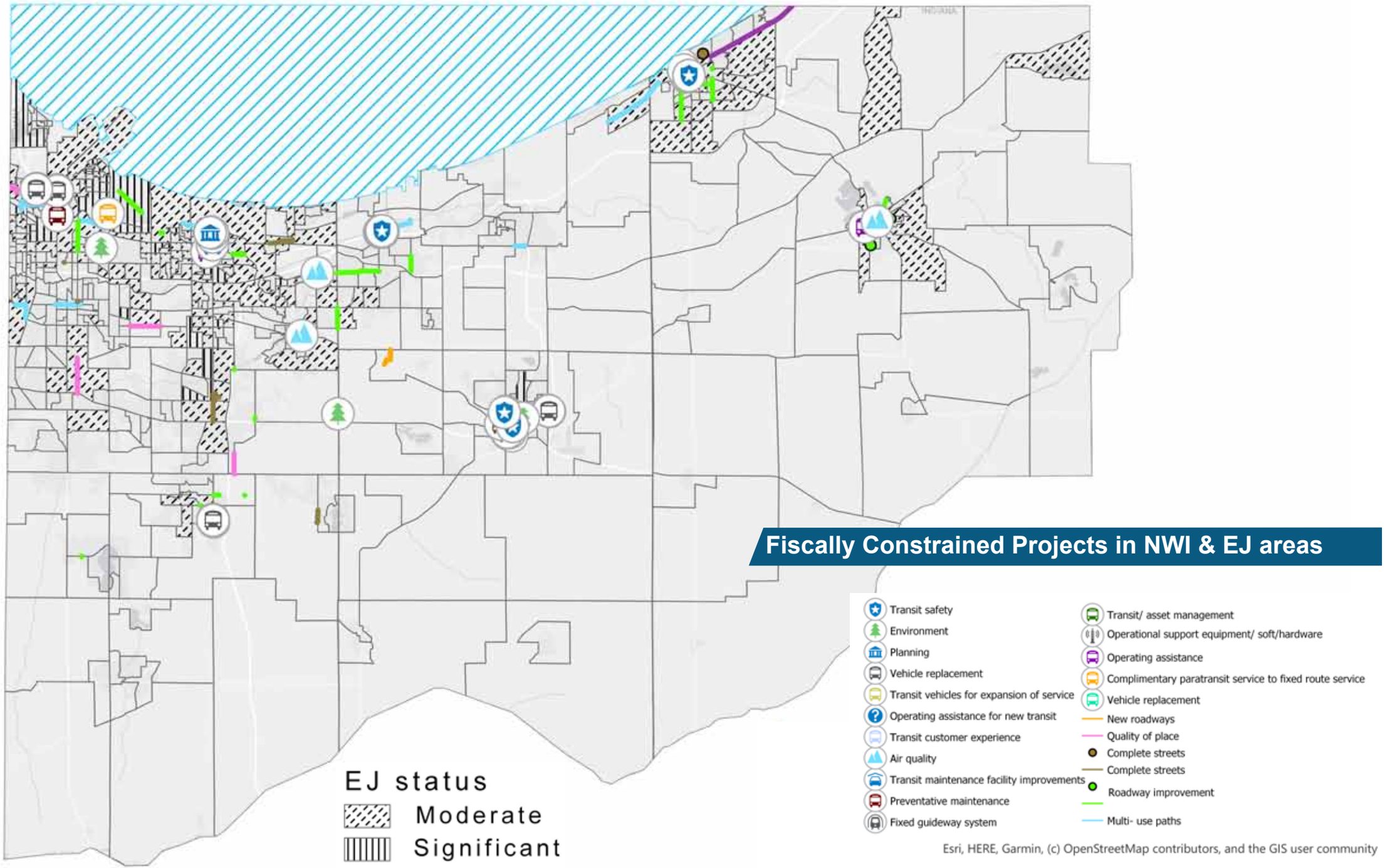
What might a connected NWI be in 2050? Presented below are a further description of the three plausible futures described previously.

New Chances for a New Frontier

Opportunities for regional collaboration excel in the New Chances for a New Frontier scenario. Technology makes it easier than ever to collaborate region-wide. Telecommuting and video conferencing become commonplace. Regional leaders have meetings within the digital sphere, where all decisions are instantly shared with the public. Meetings at the regional and local level make use of advancements in technology to encourage the public to participate from their homes. Individuals with limited income enjoy access to software that allows them to actively participate. New technology makes decision-making more accessible than ever, with Artificial Intelligence (AI)-equipped features creating accurate, readable, and live transcripts of online meetings. People with disabilities have countless transportation opportunities to access public meetings, with many options available to participate at home.

Region-wide coalitions meet without having to be in the same room. These groups work to advance the ongoing work in restoring NWI's natural areas, and to advance transformative investments. Groundwork begins for a NWI branch into the greater North American Hyperloop system. From the new Millennium Station in Hammond, a user can access a high-speed South Shore train to Chicago or South Bend, and will be afforded the choice to use a Hyperloop connecting them to nationwide cities at unprecedented speeds.

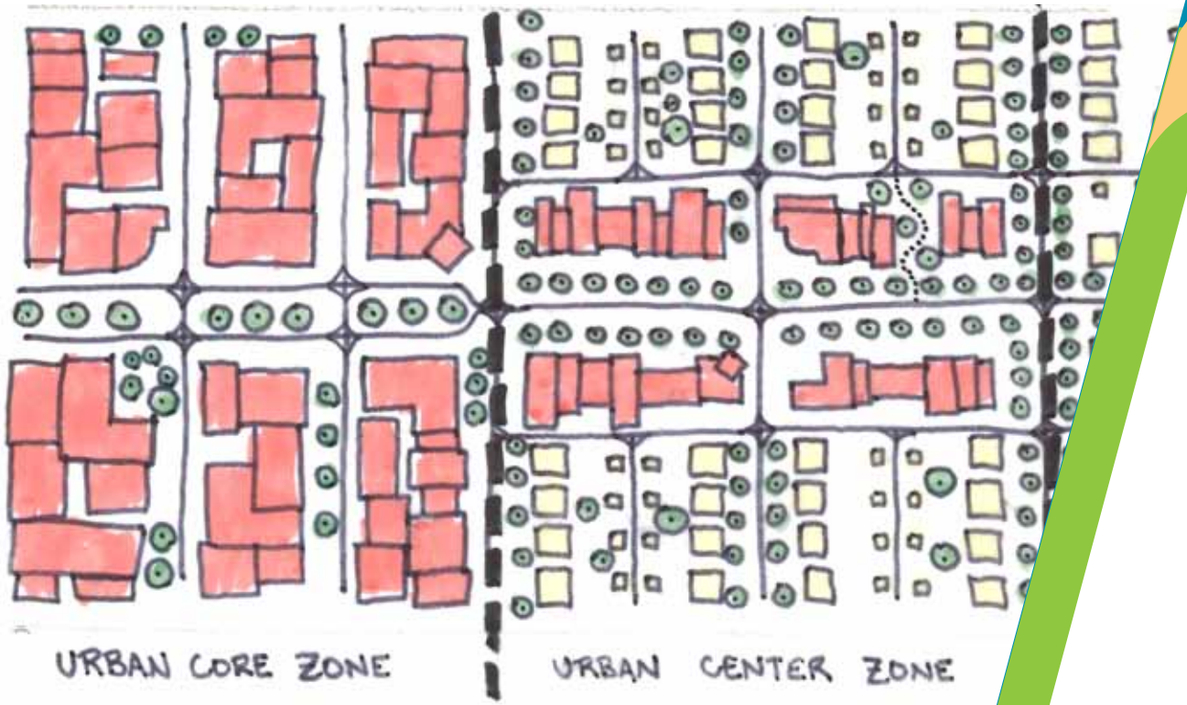



Fiscally Constrained Projects in NWI & EJ areas
EJ status
Moderate
Significant
Transit safety
Environment
Planning
Vehicle replacement
Transit vehicles for expansion of service
Operating assistance for new transit
Transit customer experience
Air quality
Transit maintenance facility improvements
Preventative maintenance
Fixed guideway system
Transit/ asset management
Operational support equipment/ soft/hardware
Operating assistance
Complimentary paratransit service to fixed route service
Vehicle replacement
New roadways
Quality of place
Complete streets
Complete streets
Roadway improvement
Multi- use paths
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

Sharp and in Focus

Advancements in telecommuting are emerging in this scenario. While digital communication enhancements may not be as commonplace as with the New Chances for a New Frontier scenario, there exists opportunities for regional leaders to digitally collaborate. Region leaders and residents use digital media tools to advance the ongoing priorities of the Sharp and in Focus scenario regarding environmental preservation, controlled urbanized growth, and robust communication between racial, cultural, and socioeconomic lines.

In this scenario, growth is controlled and the environment protected due to region-wide coalitions. Connections between communities improve as region leaders and residents unite to develop long-range transformative projects. NWI may not have a high-speed train, but the region overwhelmingly supports extensions of the South Shore Line branching down from the lakeshore. Stops along the South Shore spark transit-oriented development, with dense mixed-use buildings, parks, sidewalks, trails and bike lanes. Transit providers connect smaller communities to regional hubs through the use of bus rapid transit, and there is a well-funded demand-response and paratransit system.



Stay in Your Lane

In this scenario, the stark lines across racial, cultural, and socioeconomic backgrounds still exist and divide the region. Sluggish growth and an aging workforce limit the regional economic capacity to pursue transformative investments. These investments are still possible, however their implementation remains challenging, as regional leaders are forced to identify untapped funding sources and drum up participation in regional coalitions. By 2050, transformative region-wide investments like the South Shore Line's Double Track and West Lake extension are completed. Other branches off the main line of the South Shore are being considered, but progress stagnates.

Critical Paths to a United NWI

What are the paths to a United NWI?

United

NWI's diversity is celebrated, and we work together as a community across racial, ethnic, political and cultural lines for the mutual benefit of the region.

Economy and place

Collaborate regionally to welcome a diversity of people and talent to achieve mixed and balanced growth.

Environment

Build region-wide coalitions to advance environmental sustainability for the benefit of future generations.

Mobility

Prioritize transformative investments to elevate the position of the Region and to attract a diversity of residents and high-quality economic opportunities.

People and leaders

Foster better communications, cooperation and coordination to bring people together across the lines that divide us.

A Vibrant NWI

NWI's economy is thriving, our people are well educated, growth is planned, and natural and agricultural areas are valued and protected.

The vision for A Vibrant NWI can be seen in many ways as the culmination of achieving a connected, renewed, and united NWI. A Vibrant NWI stems from the linkages shared between strategic transportation investments, quality economic development, a healthy and sustainable environment, human capital investments with shared outcomes, and smart land uses. This includes protecting valuable farmland and agricultural areas, encouraging growth in the region's main centers, diversifying the economy, and expanding access to knowledge and educational opportunities, enhancing the quality of life across the region.

How "A Vibrant NWI" Evolved:

NWI's 2040 Plan's green infrastructure approach focused on the protection and enhancement of water bodies, wetlands, floodplains, groundwater protection areas, high-quality forest, prime agricultural land and areas of biodiversity and wildlife habitat. This approach continues to be an even more important focus for the future of NWI. A Vibrant Region will stabilize the core communities, including investments in transportation, housing, employment opportunities, and civic facilities and amenities, that will enhance the quality of life for region residents.

Why is "A Vibrant NWI" Important?

A Vibrant NWI creates desirable places to live, work, and play. It adapts to technological change. It promotes active lifestyles, a healthy and sustainable environment, and creates an authentic character where people enjoy spending time in the region as they achieve prosperity. A vibrant region has good transit, affordable housing, and offers community services (schools, shopping, entertainment, etc.). It includes walkable neighborhoods, public art, green spaces, and other popular destinations.

Existing Conditions

Economy and Place

The Northwest Indiana Forum represents the chief economic development organization for NWI. Their vision increases the "broad-based wealth" in NWI and contributes to the overall strength of the NWI economy, ensuring its long-term vibrancy. In 2017, the NWI Forum spearheaded the Ignite the Region economic development plan. While the area served by the NWI Forum includes Newton, Jasper, Pulaski, and Stark Counties in addition to Lake, Porter, and LaPorte Counties, the findings are relevant to achieving the vision of NWI 2050. The Ignite the Region report indicates that while NWI has many assets driving the regional economy, the region has stagnated in the last two to three decades. Demographically, while the State of Indiana and the Chicagoland region have gained population, the region continues to decline. In terms of wealth, NWI remains on par with the state, but below the Chicagoland area.

As parts of NWI thrive, some communities have continued to struggle. The Economic Innovation Group (EIG) represents a public policy organization raising awareness about the United States' economic challenges. EIG released a powerful visualization tool to illustrate economic vitality over time. The Distressed Communities Index shows that between 2007 and 2016, the most prosperous communities in NWI were merely able to sustain their position, while very few improved their condition. NWI places such as Crown Point, Dyer, Munster, Schererville, Valparaiso, and Chesterton were able to maintain their prosperity. Others like the City of La Porte saw an increase in prosperity with improvements on most economic indicators.

Communities that struggled in 2007 mostly grew worse or languished in distress over time. Dense and urbanized northern Lake County experienced hard economic burdens. These communities averaged a poverty rate between 20%-50%. One area in Gary was flagged as the most distressed zip code in the state, with a poverty rate growing from 46.9% to 49.7%. While portions of NWI are vibrant, all communities do not share in this vibrancy. Additionally, many areas in NWI offer a sense of place – a unique identity attracting growth -- but the region as a whole continues to lack a positive and unified identity.

In spite of challenges the region faces, residents and leaders have collaborated to provide direct economic assistance to struggling and prosperous communities alike. For instance, lakefront communities like Gary are leveraging transformative investments like NICTD's Double Track project to advance neighborhood improvements that will make Miller more vibrant. The Gary Lakefront District Plan represents a huge step forward for the city. This plan realigns and closes highways that limit pedestrian connectivity, and utilizes first-mile and last-mile connections to link the Miller South Shore Line station to existing businesses and to emerging transit-oriented development.

Developments that layer density and provide mixed use properties near major transit centers remain essential to the redevelopment of NWI's urban core. The future residents on Lake Street will have immediate pedestrian access to Lake Street businesses, the lakefront, and regional transit. Gary continues to make strides in attracting and retaining industry and is proposing to move the Majestic Star casino from Buffington Harbor to a land-based location, while using the former casino site to develop a large intermodal transportation and warehousing hub.

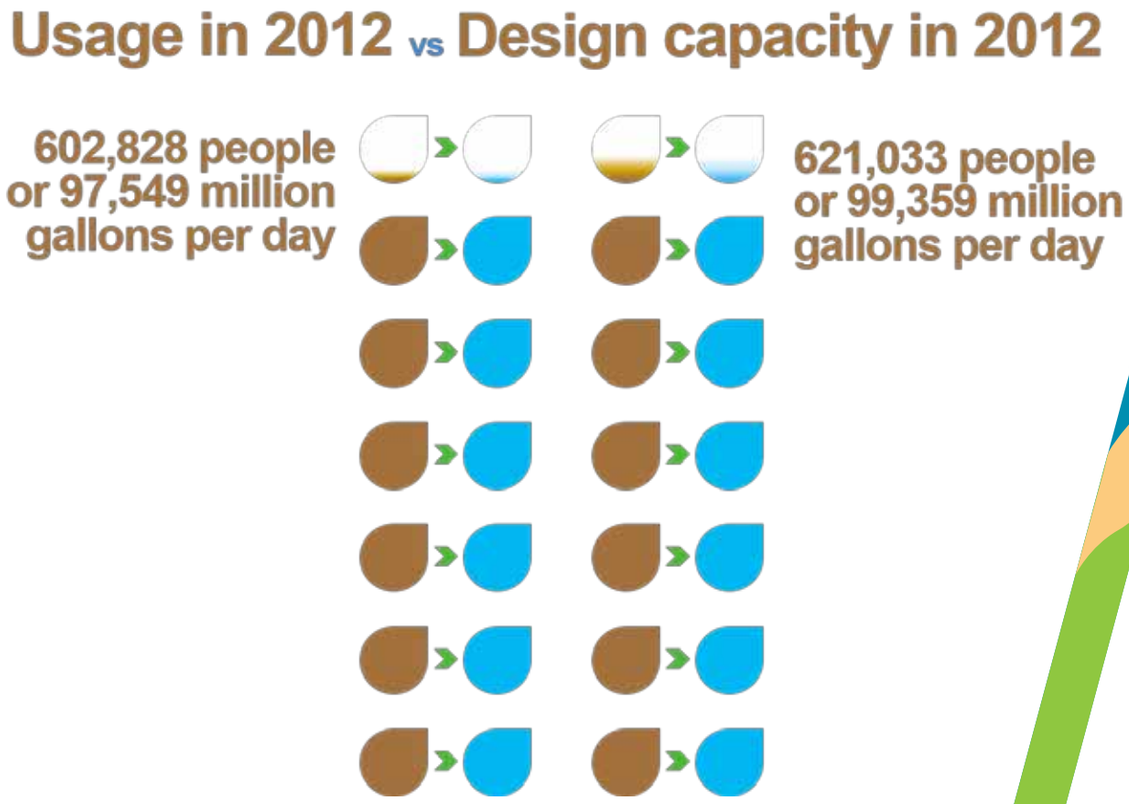
Communities along the West Lake Corridor are in the process of leveraging major municipal improvements by attracting development near future transit stations. Hammond has proposed a major overhaul of their Gateway Station to allow for improved parking, pedestrian access, and space for dense housing and mixed-use retail. Similarly, East Chicago is pouring significant resources into its lakefront. Improvements to Jeorse Park were made possible with investments from the NWI Regional Development Authority (RDA). The resulting project will develop in multiple phases adding recreational amenities and landscaping improvements.

Environment

The 2012 EPA Clean Watershed Needs Survey (CWNS) reported 23 publicly owned wastewater facilities in NWI, or two more than reported in the 2008 survey. Combined, these facilities served 602,828 people in 2012, or about 78% of NWI's population, and treated 97,549 millions of gallons per day of domestic, commercial, and industrial wastewater. The facilities were designed for and contain a total design capacity to serve a population of 621,033 and 99,359 millions of gallons per day. This represents capacity for only an additional 18,205 residents. Some of this capacity may exist in older communities with declining populations. A thorough analysis has not been undertaken to identify the location of design capacity compared to projected population growth. Complicating this is the fact that the EPA reports on a four year data lag. Major sewage treatment plants in NWI were designed with several times more of their actual domestic and industrial flows to accommodate economic growth. Additionally, some major industries have greatly reduced their flows to these plants.

Capacity to Clean Water in NWI

Where does all that dirty water go? Can we grow and handle more dirty water to clean? Maybe not.....?!

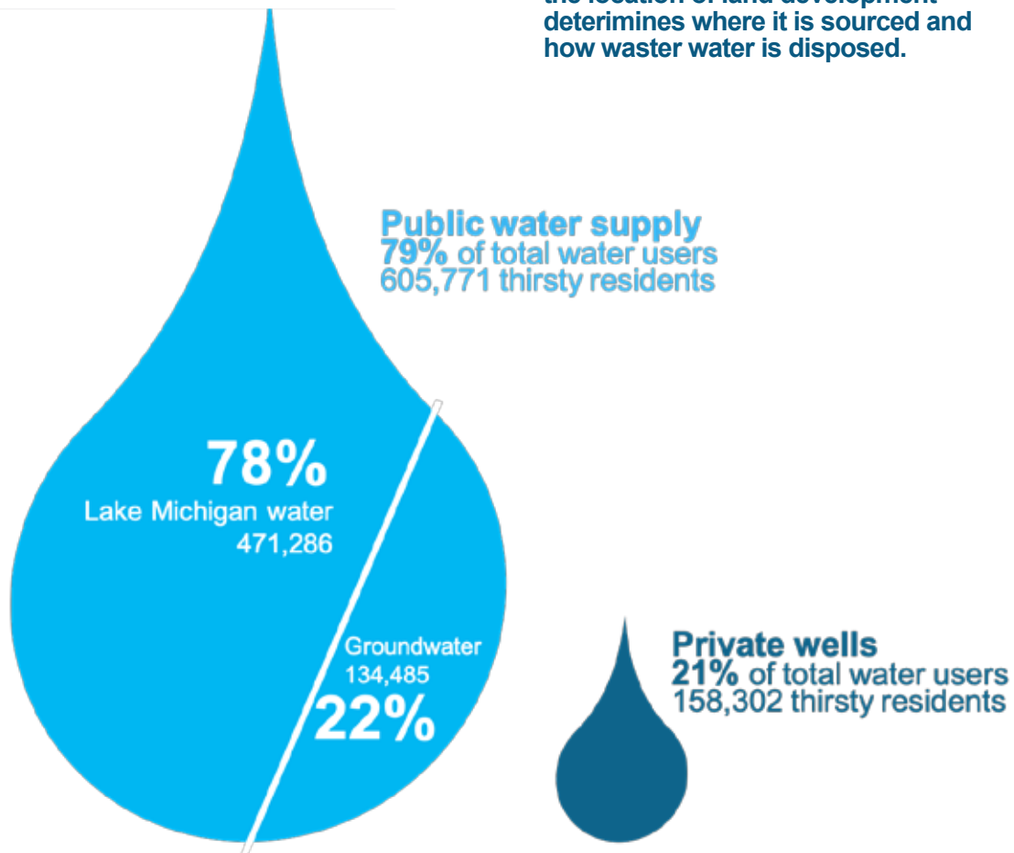


The EPA Clean Watershed Needs Survey includes estimates of infrastructure investment, including wastewater treatment, infiltration and inflow correction, sewer replacement and rehabilitation, new collectors and interceptors, combined-sewer overflow correction and many other categories not reported in the region. The 2012 survey reports a total investment deficit in these regional facilities of over $500 million.

Land cover and land use within a watershed can have a profound impact on both water quality and habitat. Natural land cover types such as forest, wetland, and grassland help protect water quality and aquatic habitats by filtering pollutants from runoff, maintaining hydrologic functions, and supporting fish and wildlife needs. Alteration of natural land cover for human use almost inevitably leads to increased runoff, which carries associated pollutants to nearby water bodies. Approximately 20% of NWI's land cover is classified as "developed," of which 10% represents impervious cover such as roads, parking lots and rooftops. Most stream quality indicators decline when watershed impervious cover exceeds 10%, with severe degradation expected beyond 25% cover.

Drinking Water Supply in NWI

How do you quench your thrist? Water supply is important because the location of land development deterimines where it is sourced and how waster water is disposed.



NWI's air represents one of the most frequently and consistently monitored environmental quality factors in Indiana. There are typically three different types of pollutants which receive public concern:

1. National Ambient Air Quality Standard (NAAQS) pollutants (ozone, particulate matter, carbon monoxide, lead, sulfur dioxide, and nitrogen dioxide)
2. Air toxics
3. Greenhouse gases

NAAQS generally refer to a handful of pollutants that are widely emitted by different sources from human activities and are known to cause health problems. NAAQS have been regulated since the 1970s by the Environmental Protection Agency (EPA), and geographic areas have been determined to be either in attainment or nonattainment depending on standards being met over time periods relevant to acute or chronic health impacts. Geographic areas that are designated with the "nonattainment" moniker are areas outside the healthy threshold level for harmful pollutants. Areas that are designated as "attainment" are considered to be within this threshold level for a particular pollutant. An area may be in attainment for one pollutant, but in nonattainment for another.

Since the early days of the Clean Air Act in the 1970's, NWI's ambient air quality has improved dramatically. As recently as 2004, NWI carried four nonattainment designations. However, from 2007 to 2016 the region had only one nonattainment designation. Even this single nonattainment designation was not directly attributed to NWI pollution sources, but rather the pollution cited in the nonattainment designation originated with pollution from Chicago sources carrying over into NWI.

Clean Air in the Region

What is being monitored?
What progress has been made?

2004

Attainment
Lead, Nitrogen dioxide

Non-attainment
Ozone, Particulate matter, Sulfur dioxide, Carbon monoxide

2019

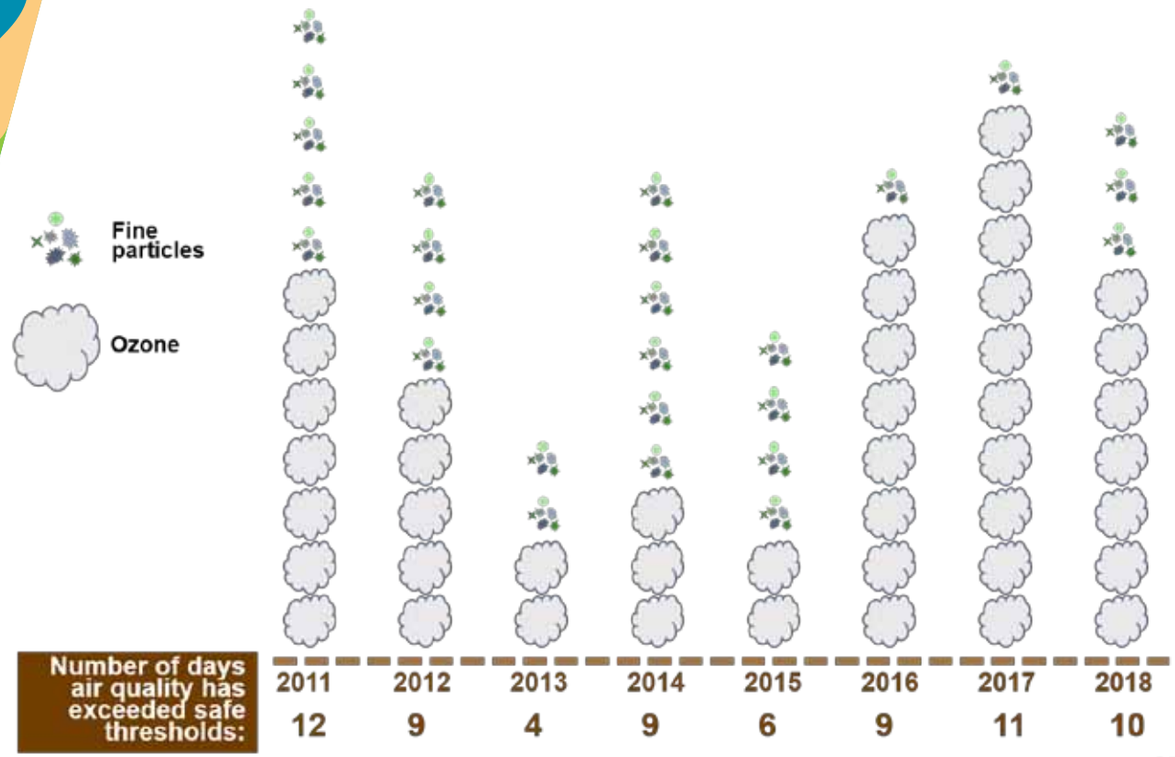
Attainment
Lead, Nitrogen dioxide, Particulate matter, Sulfur dioxide, Carbon monoxide

Non-attainment
Ozone

"Air quality exceedance days" represent another method the EPA uses to monitor air quality. This method measures the number of days a region's air quality exceeds thresholds established by the EPA as being safe. On air quality exceedance days, communities are encouraged to take precautions to remain healthy. Individuals with sensitive respiratory conditions are asked to stay indoors. Activities that can be harmful to air quality, such as burning leaves or operating lawn mowers, are requested to be postponed until air quality improves. The following chart indicates the total number of days NWI has exceeded air quality standards for ozone pollutants and fine particles (PM 2.5). Since 2011, NWI's number of air quality exceedance days has dipped on occasion, but overall it has remained mostly the same.

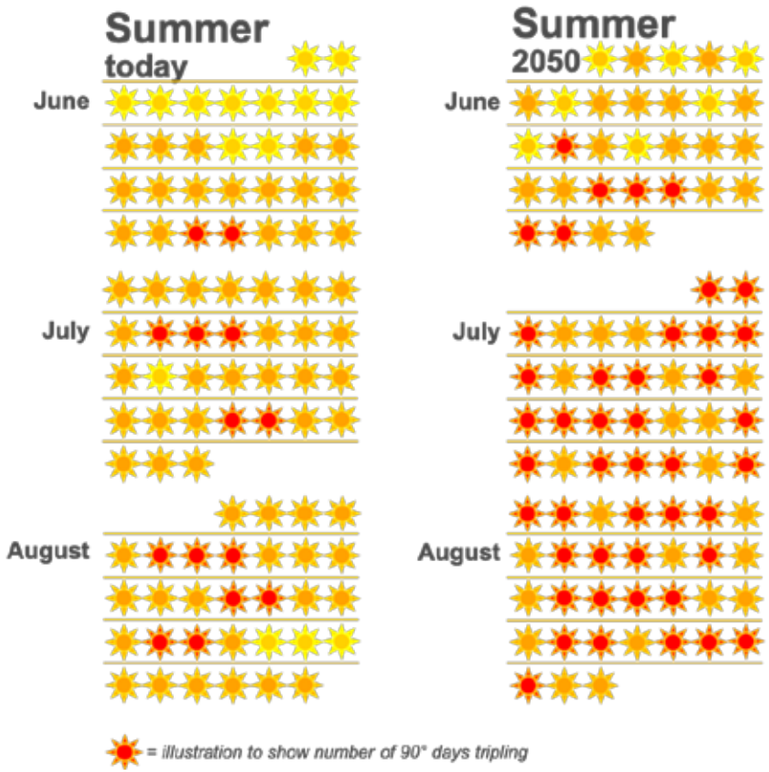
Days of Unsafe Air Quality

Our air quality standards are improving overall, but some days the amount of pollutants can still take your breath away.



Climate Change in NWI

What if annual temperatures rise as predicted? Get to a beach and cool off!



Currently summers in NWI experience about 14 days of 90° weather.

It is estimated that the number of days of 90° may triple to nearly half of a summer.

Impact on transportation?

- Greater risk to bridge and pavement joints
- Inhibit construction and maintenance activities
- Rail track and pavement buckling

NWI's industrial giants are leading the charge in mitigating climate impacts and preserving the environment. ArcelorMittal is a global leader in the steel industry, and ArcelorMittal employs nearly 10,000 NWI residents in four locations locally. Even though steel production remains an historically dirty and energy-intensive industry, leaders like ArcelorMittal utilize cutting edge technology to make the process clean and sustainable. In addition to transforming the steel industry, ArcelorMittal has invested $144 million of conservation and restoration investments into the Great Lakes since 2006.

The Northern Indiana Public Service Corporation (NIPSCO) has made similar strides. In October 2018, NIPSCO announced the "Your Energy, Your Future" initiative. This initiative represents an effort to move away from coal-burning energy production to renewable resources like wind and solar power. To this end, NIPSCO has committed to becoming entirely coal-free by 2028 by building three new wind farms based in Indiana and tied into NIPSCO's electric system serving almost 500,000 electric customers. Another industry mitigating climate impacts is Cargill's Hammond plant. Cargill has partnered with Living Lands and Waters and their MillionTrees Project by providing a tree giveaway to companies, businesses and organizations throughout the Region to help further the mission to protect, preserve and restore the natural environment.

Other major strides in preserving the vibrancy of the NWI environment include the February 2019 announcement of the Indiana Dunes National Lakeshore being upgraded to the nation's newest National Park. While the most notable difference to the lakeshore is the name change, National Park recognition comes with an enhancement in perceived status, attracting more annual visitors to the lakeshore. Additionally, thanks to the identification of a National Park, the dunes are anticipated to receive an enhanced level of protection and conservation for years to come.

Climate Change and NWI

What if winters change more? Watch for ice and more potholes!

The freeze/thaw cycle damages roads and is a catalyst for potholes. Once upon a few years ago, the ground would freeze in the early winter, and thaw in the early spring. With increasing temperature fluctuations, the freeze/thaw cycle may happen multiple times per winter, causing rounds of potholes to be created all winter, not just in the early spring. As well, if winter temperatures increase, more icing may occur, rather than snow.

https://ops.fhwa.dot.gov/publications/fhwahop13030/fhwahop13030.pdf

Mobility

As described in A Connected NWI of this plan, the quality of life of NWI residents is directly linked to the freedom residents have to move in, out, and throughout the region. Region residents frequently travel back and forth between cities and counties for everyday needs, including work, recreation, dining, retail, and human services. The vibrancy and quality of life of the region is related to whether or not an individual has access to an automobile.

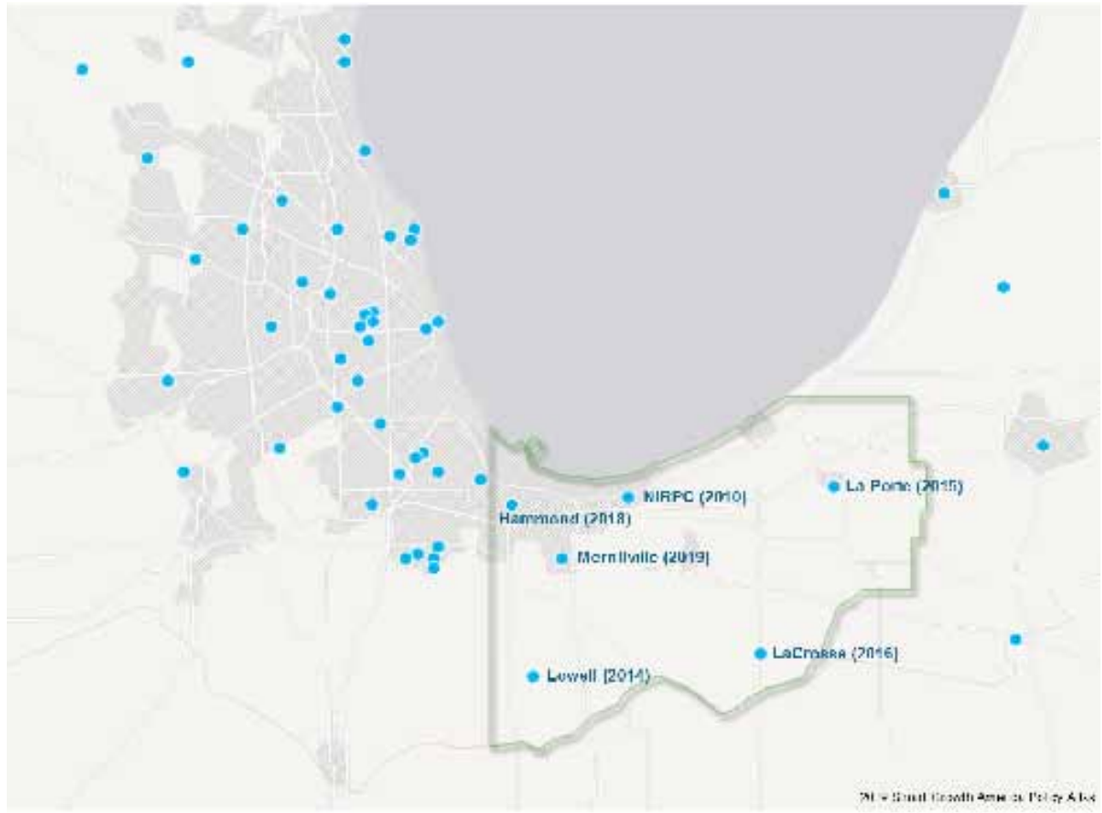
Individuals and families with access to a car are relatively unimpeded to employment and other region opportunities. However, individuals and families unable to drive -- whether because of a physical disability, age, or lack of income -- become disconnected from those same opportunities. While transit and pedestrian connections may exist as a matter of choice to most region residents as one of many options available to them, the ability of transit and pedestrian connections represent an essential lifeline for those without an automobile.

A “complete streets” policy is one method of enhancing the quality of life and mobility of a community. “Complete streets” is a transportation design concept where every street should be designed for all intended users of a road corridor, including pedestrians, bicyclists, transit riders, motorists, and even the movement of freight and goods. Communities with complete streets usually contain a myriad of design features, including bike lanes, bus lanes, sidewalks, accessible pedestrian signals, curb extensions and more. These pedestrian links make it easier for individuals to walk or bike to areas of opportunity.

Individuals with disabilities may not have another way to utilize a transportation corridor without accessibility features like pedestrian signals or curb cuts. However, in spite of the benefits of adopting a complete street policy, few NWI municipalities have adopted their own. While this does not mean a community undervalues accessibility or does not have other accessible features, it remains evidence of how slow progress can be in adopting contemporary transportation design standards that would dramatically enhance the lives of NWI residents.

Adopted Complete Street Policies in Chicagoland

Making sure all users of a street corridor are accomodated at the earliest stages of design.



As previously mentioned in A Connected NWI, transit may assist individuals without a vehicle to access areas of opportunity. However, the current transit network contains many limitations that narrow an individual's freedom, especially if the individual does not live on a fixed route bus line with corresponding complementary paratransit.

Advancements in mobility technology are underway that could allow greater accessibility in regions similar to NWI. Autonomous and connected vehicles could become common as consumer demand for driverless or semi-autonomous vehicles increases. The adoption of innovations in mobility technology, however, can be slow to take place. As indicated in A United NWI, Lake County communities' efforts to adopt a signal preemption system took approximately five years. The time it currently takes to implement technological advancements like this clearly indicates the challenges in implementing changing technology.

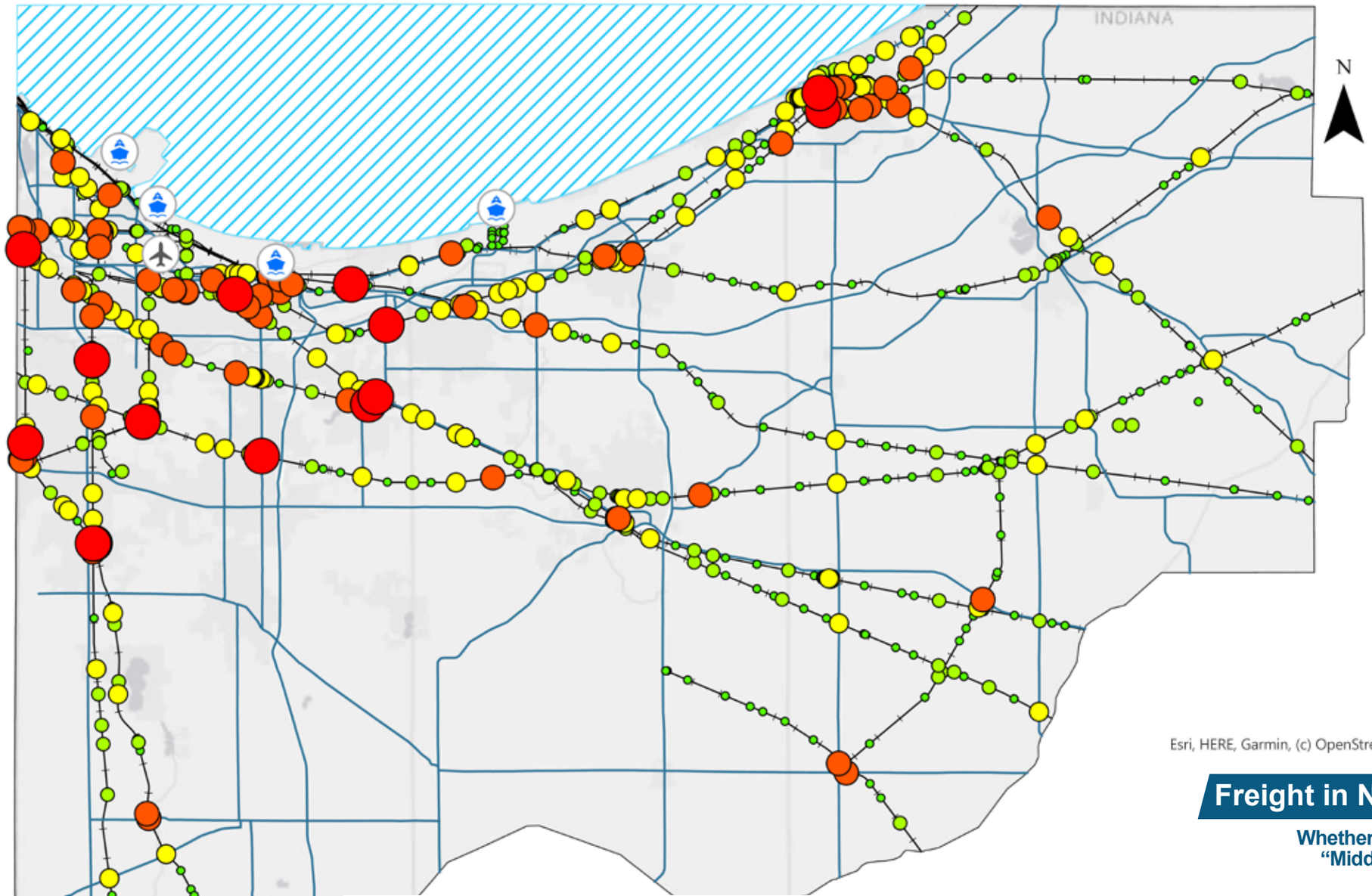
People and Leaders

In spite of the challenges facing NWI, a constant source of regional pride remains the commitment of individuals and leaders in the region to come together and solve problems. A recent example involves the response to the Indiana State Supreme Court overturning state legislation that allowed local municipalities to fine railroads when local streets were blocked for more than ten minutes. NWI has one of the densest concentrations of railroads in the country, and the lack of local policing power over railroad street blockages creates significant hazards for local communities.

A train blocking a railroad crossing not only serves as an issue of general connectivity, but is especially an issue of safety. Local emergency responders could find themselves "dead-ended" by a stopped train, with limited points of access to get to the emergency. Some individuals have dangerously traversed railroad couplings, and local police chiefs report increased incidences of road rage and reckless driving surrounding these blockages. Prolonged blockages also result in lengthy idling of vehicles, contributing to pollution and air quality degradation.

Within a few short months of the Indiana Supreme Court decision, region leaders and volunteers had united to form the Rail Crossing Task Force (RCTF) to explore alternative means of limiting the negative impact of trains stopping across region roads. Since its inception in December 2018, the RCTF has explored which crossings pose the greatest risk to being blocked, have collected data on how long crossings are blocked, and have identified potential remedies. The RTCF seeks to unite with others nationally to advance legislation in Congress, where the issue is expected to gain momentum as many other regions face similar challenges.

NWI leaders and residents continue to look to new challenges and new opportunities. The region, supported by its people, continues leveraging resources to advance progress. Today, these advancements include strengthening the existing downtown spaces where residents live and work. Tomorrow, the advancements will leverage additional resources to build sustainable, walkable, and dense urban developments as we revitalize our urban cores. For years NWI has dabbled in incremental, planned growth, with major success stories in some parts of the region, while experiencing limited successes in others. However, the future vibrancy of the region hinges on the decisions our people and leaders make today. Will NWI stop the progression of sprawling development? Will NWI focus efforts on infilling communities that have infrastructure already in place? Will NWI continue to congest its transportation network with poor land use planning? Today, at this moment, the region must seize the opportunity to decide its future.



*The map displays the range of impact at-grade crossings may have on NWI. Crossings noted in red are nearest to schools, fire stations, hospitals, are on important corridors, or could be congested corridors. On the other end, crossings noted in green feature only a few of those issues of concern.

Freight in NWI

Whether the "Crossroads of America" or the "Middle of Everywhere," freight is moving through the Region.

Future Scenarios and A Vibrant NWI

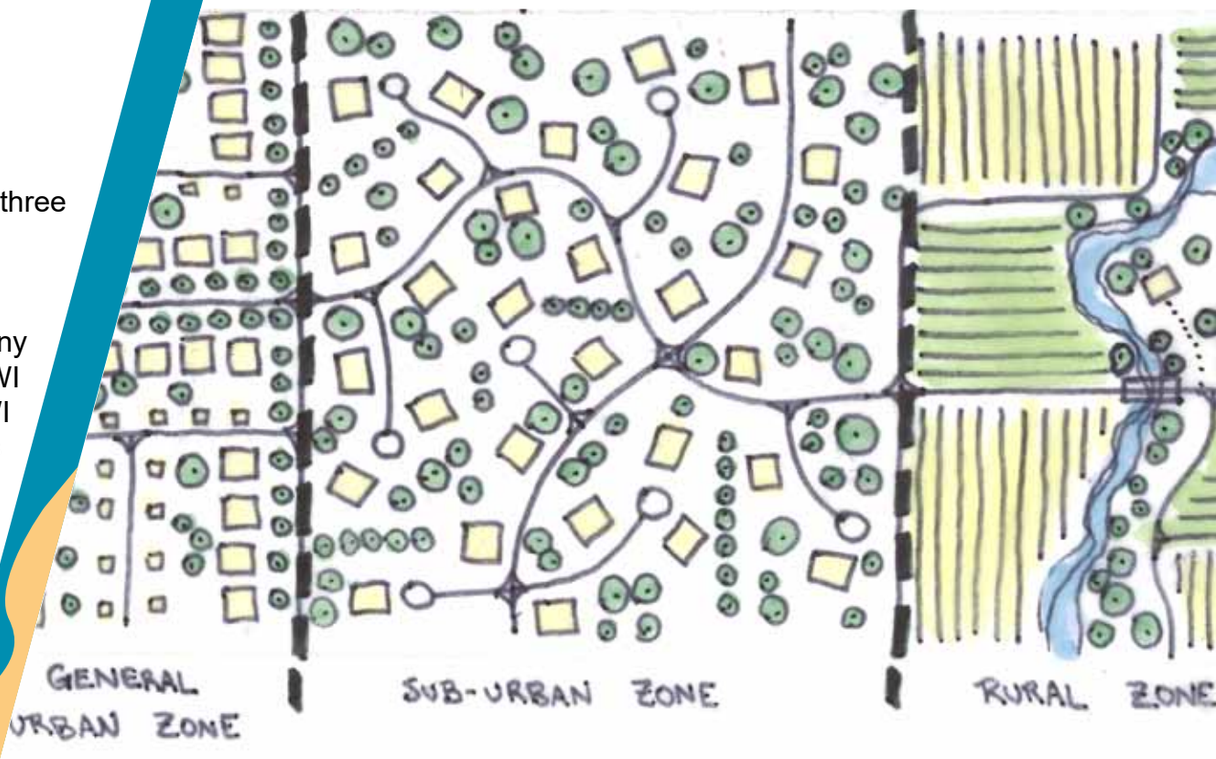
What might a connected NWI be in 2050? Presented below are a further description of the three plausible futures described previously.

New Chances for a New Frontier

NWI's economy looks vastly different than today in this scenario. In a region not defined by any one industry or place, region residents enjoy the security of a diverse economic base. NWI attracts world-class talent with an inflow of creators, collaborators, and entrepreneurs. NWI is known for an exceptional quality of life made possible through thriving downtown districts and world-class educational institutions.

Major improvements in infrastructure bolsters the NWI economy. Manufacturers locate near interstate highways that flow at optimum capacity resulting from autonomous and connected vehicles. Producers are close to regional assets harnessing emerging technology for the distribution of freight, namely within the Gary/Chicago International Airport. Here, manufacturers enjoy the benefits of cutting-edge distribution as trucks effortlessly access fully functional, automated drone distribution centers. Bulk freight turns into individual consumer packages attached to drone delivery robots, floated across Lake Michigan, and deposited to users in Chicago.

Even during this booming economy, advances in green energy translate to few negative effects on the environment. The energy network becomes entirely renewable, no longer using fossil fuels for operations. Automobiles are electrified, pulling energy from the renewable grid and resulting in clean air. The dunes and lakeshore are protected. Winding tendrils of wetlands and natural habitat snake along NWI waterways, introducing the natural environment into communities. The balance of living and working within the biodiverse ecology of NWI becomes a strong national draw for tourism and for residents and businesses looking to relocate.



Sharp and in Focus

Steady but modest growth envisioned with the Sharp and in Focus scenario means that everything has its proper place. Downtowns thrive with investments that include mixed-use developments, parks, and transit-oriented developments. Preservation of green space occurs for agricultural production, and wetlands and other natural habitats are restored. Although this scenario may not include cutting edge technology, smart growth paired with regional innovations provides NWI with an excellent quality of life.

Smart growth practices limit the number of access points interrupting critical freight-moving thoroughfares. With guided growth, subdivisions develop with the necessary pedestrian infrastructure and more density to provide residents with transportation choices. This development pattern allows traffic to move more fluidly for both freight movers and personal automobiles.

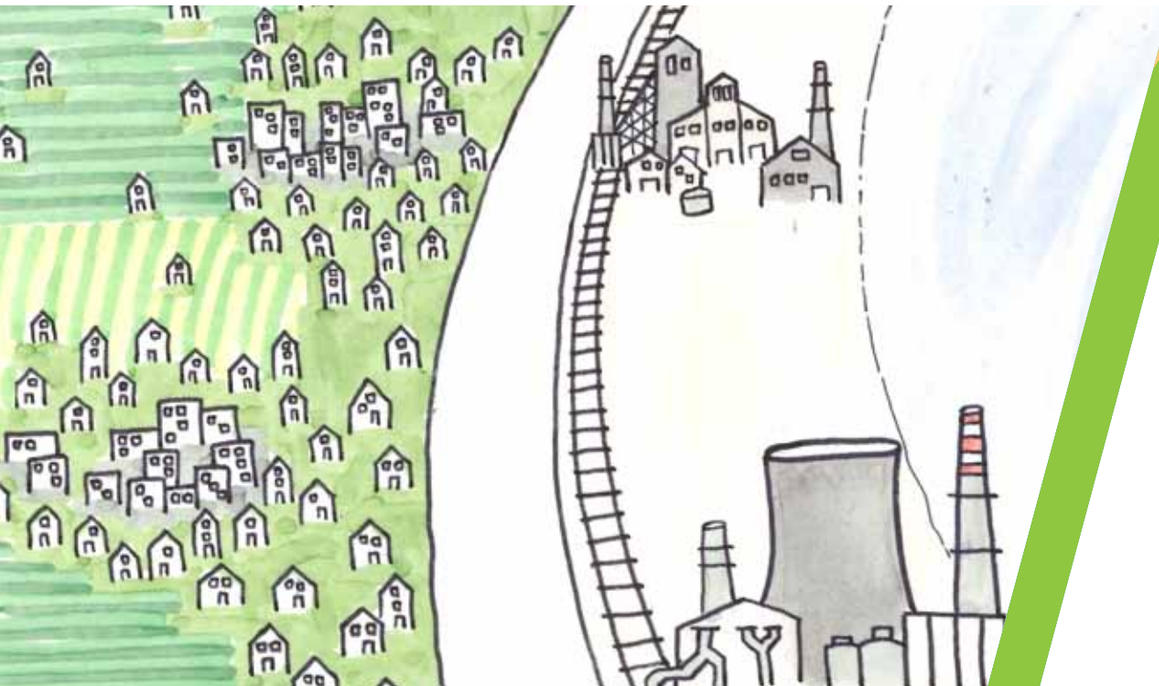
While NWI may depend on Chicago's economy, the local economic outlook is diversified enough to be resilient against challenges. Thriving downtown districts, direct access to green spaces, and world-class educational institutions significantly improve NWI's quality of life.

Stay in Your Lane

In this scenario, growth remains sluggish and the NWI economy resists full diversification, continuing to be reliant on Chicago and the steel industry. An exceptional quality of life could be possible, but due to large share of manufacturing jobs in the region, automation technology threatens the local economy.

Some NWI downtown districts thrive, while others continue to struggle. Unplanned growth remains the norm, so development occurs on the periphery of the urban core. As suburban sprawl expands, the transportation network bogs down, limiting the movement of people and freight. Innovations in technology that would enhance freight movement were never adopted, so freight efficiency stalls until regional leaders employ proactive policies and projects to relieve congestion.

Expanding suburban sprawl threatens natural areas and prime agriculture. New development comes at the expense of green space. However, the slowing rate of in-migration and the decrease in population lowers demand for new housing, which in turn curbs the rate of sprawl. Prospective residents are attracted to existing downtown districts, furthering growth in some parts of the region, but limiting growth in others. Leaders have to work hard to collaborate in order to increase the quality of life for all residents. NWI assets have been maintained, but significant work needs to be done to ensure these assets can continue to be drivers for regional posterity.



Critical Paths to a Vibrant NWI

What are the paths to a Vibrant NWI?

Vibrant

NWI's economy is thriving, our people are well educated, growth is planned, and natural and agricultural areas are valued and protected.

Economy and place

Promote initiatives and policies to ensure healthy living, sustainability, quality of life, and prosperity.

Environment

Endorse innovative energy and environmental strategies to achieve a balance that protects diverse and unique ecological treasures while fostering a sustainable economy.

Mobility

Adopt technological innovation that enhances the safe and fluid movement of people and goods to enable a flourishing economy.

People and leaders

Embrace a dynamic, diversified and sustainable economy that attracts and retains talent, enhances quality of life, and increases personal and household income.

Action Plan

NWI in 2050

During this era of rapid technological advancements, creating a vision over the next thirty years poses clear challenges amongst boundless opportunities. Seemingly every passing year brings about exciting innovations in transportation and clean energy solutions. These have provided great inspiration in advancing planning policies aimed at enhancing the quality of life of communities here and globally.

In Northwest Indiana today, an opportunity exists to take full advantage of these advancements to create a future that provides maximum benefits over the entire region. NWI stands at the confluence of deciding strategies that have the potential to produce a region brimming with plentiful jobs, bountiful clean air, acres of protected open space, and livable centers teeming with civic pride.

The *NWI 2050 Plan* represents a roadmap towards such a future. The four key vision statements outlined throughout this document (Connected, Renewed, United and Vibrant) stand as pillars for growth and prosperity in the region. These have been combined with four distinct Focus Areas (Economy & Place, Environment, Mobility, and People & Leaders) to create 16 critical paths serving as calls to action to achieve NWI's vision for 2050.

In order to track progress towards advancing the critical paths, a number of performance measures have been developed. These measures will provide the region a practical method to gauge progress toward achieving targets. Aiding this successful pursuit are proposed strategies for each vision, embracing best planning practices while utilizing emerging technological trends.

NWI communities have already taken their first collective step toward realizing the 2050 vision with the creation of the 2020-2024 Transportation Improvement Program (TIP). Unlike previous federal funding solicitations, this aligned TIP was entirely developed with the 2050 vision serving as the foundation. Selected projects have scored well on their merits and demonstrate solid relationships to the critical paths, and in turn support the realization of the plan's vision of the region for 2050.

The *NWI 2050 Plan* considers three scenario options: New Chances for a New Frontier, Sharp and in Focus, and Stay in Your Lane. No matter which of these scenarios comes to fruition, success depends on how effectively the region works together to incorporate sound planning policy while embracing technological change.

For a region that expects to fully realize a connected, renewed, united and vibrant 2050, the time to act on strategies is now.

Strategies for a Connected NWI

Plan for smart land uses and quality of place

Growth and development have significant implications for the region's future quality of place and life. Smart planning remains essential towards focusing new growth and development in communities where infrastructure and urban services are available, including protection of natural areas and open space. Planning and policy tools can advance a plan for smart land use. Local governments play a critical role as they set policies and plans for future development, such as growth strategies, comprehensive plans, and zoning, subdivision and development controls. Local governments also have the ability to update plans and policies to exemplify the principles of a smart land use framework.

Plan for Smart Land Uses and Quality of Place

Economy and Place

Individual Strategies within the Initiative	Implementers
1. Promote future development to occur where utilities and infrastructures – including transit - exist by establishing growth management strategies to ensure that population and employment growth occurs in a sustainable and responsible manner.	Local governments with NIRPC
2. Prioritize new and shared entrepreneurial spaces in coordination with high schools, vocational schools, universities, chambers of commerce, and local communities.	Places of higher education and Economic Development Corporations with NIRPC
3. Develop form-based code rezoning to allow higher densities and mixed-uses to create more livable communities and maintain more human scale environment and spaces that create an inclusive, accessible, and pedestrian-focused community character.	Local governments with NIRPC
4. Establish special zoning for historic districts and national and register buildings.	Local governments with NIRPC and non-profits
5. Work to adjust zoning regulations to allow non-retail and adaptive uses in closed big box retail.	Local governments with NIRPC
6. Establish inclusionary housing policies to preserve the affordability of the Region's housing stock before market conditions change (i.e. interest rates increase) and as the Region is revitalized.	Local governments with NIRPC and non-profits
7. Concentrate new growth around infrastructure to allow preservation of environmental assets.	Local governments with NIRPC and non-profits
8. Provide incentives to developers to include affordable, accessible, integrated and inclusive housing as part of the development of market-rate housing.	Local governments with NIRPC and non-profits
9. Incorporate policies and strategies in transportation funding to support main centers, revitalization, areas and emphasize infill.	NIRPC with local governments and INDOT
10. Plan to repurpose big box retail, large commercial areas, and other uses as well as the large surface parking to turn into distribution centers, logistics hubs, supply spaces where the supported infrastructure is available or become public spaces.	Local governments with NIRPC

Environment

Individual Strategies within the Initiative	Implementers
11. Help local governments adopt and keep up to date open space plans and public access standards to increase accessibility to open space and parks.	NIRPC with local governments and non-profits
12. Promote importance of natural area protection, connectivity and accessibility with local governments and agencies to encourage local implementation.	NIRPC with local governments and non-profits
13. Help local governments to adopt model anti-idling ordinances and incentives.	NIRPC with local governments and non-profits
14. Encourage communities to adopt energy efficient building codes and incentives for building retrofits to reduce energy use, increase sustainability, and reduce air pollution emissions.	NIRPC with local governments and non-profits
15. Encourage the adoption of ordinances that support proper operation and maintenance of septic systems to reduce water pollution.	NIRPC with local governments and non-profits

Mobility

Individual Strategies within the Initiative	Implementers
16. Establish minimum design standards for consistent trail development at local and regional scale. These would include trail width and signage.	Local governments with NIRPC
17. Mandate all new federally-aided trail projects to use minimum design standards in NIRPC's Unified Trail Wayfinding Guide.	Local governments with NIRPC
18. Work with local entities to develop local ordinances that require new trails and connections in new developments where feasible.	Local governments with NIRPC
19. Increase roadway safety through traffic calming techniques and ensure utilization of safety design standards.	Local governments with NIRPC

People and leaders

Individual Strategies within the Initiative	Implementers
20. Encourage municipalities to update land use regulations to include pedestrian connectivity between land uses.	Local governments with NIRPC
21. Update Sensible Tools Kit to provide resource to municipalities for better land use planning.	NIRPC
22. Routinely conduct Planning Commission workshops on the Sensible Tools Handbook to continually reinforce best practices in land use planning.	NIRPC
23. Encourage businesses to apply universal design principles when establishing new businesses, to comply and go beyond minimum ADA Standards in existing businesses.	Local governments

Funding opportunities to implement the strategies for this initiative:

Potential Funding to Implement Strategies	
U.S. Department of Transportation	Metropolitan Planning (PL) funds
U.S. Economic Development Administration	Strong Cities, Strong Communities Visioning Challenge (supports the development and implementation of comprehensive economic development strategic plans)
Indiana Department of Natural Resources Lake Michigan Coastal Program	Lake Michigan Coastal Program grants
Local Municipality	Municipal funds
Indiana Office of Community and Rural Affairs	Planning grants, Indiana Main Street program, Community Development Block Grants (HUD)
U.S. Small Business Administration	The Office of Small Business Development Centers Program (helps provide management assistance to current and prospective small business owners)
U.S. Department of Housing and Urban Development (HUD)	1: Choice Neighborhoods Planning Grants (supports the development of comprehensive neighborhood revitalization); 2: Community Development Block Grants
U.S. United States Environmental Protection Agency (EPA)	1: The Environmental Justice Collaborative Problem-Solving (CPS); 2: Smart Growth program; 3: Building Blocks for Sustainable Communities Program

Plan for an E-commerce Landscape

E-commerce has doubled in the last two years and tripled over the last decade. Online shopping continues to drive up demand for small package home delivery, which may soon substitute for household shopping. Urban freight delivery growth expects to grow 40% by 2050, and smart logistics infrastructure needs to be in place to mitigate congestion. Empty big-box stores and storefronts have gone dark in the last decade, changing land development and demand, and curtailing property tax receipts crucial to support local governments and schools. E-commerce will also impact employment, where job training should be made available to accommodate advances in technology. The region's workforce will have to prepare for this shift, and needs to comprehend the broad range of e-commerce impacts so as to benefit from its influence on our future.

Plan for E-commerce Landscape

Economy and Place

Individual Strategies within the Initiative	Implementers
1. Forecast demand for future land development and the requirements of logistics use to accommodate e-commerce future needs.	NIRPC with Economic Development Corporations and local governments
2. Create plans and programs to address the impact of the growth of e-commerce in NWI on travel behavior, logistic systems and land use planning in partnership with regional and local agencies.	NIRPC with Economic Development Corporations and local governments
3. To accommodate trending technologies adapt local land use. For example, the impacts from online shopping that decreases the need for commercial and retail land use, but increases the demand for logistics centers.	Local governments with NIRPC, and Economic Development Corporations
4. Explore new tax structures to address anticipated issues with the decrease in property tax revenue with the closure of brick and mortar retail from the growth in online shopping to continue to sustain local public services.	State of Indiana with local governments
5. Establish partnerships between educational institutions, e-commerce leaders, and workforce development, to explore job training to meet the future skill demands that includes IT expertise, call centers, distribution centers, warehouses, packaging, online web content writers, photographers, designers, telecommuting, home-based business, freight drivers, etc.	Places of higher education and private companies, with NIRPC
6. Coordinate in advance with private sector development of e-commerce facilities that will heavily utilize public infrastructure, and seek information regarding their transportation needs to improve the overall efficiency.	INDOT, Economic Development Corporations, and local governments with NIRPC

Funding opportunities to implement the strategies for this initiative:

Potential Funding to Implement Strategies	
U.S. Department of Transportation	Metropolitan Planning (PL) funds
U.S. Economic Development Administration	Strong Cities, Strong Communities Visioning Challenge (supports the development and implementation of comprehensive economic development strategic plans)
U.S. Department of Labor	Trade Adjustment Assistance Community College and Career Training Grant Program (provides community colleges and eligible institutions of higher education funds to offer educational programs and training that prepares participants for employment in high-wage, high-skill occupations-
U.S. Environmental Protection Agency	The Environmental Workforce Development and Job Training Program (provides grants to non-profits and other organizations to recruit, train, and place predominantly low-income minority, unemployed and under-employed people living in areas affected by solid and hazardous waste)
Local governments	Municipal funds

Plan for Regional Transit

A robust transit network remains essential to region residents and businesses. This initiative should be designed towards increasing the quality of NWI's transit network, and in turn improve travel choices and access to jobs, medical services, and educational and recreational opportunities. Strategies here include methods to make transit easier to use, such as finding information about routes and schedules, paying fares with a unified system, navigating transfers, and ultimately expanding the reach of the overall transit network. These also preserve the existing transportation network, by identifying key components of regional transit, and ensuring they are protected as NWI grows. The initiative will identify how to expand transit both in geographic reach and daily service, how much an ideal system might cost, and how to better connect transit-oriented development with South Shore Line expansions and improvements. Most importantly, the NWI 2050 Plan explores opportunities to increase transit funding to keep the system we have today, and towards future expansion.

Plan for Regional Transit

Economy and Place

Individual Strategies within the Initiative	Implementers
1. Local entities that have passengers rail stations should establish a TOD zoning and policies to support growth around the South Shore and Westlake corridor stations areas.	Local governments with NIRPC, NICTD, transit operators, and the Regional Development Authority
2. Improve access to Chicago for additional opportunities to jobs and income, culture, education, and health institutes.	Local governments with NIRPC, NICTD, transit operators, and the Regional Development Authority
3. Prioritize transit expansions to job centers.	Local governments with NIRPC, NICTD, transit operators, and the Regional Development Authority

Mobility

Individual Strategies within the Initiative	Implementers
4. Continue installing bicycle racks on transit vehicles, including buses and trains.	Transit operators with NIRPC
5. Improve regional connectivity by assisting in the identification of key coordinated stops where transit operators can rendezvous to switch passengers from one service to another.	Transit operators with NIRPC
6. Improve the accessibility of transit by using universal design standards when developing new transit infrastructure like bus stops and other signage.	Transit operators with NIRPC
7. Expand the regional transit network by prioritizing funding to expand transit to job centers and high-density areas, and Environmental Justice Census blocks.	Transit operators with NIRPC
8. Increase the accessibility and overall ridership of the transit network by implementing local public agency ADA transition plans, and improving their transparency so transit operators can coordinate with their service, and region residents are aware of the plans.	NIRPC with transit operators and local public agencies
9. Prioritize transit to include priority destinations of senior and veteran centers, vocational rehabilitation centers, retail, recreation, health-related locations, and other places transit riders prioritize as destinations.	Transit operators with NIRPC
10. Increase funding and prioritization of service expansions by partnering with human service agencies, medical centers, businesses, and other major destinations to secure more local funding for expanding or enhancing local services or incorporating universal fare programs.	Transit operators with NIRPC and potential partners

Mobility Strategies

Individual Strategies within the Initiative	Implementers
11. Increase funding for the transit network by partnering with educational institutions served by transit to offer universal access passes and potentially replace schools' private transportation services. The fee for universal access paid by schools for their students, faculty, and staff to use transit with universal access passes allows mutual benefits for transit providers to earn more local match, and the new riders with broader use of a larger transit network.	Transit operators with NIRPC and potential partners
12. Increase efficiency by partnering transit operators with each other to share facilities and maintenance responsibilities. Shared services and the savings can be transformed into service improvements.	Transit operators
13. Improve the efficiency of the existing transit network by using density thresholds to assist in determining if to provide demand response or fixed route services. Fixed route services have priority in dense urban environments and demand response services have a priority in less-dense areas.	Transit operators with NIRPC
14. Identify corridors for fixed route transit service and Bus Rapid Transit. Metrics such as population density, congestion, and concentrations of employment may be used in developing priority corridors.	NIRPC with transit operators
15. Conduct analysis to determine the number of workers that cannot reach shift jobs with transit due to limited span of service.	NIRPC with transit operators
16. Attract transit users by improving the customer experience by developing a regional transit website to assist potential riders with finding transit information such as schedules, fares, and real-time bus tracking with General Transit Specification Feed data.	NIRPC with transit operators
17. Increase the use of transit and the customer experience by prioritizing expansions that decrease wait times so that transit users will not have to wait long for a scheduled ride.	Transit operators
18. Increase the span of transit service longer into the evening and all weekend.	Transit operators
19. Attract more transit users by making General Transit Specification Feed data public to invite app developers to instantly communicate transit information, in accessible and bilingual formats, to riders to better plan travel.	NIRPC with transit operators
20. Encourage use of transit by utilizing travel-assistants to help familiarize and inform riders with available transportation services.	Transit operators
21. Improve customer experience by continuing and expanding fresh food pop-ups at transit stations to increase food access.	Transit operators with partners
22. Establish region-wide bike share at major activity centers and transit stations.	Private bike share companies
23. Improve accessibility to shared mobility by advocating for transportation network companies to offer accessible vehicles in NWI.	NIRPC with transit operators and advocates
24. Increase decision-making capacity by sharing transit asset management data.	Transit operators with NIRPC

Mobility Strategies continued

Individual Strategies within the Initiative	Implementers
25. Increase the use of transit and customer experience with technological improvements that can allow for increased coordination between transit operators, so that all operators have real-time locations of all transit vehicles in the region.	Transit operators with NIRPC
26. Improve the quality of service by coordinating with transit operators to establish universal fare systems and transfer policies between transit operators to make it easier to transfer from one system to another.	Transit operators with NIRPC
27. Track technological advancements including, Artificial Intelligence assisted ride scheduling, autonomous and connected vehicles, and signal preemption for use in transit.	NIRPC with transit operators
28. Identify priority corridors for transit signal preemption implementation.	NIRPC with transit operators

People and leaders

Individual Strategies within the Initiative	Implementers
28. Support increases in Indiana's Passenger Mass Transit Fund to support transit service and expansions.	Transit operators with NIRPC and local governments
29. Appropriate local funding to provide match to federal funds for transit service.	Local governments

Funding opportunities to implement the strategies for this initiative:

Potential Funding to Implement Strategies	
U.S. Department of Transportation	Metropolitan Planning (PL), Surface Transportation Block Grant, Congestion Mitigation Air Quality, 5307, 5310, 5339, and Federal Transit Administration discretionary grant funds
Local Municipality	Municipal funds
Northwestern Indiana Regional Development Authority	Discretionary grant funds

Plan for Complete Streets and Active Transportation

Providing safe and accessible means for pedestrians and bicycles to travel throughout the region reaps a wealth of benefits. Primary among these are improved air quality from less motorized vehicles on roadways, and bettering one's health by providing opportunities for an active lifestyle. Taken together these benefits enhance the region's quality of life, and make NWI an attractive destination to live and work. Complete streets and infrastructure for active transportation choices also make the region an attractive choice for Millenials who seek more travel choices beyond just driving, and better connections to our transit systems with safe routes that feature contiguous sidewalks.

Plan for Complete Streets and Active Transportation

Economy and Place

Individual Strategies within the Initiative	Implementers
1. Plan for complete streets and active transportation.	Local governments with NIRPC

Mobility

Individual Strategies within the Initiative	Implementers
2. Improve pedestrian and bicycle accessibility to high density population areas, employment and retail centers, transit stations, parks, and schools.	Local governments and INDOT with NIRPC
3. Establish a process to link shorter and local trails to the regional trail network through local planning efforts.	Local governments with NIRPC
4. Prioritize non-motorized facilities that maximize connectivity across counties and municipal boundaries, and Main centers.	Local governments with NIRPC
5. Collaborate with entities and local landowners on high priority new trail corridors opportunities.	Local governments and land owners with NIRPC
6. Incorporate when feasible Universal Designs standards for non-motorized access that comply with ADA standards.	Local governments with NIRPC
7. Work with local entities on the development of a sidewalk maintenance plan which inventories facilities in need of repair or missing segments sidewalks and curb cuts/ramps and functional auditory signaling.	Local governments with NIRPC
8. Promote placemaking themes and create a unique identity along trail corridors and at significant bus and rail transit stops to attract a wide range of users by using public art and provide amenities.	NIRPC with local governments and transit operators
9. Make pedestrian and biking areas safe and more desirable for users by providing amenities like lighting benches, drinking fountains, restrooms, etc.	Local governments with NIRPC
10. Continue to support the policy of progressive maintenance / asset management plan per all newly funded federally-aided trail projects.	NIRPC with local governments
11. Prioritize bicycle and pedestrian safety and comfort by reviewing and adjusting traffic speeds.	Local governments with NIRPC
12. Promote a region-wide bicycle tourism market with the adoption of "Trail Towns" and similar designations. www.trailtowns.org	Local governments and visitors bureaus with NIRPC

People and leaders

Individual Strategies within the Initiative	Implementers
13. Implement the Complete Streets Policy through programming and project scoping assistance. Assist municipalities and counties in adopting Complete Streets Policies/Ordinances.	NIRPC with local governments

Funding opportunities to implement the strategies for this initiative:

Potential Funding to Implement Strategies	
U.S. Department of Transportation	Metropolitan Planning (PL), Surface Transportation Block Grant, Congestion Mitigation Air Quality, and Transportation Alternative funds
Local Municipality	Municipal funds
U.S. Economic Development Administration	Strong Cities, Strong Communities Visioning Challenge (supports the development and implementation of comprehensive economic development strategic plans)
Indiana Department of Natural Resources Lake Michigan Coastal Program	Lake Michigan Coastal Program grants
Indiana Department of Natural Resources	1) Recreational Trails Program (RTP); 2) Division of Outdoor Recreation/Land Acquisition (RTP)

Plan for Continually Improved Investment Prioritization

This initiative seeks to improve upon the tools, data, and analysis that are used to support municipal and transit officials in scoping projects that address the needs of NWI. This also seeks to aid the NIRPC Commissioners in their allocation of funding towards investment programs and projects that have the greatest positive impact on advancing the vision of the NWI 2050 Plan. While this plan includes many such improvements, an effort to continually enhance the process should be sought so planners are as responsive as possible to the information gained from public participation, new data collection, analysis, and performance reporting.

Plan for Continually Improved Investment Prioritization

Economy and Place

Individual Strategies within the Initiative	Implementers
1. NIRPC to continue pursuing regional corridor studies within the region to identify improvements and help prioritize future funds.	
2. Prioritize funding for transit-oriented development.	
3. Prioritize investment of roads, public transit, and other infrastructure to improve the market of the identified Tax Increment Finance zones, opportunity zones and disinvested areas.	
4. Prioritize transit investments that better connect the Environmental Justice populations to job centers, medical facilities, recreations centers, shopping districts, and educational institutions.	
5. Prioritize transit investments that connect communities in environmental justice areas, people who are elderly, low-income, people with disabilities, and veterans.	

Environment

Individual Strategies within the Initiative	Implementers
6. Purchase clean energy and fuel transit vehicles.	

Mobility

Individual Strategies within the Initiative	Implementers
7. Identify and prioritize high-crash areas that could be improved quickly with cost effective solutions.	
8. Improve the regional transportation network by pursuing funding opportunities to address bottlenecks in key regional corridors.	
9. Improve the accessibility of regional pedestrian and transit infrastructure by allocating funding for the implementation of locally-developed ADA transition plans, and incorporating Universal Design standards so all public infrastructure meets or exceeds ADA standards.	
10. Encourage legislators to look at asset management needs statewide and match those to future funding opportunities such as the Community Crossings Grant Program.	
11. Pursue statewide and federal discretionary sources of funding through partnerships to assist municipalities and transit operators with major investments.	

Funding opportunities to implement the strategies for this initiative:

Potential Funding to Implement Strategies	
U.S. Department of Transportation	Metropolitan Planning (PL), Surface Transportation Block Grant, Congestion Mitigation Air Quality, and Transportation Alternative funds, Transportation Infrastructure Finance and Innovation Act (provides credit in the form of direct loans, loan guarantees, and standby lines of credit to finance surface transportation projects of national and regional significance), BUILD Grants, or FastLane Grants
Local Municipality	Municipal funds

Plan for Main Centers and Transit-Oriented Development

Renewed main centers and transit-oriented development will benefit the region by providing a diverse mix of uses and increased density in the main centers. This in turn provides a more competitive region with greater housing choices, opportunities to work closer to home, access to efficient transit connections and improved public infrastructure. All this while minimizing environmental impacts from land development in agricultural and natural areas vital to the region.

Plan for Main Centers and Transit-Oriented Development

Economy and Place

Individual Strategies within the Initiative	Implementers
1. Provide incentives for downtown investment to increase density of population and employment.	Local governments and Economic Development Corporations with developers
2. Promote adaptive reuse of existing buildings in downtown and main centers area for shared office space and infill to accommodate entrepreneurs, startups, and remote workers.	Local governments and Economic Development Corporations with developers
3. Coordinate between local governments and funding agencies to prioritize investment in existing centers will further improve development opportunities and facilitate mixed-use in existing centers.	Local governments and Economic Development Corporations with developers
4. Continue to prioritize transportation funding in older communities and livable centers to improve public infrastructure and redevelopment.	NIRPC with local governments and transit operators
5. Plan to improve campus areas and turn them to great places by creating and incentivizing local student-centered gatherings and nightlife offerings, good mixture of modern cuisine, bars, bike paths, trails, parks, cultural offerings, and outstanding public transit system.	Educational institutions and local governments with NIRPC
6. Develop healthy livable areas with housing choices that a diversity of type, accessibility, price, household income, household composition, rental, home, ownership, and lifestyle.	Local governments with developers

Mobility

Individual Strategies within the Initiative	Implementers
7. Improve the efficiency of transit and curb the costly growth of sprawl, by increasing the overall density of urban areas.	Local governments with transit operators and NIRPC

People and leaders

Individual Strategies within the Initiative	Implementers
8. Provide technical assistance for TOD planning.	NIRPC and Regional Development Authority with local governments

Funding opportunities to implement the strategies for this initiative:

Potential Funding to Implement Strategies	
U.S. Department of Transportation	Metropolitan Planning (PL), FTA 5307
U.S. Economic Development Administration	Strong Cities, Strong Communities Visioning Challenge (it supports the development and implementation of comprehensive economic development strategic plans)
Indiana Department of Natural Resources Lake Michigan Coastal Program	Lake Michigan Coastal Program grants
Local Municipality	Municipal funds
Indiana Office of Community and Rural Affairs (OCRA)	Planning grants, Indiana Main Street program, Community Development Block Grants (HUD)
U.S. United States Environmental Protection Agency (EPA)	1) The Environmental Justice Collaborative Problem-Solving (CPS); 2) Smart Growth program

Plan for Asset Vulnerability from Climate Change

By 2050, the average annual temperature has been estimated to rise between 5 and 6 °F, with the average number of days exceeding temperatures over 95 F doubling or tripling. This could result in health problems, especially for vulnerable populations, and increased energy demands. Annual precipitation will increase by 6-8%, especially in extreme events during winter and spring. These events will contribute to flooding, water quality issues from combined sewer overflows, increased stormwater runoff, and threats to our bridges when rivers and streams rise over their banks. Rapid shifts in temperatures are accelerating freeze and thaw cycles destructive to our roadways, and causing a proliferation of failed roadway surfaces. This initiative will analyze the region's infrastructure assets to target those vulnerable to changing climate conditions. Communities will be equipped to plan for investments with designs that mitigate hazards and ensure the strength and resilience of our region.

Plan for Asset Vulnerabililty from Climate Change

Environment

Individual Strategies within the Initiative	Implementers
1. Encourage the incorporation of pollution prevention and environmental impact avoidance in regional and local land use, transportation, flood and stormwater management and mitigation planning to enhance future environmental quality.	Non-profits, local governments, flood control districts, and environmental agencies, with NIRPC
2. Create a Climate Resiliency Plan for the Region.	Non-profits, local governments, flood control districts, and environmental agencies, with NIRPC
3. Upgrade regional water and wastewater infrastructure to state-of-the-art technology reflective of climate projections.	Local governments, flood control districts, municipal utility districts, and utility providers

Mobility

Individual Strategies within the Initiative	Implementers
4. Improve resiliency and reduce congestion by sharing data and plans with local Emergency Planning Committees to help them with decision-making and improving evacuation plans.	Local governments, flood control districts, municipal utility districts, emergency responders, and utility providers
5. Maximize the life of pavements and bridges through proper pavement and bridge treatment processes with the right treatments at the right times by maintaining proper drainage.	NIRPC with INDOT and local governments

Funding opportunities to implement the strategies for this initiative:

Potential Funding to Implement Strategies	
U.S. Department of Transportation	Metropolitan Planning (PL)
Federal Emergency Management Agency (FEMA)	1) Hazard Mitigation Assistance (HMA) Grant Programs (provides funding for eligible mitigation activities that reduce disaster losses and protect life and property from future disaster damages); 2) Homeland Security Grant Program (it plays an important role in the implementation of the National Preparedness System by supporting the building, sustainment, and delivery of core capabilities essential to achieving the National Preparedness Goal of a secure and resilient nation); 3) Community Resilience Innovation Challenge (focuses on building local community resilience to man-made and natural disasters, with an emphasis on innovation and collaboration); and 4) Emergency Management Performance Grants (provides assistance to state and local governments to help them prevent, protect against, mitigate, respond to, and recover from man-made and natural disasters).
Indiana Department of Natural Resources Lake Michigan Coastal Program	1) Lake Michigan Coastal Program grants; and 2) NOAA Community-Based Restoration Program
Local Municipality	Municipal funds
U.S. United States Environmental Protection Agency (EPA)	The Climate Showcase Communities Program (helps local governments pilot innovative, cost-effective greenhouse gas reduction projects)
U.S. Department of Agriculture	Solid Waste Management Grant Program (it offers technical assistance and/or training to help communities reduce the solid waste stream)
Local Private Sources	Shirley Heinze Charitable Trust; Save the Dunes; Gaylord & Dorothy Donnelly Foundation; Legacy Foundation; Porter County Community Foundation; Unity Foundation of LaPorte County; and Trust for Public Land

Plan for Green Infrastructure and Open Spaces

Green infrastructure and open space offers a cost-effective and resilient means of managing wet weather events. These initiatives seek to supplement existing gray stormwater infrastructure to enhance and sustain Northwest Indiana's air, land, water, and natural habitats. Green infrastructure and open spaces provides opportunities to beautify the region and increase recreational use.

Plan for Green Infrastructure and Open Spaces — Environment

Individual Strategies within the Initiative	Implementers
1. Encourage communities to adopt tree protection ordinances to increase resiliency, health outcomes and habitat connectivity in the urban environment.	Local governments with NIRPC, non-profits, and state agencies
2. Help communities to implement green streets and green infrastructure at the neighborhood level to increase pollinator habitat connectivity.	NIRPC and MS4s, with local governments
3. Create long term regional urban forestry plan and program to improve habitat connectivity across urbanized areas.	Local governments with NIRPC, non-profits, and state agencies
4. Expand habitat conservation focus area plans to help connect fragmented natural areas and reduce natural area fragmentation.	Local governments with NIRPC, non-profits, and state agencies
5. Continue conservation and urban forestry planning to help connect fragmented natural areas, increase resiliency and health outcomes.	Local governments with NIRPC, non-profits, and state agencies
6. Seek state funding for natural areas land acquisition and maintenance.	Local governments with NIRPC, non-profits, and state agencies
7. Help communities to adopt green street ordinances to reduce stormwater runoff pollution.	NIRPC and MS4s, with local governments
8. Encourage local governments to use conservation development practices to reduce habitat fragmentation.	Local governments with NIRPC, non-profits, and state agencies
9. Plan for Northwest Indiana appropriate off-road vehicle destination to help alleviate recreational impacts to critical natural areas.	Local governments with NIRPC, non-profits, and state agencies
10. Continue engaging in natural area connectivity planning with regional partners.	Local governments with NIRPC, non-profits, and state agencies
11. Promote green infrastructure and Low Impact Development to become a regional standard practice.	NIRPC and MS4s, with local governments
12. Provide regional training and tools to support unified local green street implementation.	NIRPC and MS4s, with local governments
13. Provide regional technical support to integrate local implementation of Regional 2020 Greenways and Blue ways Plan across jurisdictions.	Local governments with NIRPC, non-profits, and state agencies
14. Assist local governments and land owners manage urban forests to increase tree canopy coverage, diversity and health.	Local governments with NIRPC, non-profits, and state agencies
15. Continue to update and expand ecosystem services evaluation efforts.	Local governments with NIRPC, non-profits, and state agencies

Funding opportunities to implement the strategies for this initiative:

Potential Funding to Implement Strategies	
U.S. Fish & Wildlife Service	1) Landowner Incentive Program: it provides funding to protect and restore habitats on private lands to benefit Federally-listed, proposed, or candidate species. 2) National Coastal Wetlands Conservation Grant Program: it provides states with financial assistance to protect and restore coastal wetlands. 3) North American Wetlands Conservation Act Small Grants Program: provides funding for the protection and restoration of wetlands and associated upland habitats benefiting wetlands-associated migratory birds. 4) Cooperative Landscape Conservation and Adaptive Science Grants: it provide financial assistance for the research, development, implementation, and monitoring of conservation design.
U.S. Department of Agriculture: Natural Resources Conservation Service	1) Natural Resources Conservation Service - Cooperative Conservation Partnership Initiative: it provides financial and technical assistance to owners and operators of agricultural and non-industrial private forest lands. 20 U.S. Forest Service- National Urban and Community Forestry Grant Program.
Indiana Department of Natural Resources Lake Michigan Coastal Program	Lake Michigan Coastal Program grants
Local Municipalities	Municipal funds
Indiana Office of Community and Rural Affairs (OCRA)	Planning grants, Indiana Main Street program, Community Development Block Grants (HUD)
U.S. United States Environmental Protection Agency (EPA)	Green Infrastructure Community Partnerships program: it provides communities with technical assistance designed to helping them overcome barriers to green infrastructure.
US Department of Interior - National Park Service	Rivers, Trails, and Conservation Assistance grant: it supports community-led natural resource conservation and outdoor recreation projects.
Local Private Sources	Shirley Heinze Charitable Trust- Save the Dunes- Gaylord & Dorothy Donnelly Foundation- Legacy Foundation- Porter County Community Foundation- Unity Foundation of LaPorte County- Trust for Public Land.
Indiana State Revolving Fund Incentive Programs	The Green Project Reserve Sustainability Incentive Program: it includes sustainable green infrastructure, water or energy efficiency measures, environmentally innovative solutions, or classified as being climate resilient.

Plan for Brownfield Redevelopment/Remediation

Thousands of acres of land within NWI cities and towns remain unused or under-utilized due to the perception of environmental risks. This perception creates a barrier to economic development in places where people and supporting infrastructure exists. Some sites have possible contamination from historic or neighboring property activities. This initiative includes partnering with others, seeking federal funding, building regional resources and expertise that maintains and expands our local capacity to move brownfield redevelopment forward.

Plan for Brownfield Redevelopment / Remediation

Environment

Individual Strategies within the Initiative	Implementers
1. Promote model policies that incentivize brownfield redevelopment to increase the pace of brownfield remediation and cleanup.	Local governments with redevelopment agencies, NIRPC, NWI Forum, IDEM, EPA, and RDA
2. Maintain a strong long-term regional brownfield support program to provide training and tools, increase the pace of brownfield remediation and redevelopment to reduce pollution from contaminated areas, and improve local capacity.	Local governments with redevelopment agencies, NIRPC, NWI Forum, IDEM, EPA, and RDA
3. Educate the Commercial Real Estate Community of Brownfield Redevelopment	Local governments with redevelopment agencies, NIRPC, NWI Forum, IDEM, EPA, and RDA
4. Increase regional participation in Indiana Brownfield Program.	Local governments with redevelopment agencies, NIRPC, NWI Forum, IDEM, EPA, and RDA
5. Provide regional training and tools to support unified local brownfield redevelopment and remediation strategies.	Local governments with redevelopment agencies, NIRPC, NWI Forum, IDEM, EPA, and RDA

Funding opportunities to implement the strategies for this initiative:

Potential Funding to Implement Strategies	
Northwest Indiana Regional Brownfield Coalition	Brownfield Revolving Loan Fund
Indiana Department of Environmental Management	Brownfields Low-Interest Loans (LIL)
Northwest Indiana Regional Development Authority	Discretionary grant funding
Local Municipalities	Municipal funds
US Environmental Protection Agency- Brownfields & Land Revitalization Division	1) Clean-up grants; 2) Multi-purpose pilot grants; 3) Superfund Tech Assistance Grants for groups at priority sites
Indiana Housing & Community Development Authority (HUD)	Community Enhancement & Economic Development (CEED) Loan Program
Indiana State Revolving Loan Fund Incentive Programs	The IFA Environmental Programs Brownfield Incentive Program: it includes the cleanup of brownfield sites contaminated with hazardous substances that impact surface or ground water quality.

Plan for Transformative Investments

This initiative addresses an ongoing issue throughout the development of the NWI 2050 Plan. In order to balance the “nuts and bolts” needs of keeping the roadway network in good repair, and transit systems operating, no matter how beneficial a large project may provide the region, sufficient federal funds are not available. Of specific note remains roadways in need of targeted expansion for capacity, or building new roads altogether. Therefore, a process must develop to identify and prioritize investments so that the region can rally behind the sponsor as discretionary funds are allocated from state and federal sources.

Plan forTransformative Investments

Economy and Place

Individual Strategies within the Initiative	Implementers
1. Implement the I-65 and U.S. 30 safety and retrofit project into a livable urban regional center. Funding is needed to correct the current deficiencies as recommended in the plan.	INDOT with local governments and NIRPC
2. Support the Transit Development District (TDD) of the regional South Shore Corridor TOD areas to develop context-appropriate strategies for creating a network of transit-oriented places and sites that integrate different functions and activities within easy access of transit.	Local governments with NIRPC, INDOT, FTA, transit service agencies, non-profits, and RDA
3. Support marketing programs and opportunities to enhance the Indiana Dunes and Lake Michigan Beaches.	Visitors and tourism bureaus with local governments, state agencies, and the Indiana Dunes National Park
4. Continue the implementation of the Marquette Plan. The Regional Development Authority and the lakefront communities should continue to fund projects within the Marquette Plan area.	RDA with NIRPC, local governments, and state agencies

Mobility

Individual Strategies within the Initiative	Implementers
5. Reduce congestion by developing a regional railroad crossing improvement plan with a focus on highway-rail grade separations.	NIRPC with local governments, railroads, and INDOT
6. Develop method to prioritize transformative investments that cost over $10 million in recognition that FHWA/FTA allocated funds are insufficient to program such projects.	NIRPC with local governments, transit operators and INDOT
7. Seek federal and state discretionary funds to advance transformative investments over $10 million.	Local governments or transit operators with NIRPC and INDOT

Funding opportunities to implement the strategies for this initiative:

Potential Funding to Implement Strategies	
U.S. Department of Transportation	Metropolitan Planning (PL), Surface Transportation Block Grant, Congestion Mitigation Air Quality, and Transportation Alternative funds, Transportation Infrastructure Finance and Innovation Act (provides credit in the form of direct loans, loan guarantees, and standby lines of credit to finance surface transportation projects of national and regional significance), BUILD Grants, or INFRA Grants
NWI Regional Development Authority	Discretionary grant funding
Indiana Department of Transportation	LocalTrax (if funded again), Group 3 or 4 funds, National Highway Performance Program, National Freight Program

Plan for a Regional Data and Analysis Framework

As the NWI future unfolds, high-quality data and analysis collection efforts are critical to assist local governments to provide services, guide local and regional decision-making, and increase collaboration. Building a regional data and analysis framework will provide benefits through a shared knowledge base. Stakeholders that participate in a regional data and analysis framework will be united in basing key decisions from a shared set of facts. Also, as stakeholders participate in the regional data and analysis framework, NWI will benefit from a diverse set of perspectives that address key solutions to mutual challenges.

Plan for a Regional Data and Analysis Framework

Economy and Place

Individual Strategies within the Initiative	Implementers
1. Support goal 2.2 of the Ignite the Region Plan in mapping current and future commercial land types to support new business startup.	NWI Forum with NIRPC and local governments
2. Update the various maps related to the local food system as it relates to Food Deserts, transit, transportation investments, land use, Environmental Justice areas, trails, and high-density population areas.	NIRPC with NWI Food Council, transit operators and local governments
3. Map and identify prime agricultural land within urbanized areas in close proximity to high density, transit, and Environmental Justice areas, taking into consideration transportation and economic development.	NIRPC with NWI Food Council, and local governments
4. Identify land access opportunities and land value map for farmers (beginning), urban agriculture and agriculture.	NIRPC with NWI Food Council, and local governments
5. Update the historic register and the designated historic districts map.	NIRPC and local governments

Environment

Individual Strategies within the Initiative	Implementers
6. Coordinate spatial data acquisition, sharing and standardization in support of environmental planning across jurisdiction.	NIRPC with environmental partners
7. Collect transportation stream crossing inventory data to support stream habitat connectivity planning.	NIRPC with environmental partners, local governments, and INDOT
8. Support the collection and sharing of data for watershed and stormwater management planning.	NIRPC with environmental partners and local governments
9. Encourage and support the conversion of local health department septic system paper records into digital format.	NIRPC with local governments
10. Collect conservancy district boundary data for sewer service in support of environmental planning.	NIRPC with environmental partners
11. Maintain and update parcel level septic system mapping in support of environmental planning.	NIRPC with local governments
12. Collect periodically IDEM Air Quality Monitoring Data.	NIRPC with IDEM
13. Integrate environmental site databases with parcel data.	NIRPC with local governments
14. Grow and expand NWI Brownfield Database.	NIRPC with local governments
15. Develop GIS maps for open space and water resource protection (Update, Expand, Maintain LMCP Eppley Project).	NIRPC
16. Maintain watershed data inventory.	NIRPC
17. Create and maintain database of regional properties with environmental concerns.	NIRPC with environmental partners and local governments
18. Include high solar and wind energy potential areas as natural resource GIS layers in NWI (Department of Energy has national data).	NIRPC
19. Maintain a regional Inventory of alternative energy and fuel infrastructure as well as collect data on the usage and locations.	NIRPC with environmental partners
20. Analyze NWI energy and fuel use and carbon footprint trends.	NIRPC with environmental partners
21. Obtain LIDAR tree canopy, land use and land cover data and keep the data up to date.	NIRPC with environmental partners
22. Track NWI Water Use and Sources.	NIRPC with local governments

Mobility

Individual Strategies within the Initiative	Implementers
24. Continue to maintain and update the "Regional Priority Trails & Corridors Map" as identified in the Greenways + Blue ways 2020 Plan.	NIRPC with local governments
25. Compile and map roadway crash data to prioritize high crash corridors in the Highway Safety Improvement Program funding grants.	NIRPC with local governments
26. Continue working with local university partners on collecting and analyzing data.	NIRPC with local universities
27. Share data on traffic volumes and other transportation attributes that NIRPC collects throughout the region.	NIRPC with local governments
28. Educate local law enforcement on the importance of location accuracy and consistency in recording crash data.	NIRPC with local governments
29. Utilize the data that Purdue's Local Technical Assistance Program (LTAP) has been collecting about regional asset management to better inform, and where appropriate coordinate, project decision-making.	NIRPC with local governments
30. Improve transportation network reliability by compiling, analyzing and mapping reliability data for roadways in order to prioritize funding.	NIRPC with local governments
31. Reduce congestion increase transit efficiency by compiling, analyzing and mapping roadway bottleneck data for in order to prioritize funding.	NIRPC with local governments and transit operators
32. Use asset management data from pavement and bridge conditions to pursue projects that address needs.	NIRPC with local governments
33. Increase transparency and awareness of the transportation network performance by publishing a Performance-based Planning dashboard	NIRPC
34. Gauge progress on installation of bicycle sharing systems, and encourage increased participation through training.	NIRPC with bicycle sharing programs
35. Develop an interactive version of the Greenways + Blue ways Map combined with a tracking application.	NIRPC
36. Improve safety, efficiency, and regional interoperability of the transportation system by developing, maintaining and communicating the Intelligent Transportation Systems Regional Architecture.	NIRPC
37. Inventory and digitize in GIS sidewalk and bicycle lanes noting gaps infrastructure, and pedestrian and bicyclist comfort	NIRPC with local governments and transit operators

People and leaders

Individual Strategies within the Initiative	Implementers
38. Monitor and update ADA transition plans by LPAs with NIRPC assistance on a routine basis.	Local governments with NIRPC and transit operators
39. Increase public access to local plans by providing links on NIRPC's website.	NIRPC
40. Conduct an annual inventory of local planning initiatives and activities	NIRPC with local governments and transit operators

Funding opportunities to implement the strategies for this initiative:

Potential Funding to Implement Strategies	
U.S. Department of Transportation	Metropolitan Planning (PL), Surface Transportation Block Grant, and Highway Safety Improvement Program
Local governments	Municipal funds

Plan for an Engaged Public and Share Best-practices

Engagement efforts remain critical in order to provide the public a regional venue to engage with others, contribute input, and have direct impacts regarding the future of the region. This initiative strives to keep NWI's residents and businesses engaged with the critical issues facing our region, and offering a forum for diverse perspectives. The initiative and engagement strategies prioritize inclusion, demographic diversity, respect protected communities, and enlist youth involvement. Additionally, an improvement of Environmental Justice data collection continues as an effort to understand how to actively engage communities within NWI traditionally left out of decision-making processes.

Plan for an Engaged Public and Share Best-practices

Economy and Place

Individual Strategies within the Initiative	Implementers
1. Share information, research, analysis on immigration as it relates to how this may help to keep the region's population growing and combat the aging of the region, and bring in new capital to the economy.	NIRPC with NWI Forum or One Region
2. Continue to support and partner with the NWI Food Council on annual education and convening conferences such as the Food Expo and Discussions event.	NIRPC

Environment

Individual Strategies within the Initiative	Implementers
3. Support the collection and sharing of wetland functional data with local decision makers.	NIRPC with local governments and environmental partners
4. Raise public awareness on the value of urban forests.	Environmental partners with NIRPC
5. Support implementation and share natural area maps and habitat conservation focus area plans with local decision makers and the public.	Environmental partners with NIRPC
7. Help local governments adopt open space plans and public access standards that protect ecological treasures and increase sustainability.	Environmental partners with NIRPC
8. Increase the impact and effectiveness of regional brownfield programs on reuse of historic buildings.	NIRPC with environmental partners
9. Promote knowledge and use of Clean Cities NWI Energy and Fuel Use and sources database.	NIRPC with environmental partners
10. Encourage communities to get Tree City USA designation.	NIRPC with local governments
11. Educate public on nature friendly off-road vehicle use.	Environmental partners with NIRPC
12. Encourage public outreach for the Tree Steward Program.	NIRPC with environmental partners
13. Continue Public Education/Workshops on Options and Economics of Alternative and Renewable Energy.	NIRPC with environmental partners
14. Share best practices on energy conservation.	NIRPC with environmental partners

Mobility

Individual Strategies within the Initiative	Implementers
15. Collaborate with local entities with signage promoting proper use of trails.	NIRPC
16. Provide opportunities and encourage private and public officials to take part in trail operations and maintenance training.	NIRPC with local governments
17. Develop a resource site on NIRPC webpage promoting use of best trail operations and maintenance documents.	NIRPC
18. Hold annual workshops training for local officials on benefits of universal design and Complete Streets, including policy development.	NIRPC
19. Work with local governments and INDOT to implement and pass Complete Streets policy.	NIRPC with local governments and INDOT
20. Improve emergency response times and reduce congestion by convening a regional stakeholder group to plan signal preemption and signal coordination projects.	NIRPC through Surface Transportation Committee
21. Utilize NIRPC Water Trail Signage Manual to fabricate and install signage along waterways.	Local governments
22. Promote tourism and improve impression of the transportation system by working with stakeholders and tourism centers on securing local match and/or private funding for gateway enhancement projects (streetscape improvements, non-motorized enhancements, pavement programs, etc.) to those locations.	Visitors and tourism bureaus with local governments, and NIRPC
23. Promote e-bicycle and scooters legislation at the local level.	Local governments with NIRPC
24. Engage large private sector entities who heavily rely on public infrastructure for funding opportunities.	Transit operators with NIRPC

People and leaders

Individual Strategies within the Initiative	Implementers
25. Continue to educate and raise issues/trends of universal design with municipalities and counties.	NIRPC with local governments
26. Demonstrate the importance of immigration (domestic or foreign) to the workforce, to mitigate an aging population, and to ultimately support population and economic growth of NWI.	NIRPC with One Region and NWI Forum
27. Provide assistance to local governments on sustainable growth and coordination where future planned growth overlaps between communities.	NIRPC with local governments
28. Raise awareness of NIRPC planning activities to get more input through more robust public outreach and engagement across the region.	NIRPC
29. Bring planning experts to NWI to share best-practices for our communities to consider for planning and ordinances	NIRPC

Funding opportunities to implement the strategies for this initiative:

Potential Funding to Implement Strategies	
U.S. Department of Transportation	Metropolitan Planning (PL)
Local governments	Municipal funds
Non-profits, stakeholders, and employers	Private funds

Plan for more Council of Government Activities

NIRPC was established in order to meet the requirements of federal transportation law enlisting metropolitan planning organizations to assist local officials in voicing their priorities for transportation investments. NIRPC has been fulfilling this metropolitan planning function for over fifty years. NIRPC also functions as a council of governments, which brings region officials together on a range of important issues, and provide services to municipal partners. Since the majority of NIRPC programs support transportation planning from federal funding sources requiring local match, council of government activities have fallen short of fully benefiting Regional partners. This initiative seeks to identify services partners desire, and securing additional revenue streams to support

Plan for more Council of Government Activities

Economy and Place

Individual Strategies within the Initiative	Implementers
1. Continue and strengthen NIRPC's role at the NWI Food Council to convene, discuss issues, and develop solutions for strengthening the local food system.	NIRPC with the NWI Food Council
2. Work to coordinate and provide assistance in obtaining non-transportation funding for local communities through Office of Community and Rural Affairs (OCRA), Lake Michigan Coastal Program, etc.	NIRPC

Environment

Individual Strategies within the Initiative	Implementers
3. Seek support from legislative committees for 2050 Plan policy recommendations.	NIRPC
4. Grow and maintain partnerships that work to connect fragmented areas and integrate links between people and green spaces.	NIPRC with local governments and environmental partners
5. Support the continuation of the NWI Storm Water Advisory Group.	NIRPC with environmental partners
6. Support the continuation of the NWI Septic System Working Group.	NIRPC with environmental partners
7. Support the continuation of the NWI Brownfields Coalition	NIRPC with environmental partners and local governments
8. Promote participation of regional entities in local planning activities to advance regional sustainability.	NIRPC with local governments
9. Support and obtain funding for local solar energy programs.	NIRPC with local governments
10. Maintain an inventory and GIS data of local renewable energy ordinances and policies.	NIRPC with local governments

Plan for more Council of Government Activities

Mobility

Individual Strategies within the Initiative	Implementers
11. Pursue legislative means to preserve and acquire abandoned railroad corridors by local entities.	NIRPC with local governments
12. Improve connectivity for all users by bringing communities to work together on projects affecting shared corridors.	NIRPC with local governments and INDOT
13. Encourage legislators and transportation agencies to explore standardizations in the roadway environment to best accommodate Connected and Automated Vehicles (CAVs).	NIRPC with local governments and transit operators
14. Encourage legislators to explore alternatives to the gas tax to sustain transportation revenues and reduce the dependence on the gas tax.	NIRPC with local governments.

People and leaders

Individual Strategies within the Initiative	Implementers
15. Local Government Assistance Committee continues to be a venue to discussion local/regional issues and opportunities to request more Council of Government services for our member communities.	NIRPC with local governments
16. Grow local revenues for NIRPC to support planning activities beyond transportation and raise awareness of funding opportunities for investments beyond just transportation throughout the region through activities like OCRA grant administration and other sources.	NIRPC with local governments
17. Convene locally elected officials to secure local match to leverage all federal-aid, sustain existing service, and expand transit strategically.	NIRPC with local governments and transit operators
18. Convene locally elected officials to sustain/increase Public Mass Transportation Fund (PMTF) allocations, and/or direct and predictable transit revenues.	NIRPC with local governments and transit operators
19. Initiate local governments' partnerships to explore sharing or consolidation of services that allows local governments to reduce costs.	NIRPC with local governments
20. Convene locally elected officials on a regular basis to discuss and deliberate critical transit issues in the region.	NIRPC with local governments and transit operators

Funding opportunities to implement the strategies for this initiative:

Potential Funding to Implement Strategies	
U.S. Department of Transportation	Metropolitan Planning (PL)
NIRPC	Local match revenue from Counties
Local governments	Municipal funds
Indiana Office of Community and Rural Affairs	Planning grants, Indiana Main Street program, Community Development Block Grants (HUD)

Plan for Smart Land Uses and Quality of Place (continued)

Future growth and development patterns have significant implications on the region's quality of life. Smart planning must be implemented in communities where infrastructure and services are readily available. This includes protecting natural areas and open space. Successful planning and policy tools can promote smart land use decision-making . Here local governments are key influencers of new development considerations including growth strategies, comprehensive plans, zoning, and subdivision and development controls. Local governments are able to update these plans and policies exemplifying smart land use principles.

Plan for Smart Land Uses and Quality of Place continued

Economy and Place

Individual Strategies within the Initiative	Implementers
1. Establish policies to increase affordable and accessible housing near job centers and transit stations/stops.	Local governments with NIRPC and transit operators.
2. Increase park space and green infrastructure to promote an inclusive and healthy environment especially in Environmental Justice communities.	Local governments with NIRPC and environmental partners.
3. Improve quality of life by promoting universally designed placemaking that creates a vibrant environment through architecture design, public art, local artists, accessibility specialists and historic preservation.	Local governments with NIRPC and local artists.
4. Continue to support transit and complete streets to ensure that all residents have access to schools, grocery stores, community centers, medical facilities, reliable transportation and job opportunities.	Local governments and transit operators with NIRPC.
5. Continue to offer workshops on the Sensible Tools Handbook to provide guidance to local government on best practices of sustainable growth and vibrant communities and to understand how land use choices affect local revenues.	NIRPC with local governments.
6. Pursue form based zoning codes to modernize land use zoning practices especially in NWI's Main Centers.	Local governments with NIRPC

Environment

Individual Strategies within the Initiative	Implementers
7. Promote green streets ordinances as an innovative approach to managing stormwater for increased sustainability.	Local governments with NIRPC and environmental partners
8. Implement local incentives for renewable energy and green building.	Local governments with NIRPC and environmental partners

Plan for Complete Streets and Active Transportation (continued)

Providing safe and accessible means for pedestrians and bicycles to travel throughout the region reaps a wealth of benefits. Primary among these are improved air quality from less motorized vehicles on roadways, and bettering one's health by providing opportunities for an active lifestyle. Taken together these benefits enhance the region's quality of life, and make NWI an attractive destination to live and work. Complete streets and active transportation choices also make the region an attractive area for Millenials. This age group seeks more travel options beyond driving, better connections to our transit systems, including safe routes such as sidewalks for residents to access their destinations.

Plan for Complete Streets and Active Transportation continued

Economy and Place

Individual Strategies within the Initiative	Implementers
1. Improve safety through street design standards and traffic calming treatments to accommodate the movement of pedestrian, bicyclists, elderly people, and people with disabilities.	Local governments with NIRPC and transit operators.

Mobility

Individual Strategies within the Initiative	Implementers
2. Work with municipalities on the installation and maintenance of trail counters.	NIRPC with local governments

People and leaders

Individual Strategies within the Initiative	Implementers
3. Work with municipalities on the installation and maintenance of trail counters.	NIRPC with local governments

Plan for Cleaner Air and Energy

Air quality affects the health of every region resident. Poor air quality remains detrimental to economic development and NWI's perception. Regional leadership, coupled with investments leading to cleaner air, energy conservation, as well as innovative and sustainable energy sources, will improve the region's health. Motorized vehicles represent one of the largest sectors in both energy consumption and air pollution, so strategies that reduce the environmental impacts of transportation emissions through reduced congestion, reduced idling, or cleaner fueled vehicles constitute high return strategies.

Plan for Cleaner Air and Energy

Environment

Individual Strategies within the Initiative	Implementers
1. Encourage communities to adopt tree protection ordinances to reduce exposure to urban air pollution and reduce urban stormwater pollution runoff.	NIRPC with local governments and environmental partners
2. Create long term regional urban forestry plan and program to reduce human exposure to urban air pollution and stormwater pollution runoff.	NIRPC with local governments and environmental partners
3. Continue and increase impact of Green Fleets partnership with South Shore Clean Cities (SSCC) and local governments.	NIRPC and SSCC with local governments
4. Continue CommuniTree Program in to reduce exposure to urban air pollution and reduce urban stormwater runoff.	NIRPC with local governments
5. Promote public understanding and use of IDEM Regional air quality monitoring data.	NIRPC with IDEM
6. Integrate SSCC and U.S. Department of Energy fuel and emission data into NIRPC programs.	NIRPC with SSCC
7. Promote best practices to reduce transportation emissions.	NIRPC with SSCC
8. Create a regional awards program for "Air and Energy Friendly Employers" to promote air emission reduction through voluntary efforts.	NIRPC with SSCC
9. Seek funding for projects that reduce diesel emissions in NWI.	NIRPC with SSCC, local governments, transit operators, and private stakeholders.
10. Create a funding program for those financially impacted by vehicle emission testing.	NIRPC with SSCC
11. Seek funding to secure for designated off-road vehicle trails in NWI.	NIRPC with environmental partners
12. Support the continuation of Vehicle Emission Testing Program.	NIRPC with SSCC
13. Support the continuation of CMAQ funding for diesel emission reduction projects.	NIRPC with SSCC
14. Promote shared alternative energy and fuel infrastructure agreements between communities.	NIRPC with SSCC and local governments
15. Develop a regional energy and fuel plan for NWI to increase regional energy sustainability.	NIRPC with environmental partners
16. Continue Air Quality Public Education "It all adds up to cleaner air" including emphasis on modal shift.	NIRPC with SSCC

Environment continued

Individual Strategies within the Initiative	Implementers
17. Promote statewide public private partnership to implement alternative fuel infrastructure on Interstates.	NIRPC with SSCC
18. Amplify efforts of local solar energy advocates to increase implementation.	NIRPC with environmental partners
19. Assist regional transit providers to adopt clean energy fleet policies clean energy and fuel by 2030.	NIRPC with SSCC and transit operators
20. Develop model ordinances on electric vehicle and alternative fuel infrastructure and incentives to promote a diverse and sustainable regional energy economy.	NIRPC with SSCC and local governments
21. Help local governments understand how to engage with regional SSCC and FHWA Plans for alternative fuel corridors to support fuel and energy diversification.	NIRPC with SSCC and local governments
22. Promote local governments to incentivize best practices for sustainable energy/transportation fuel/EV infrastructure on brown and grey fields.	NIRPC with SSCC and local governments
23. Maintain existing alternative fuel and energy infrastructure planning efforts to increase future energy resilience.	NIRPC with SSCC and local governments
24. Support alternative energy and fuel friendly state and federal legislation.	NIRPC with SSCC and environmental partners
25. Improve air quality and reduce the dependence on fossil fuels by convening stakeholders to regionally collaborate on, seek grants for, and apply for funding for alternative fuel and electric vehicle and infrastructure projects.	NIRPC with SSCC, environmental partners, local governments, and transit operators

Funding opportunities to implement the strategies for this initiative:

Potential Funding to Implement Strategies	
U.S. United States Environmental Protection Agency (EPA)	1) Green Infrastructure Community Partnerships program: it provides communities with technical assistance designed to helping them overcome barriers to green infrastructure. 2) The Diesel Emissions Reduction Act Grants: it supports projects that reduce emissions from existing diesel engines. 3) SmartWay Finance Program: it establishes national, regional, state, or local financing programs that provide financial incentives to vehicle/equipment owners for the purchase of eligible vehicle replacements, idle reduction technologies, and emission control retrofits. 4) Clean School Bus: it helps communities reduce emissions from older diesel school buses.
Indiana State Revolving Fund Incentive Programs	The Green Project Reserve Sustainability Incentive Program: it includes sustainable green infrastructure, water or energy efficiency measures, environmentally innovative solutions, or classified as being climate resilient.
Indiana Department of Environmental Management (IDEM)	Dieselwise Indiana - clean diesel across Indiana
U.S. Department of Transportation: Federal Highway Administration	1) Congestion Mitigation & Air Quality Improvement (CMAQ) Program. 2) Clean-Fuels Grant Program (5308): it provides funding to public transit operators that use clean-fuel technologies for their bus fleets. 3) Low or No Emission Vehicle Program - 5339(c): it provides funding to state and local governmental authorities for the purchase or lease of zero-emission and low-emission transit buses as well as acquisition, construction, and leasing of required supporting facilities.

Funding opportunities to implement the strategies for this initiative:

Potential Funding to Implement Strategies	
U.S. United States Environmental Protection Agency (EPA)	1) Green Infrastructure Community Partnerships program: it provides communities with technical assistance designed to helping them overcome barriers to green infrastructure. 2) The Diesel Emissions Reduction Act Grants: it supports projects that reduce emissions from existing diesel engines. 3) SmartWay Finance Program: it establishes national, regional, state, or local financing programs that provide financial incentives to vehicle/equipment owners for the purchase of eligible vehicle replacements, idle reduction technologies, and emission control retrofits. 4) Clean School Bus: it helps communities reduce emissions from older diesel school buses.
Indiana State Revolving Fund Incentive Programs	The Green Project Reserve Sustainability Incentive Program: it includes sustainable green infrastructure, water or energy efficiency measures, environmentally innovative solutions, or classified as being climate resilient.
Indiana Department of Environmental Management (IDEM)	Dieselwise Indiana - clean diesel across Indiana
U.S. Department of Transportation	1) Congestion Mitigation & Air Quality Improvement (CMAQ) Program. 2) Clean-Fuels Grant Program (5308): it provides funding to public transit operators that use clean-fuel technologies for their bus fleets. 3) Low or No Emission Vehicle Program - 5339(c): it provides funding to state and local governmental authorities for the purchase or lease of zero-emission and low-emission transit buses as well as acquisition, construction, and leasing of required supporting facilities.
U.S. Department of Energy	Alternative Fuel Market Project Awards: it increases the use of alternative fuel vehicles, including those that run on electricity and natural gas.
South Shore Clean Cities	Northern Indiana Green Fleet program

Plan for Watersheds and Water Quality

Economy and Place

Individual Strategies within the Initiative	Implementers
1. Promote land development within the Lake Michigan Watershed to connect with existing water infrastructure.	NIRPC with environmental partners and local governments

Environment

Individual Strategies within the Initiative	Implementers
2. Encourage public ownership or public access to private riparian areas to link people to waterbodies.	NIRPC with environmental partners and local governments
3. Promote policies that encourage riparian buffer setbacks to reduce development impacts and stormwater runoff pollution to waterbodies.	NIRPC with environmental partners, state agencies, and local partners
4. Promote and support watershed management planning and implementation measures to reduce non-point source water pollution.	NIRPC with environmental partners, state agencies, and local partners
5. Develop watershed management plans to facilitate water quality and aquatic habitat protection and improvements.	NIRPC with environmental partners, state agencies, and local partners
6. Evaluate, update, and implement existing watershed and stormwater management plans.	NIRPC with environmental partners, state agencies, and local partners
7. Hold stormwater and Watershed Public Education Campaign.	NIRPC with environmental partners, state agencies, and local partners
8. Continue support of local watershed management and Municipal Separate Storm Sewer System (MS4) education and public involvement programs.	NIRPC with environmental partners, state agencies, and local partners
9. Secure funding for watershed and stormwater management plan projects.	NIRPC with environmental partners, state agencies, and local partners
10. Promote and support watershed management planning and implementation measures to encourage planning across jurisdictional boundaries.	NIRPC with environmental partners, state agencies, and local partners
11. Develop multijurisdictional watershed advisory groups to facilitate water quality improvements across communities.	NIRPC with environmental partners, state agencies, and local partners
12. Encourage water conservation programs and strategies.	NIRPC with environmental partners, state agencies, and local partners

Mobility

Individual Strategies within the Initiative	Implementers
13. Work with roads and utilities entities in keeping waterways clear for paddling.	NIRPC with environmental partners and local governments

Funding opportunities to implement the strategies for this initiative:

Potential Funding to Implement Strategies	
U.S. Environmental Protection Agency	1) Environmental Education Regional Grant Program: it provides funding to support environmental education projects that increase public awareness of environmental issues. 2) Environmental Justice Small Grants Program: it helps local organizations understand and address environmental and public health issues in their communities. 3) Drinking Water State Revolving Fund: it helps state governments finance high-priority water infrastructure projects.
U.S. Department of the Interior: Bureau of Reclamation	System Optimization Reviews Grants: it provides funding for water-and energy-efficiency projects identified as part of a WaterSMART System Optimization Review completed by the agency.
Local governments	Municipal funds
U.S. Department of Agriculture	Water & Waste Disposal Direct Loans & Grants: it provides financing to rural areas and small towns (population less than 10,000) developing community water and waste disposal systems.
Indiana Department of Environmental Management (IDEM)	1) Clean Water Act: Section 205(j) Grants: it is for water quality management planning to determine the nature, extent and causes of point and non-point source pollution problems, as well as develop plans to resolve these problems. 2) Clean Water Act: Section 319 Funds: they are provided to designated state agencies to implement approved non-point source management programs.

Numerous factors and assets contribute to a region's success and are keys towards a vibrant economy. These include a skilled workforce, advanced infrastructure, educational institutions, and a diversification of businesses. This initiative responds to the pressures of global competitiveness and how the region needs to grow as an economic center and freight hub apart from Chicago. As technology advances, the region needs to maintain adaptation in industrial output, including additional opportunities to enhance industrial strength.

Plan for Economic Development

Economy and Place

Individual Strategies within the Initiative	Implementers
1. Improve downtowns and Main Centers to anchor businesses and enhance the local economy.	Local governments with NIRPC, and Economic Development Corporations
2. Develop and expand warehouses floor space and distribution centers with the growth of e-commerce.	Local governments with NIRPC, and Economic Development Corporations
3. Create a parcel-based map of current and potential business locations along major NWI corridors to help identify economic centers and prioritize future transportation improvements.	NWI Forum with local governments, Economic Development Corporations, and NIRPC
4. Work with NWI Forum and local governments to meet local and regional needs by strategically investing in targeted transportation connectivity projects that support economic growth.	NIRPC with the NWI Forum, Economic Development Corporations, and local governments
5. Continue to partner with the NWI Forum and implement the Economic Development Districts (EDD) strategies and fund projects.	NIRPC with the NWI Forum
6. Support immigration (domestic or foreign) that leads to more innovation and creativity, a workforce with higher education levels, better fit of skills with jobs, and economic growth.	NIRPC with NWI Forum and One Region
7. Continue to support the NWI Food Council with FarmHop, Local Farm Tours that enhance Agritourism and strengthen partnerships with Visitor and Convention Bureaus.	NIRPC

Environment

Individual Strategies within the Initiative	Implementers
8. Support renewable and alternative energy job training programs.	NIRPC with environmental partners and local colleges

Mobility

Individual Strategies within the Initiative	Implementers
9. Work with intermodal facilities and freight carriers to identify locations with high levels of freight movement and to plan strategies for alleviating freight-related congestion.	NIRPC with INDOT and freight stakeholders

Mobility continued

Individual Strategies within the Initiative	Implementers
10. Develop a plan for multi-modal hubs to improve connectivity which will allow for more efficient, reliable, and environmentally friendly movement of people throughout the region.	NIRPC with INDOT and transit operators
11. Improve access to freight funding by establishing and updating critical urban and rural freight corridors and utilizing National Freight Program funding for projects in NWI.	NIRPC with INDOT and freight stakeholders

People and leaders

Individual Strategies within the Initiative	Implementers
12. Work with schools and workforce development agencies to build a workforce with future skills that are needed for the modern economy by offering professional degrees and job training programs.	Colleges and Universities with Economic Development Corporations, NWI Forum and One Region
13. Support regional efforts to maintain NWI's economic and business competitiveness and raise the profile of the region for a good place to do business and to find the most qualified and dedicated employees.	NIRPC with NWI Forum, One Region, local governments and Economic Development Corporations
14. Demonstrate the positive impact of transit and other transportation choices on economic development, workforce participation, public health, and personal/household income.	NIRPC with transit operators

Funding opportunities to implement the strategies for this initiative:

Potential Funding to Implement Strategies	
U.S. Environmental Protection Agency	Environmental Workforce Development & Job Training Program: it provides grants to non-profits and other organizations to recruit, train, and place predominantly low-income minority, unemployed and under-employed people living in areas affected by solid and hazardous waste.
U.S. Department of Agriculture	1) Business and Industry Guaranteed Loans (B&I): it supports economic development activities that create jobs and/or utilize sustainable practices to conserve water or energy resources. 2) The Community Connect Program: it provides funding to help rural communities improve access to broadband service. 3) The Distance Learning & Telemedicine Loan & Grant Program: it helps rural communities improve local telecommunications infrastructure, providing them with greater access to educational and healthcare opportunities.
U.S. Department of Labor	1) Trade Adjustment Assistance Community College & Career Training Grant Program (TAACCCT); it provides community colleges and eligible institutions of higher education funds to offer educational programs and training that prepares participants for employment in high-wage, high-skill occupations. 2) Veterans Workforce Investment Program (VWIP): it supports programs that provide employment, training, and other services to eligible veterans, focusing on innovative approaches.
Local governments	Municipal revenues
NWI Regional Development Authority	Discretionary grants
The U.S. Economic Development Administration	EDA planning program and local technical assistance program

Investments to Make

Programmatic Framework

A five-year Transportation Improvement Program (TIP) for 2020-2024 has been developed in tandem with the NWI 2050 Plan. The TIP represents the fiscally-constrained list of federally-aided transportation projects scheduled for implementation in Lake, Porter and LaPorte Counties and represents the short-range investment portfolio for this plan.

Projects are solicited for the TIP by NIRPC every two years through a Notice of Funding Availability (NOFA). Previous NOFA cycles were periodic and unpredictable, focusing on a specific funding category and selected independently of other funding avenues. Although straightforward in approach, this process did not link programs fully with the regional priorities highlighted in previous long-range plans.

To effectively match funding with priorities, better identify desired outcomes, and quantify performance benefits, an enhanced programming approach was needed. This approach was introduced and implemented during the latest NOFA cycle from September 2018 to January of 2019. The enhanced approach first identified specific investment programs based on the 77 project types that are federally eligible for funding from FHWA and FTA funds. This exercise represented the first time all federal transportation funding categories allocated to NWI were considered during a single NOFA cycle. Based on the type of eligible projects, thirteen investment programs were identified, and applications for funding were developed accordingly.

These thirteen programs were then assigned to one of the five NIRPC committees in place at the time of this document, using a 1-100 scoring system. The committees scored project types from assigned programs according to their direct and indirect impacts on each of the sixteen critical paths identified in the plan. This represented 80% of the final score. Additional scoring was assigned for the project type's direct and indirect impact on the future scenarios (12% of its final score) and an investment difficulty factor (8% of its final score). The easier a project type was to implement, the higher its priority.

From this robust exercise, each project type was assigned a funding target based on a three-tiered priority system. Those projects selected in Tier 1 were given priority in their assigned program category, and thus received the most allocated funding. For the 2020-2024 TIP NOFA process, all Tier 1 projects were targeted for funding and 35% of Tier 2 projects were targeted for funding when the NOFA was initiated. Due to limited funds no Tier 3 projects were targeted for federal funds as part of this NOFA. However, some legacy projects with phases included in the prior TIP were prioritized for continued funding. Funding to sustain our existing transportation system (such as improvements to roadways) was heavily weighted within this new approach.

With the funding targets established, NIPRC committees were then charged with assigning project selection criteria for each program. These criteria were divided between nine categories, and these categories assigned a point value based on the importance to the program. All program categories equaled 100 points.

Targeting Funds

How do you spend $2.5 billion over 30 years? Carefully, methodically, and with a lot of input - *21* meetings and approximately *60* hours of deliberation.

1. **Identify all project types eligible for FHWA or FTA funds** → ***77*** **project types**
2. **Assemble like project types into investment programs** → ***13*** **investment programs**
3. **Evaluate project types for their impact on 16 critical paths, future scenarios, and their difficulty to implement** → ***21*** **committee meetings to evaluate and score**
4. **Rank project types by score and target highest scoring for available *and* eligible funding** → ***1, 2, or 3*** **each project type assigned a scoring tier**
5. **Accrue targeted funding from project types to their respective investment programs** → *project type w – tier 1 – $3 million*, *project type x – tier 1 – $2 million*, *project type y – tier 2 – $1 million*, *project type z – tier 3 – $0* → Investment program A **$6 million targeted**
6. **Invite local public agencies and transit operators to apply for funding through an application for each investment program** → **Fund individual projects that are highest scoring and fit within financial constraints until targeted funding is exhausted; if a program has excess funds because not enough applications were received, re-target to next best program**

With the funding targets and evaluation criteria established, the NOFA was published following Executive Board approval at the November, 2018 meeting. Applications tailored to the thirteen funding programs were offered, and even if funding was not available or targeted to all programs, all project types remain eligible for federal funding, and such applications were considered if funds remained available. Each application was self-scored by the applicant, reviewed by NIRPC staff for proper adherence to the instructions, and then scored by NIRPC staff. The NIRPC committees resolved any outstanding conflicts between the self-score of the project applicant and score given to the application by NIRPC staff.

The final step in the TIP process involved the programming of available federal funding to Tier 1 and 2 projects during a meeting of the Technical Planning Committee (TPC) in February, 2019. Newly submitted projects were programmed for funding in years available based on project score and fiscal constraint factors. Subsequent NOFA cycles are to be scheduled bi-annually under this enhanced programming process. Amendments to the TIP will be considered on a quarterly basis and may trigger an amendment to the NWI 2050 Plan if the project is considered "regionally significant."

(See the air quality conformity determination (INSERT PAGES) for more information on what is considered "regionally significant.")

Project Evaluation Criteria

How do evaluate the merits of an individual project when everyone thinks their is best? Establish evaluation criteria that best represents the projects that will advance the vision for NWI.

1. **Access + connections**
   This includes evaluating merits such as:
   - *New connections to critical destinations*
   - *Improves walk score of an area*
   - *Project including Universal Design standards*
2. **Economic generation**
   This includes evaluating merits such as:
   - *Increases access to jobs*
3. **Environmental benefits**
   This includes evaluating merits such as:
   - *Reduces emissions*
   - *Includes green infrastructure*
4. **Local plan and policy support**
   This includes evaluating merits such as:
   - *Implements ADA transition plans*
   - *Advances local comprehensive plan*
5. **Regional plan and policy support**
   This includes evaluating merits such as:
   - *Advances recommendations in a regional plan*
   - *Project is located in a Main Center*
6. **Partnerships**
   This includes evaluating merits such as:
   - *Project is advanced with multiple partners*
7. **Project readiness**
   This includes evaluating merits such as:
   - *Project sponsor cost sharing is above minimum amount required*
   - *Right-of-way is already secured*
8. **Safety**
   This includes evaluating merits such as:
   - *Project is located at a location where there is a high safety risk without the improvement*
9. **Social equity**
   This includes evaluating merits such as:
   - *Increases access to individuals w/ disabilities*
   - *Project is located in an Environmental Justice area*

Investment Programs

The following describes each of the thirteen programs, their component project types, and whether or not they were targeted for federal funding in this Plan. The programs are presented in order of impact on the sixteen critical paths as evaluated for the development of this Plan. This "rank" plays an important role whenever a program's targeted amount of funding cannot be fully awarded -- most likely due to not receiving enough applications from project sponsors. When this situation arises, the available funding flows to the next eligible program determined by funding rules from USDOT. The funding target is indeed a "target." The programmatic approach remains flexible so that all federal-aid to NWI from FHWA and FTA is obligated. In order to meet the targets, however, local public agencies and transit operators must apply for this funding with high-scoring projects. If such applications are not made, the funding is transferred to the next highest scoring program.

Transit Operating for a Connected NWI

Improving access to our transit networks remains a top priority to ensure a vibrant NWI. In order to do so, we must continue to fund the operations of the existing system. Region transit operators should also adopt innovations that enhance service options for residents. Emphasis should be placed on same-day demand response service or fixed route transit and its parallel paratransit services, which provide essential transportation options to individuals with disabilities.

Transit / Operating Program

This program seeks to sustain the operations of NWI's existing transit system.
$6,071,500 *(federal before matching funds and without inflation)*
is targeted to this program annually.

Project types in program	Score tier	Targeted for funding?	Funding source targeted?
Complementary paratransit service to fixed route service *Funding for service for users who cannot use fixed routes due to disability*	**Tier 1**	**Yes**	**5307**
Operating assistance *Funding to assist with the operations for transit systems*	**Tier 1**	**Yes**	**5307**
Operational support equipment / computer hard/software *Funding to support the purchase of equipment related to operations of transit*	**Tier 1**	**Yes**	**5307**

Multi-use Trails for a Connected NWI

NWI has enjoyed robust growth in multi-use trail development over the last 25-years. This multi-use trail network has in turn created new travel choices and healthy outlets for region residents, and creating a sense of pride and belonging. The construction of these trails has aided in protecting our natural environment by reducing automobile use. Benefits continue to emerge including the attraction of new residents and jobs near the location of off-road trails.

Mulit-Use Trails Program

This program seeks to build out the multi-use trail network in NWI.
$3,100,000 *(federal before matching funds and without inflation)*
is targeted to this program annually.

Project types in program	Score tier	Targeted for funding?	Funding source targeted?
Multi-use trails *Funding for construction of non-recreational trails*	Tier 1	Yes	STBG

Transit asset management for A Renewed NWI

With an ongoing focus to expand our transit networks, there must remain strategies to maintain and continuously improve the region's existing system. Projects targeting investments for new rolling stock and preventative maintenance will enhance the safe movement of our residents, and foster expanded economic opportunities.

Transit / Asset Management

This program seeks to sustain the assets of NWI's existing transit system in a state of good repair.
$24,256,265 *(federal before matching funds and without inflation)*
is targeted to this program annually.

Project types in program	Score tier	Targeted for funding?	Funding source targeted?
Capital investment in existing fixed guideway systems *Funding for projects that keep fixed guideway systems in a state of good repair*	Tier 1	Yes	5337
Fixed guideway rolling stock (new or existing) *Funding for the purchase of new or replacement rolling stock*	Tier 1	Yes	5337
Preventative maintenance *Funding to keep existing transit vehicles or equipment in a state of good repair*	Tier 1	Yes	5307
Transit maintenance facilities *Funding to keep transit maintenance facilities in a state of good repair*	Tier 1	Yes	5307 5337
Transit vehicle replacement (existing and subject to TAMP) *Funding to replace existing transit vehicles according to transit asset mngnt plan*	Tier 1	Yes	5307 5339

Air Quality for A Renewed NWI

Lake and Porter Counties currently remain a non-attainment area for air quality standards as designated by the Environmental Protection Agency under the Clean Air Act. In order to ensure a region that is healthy for our population, projects to reduce vehicle emissions and promote alternative fuel choices are essential for our future vitality. Further initiatives to educate the public on the value of cleaner air are also key in promoting a renewed NWI.

Air Quality Program

This program seeks to improve the air quality of NWI related to transportation emissions.

$1,900,000 *(federal before matching funds and without inflation)* **is targeted to this program annually.**

Project types in program	Score tier	Targeted for funding?	Funding source targeted?
Alternative fuel infrastructure *Funding for electric or natural gas alternative fuel infrastructure*	Tier 1	Yes	CMAQ
Vehicle emission reduction (new or modification) *Funds to assist with procuring or retrofitting vehicles to reduce emissions*	Tier 1	Yes	CMAQ
Advanced truck stop electrification *Funding for electrification of truck stop parking to reduce/eliminate idling*	Tier 2	No, but eligible	Not targeted for funding
Air quality education *Funding to increase awareness of pollution in order to reduced emissions*	Tier 2	Yes	CMAQ

Complete Streets for A Connected NWI

Crucial to creating safe and accessible connections for all intended users of a road corridor are projects that emphasize complete streets standards. These projects include sidewalks; painted, on-road bicycle lanes; bicycle parking; and those projects helping children safely access elementary and middle schools. Complete streets projects enhance access for people with disabilities, pedestrians, and bicyclists to transit, jobs, recreation, and shopping.

Complete Streets Program

This program seeks to improve access to NWI's transportation system for bicyclists, pedestrians & transit.

$2,016,000 *(federal before matching funds and without inflation)* **is targeted to this program annually.**

Project types in program	Score tier	Targeted for funding?	Funding source targeted?
Transportation projects for ADA compliance w/ universal design *Projects that address ADA transition plans along federally-aided roadways*	Tier 1	Yes	STBG
Bicycle/pedestrian signals *Funding for HAWK, pedestrian count downs, etc. along federally-aided roadways*	Tier 1	Yes	TA
On-road trails *Bicycle lanes/cycle tracks along federally-aided roadways as a standalone project*	Tier 1	Yes	STBG
Sidewalks *Funding for sidewalks along federally-aided roadways as a standalone project*	Tier 1	Yes	STBG
Safe Routes to School infrastructure projects *Projects around schools; can be off federally-aid roads, must be near K-8 schools*	Tier 1	Yes	TA
Bicycle infrastructure *Funding for bicycle racks, signage, & ancillary treatments to support cycling*	Tier 1	Yes	TA
Safe Routes to School non-infrastructure projects *Funding to support Safe Routes to School educational or planning activities*	Tier 1	Yes	TA
Safe Routes to School coordinator *Funding to support staff person to organize SRTS planning activities*	Tier 2	Yes	TA
Construct / install / maintain of signs at bike/ped crossings in school zone *Funding for bike and pedestrians crossings in school zones along FA roadways*	Tier 2	No, but eligible	Not targeted for funding
Lighting *Funding for lighting on trails as a standalone project*	Tier 3	No, but eligible	Not targeted for funding

Transit Customer Experience for A United NWI

Attracting a diverse population to the region, in addition to improving our economic standing, requires investments which improve the traveling experience. Projects that advance this goal include improving comfort and safety at transit stops, accessibility for the disabled, better passenger facilities, and new signage. A United NWI provides a transit network which is accessible and reliable.

Transit / Customer Experience

This program seeks to improve the quality of NWI's transit.
$524,397 *(federal before matching funds and without inflation)*
is targeted to this program annually.

Project types in program	Score tier	Targeted for funding?	Funding source targeted?
Mobility management / information technology systems *Funding to improvement mobility management and technology (GTFS)*	Tier 1	Yes	5310
Wheelchair lifts, ramps, and securement devices *Funding to make old vehicles accessible (new vehicles must be purchased accessible)*	Tier 1	No, but eligible	Not targeted for funding
Vehicles for accessible taxi, ride share, or vanpool *Funding to purchase vehicles to increase access to transit system*	Tier 1	No, but eligible	Not targeted for funding
Travel training *Funding to train individuals on how to use transit*	Tier 1	No, but eligible	Not targeted for funding
Transit passenger facilities *Funding for projects that improve waiting facilities for transit riders (bus stops/stations)*	Tier 2	Yes	TA 5337
Volunteer driver programs *Funding to offset the cost associated with volunteer driver programs*	Tier 2	No, but eligible	Not targeted for funding
Improve signage / wayfinding *Funding for projects that help customers find their way to transit services*	Tier 2	No, but eligible	Not targeted for funding

Transit Expansion for a Vibrant NWI

A Vibrant NWI involves ensuring transportation options for all residents of the region. An expanded transit network remains a prime objective towards this goal. Current plans to expand the South Shore Line represents a strong example, but providing both fixed and on-demand bus service to more residents should parallel these efforts, both in geographical service area and span of service throughout the day. This includes projects enhancing the reach of existing providers with new vehicles and operating assistance.

Transit / Expansion Program

This program seeks to improve access to NWI's transportation system for bicyclists, pedestrians & transit.

$2,016,000 *(federal before matching funds and without inflation)*

Project types in program	Score tier	Targeted for funding?	Funding source targeted?
Incremental cost of providing same day service/door-to-door *funding to reduce time required to request and reserve an on-demand ride*	**Tier 1**	**Yes**	**5310**
New fixed guideway systems (including BRT) *Projects that expand the transit system through fixed guideways including BRT*	**Tier 1**	**No, but eligible**	**Not targeted for funding**
Operating assistance for new transit service *Funding for the operations and expansion of new transit services*	**Tier 1**	**Yes**	**CMAQ**
Transit vehicles for expansion of service *Funding to purchase new vehicles to expand service (locations or hours)*	**Tier 1**	**No, but eligible**	**Not targeted for funding**
Ferry boats, terminals, and approach roads for ferries *Projects that buy boats, build terminals and connect terminals to roadway network*	**Tier 3**	**No, but eligible**	**Not targeted for funding**

Planning for a Connected, Renewed, United and Vibrant NWI

Providing for A Connected NWI involves sound planning from the outset. Communities and transit providers alike must continue to seek funding to plan for the improvement of our transportation networks to ensure a future of safe, accessible and equitable options for all region residents. Identifying problematic roadways, in terms of congestion bottlenecks, safety issues, or asset conditions, requires proactive planning for their improvement -- all essential for A Renewed NWI. Whether this includes conducting road safety audits, collecting data on pavement conditions, or identifying strategies to employ ITS technologies, funding for these planning initiatives is vital for the region's quality of life. A United NWI relies on continuous communication between stakeholders. Through various planning actions which focus on collaboration, areas of conflict toward improving our transportation network can be remedied for the benefit of those living here today, and for generations to come. Finally, A Vibrant NWI must engage stakeholders to advance planning initiatives, and thus ensure a steady flow of continually informed projects that improve the region's prosperity. Cooperative planning stands as the bedrock of a thriving region.

Planning Program

This program seeks to plan for the improvement of NWI's transportation system.

$725,000 *(federal before matching funds and without inflation)* **is targeted to this program annually.**

Project types in program	Score tier	Targeted for funding?	Funding source targeted?
Creating Livable Communities or TOD planning program *Funding to conduct transportation and land use planning/linkages across all modes*	**Tier 1**	**Yes**	**STBG**
Transit planning and administrative oversight *Funding to plan and oversee transit*	**Tier 1**	**Yes**	**5307**
Transportation planning (general) *Funding to conduct transportation planning across all modes*	**Tier 1**	**No, but eligible**	**Not targeted for funding**
Development of regional environmental protection plans *Funding to address environmental protection and transportation linkages*	**Tier 1**	**No, but eligible**	**Not targeted for funding**
Data collection / software / equipment or development/implementation of PbP system *Funding to assist with performance-based planning*	**Tier 3**	**No, but eligible**	**Not targeted for funding**
Safety data collection / analysis and improvement of data *Funding to assist in the collection of safety data and analysis of the data*	**Tier 3**	**No, but eligible**	**Not targeted for funding**
Transportation safety planning or road safety audits *Funding to specifically conduct transportation safety planning or road safety audits*	**Tier 3**	**No, but eligible**	**Not targeted for funding**

Environment for A United NWI

NWI holds enormous environmental treasures like the Indiana Dunes National Park and remnant wetland habitats. To protect these assets, a number of public and private sector entities exist today that advocate policies aimed at environmental protection. Region-wide partnerships are encouraged to bring projects forward, sustaining our valuable natural assets, and, in turn, bettering our quality of life. Projects here include wetland mitigation, stormwater management and wildlife protection in road corridors.

Environment Program

This program seeks to improve the environment of NWI related to transportation impacts.

$450,000 *(federal before matching funds and without inflation)* **is targeted to this program annually.**

Project types in program	Score tier	Targeted for funding?	Funding source targeted?
Stormwater management / control / prevention *Funding to reduce stormwater as a standalone project*	**Tier 1**	**Yes**	**TA**
Contribute to restore / enhance / create habitats/wetlands or mitigation bank *Funds to improve habitats + wetlands as standalone project or bank land for mitigation*	**Tier 2**	**No, but eligible**	**Not targeted for funding**
Vegetation management in ROWs *Funding to assist in the management of vegetation along FA roadways*	**Tier 2**	**Yes**	**TA**
Vehicle related wildlife mortality reduction *Funding for treatments to reduce the death of wildlife and improve safety for vehicles*	**Tier 2**	**No, but eligible**	**Not targeted for funding**
Archeological activities for mitigation *Funding to assist with archeological activities in construction*	**Tier 3**	**No, but eligible**	**Not targeted for funding**

Quality of Place for A Vibrant NWI

A Vibrant NWI depends on the value the region places on the balance between transportation investments and land-use decisions, builds a distinct sense of identity, and has an abundance of low-speed/low-stress streets that build a social fabric of community to support a vibrant mix of uses. This program includes projects that enhance the user's roadway experience through traffic calming, or in some instances, roadway expansions. As a region that has experienced over 150 years of continuous development, significant investments are needed to balance the "march of progress" with our desire for an improved quality of life. Achieving this balance ensures a region whose economy is sustainable and inspires residents to take pride in their communities.

Quality of Place Program

This program seeks to the quality of life as it relates to NWI's transportation system.

$750,000 *(federal before matching funds and without inflation)* **is targeted to this program annually.**

Project types in program	Score tier	Targeted for funding?	Funding source targeted?
Traffic calming *Funding for treatments that reduce travel speed and improve ped/bike comfort*	**Tier 1**	**Yes**	**HSIP**
Divided highway conversion to boulevards *Funding for projects to improve the livability of FA arterial roadways*	**Tier 1**	**No, but eligible**	**Not targeted for funding**
Inventory / control / removal of outdoor advertising *Funding to reduce billboards/signage to improve beauty along FA roadways*	**Tier 2**	**No, but eligible**	**Not targeted for funding**
Historic preserve of historic transportation facilities *Funding to preserve historic transportation facilities*	**Tier 2**	**No, but eligible**	**Not targeted for funding**
Roadway expansion *Funding to wide of roadways to address congestion*	**Tier 3**	**No, but eligible**	**Not targeted for funding**
Turnouts / overlooks *Funding for projects that provide for parking at scenic locations*	**Tier 3**	**No, but eligible**	**Not targeted for funding**

Road Improvement for a Renewed NWI

Maintaining and improving the existing roadway network remains paramount to A Renewed NWI. Projects such as intersection safety, pavement reconstruction, and bridge rehabilitation are all part of good transportation asset management. The region must strive to improve our roadway network with projects including advanced technology, increasing the safety and efficiency of our roadway networks and positioning the region for new innovations brought about by connected and autonomous vehicles.

Roadway Improvements

This program seeks to sustain the assets of NWI's existing roadway network in a state of good repair.
$12,896,500 *(federal before matching funds and without inflation)* **is targeted to this program annually.**

Project types in program	Score tier	Targeted for funding?	Funding source targeted?
Intersection safety improvements *Funding for projects that attempt to reduce safety issues at intersections*	Tier 1	Yes	HSIP
Intelligent Transportation Systems *Projects that use technology to increase efficiency (usually a state level initiative)*	Tier 2	No, but eligible	Not targeted for funding
Pavement rehabilitation or reconstruction *Funding for projects that rehabilitate or reconstruct federally-aided roads*	Tier 2	Yes	STBG
Railway-highway grade crossings *Funding for projects that address safety issues at railroad crossings*	Tier 2	Yes	HSIP
Intersection congestion improvements *Funding for projects that attempt to reduce congestion at bottleneck locations*	Tier 2	Yes	CMAQ
Traffic monitoring / management / control *Funding for the monitoring and management of traffic (usually a state level initiative)*	Tier 2	No, but eligible	Not targeted for funding
Bridge replacement, rehabilitation or reconstruction *Funding for projects that rehabilitate or reconstruct bridges on federally-aided roads*	Tier 2	Yes	STBG
Emergency communications equipment / priority control systems *Funding to implement projects for emergency communication + signal preemption*	Tier 2	No, but eligible	Not targeted for funding
Travel demand management strategies / programs *Funding to assist with reducing the demand for travel and congestion*	Tier 2	No, but eligible	Not targeted for funding
Construction and operational improvements on high-risk rural roads *Funding for projects on federally-aided rural roads that improve safety*	Tier 3	No, but eligible	Not targeted for funding

Roadway Improvements continued

This program seeks to sustain the assets of NWI's existing roadway network in a state of good repair.
$12,896,500 *(federal before matching funds and without inflation)*
is targeted to this program annually.

Project types in program	Score tier	Targeted for funding?	Funding source targeted?
Safety devices/control, rumbles, skid resistance, or remove obstacles at crash locations *Funds for standalone projects to improve safety w/ specific treatments on FA roadways*	Tier 3	No, but eligible	Not targeted for funding
Congestion pricing development / implementation *Funding that can assist with starting a congestion pricing scheme*	Tier 3	No, but eligible	Not targeted for funding
Highway signs for retro-reflectivity *Funding for standalone projects that increase visibility of roadway signs*	Tier 3	No, but eligible	Not targeted for funding
Pavement and shoulder widening to remedy unsafe conditions *Funding for projects that add width to address unsafe conditions with road narrowness*	Tier 3	No, but eligible	Not targeted for funding
Fringe and corridor parking facilities / programs *Funding for construction of parking lots for car/vanpooling and transit kiss & rides*	Tier 3	No, but eligible	Not targeted for funding
Protection for bridges including inspections *Funding to assist with the inspection of bridges*	Tier 3	No, but eligible	Not targeted for funding
Conduct model traffic enforcement activity at rail/highway crossing *Funds to promote enforcement at rail/highway crossings (usually a state level initiative)*	Tier 3	No, but eligible	Not targeted for funding
Promote/educate highway safety matters + project to enforce law *Funds that can assist with starting a congestion pricing scheme*	Tier 3	No, but eligible	Not targeted for funding

Transit Security for A Vibrant NWI

Projects aimed at protecting transit riders promote increased comfort levels, which attracts in turn additional users to these services. Security measures at transit stations and on rolling stock are essential towards advancing A Vibrant NWI by enabling the safe and fluid movement of people

Transit Security Program

This program seeks to build out the multi-use trail network in NWI.

$3,100,000 *(federal before matching funds and without inflation)*
is targeted to this program annually.

Project types in program	Score tier	Targeted for funding?	Funding source targeted?
Transit security *Funding required to be spent to improve the safety and security of transit*	**Tier 1**	**Yes**	**5307** **5337**

New Roadways for A Connected NWI

New roadways may connect gaps in the road network, but they can also spur more land development away from existing corridors and take away from reinvesting in areas where infrastructure investments have already been made. This program is not currently targeted for long-range funding through the existing levels of funding allocated to NWI from FHWA, as higher-impact programs and projects do more to achieve the vision of NWI 2050. In the short-term there are a limited number of projects awarded funding as they had already started project engineering at the time of Plan development.

New Roadways Program

This program adds new roadways and facilities to NWI's existing roadway network.

$0 *(federal before matching funds and without inflation)*
is targeted to this program annually.

Project types in program	Score tier	Targeted for funding?	Funding source targeted?
New bridge / roadway / tunnel construction *Funding for new roadways, bridges, or tunnels*	**Tier 3**	**No, but eligible**	**Not targeted for funding**
Surface transport infrastructure to facilitate port "linkages" *Funding for new roadways connect port facilities to existing transportation system*	**Tier 3**	**No, but eligible**	**Not targeted for funding**
New truck parking facilities *Funding new parking specifically for trucks*	**Tier 3**	**No, but eligible**	**Not targeted for funding**
Construction of minor collectors in same corridor as NHS route *Funding to construct service lanes along arterial roads; NHS owned by INDOT*	**Tier 3**	**No, but eligible**	**Not targeted for funding**

For more detailed information on funding for transportation in NWI, please consult the 2020-2024 Transportation Improvement Program, which is the short-range element of this Plan. Funding is contingent on Congressional authorization and appropriations. All assumptions are based on current federal and state policy and funding eligibility.

Transportation Funding for NWI

Estimated funding for transportation investments with an assumption of modest revenue increases of 1.5% per year. The funding represented is what is directly allocated to NWI plus estimated local match. *INDOT and discretionary revenue is above and beyond.*

Lake and Porter Counties	2020 – 2024 *(fed + match)*	2025 – 2029	2030 – 2034	2035 – 2039	2040 – 2044	2045 – 2049	Total for Plan
Transit / operating	$38,823,996	$47,194,765	$50,842,165	$54,771,452	$54,004,409	$63,564,506	**$314,201,292**
Multi-use trails	$16,115,329	$19,079,688	$20,554,243	$22,142,757	$23,854,038	$25,697,574	**$127,443,628**
Transit / asset management	$195,016,221	$204,075,883	$219,847,684	$236,838,394	$255,142,213	$274,860,625	**$1,385,781,020**
Air quality	$4,292,383	$10,060,199	$10,837,692	$11,675,272	$12,577,584	$13,549,630	**$62,993,214**
Complete streets	$7,336,838	$11,905,725	$12,825,848	$13,817,080	$14,884,920	$16,035,286	**$76,805,696**
Transit / customer experience	$4,312,000	$3,638,302	$3,919,485	$4,222,398	$4,548,722	$4,900,266	**$25,541,173**
Transit / expansion	$3,951,875	$5,550,455	$5,979,416	$6,441,529	$6,939,357	$7,475,658	**$36,338,289**
Planning	$2,801,785	$4,683,196	$5,045,132	$5,435,040	$5,855,082	$6,307,586	**$30,127,822**
Environment	$934,350	$3,122,131	$3,363,422	$3,623,360	$3,903,388	$4,205,057	**$19,151,708**
Quality of place	$50,236,474	$5,203,551	$5,605,703	$6,038,934	$6,505,647	$7,008,429	**$80,598,737**
Transit / security	$1,592,408	$2,077,237	$2,237,774	$2,410,718	$2,597,028	$2,797,737	**$13,712,902**
Roadway improvements	$45,144,520	$81,428,640	$87,721,771	$94,501,261	$101,804,697	$109,672,572	**$520,273,461**
New roadways	$405,000	$5,805,000	$0	$0	$0	$0	**$6,210,000**
Total	**$370,963,632**	**$403,824,773**	**$428,780,335**	**$461,918,196**	**$497,617,084**	**$536,074,924**	**$2,699,178,944**

Transportation Funding for NWI

Estimated funding for transportation investments with an assumption of modest revenue increases of 1.5% per year. The funding represented is what is directly allocated to NWI plus estimated local match. *INDOT and discretionary revenue is above and beyond.*

LaPorte County	2020 – 2024 *(fed + match)*	2025 – 2029	2030 – 2034	2035 – 2039	2040 – 2044	2045 – 2049	Total for Plan
Transit / operating	$10,645,420	$10,562,515	$11,378,829	$12,258,230	$13,205,595	$14,226,177	$72,276,767
Multi-use trails	$7,305,774	$1,942,659	$2,092,796	$2,254,535	$2,428,775	$2,616,480	$18,641,019
Transit / asset management	$1,687,500	$1,276,603	$1,375,264	$1,481,550	$1,596,050	$1,719,399	$9,136,366
Air quality	$15,720	$2,497,705	$2,690,737	$2,898,688	$3,122,710	$3,364,046	$14,589,606
Complete streets	$1,313,375	$1,665,136	$1,793,825	$1,932,459	$2,081,807	$2,242,697	$11,029,299
Transit / customer experience	$0	$0	$0	$0	$0	$0	$0
Transit / expansion	$0	$0	$0	$0	$0	$0	$0
Planning	$91,375	$277,523	$298,971	$322,076	$346,968	$373,783	$1,710,696
Environment	$0	$0	$0	$0	$0	$0	$0
Quality of place	$0	$0	$0	$0	$0	$0	$0
Transit / security	$0	$52,885	$56,972	$61,375	$66,118	$71,228	$308,578
Roadway improvements	$3,703,750	$6,438,527	$6,936,123	$7,472,174	$8,049,654	$8,671,763	$41,271,991
New roadways	$0	$0	$0	$0	$0	$	$
Total	$24,762,914	$24,713,553	$26,623,516	$28,681,088	$30,897,677	$33,285,573	$168,964,321

Short-range Investments

Regional transportation investments in the 2020-2024 TIP are the short-range of element of NWI 2050 and average just over $54 million in federal-aid per year for Lake, Porter and LaPorte Counties. By far the largest of these expenditures are projects in the roadway improvements and transit asset management programs. These projects entail critical capital maintenance functions on the existing transit and roadway networks, the South Shore Line, bus vehicles, and roadways. In LaPorte County, transit operating projects constitute the largest transit expenditure, due to a greater number of on-demand services in comparison to fixed-route systems. In Lake and Porter Counties, just over $5 million, or 10%, is programmed for operating projects, ranking fourth overall.

Short-range Investments for NWI

Where are the federal transportation funds allocated to NWI being invested from 2020-2024?

1	Transit / operations	$49,469,416	
2	Multi-use paths	$23,421,103	
3	Transit / asset management	$196,703,721	
4	Air quality	$4,308,557	
5	Complete Streets	$8,650,213	
6	Transit / customer experience	$4,312,000	
7	Transit / expansion		Bus: $3,951,875
8	Planning		$2,893,161
9	Environment		$934,350
10	Quality of place		$50,236,474
11	Roadway improvements		$48,848,270
12	Transit / safety		$1,592,408
13	New roadways		$405,000

Investments for NWI

What are the specific projects to note for fiscal constraint or air quality conformity?

Complete by 2020

	Beginning Point	End Point	Sponsor	Federal Estimated Cost (YOE)	Non-Federal Estimated Cost (YOE)
I 65 Added Travel Lanes	US 30	SR 2	INDOT	2018: $55,800,000	2018: $6,200,000
Cline Ave Bridge	Riley Rd Interchange	Michigan Ave Interchange	East Chicago	$0	2019: $150,000,000
45th Ave Added Center Turn Lane	Chase St	Grant St	Lake County	2016: $184,780	2016: $46,195
101st Ave Added Travel Lanes	Georgia St	Mississippi St	Merrillville	2019: $2,423,000	2019: $643,546
Parrish Ave Added Center Turn Lane	Joliet St	US 231	St. John	$0	2018: $1,950,000
Broadway Metro Express	Gary Metro Center	Methodist Southlake Hospital	Gary Public Transportation Corporation	2017: $7,600,000	2017: $1,900,000
US 20 Added Center Turn Lane	US 421	US 35/SR 212	INDOT	2018: $8,961,600	2018: $2,240,400
US 20 Interchange Modification at US-35/SR 212	Meer Rd	US 35/SR 212 Interchange	INDOT	2018: $517,600	2018: $129,400
US 20 New Interchange at SR 2	1,590 feet from US 20/SR 2 Interchange	1,590 feet from US-20/SR-2 Interchange	INDOT	2019: $9,398,400	2019: $2,349,600

Complete by 2025

	Beginning Point	End Point	Sponsor	Federal Estimated Cost (YOE)	Non-Federal Estimated Cost (YOE)
US 41 Added Center Turn Lane	Standard Ave	US 231	INDOT	2019: $3,991,200	2019: $997,800
SR 49 Consecutive Intersection Improvements	Porter Ave	Gateway Blvd	INDOT	2023: $10,856,317	2023: $2,714,079
US 20 Added Center Turn Lane	SR 39	Fail Rd	INDOT	2023: $14,460,108	2023: $3,615,027
109th Ave Consecutive Intersection Improvements	SR 53	Iowa St	Crown Point/INDOT	2021: $2,643,125	2021: $7,576,875
Gostlin St/Sheffield Ave/Chicago St Added Travel Lanes	Illinois State Line	US 41	Hammond	2020: $9,400,000	2020: $2,350,000
45th St Added Center Turn Lane	Whitcomb St	Chase St	Lake County	2020: $2,255,000	2020: $563,750
Mississippi St Added Travel Lanes	93rd Ave	101st Ave	Merrillville	2020: $3,612,000	2020: $903,250
45th St Grade Separation and Realignment	0.3 miles West of Calumet Ave	Southwood Dr	Munster	2019: $16,800,000	2019: $4,843,293
93rd Ave Added Center Turn Lane	White Oak Ave	US 41	St. John	$0	2024: $3,487,347
109th Ave Added Center Turn Lane	Calumet Ave	US 41	St. John	$0	2024: $3,812,928
Calumet Ave Added Center Turn Lane	101st Ave	109th Ave	St. John	$0	2024: $3,398,710
Kennedy Ave Expansion	Oak St	US 30	Schererville	2024: $12,465,179	2024: $3,116,295
Vale Park Rd Extension	Winter Park Dr	Windsor Tr	Valparaiso	$0	2020: $4,480,000
South Shore Line Double Track	Tennessee St	Michigan Blvd	NICTD	$0	2022: $388,603,154
West Lake Corridor commuter rail service	Hammond Gateway Station	Main St - Munster/Dyer	NICTD	$0	2022: $768,335,733

Complete by 2030

	Beginning Point	End Point	Sponsor	Federal Estimated Cost (YOE)	Non-Federal Estimated Cost (YOE)
US 41 Added Center Turn Lane	US 231	SR 2	INDOT	2028: $36,877,815	2028: $9,219,454
Main St Extension	Burnham Ave (Illinois)	Columbia Ave/Sheffield Ave	Munster	2028: $2,631,548	2028: $657,887
Willowcreek Rd Extension	700 N	SR 130	Porter County	2025: $4,617,000	2025: $1,188,000
85th Ave Added Center Turn Lane	US 41	Parrish Ave	St. John	$0	2028: $5,828,139
93rd Ave Added Travel Lanes	Calumet Ave	Cline Ave	St. John	$0	2028: $36,217,098
109th Ave Added Travel Lanes	Calumet Ave	US 41	St. John	$0	2028: $10,220,018
Blaine Ave Added Center Turn Lane	93rd Ave	101st Ave	St. John	$0	2028: $5,438,393
Calumet Ave Added Travel Lanes	101st Ave	109th Ave	St. John	$0	2028: $9,906,218
Cline Ave Added Travel Lanes	101st Ave	109th Ave	St. John	$0	2028: $4,513,833
White Oak Ave Added Center Turn Lane	93rd Ave	101st Ave	St. John	$0	2028: $7,051,199
Kennedy Ave Added Travel Lanes	Main St	Oak St	Schererville	2025: $4,936,400	2025: $1,234,100
Vale Park Rd Added Center Turn Lane	Calumet Ave	Silhavy Rd	Valparaiso	2027: $3,423,275	2027: $855,819

Complete by 2040

Projects Complete by 2040	Beginning Point	End Point	Sponsor	Federal Estimated Cost (YOE)	Non-Federal Estimated Cost (YOE)
Division Rd Added Center Turn Lane	Sturdy Rd	375 E	Valparaiso	2038: $2,868,640	2040: $717,160
LaPorte County Eastern Bypass	SR 39	US 35	LaPorte County	2035: $104,000,000	2035: $26,000,000

Complete by 2050

Projects Complete by 2050	Beginning Point	End Point	Sponsor	Federal Estimated Cost (YOE)	Non-Federal Estimated Cost (YOE)
Division Rd Added Center Turn Lane	SR 2	Sturdy Rd	Valparaiso/Porter County	2048: $6,151,100	2048: $1,537,775

Operations / Maintenance Demonstration for Locally-Owned Roadways *(table does not include property tax or TIF revenue available – see TIF zone map)*

Transportation related taxes and revenue streams to LPAs	Wheel & Excise Tax possible	Wheel & Excise Tax Received	Local Road & Street 2018 receipts	Motor Vehicle Highway 2018 Receipts	Cumulative Bridge 2018 Receipts	Sum	Projected Revenues 2020 - 2024	Programed Local Matching Costs 2020 - 2024	Revenues Available for Operations / Maintenance
County									
Lake	$ 21,621,781.50	$ -	$ 1,305,367.36	$ 9,267,388.33	$ 2,652,106.67	$13,224,862.36	$ 66,124,311.80	$ 9,417,600.00	$ 56,706,711.80
LaPorte	$ 6,422,437.45	$ -	$ 1,289,457.69	$ 5,617,764.51	$ 1,569,231.74	$ 8,476,453.94	$ 42,382,269.70	$ 1,084,818.00	$ 41,297,451.70
Porter	$ 8,767,453.45	$ -	$ 1,767,968.44	$ 6,231,931.54	$ 2,137,310.96	$10,137,210.94	$ 50,686,054.70	$ 3,786,274.00	$ 46,899,780.70
City/Town									
Beverly Shores			$ 36,556.51	$ 102,859.90		$ 139,416.41	$ 697,082.05	$ -	$ 697,082.05
Burns Harbor			$ 29,191.55	$ 178,628.21		$ 207,819.76	$ 1,039,098.80	$ 997,934.00	$ 41,164.80
Cedar Lake	$ 250,723.33		$ 241,133.99	$ 540,685.55		$ 781,819.54	$ 3,909,097.70	$ 564,213.00	$ 3,344,884.70
Chesterton	$ 347,597.27		$ 257,543.85	$ 1,541,062.60		$ 1,798,606.45	$ 8,993,032.25	$ 1,209,375.00	$ 7,783,657.25
Crown Point	$ 592,564.83	$ 592,565.00	$ 535,837.54	$ 3,090,432.37		$ 3,626,269.91	$ 18,131,349.55	$ 3,209,000.00	$ 14,922,349.55
Dune Acres			$ 9,764.27	$ 61,697.67		$ 71,461.94	$ 357,309.70	$ -	$ 357,309.70
Dyer	$ 533,534.56	$ 355,535.00	$ 286,892.59	$ 1,127,098.74		$ 1,413,991.33	$ 7,069,956.65	$ -	$ 7,069,956.65
East Chicago	$ 644,213.87		$ 464,093.28	$ 1,385,624.47		$ 1,849,717.75	$ 9,248,588.75	$ 828,000.00	$ 8,420,588.75
Gary	$ 1,741,750.57	$ 1,741,751.00	$ 1,600,769.83	$ 3,776,700.21		$ 5,377,470.04	$ 26,887,350.20	$ 11,755,301.00	$ 15,132,049.20
Griffith	$ 366,445.72		$ 300,190.89	$ 1,033,702.85		$ 1,333,893.74	$ 6,669,468.70	$ -	$ 6,669,468.70
Hammond	$ 1,753,377.57		$ 1,355,317.22	$ 5,920,247.91		$ 7,275,565.13	$ 36,377,825.65	$ 21,635,250.00	$ 14,742,575.65
Hebron			$ 64,445.50	$ 176,909.01		$ 241,354.51	$ 1,206,772.55	$ -	$ 1,206,772.55
Highland	$ 514,689.96		$ 496,006.80	$ 1,604,317.69		$ 2,100,324.49	$ 10,501,622.45	$ 280,000.00	$ 10,221,622.45
Hobart	$ 630,352.58		$ 587,884.47	$ 3,535,806.66		$ 4,123,691.13	$ 20,618,455.65	$ 12,837,797.00	$ 7,780,658.65
Kingsbury			$ 4,819.62	$ 11,291.03		$ 16,110.65	$ 80,553.25	$ -	$ 80,553.25
Kouts			$ 35,122.34	$ 156,441.85		$ 191,564.19	$ 957,820.95	$ -	$ 957,820.95
LaCrosse			$ 10,704.74	$ 25,708.10		$ 36,412.84	$ 182,064.20	$ -	$ 182,064.20
Lake Station	$ 272,713.88		$ 254,790.30	$ 829,539.60		$ 1,084,329.90	$ 5,421,649.50	$ 454,403.00	$ 4,967,246.50
Lowell			$ 183,425.77	$ 901,253.06		$ 1,084,678.83	$ 5,423,394.15	$ -	$ 5,423,394.15
La Porte	$ 633,539.33	$ 633,539.00	$ 357,631.81	$ 1,225,721.53		$ 1,583,353.34	$ 7,916,766.70	$ 3,685,076.00	$ 4,231,690.70
Long Beach			$ 26,519.30	$ 395,952.54		$ 422,471.84	$ 2,112,359.20	$ -	$ 2,112,359.20
Merrillville	$ 764,550.66	$ 764,551.00	$ 728,863.06	$ 1,744,478.43		$ 2,473,341.49	$ 12,366,707.45	$ 5,173,820.00	$ 7,192,887.45
Michiana Shores			$ 9,976.03	$ 20,586.58		$ 30,562.61	$ 152,813.05	$ -	$ 152,813.05
Michigan City (2017)	$ 904,352.29		$ 1,584,335.12	$ 377,153.27		$ 1,961,488.39	$ 9,807,441.95	$ 5,136,001.00	$ 4,671,440.95
Munster	$ 512,000.13	$ 512,000.00	$ 435,155.90	$ 2,348,734.36		$ 2,783,890.26	$ 13,919,451.30	$ 1,339,120.00	$ 12,580,331.30
New Chicago			$ 42,142.80	$ 95,947.33		$ 138,090.13	$ 690,450.65	$ -	$ 690,450.65
Ogden Dunes			$ 25,093.10	$ 227,617.78		$ 252,710.88	$ 1,263,554.40	$ -	$ 1,263,554.40
Pines			$ 19,396.94	$ 61,046.19		$ 80,443.13	$ 402,215.65	$ -	$ 402,215.65
Pottawattamie Park			$ 4,792.00	$ 18,969.00		$ 23,761.00	$ 118,805.00	$ -	$ 118,805.00
Portage (2017)	$ 979,592.30		$ 665,756.30	$ 5,012,986.13		$ 5,678,742.43	$ 28,393,712.15	$ 10,333,652.00	$ 18,060,060.15
Porter			$ 74,695.58	$ 757,378.89		$ 832,074.47	$ 4,160,372.35	$ -	$ 4,160,372.35
Schererville	$ 634,343.93		$ 810,307.09	$ 1,735,999.29		$ 2,546,306.38	$ 12,731,531.90	$ 12,809,579.00	$ (78,047.10)
Schneider			$ 99,319.12	$ 38,590.46		$ 137,909.58	$ 689,547.90	$ -	$ 689,547.90
St. John	$ 322,128.63		$ 332,534.90	$ 847,481.05		$ 1,180,015.95	$ 5,900,079.75	$ -	$ 5,900,079.75
Trail Creek			$ 32,139.17	$ 208,746.03		$ 240,885.20	$ 1,204,426.00	$ -	$ 1,204,426.00
Valparaiso	$ 843,989.99	$ 843,990.00	$ 571,951.58	$ 2,522,800.50		$ 3,094,752.08	$ 15,473,760.40	$ 17,984,760.00	$ (2,510,999.60)
Wanatah			$ 19,914.80	$ 133,072.65		$ 152,987.45	$ 764,937.25	$ -	$ 764,937.25
Westville	$ 168,145.18		$ 80,348.87	$ 320,549.68		$ 400,898.55	$ 2,004,492.75	$ -	$ 2,004,492.75
Whiting	$ 108,379.28		$ 80,560.70	$ 235,485.62		$ 316,046.32	$ 1,580,231.60	$ -	$ 1,580,231.60
Winfield			$ 214,330.47	$ 932,763.22		$ 1,147,093.69	$ 5,735,468.45	$ 391,200.00	$ 5,344,268.45

Group I – Transit Operations / Maintenance Demonstration

In millions, rounded		2020	2021	2022	2023	2024
Expenses:	**Total**	**$48.7**	**$51.4**	**$41.0**	**$49.1**	**$49.1**
	Transit / operating	$6.9	$6.7	$7.0	$8.0	$8.2
	Transit / asset management	$36.8	$40.8	$33.2	$40.6	$39.8
	Transit / customer experience	$2.1	$2.2	$0.05	$ -	$0.05
	Transit / expansion	$1.0	$1.2	$0.73	$0.46	$0.94
	Transit / safety	$1.9	$0.5	$0.05	$ -	$ -
Revenue:	**Total**	**$48.7**	**$51.4**	**$45.0**	**$49.1**	**$49.1**
	Federal	$35.7	$39.2	$35.5	$37.7	$17.4
	State (PMTF)*	$7.5	$7.5	$7.5	$7.5	$7.5
	Local	$5.5	$4.6	$2.0	$3.9	$24.2

Group II – Transit Operations / Maintenance Demonstration

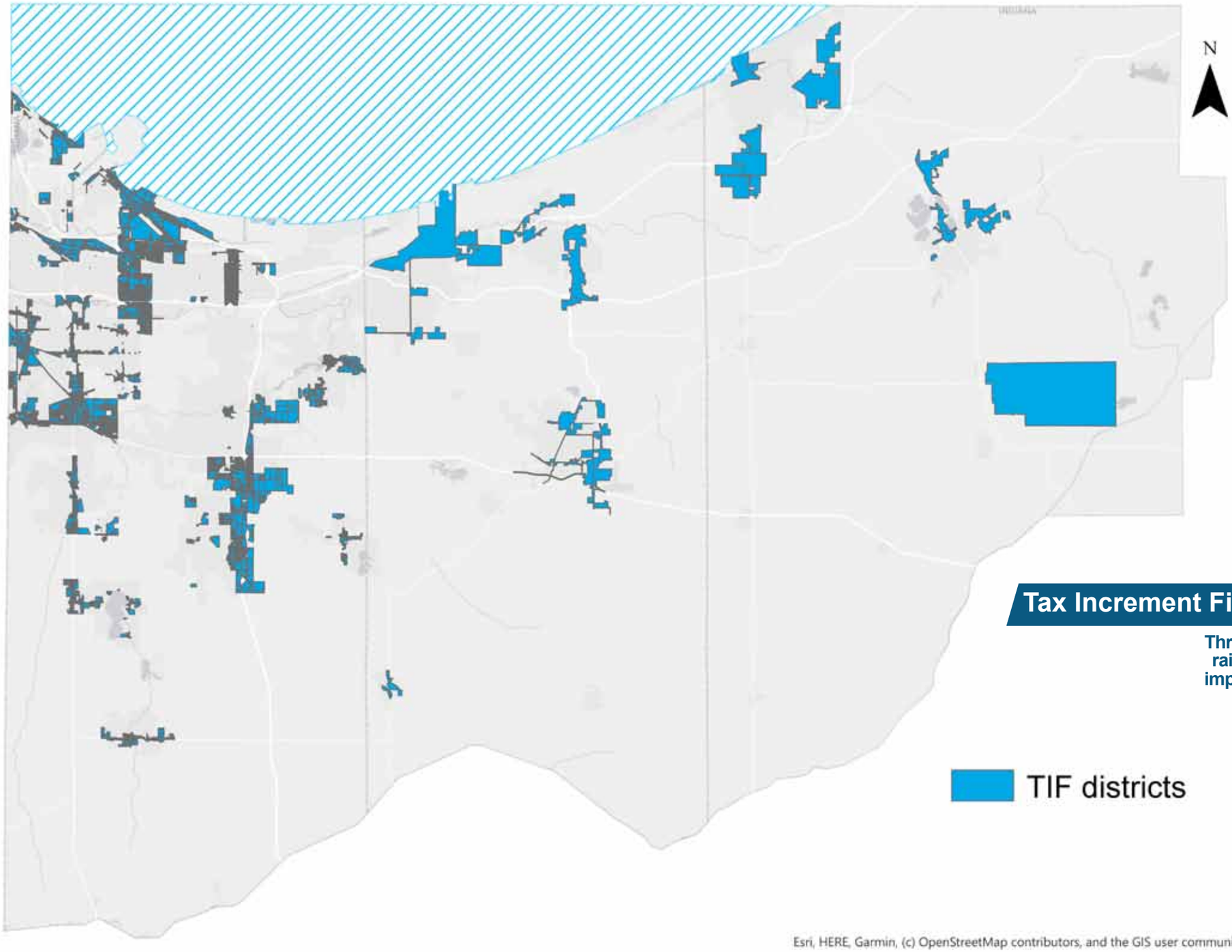
Expenses:	**Total**	**$2.2**	**$2.6**	**$2.3**	**$3.6**	**$2.9**
	Transit / operating	$2.2	$2.3	$2.3	$2.3	$2.4
	Transit / asset management	$ -	$0.3	$ -	$1.3	$0.5
	Transit / customer experience	$ -	$ -	$ -	$ -	$ -
	Transit / expansion	$ -	$ -	$ -	$ -	$ -
	Transit / safety	$ -	$ -	$ -	$ -	$ -
Revenue:	**Total**	**$2.2**	**$2.6**	**$2.3**	**$3.6**	**$2.9**
	Federal	$1.0	$1.4	$1.1	$2.1	$1.5
	State (PMTF)*	$0.2	$0.2	$0.2	$0.2	$0.2
	Local	$0.9	$1.0	$1.0	$1.3	$1.1

***State revenue figures frozen at the 2018 PMTF allocation**

***PMTF award in Group I includes TransPorte. PMTF award for Group II, excludes TransPorte**

The Indiana Department of Transportation calculated in 2012 that for every lane mile the overall maintenance expenditure was $6,069. This included costs for:

- **In-house labor, equipment (including rentals), materials (including winter operations) for our maintenance crews**
- **Contract costs for maintenance activities, such as rest parks, guardrail, mowing, restriping, etc.**



Tax Increment Finance opportunities

Throughtout NWI are special zones that raise revenue to support infrastructure improvements and leverage federal-aid.

Investments for NWI

South Shore Line Double Track / West Lake Extension / South Bend Realignment

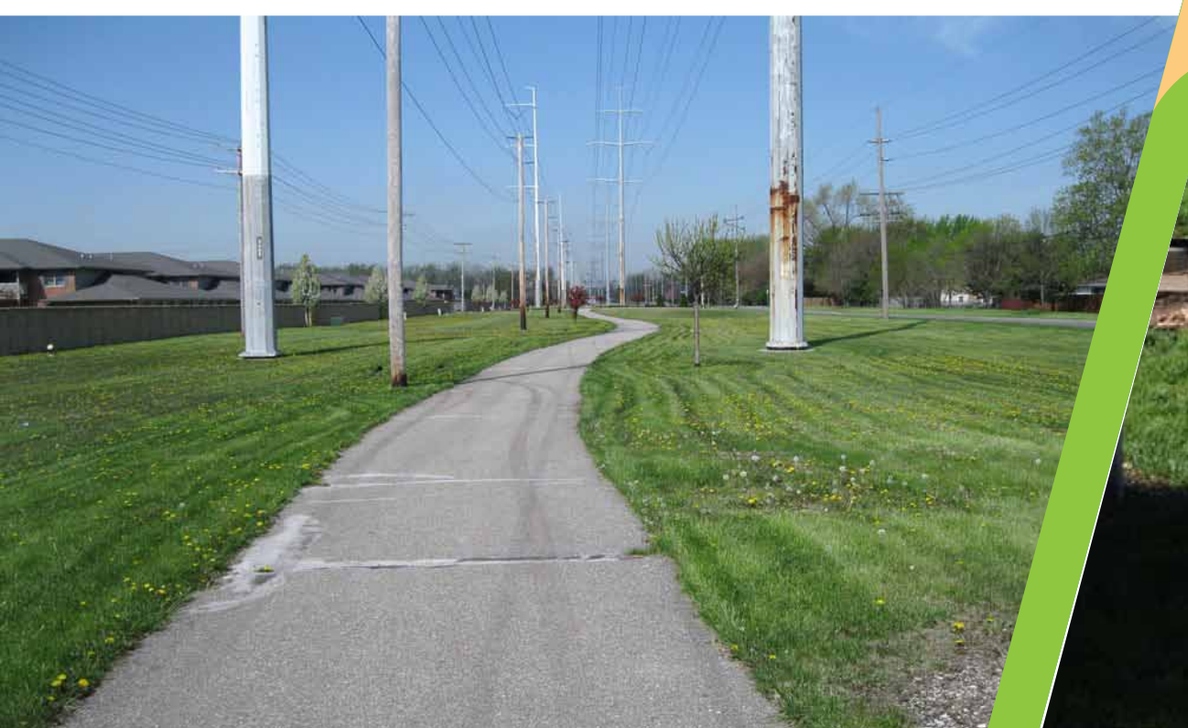
The Northern Indiana Commuter Transportation District's (NICTD) existing South Shore Line (SSL) provides a vital transportation link that connects NWI to Chicago. The SSL proposes to expand the SSL from single track to double track between Gary and Michigan City and construct, signal, power, and platform improvements at five passenger stations. This Plan details proposed improvements to the South Shore Line traveling approximately 25 miles through Lake, Porter and La Porte Counties, and the communities of Gary, Portage, Ogden Dunes, Dune Acres, Beverly Shores, Pines and Michigan City, Indiana. The project's main component is to add a second track to the single track route, and move the street-running tracks along 10th and 11th Streets in Michigan City. This will allow the SSL to add trains for more frequent service, reduce delays and improve travel times. For more information go to: http://www.doubletrack-nwi.com/

The West Lake Corridor Project would be an approximate 8-mile southern extension of the existing South Shore Line (SSL) between Dyer and Hammond, Indiana. Trains on the new branch line would connect with the existing SSL and ultimately Metra Electric District's (MED) line to the north. The proposed project would provide new transit service between Dyer, Indiana and Metra's Millennium Station in Downtown Chicago, Illinois, a total distance of approximately 29 miles. For more information go to: http://www.nictdwestlake.com/

Project type	LPA / Transit operator	Project description	CN or Transit			Total cost
			Total	Federal	Match	
West Lake Extension	NICTD	2020 New Start- Run an 8 mile commuter rail line from Hammond to Dyer	$ 82,057,666	$ -	$ 82,057,666	$ 82,057,666
West Lake Extension	NICTD	2021 New Start - Run an 8-mile commuter ral line from Hammond to Dyer	$ 247,157,685	$ -	$ 247,157,685	$ 247,157,685
West Lake Extension	NICTD	2022 New Start - Run an 8-mile commuter ral line from Hammond to Dyer	$ 271,772,118	$ -	$ 271,772,118	$ 271,772,118
West Lake Extension	NICTD	2023 New Start - Run an 8-mile commuter ral line from Hammond to Dyer	$ 157,054,845	$ -	$ 157,054,845	$ 157,054,845
West Lake Extension	NICTD	2024 New Start - Run an 8-mile commuter ral line from Hammond to Dyer	$ 10,293,419	$ -	$ 10,293,419	$ 10,293,419
Double Track	NICTD	2020 New Start - Double track from Michigan City to Gary	$ 28,121,068	$ -	$ 28,121,068	$ 28,121,068
Double Track	NICTD	2021 New Start - Double track from Michigan City to Gary	$ 100,625,675	$ -	$ 100,625,675	$ 100,625,675
Double Track	NICTD	2022 New Start - Double track from Michigan City to Gary	$ 220,235,945	$ -	$ 220,235,945	$ 220,235,945
Double Track	NICTD	2023 New Start - Double track from Michigan City to Gary	$ 39,620,466	$ -	$ 39,620,466	$ 39,620,466
South Bend Realignment	NICTD	2020 BUILD - South Bend Realignment	$ 5,000,000	$ -	$ 5,000,000	$ 5,000,000
South Bend Realignment	NICTD	2021 BUILD - South Bend Realignment	$ 15,000,000	$ -	$ 15,000,000	$ 15,000,000
South Bend Realignment	NICTD	2022 BUILD - South Bend Realignment	$ 10,000,000	$ -	$ 10,000,000	$ 10,000,000

Moving on from transit and roadway projects are those aimed at enhancing the safe movement of pedestrians and bicycles. Chief among these are multi-use trail projects which serve as non-motorized “superhighways” through most of the region’s urbanized areas. Most of these trail corridors are along former railroad lines, with many miles built along linear properties owned by the Northern Indiana Public Service Company (NIPSCO). Partnered with trail projects are those identified in the complete streets program, which targets safe access for all intended users of a road corridor. These projects include sidewalks and protected bike lanes, which taken together with trails help advance a true network of non-motorized connections throughout the region. Nearly $5 million per year, or 10% overall, has been targeted for these active transportation projects in the 2020-2024 TIP.

The air quality program fares well with investments in alternative fuel infrastructure and vehicle emission reduction projects. Roughly $2 million per year, or 4%, is programmed in all three counties for these initiatives. Rounding out the investments over the next five years are those projects involving quality of place, planning, and the environment. Quality of place funding includes legacy roadway expansion projects previously programmed in the 2018-2021 TIP and carried forward into the 2020-2024 TIP. The Quality of place program will eventually shift to focus more traffic calming and placemaking project types.



Long-range Investments

The 2020-2024 TIP process represented a sea change in how projects are reviewed and programmed in relation to the region's long-range planning goals. The foundation of this enhanced process are the sixteen critical paths developed through public input as outlined and emphasized throughout the NWI 2050 Plan. Thus the NWI 2050 Plan represents a program-based, not project-based, document. A project-based plan too narrowly defines the outcome of a plan by the projects it contains, based on needs known only today. By contrast, a program-based plan leaves open the opportunity to adjust to information gained over time, without having already tied the region to a slate of projects that may no longer contribute to the outcomes desired from a plan. A limited number of projects are explicitly identified because they may have been modeled for impacts on air quality, or to demonstrate fiscal constraint due to design or right-of-way phases funded in the 2020-2024 TIP but with construction phases expected between 2025-2030.

Investments in transit and roadway improvement projects will continue to be sought for the foreseeable future to sustain our existing system. Upgrading and expanding regional transit facilities is essential to improving the quality of life of residents, and in turn is attractive for new employers.

Although investments in transit and roadways will always remain critical, increased funding for programs that strengthen the NWI 2050 Plan's vision statements will carry forward with emphasis. Most notably are projects that reduce the reliance on automobiles for short trips, such as additional miles of off-road trails and complete streets facilities, in order to connect all users to our transportation system, as well as quality of place projects. Further benefits are realized with advancing alternative fueling technologies, including natural gas, propane, and fast-charge stations for electric vehicles.

Environmentally-based projects will continue to rise to prominence with an appreciation of stormwater management practices which embrace natural solutions and possibly mitigate against vulnerabilities from climate change. A part of this focus are those projects aimed at protecting wildlife with structures facilitating their safe passage within road corridors, and which have an additional safety benefit afforded drivers as well.

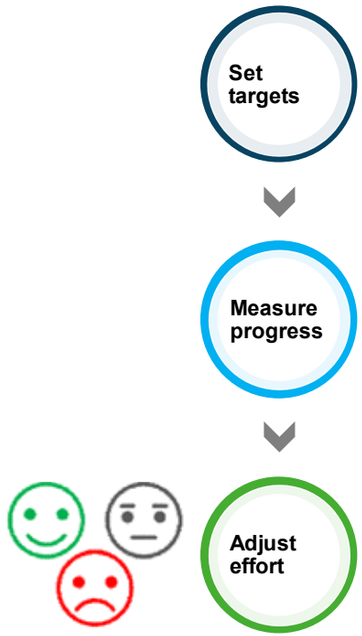
Complementing federal funding allocated to NWI are major capital investment projects for our surface transportation network, such as the South Shore Line's Westlake extension and double-tracking project, and also projects off of the surface transportation network, such as continued development of the Gary-Chicago International Airport, Port of Indiana, and Buffington Harbor. These large-scale endeavors figure to provide significant benefits to NWI, which should be carefully matched with surface transportation projects to continue to promote the prosperity of the region.

Performance-based Planning Framework

A significant influence in the development of the NWI 2050 Plan is the federal transportation authorization act, the Fixing America's Surface Transportation (FAST) Act, and the Clean Air Act. The FAST Act is a five-year authorization and intends to improve surface transportation infrastructure, including roads, bridges, transit systems, bicycle, and pedestrian networks. The FAST Act reforms and strengthens transportation programs, revises national planning guidelines, provides more flexibility for states and local governments, and streamlines project approval processes while maintaining a strong commitment to safety. A performance-based planning framework is required by this federal regulation to be embedded within the NWI 2050 long-range plan.

Performance-based Planning Framework

A routine check-in on how the Region is doing.



State Departments of Transportation (DOTs), Metropolitan Planning Organizations (MPOs), and transit providers must use performance measures and targets based upon the national performance measures established from the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA). These are emphasized in the goal areas of safety, infrastructure condition, congestion reduction, system reliability, freight movement and economic vitality, environmental sustainability, and reduced project delivery delays. The objective of the performance measures involves investing resources in projects to achieve targets that collectively will make progress towards national goals in addition to regional and local goals. The NWI 2050 Plan satisfies and addresses all federal and state requirements, and includes all the routine planning activities in a long-range plan which includes existing conditions, modal planning, air quality conformity, and financial planning.

The NWI 2050 Plan addresses the ten national transportation planning factors outlined in the FAST Act:

Ten National Planning Factors

What must this Plan consider? There is a regulation from USDOT for that.

1	Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency
2	Increase the safety of the transportation system for motorized and non-motorized users
3	Increase the security of the transportation system for motorized and non-motorized users
4	Increase accessibility and mobility of people and freight
5	Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns
6	Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight
7	Promote efficient system management and operation
8	Emphasize the preservation of the existing transportation system;
9	Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation; and
10	Enhance travel and tourism

The *NWI 2050 Plan* establishes a performance-based planning (PbP) approach to transportation decision-making. Pivoting off of the federal PbP requirements, and the sixteen critical paths to achieve the four visions of the NWI 2050 Plan, a PbP framework was established that goes above and beyond federal requirements, and responding to each critical path to measure progress. A PbP process focuses on a performance-driven, outcome-based program that provides a greater level of transparency and accountability, an improved project selection decision-making, and a more efficient investment of federal transportation funds.

Federal Requirements

- PbP has been federally required since MAP-21 (2012), and was reinforced by the FAST Act (2015).
- For twenty USDOT performance measures, states have one year after the United States Department of Transportation (USDOT) issues final performance rule makings to adopt performance targets. Metropolitan Planning Organizations (MPOs) have 180-days after the states to act to either adopt state performance targets or set their own. NWI has so far elected to support the state performance targets, as many pertain only to the National Highway System, which INDOT owns.
- For eight USDOT required performance measures, NWI's subrecipient transit operators must cooperatively comply with the performance targets through asset and safety plans.

Going above and beyond:

- NWI will monitor and evaluate progress toward achieving the 16 critical paths outlined in the NWI 2050 Plan.
- Strategies have been identified that NWI can implement or leverage to improve progress toward achieving the critical paths.
- Projects and programs investments will be prioritized that best advance progress toward achieving the critical paths

Each measure in this framework is presented with its corresponding critical path. Measures that are federally required are noted as such and have different performance target dates as required by federal regulation. Each measure is asked six questions:

- What is the performance measure?
- Why is the measure important?
- What is the scope of analysis?
- What data/analysis is needed to support measure?
- What is happening today?
- What is the targeted performance?

Update land development policies and strategies to emphasize accessibility between people and opportunities.

- **Measure: All Purpose Average Trip Time**

Update land development policies and strategies to emphasize accessibility between people and opportunities.

What is the performance measure?	**All purpose average trip time**
Why is the measure important?	NWI residents, employees, and visitors should be able to reach their destinations in an acceptable amount of time.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Number of trips in Household Travel Survey; Trip purposes in Household Travel Survey; and Trip times from Household Travel Survey
What is happening today?	By Car: 18.9 min By Transit: 45.1 min
What is the targeted performance?	Decrease
Who could help achieve the targets?	All levels of government, INDOT, transit agencies, NIRPC, residents, employers, developers

- **Measure: Work Purpose Average Trip Time**

Update land development policies and strategies to emphasize accessibility between people and opportunities.

What is the performance measure?	**Work purpose average trip time**
Why is the measure important?	NWI employees should be able to reach their workplaces in an acceptable amount of time.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Number of trips in Household Travel Survey; Trip purposes in Household Travel Survey; and Trip times from Household Travel Survey
What is happening today?	By Car: Work purpose average trip time: 25.6 min By Transit: Work purpose average trip time: 92.9 min
What is the targeted performance?	Decrease
Who could help achieve the targets?	All levels of government, INDOT, transit agencies, NIRPC, residents, employers

- **Measure: Retail/Service Purpose Average Trip Time**

Update land development policies and strategies to emphasize accessibility between people and opportunities.

What is the performance measure?	**Retail/Service purpose average trip time**
Why is the measure important?	NWI residents and visitors should be able to reach shopping destinations and run their errands in an acceptable amount of time.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Number of trips in Household Travel Survey; Trip purposes in Household Travel Survey; and Trip times from Household Travel Survey
What is happening today?	By Car: 15.3 min By Transit: 65.2 min
What is the targeted performance?	Decrease
Who could help achieve the targets?	All levels of government, INDOT, transit agencies, NIRPC, residents, employers, developers

- **Measure: School Purpose Average Trip Time**

Update land development policies and strategies to emphasize accessibility between people and opportunities.

What is the performance measure?	**School purpose average trip time**
Why is the measure important?	NWI residents should be able to pursue an education without unreasonable barriers like long travel times.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Number of trips in Household Travel Survey; Trip purposes in Household Travel Survey; and Trip times from Household Travel Survey
What is happening today?	By Car: 15.2 min By Transit (including school bus): 27.8 min
What is the targeted performance?	Decrease
Who could help achieve the targets?	All levels of government, INDOT, transit agencies, NIRPC, residents, and school districts

- **Measure: School Purpose Average Trip Time**

Update land development policies and strategies to emphasize accessibility between people and opportunities.

What is the performance measure?	**Medical care purpose average trip time**
Why is the measure important?	NWI residents, employees, and visitors should be able to access medical care in an acceptable amount of time.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Number of trips in Household Travel Survey; Trip purposes in Household Travel Survey; and Trip times from Household Travel Survey
What is happening today?	By Car: 21.5 min By Transit: 57.2 min
What is the targeted performance?	Decrease
Who could help achieve the targets?	All levels of government, INDOT, transit agencies, NIRPC, residents, health care providers, developers

- **Measure: Other Purpose Average Trip Time**

Update land development policies and strategies to emphasize accessibility between people and opportunities.

What is the performance measure?	**Other purpose average trip time**
Why is the measure important?	NWI residents, employees, and visitors should be able to reach social, recreational, and other destinations in an acceptable amount of time.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Number of trips in Household Travel Survey; Trip purposes in Household Travel Survey; and Trip times from Household Travel Survey
What is happening today?	By Car: 19.5 min By Transit: 70.5 min
What is the targeted performance?	Decrease
Who could help achieve the targets?	All levels of government, INDOT, transit agencies, NIRPC, residents, employers, tourism bureaus, National Park Service, DNR, developers

Connect fragmented natural areas and integrate links between people and green spaces to increase resiliency and health outcomes.

- **Measure: Acres in Managed Lands**

Connect fragmented natural areas and integrate links between people and green spaces to increase resiliency and health outcomes.

What is the performance measure?	**Acres in managed lands**
Why is the measure important?	NWI residents, employees, and visitors should be able to access natural areas and green spaces that are maintained and protected from future development.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Land Cover from USGS
What is happening today?	Acres in managed lands: 49,302
What is the targeted performance?	Increase 
Who could help achieve the targets?	U.S. Department of the Interior, Indiana Department of Natural Resources, NIRPC, municipal and county governments, land trusts, residents, developers

- **Measure: School Purpose Average Trip Time**

Connect fragmented natural areas and integrate links between people and green spaces to increase resiliency and health outcomes.

What is the performance measure?	**Acres in core habitat (40 + acres)**
Why is the measure important?	Flora and fauna that thrive in NWI should be allowed the opportunity to continue thriving in large blocks of habitat unimpeded by development.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Land Cover from USGS
What is happening today?	Acres in core habitat: 228,767
What is the targeted performance?	Increase 
Who could help achieve the targets?	U.S. Department of the Interior, Indiana Department of Natural Resources, NIRPC, municipal and county governments, land trusts, residents, developers

- **Measure: Acres in Secondary Habitat**

Connect fragmented natural areas and integrate links between people and green spaces to increase resiliency and health outcomes.

What is the performance measure?	**Acres in secondary habitat**
Why is the measure important?	Flora and fauna that thrive in NWI should be allowed the opportunity to continue thriving in medium blocks of habitat unimpeded by development.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Land cover from USGS
What is happening today?	Acres in secondary habitat: 33,648
What is the targeted performance?	Increase 
Who could help achieve the targets?	U.S. Department of the Interior, Indiana Department of Natural Resources, NIRPC, municipal and county governments, land trusts, residents, developers

- **Measure: Percent Urban Tree Canopy**

Connect fragmented natural areas and integrate links between people and green spaces to increase resiliency and health outcomes.

What is the performance measure?	**Percent urban tree canopy**
Why is the measure important?	NWI residents, employees, and visitors should be able to experience nature and enjoy the many benefits that trees provide without having to leave already developed areas.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Urban tree canopy from USDA Forest Service
What is happening today?	Percent urban tree canopy: 17.1%
What is the targeted performance?	Increase 
Who could help achieve the targets?	Municipal and county governments, Indiana Department of Natural Resources, NIRPC, residents, employers, developers

Complete roadway, bicycle, sidewalk, and transit networks across municipal and county lines to enhance safe and efficient access to opportunities

- **Measure: Percent of Population within ¼-mile Network Distance to a Trail or Bicycle Facility**

Complete roadway, bicycle, sidewalk, and transit networks across municipal and county lines to enhance safe and efficient access to opportunities for all.

What is the performance measure?	**Percent of population within ¼-mile network distance to a trail or bicycle facility**
Why is the measure important?	NWI residents closer to trails or bicycle facilities enjoy safer and more convenient access to destinations via nonmotorized travel, enjoy greater recreational opportunities, while making less impact on the environment.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Sidewalk, bicycle, and trail facilities from municipalities/counties and INDOT
What is happening today?	Percent of population within ¼-mile network distance to sidewalk, trail or bicycle facility: 13.7%
What is the targeted performance?	Increase 
Who could help achieve the targets?	US Department of Transportation, Indiana Department of Natural Resources, INDOT, NIRPC, municipal and county governments, residents, employers, developers, bicycle coalitions

- **Measure: Percent of Population within ¼-mile Network Distance to a Trail or Bicycle Facility Crossing Municipal/County Jurisdictions**

Complete roadway, bicycle, sidewalk, and transit networks across municipal and county lines to enhance safe and efficient access to opportunities for all.

What is the performance measure?	**Percent of population within ¼-mile network distance to a trail or bicycle facility crossing municipal/county jurisdictions**
Why is the measure important?	NWI residents closer to trails or bicycle facilities that cross municipal boundaries enjoy safer and more convenient access to further away destinations via nonmotorized travel, enjoy greater recreational opportunities, while making less impact on the environment.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Sidewalk, bicycle, and trail facilities from municipalities/counties and INDOT
What is happening today?	Percent of population within ¼-mile network distance to sidewalk, trail or bicycle facility crossing municipal/county jurisdictions: 7.9%
What is the targeted performance?	Increase 
Who could help achieve the targets?	US Department of Transportation, Indiana Department of Natural Resources, INDOT, NIRPC, municipal and county governments, residents, employers, developers, bicycle coalitions

- **Measure: Number of People within Fixed-Route Transit Service Areas (¼ mile for Bus, ½ Mile for Commuter Bus and Commuter Rail)**

Complete roadway, bicycle, sidewalk, and transit networks across municipal and county lines to enhance safe and efficient access to opportunities for all.

What is the performance measure?	**Number of people within fixed-route transit service areas (¼ mile for bus, ½ mile for commuter bus and commuter rail)**
Why is the measure important?	NWI residents, workers, and visitors should be able to have more travel mode choices available to them on a convenient, day-to-day basis, including a fixed-route transit service.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Transit service data from transit operators
What is happening today?	Number of people served by transit service(s): 79,659
What is the targeted performance?	Increase 
Who could help achieve the targets?	U.S. Department of Transportation, Transit Agencies, NIRPC, municipal and county governments, residents, developers

- **Measure: Number of Fatalities**

Complete roadway, bicycle, sidewalk, and transit networks across municipal and county lines to enhance safe and efficient access to opportunities for all.

What is the performance measure?	**Number of fatalities**
Why is the measure important? *Federally required*	NWI residents, workers, and visitors deserve to not have their lives endangered by the Region's road transportation system.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Crashes from ARIES crash database
What is happening today?	Number of fatalities: 90 annually
What is the targeted performance?	98 in 2019 in order to support the state target of 889.6
Who could help achieve the targets?	U.S. Department of Transportation, National Highway Traffic Safety Administration, INDOT, NIRPC, municipal and county governments, motorists, freight carriers, first responders

- **Measure: Rate of Fatalities per 100 Million Vehicle Miles Traveled**

Complete roadway, bicycle, sidewalk, and transit networks across municipal and county lines to enhance safe and efficient access to opportunities for all.

What is the performance measure?	**Rate of fatalities per 100 million vehicle miles traveled**
Why is the measure important? *Federally required*	NWI residents, workers, and visitors deserve to not have their lives endangered by the Region's road transportation system.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Crashes from ARIES crash database
What is happening today?	Rate of fatalities per 100 million vehicle miles traveled: 0.799 (baseline year 2017)
What is the targeted performance?	0.838 in 2019 in order to support the state target of 1.087
Who could help achieve the targets?	U.S. Department of Transportation, National Highway Traffic Safety Administration, INDOT, NIRPC, municipal and county governments, motorists, freight carriers, first responders

- **Measure: Number of Serious Injuries**

Complete roadway, bicycle, sidewalk, and transit networks across municipal and county lines to enhance safe and efficient access to opportunities for all.

What is the performance measure?	**Number of serious injuries**
Why is the measure important? *Federally required*	NWI residents, workers, and visitors deserve to not risk serious injury while traveling the Region's road transportation system.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Crashes from ARIES crash database
What is happening today?	Number of serious injuries: 443 annually (baseline year 2017)
What is the targeted performance?	445 in 2019 in order to support the state target of 3,501.9
Who could help achieve the targets?	U.S. Department of Transportation, National Highway Traffic Safety Administration, INDOT, NIRPC, municipal and county governments, motorists, freight carriers, first responders

- **Measure: Rate of Serious Injuries per 100 Million Vehicle Miles Traveled**

Complete roadway, bicycle, sidewalk, and transit networks across municipal and county lines to enhance safe and efficient access to opportunities for all.

What is the performance measure?	**Rate of serious injuries per 100 million vehicle miles traveled**
Why is the measure important? *Federally required*	NWI residents, workers, and visitors deserve to not risk serious injury while traveling the Region's road transportation system.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Crashes from ARIES crash database
What is happening today?	Rate of serious injuries per 100 million vehicle miles traveled: 3.910 (baseline year 2017)
What is the targeted performance?	3.808 in 2019 in order to support the state target of 4.234
Who could help achieve the targets?	U.S. Department of Transportation, National Highway Traffic Safety Administration, INDOT, NIRPC, municipal and county governments, motorists, freight carriers, first responders

- **Measure: Number of Non-Motorized Serious Injuries and Fatalities**

Complete roadway, bicycle, sidewalk, and transit networks across municipal and county lines to enhance safe and efficient access to opportunities for all.

What is the performance measure?	**Number of non-motorized serious injuries and fatalities**
Why is the measure important? *Federally required*	Pedestrians and cyclists in NWI deserve to not have their lives endangered while walking and biking in the Region.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Crashes from ARIES crash database
What is happening today?	Number of non-motorized serious injuries and fatalities: 62 annually
What is the targeted performance?	58 in 2019 in order to support the state target of 393.6
Who could help achieve the targets?	U.S. Department of Transportation, National Highway Traffic Safety Administration, INDOT, NIRPC, municipal and county governments, motorists, pedestrians, cyclists, freight carriers, first responders

- **Measure: Percent of Non-Single Occupancy Vehicle Travel in the Chicago, IL-IN Urbanized Area**

Complete roadway, bicycle, sidewalk, and transit networks across municipal and county lines to enhance safe and efficient access to opportunities for all.

What is the performance measure?	**Percent of non-single occupancy vehicle travel in the Chicago, IL-IN urbanized area**
Why is the measure important? *Federally required*	NWI residents, workers, and visitors deserve alternative mobility options to driving alone that are convenient and efficient. Any mode shift from driving alone to alternative modes will help alleviate congestion and improve air quality.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Mode share data from the US Census Bureau
What is happening today?	Percent of non-single occupancy vehicle travel in the Chicago, IL-IN urbanized area: 30.6% (baseline year 2017)
What is the targeted performance?	31.4% by 2019 and 31.9% by 2021
Who could help achieve the targets?	U.S. Department of Transportation, Transit Agencies, NIRPC, municipal and county governments, residents, employers, shared mobility providers

- **Measure: Total Number of Reportable Fatalities and Rate per Total Vehicle Revenue Miles by Mode**

Complete roadway, bicycle, sidewalk, and transit networks across municipal and county lines to enhance safe and efficient access to opportunities for all.

What is the performance measure?	**Total number of reportable fatalities and rate per total vehicle revenue miles by mode**
Why is the measure important? *Federally required*	NWI residents, workers, and visitors deserve to not have their lives endangered by the Region's transit system.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Transit safety data from operators
What is happening today?	Total number of reportable fatalities and rate per total vehicle revenue miles by mode: Bus (including demand response): 0, Rail: 0
What is the targeted performance?	Bus (including demand response): 0 by 2035 and 0 by 2050 Rail: 0 by 2035 and 0 by 2050
Who could help achieve the targets?	U.S. Department of Transportation, INDOT, Transit Agencies, NIRPC, municipal and county governments, residents, developers, first responders

- **Measure: Total Number of Reportable Injuries and Rate per Total Vehicle Revenue Miles by Mode**

Complete roadway, bicycle, sidewalk, and transit networks across municipal and county lines to enhance safe and efficient access to opportunities for all.

What is the performance measure?	**Total number of reportable injuries and rate per total vehicle revenue miles by mode**
Why is the measure important? *Federally required*	NWI residents, workers, and visitors deserve to not risk serious injury while using the Region's transit system.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Transit safety data from operators
What is happening today?	Total number of reportable injuries and rate per total vehicle revenue miles by mode: Bus (including demand response): 0, Rail: 0
What is the targeted performance?	Bus (including demand response): 0 by 2035 and 0 by 2050 Rail: 0 by 2035 and 0 by 2050
Who could help achieve the targets?	U.S. Department of Transportation, INDOT, Transit Agencies, NIRPC, municipal and county governments, residents, developers, first responders

- **Measure: Total Number of Reportable Events and Rate per Total Vehicle Revenue Miles by Mode**

Complete roadway, bicycle, sidewalk, and transit networks across municipal and county lines to enhance safe and efficient access to opportunities for all.

What is the performance measure?	**Total number of reportable events and rate per total vehicle revenue miles by mode**
Why is the measure important? *Federally required*	NWI residents, workers, and visitors deserve to not have their safety compromised while using the Region's transit system.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Transit safety data from operators
What is happening today?	Total number of reportable events and rate per total vehicle revenue miles by mode: Bus (including demand response): 0, Rail: 0
What is the targeted performance?	Bus (including demand response): 0 by 2035 and 0 by 2050 Rail: 0 by 2035 and 0 by 2050
Who could help achieve the targets?	U.S. Department of Transportation, INDOT, Transit Agencies, NIRPC, municipal and county governments, residents, developers, first responders

Commit to removing barriers and obstacles to guarantee equal and accessible opportunities.

- **Measure: Gini Coefficient (Income Inequality)**

Commit to removing barriers and obstacles to guarantee equal and accessible opportunities.

What is the performance measure?	**Gini coefficient (income inequality)**
Why is the measure important?	The Region will provide better and more equal opportunities for residents to thrive if there is a more equal distribution of incomes across households.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together, US Census block groups
What data/analysis is needed?	Household income data from the US Census Bureau
What is happening today?	Gini coefficient: 0.44
What is the targeted performance?	Decrease
Who could help achieve the targets?	US Department of Commerce, US Department of Housing and Urban Development, US Department of Labor, Indiana State Government, NIRPC, municipal and county governments, employers, residents, developers

- **Measure: Socioeconomic Status (SES) Index (Measure of Socioeconomic Status)**

Commit to removing barriers and obstacles to guarantee equal and accessible opportunities.

What is the performance measure?	**Socioeconomic Status (SES) Index (measure of socioeconomic status)**
Why is the measure important?	A Region with a higher SES Index is a Region that performs better across many socioeconomic factors such as income, education, occupation, employment, and other social environmental factors.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together, US Census block groups
What data/analysis is needed?	Input from Socioeconomic data
What is happening today?	Socioeconomic Status (SES) index: 1.41 (1 is national average, below 1 is worse, above 1 is better)
What is the targeted performance?	Increase
Who could help achieve the targets?	US Department of Commerce, US Department of Labor, Indiana Economic Development Corporation, banks/financial institutions, educational institutions, NIRPC, residents, employers

- **Measure: Moran's I of SES Index (Spatial Clustering)**

Commit to removing barriers and obstacles to guarantee equal and accessible opportunities.

What is the performance measure?	**Moran's I of SES Index (spatial clustering)**
Why is the measure important?	Less spatial clustering of NWI residents into areas with similar socioeconomic characteristics means greater opportunities for NWI residents to gain diverse perspectives and be more attuned to effective leadership.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together, US Census block groups
What data/analysis is needed?	Input from Socioeconomic data
What is happening today?	Moran's I of SES Index: 0.1569 (0 is perfect randomness and 1 is perfect segregation)
What is the targeted performance?	Decrease
Who could help achieve the targets?	US Department of Commerce, US Department of Labor, Indiana Economic Development Corporation, banks/financial institutions, educational institutions, NIRPC, residents, employers

- **Measure: Area Deprivation Index (Measure of an Area's Socioeconomic Deprivation and Distress)**

Commit to removing barriers and obstacles to guarantee equal and accessible opportunities.

What is the performance measure?	**Area Deprivation Index (measure of an area's socioeconomic deprivation and distress)**
Why is the measure important?	A Region with a lower Area Deprivation Index is a Region that experiences lower levels of socioeconomic distress across many variables.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together, US Census block groups
What data/analysis is needed?	Input from Socioeconomic data
What is happening today?	Area Deprivation Index: 1.01 (1 is national average, below 1 is better, above 1 is worse)
What is the targeted performance?	Decrease
Who could help achieve the targets?	US Department of Commerce, US Department of Labor, Indiana Economic Development Corporation, banks/financial institutions, educational institutions, NIRPC, residents, employers

- **Measure: Moran's I of Area Deprivation Index (Spatial Clustering)**

Commit to removing barriers and obstacles to guarantee equal and accessible opportunities.

What is the performance measure?	**Moran's I of Area Deprivation Index (spatial clustering)**
Why is the measure important?	Less spatial clustering of NWI residents into areas with similar socioeconomic deprivation characteristics means greater opportunities for NWI residents to gain diverse perspectives and be more attuned to effective leadership.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together, US Census block groups
What data/analysis is needed?	Input from Socioeconomic data
What is happening today?	Moran's I of Area Deprivation Index (0 is perfect randomness and 1 is perfect segregation) : 0.6471
What is the targeted performance?	Decrease
Who could help achieve the targets?	US Department of Commerce, US Department of Labor, Indiana Economic Development Corporation, banks/financial institutions, educational institutions, NIRPC, residents, employers

- **Measure: Moran's I of Earnings (Spatial Clustering)**

Commit to removing barriers and obstacles to guarantee equal and accessible opportunities.

What is the performance measure?	**Moran's I of earnings (spatial clustering)**
Why is the measure important?	Less spatial clustering of NWI workers into areas with similar earnings means the Region is providing more diverse opportunities to exchange ideas with workers of different backgrounds for a more productive Region.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together, zip codes
What data/analysis is needed?	Payroll and employment from County Business Patterns
What is happening today?	Moran's I of earnings (0 is perfect randomness, 1 is perfect segregation): 0.1660
What is the targeted performance?	Decrease
Who could help achieve the targets?	US Department of Commerce, US Department of Labor, Indiana Economic Development Corporation, banks/financial institutions, educational institutions, NIRPC, residents, employers

Maximize growth in existing centers to enhance civic and economic life and to protect natural areas and farmland.

- **Measure: Population in "Main Centers"**

Maximize growth in existing centers to enhance civic and economic life and to protect natural areas and farmland.

What is the performance measure?	**Population in "Main Centers"**
Why is the measure important?	NWI residents living in "Main Centers," (more dense downtowns and centers of communities) will enjoy greater access to nearby opportunities reached via more mobility options while minimizing environmental impact.
What is the scope of analysis?	Municipalities in Lake, Porter, and LaPorte Counties together.
What data/analysis is needed?	# of Workers/Population Ratio from US Census Bureau, Employment Data from Longitudinal Employer-Household Dynamics (LEHD)
What is happening today?	Population in "Main Centers": 71,456
What is the targeted performance?	Increase 
Who could help achieve the targets?	US Department of Commerce, US Department of Housing and Urban Development, Indiana Housing & Community Development Authority, NIRPC, NWI Forum, One Region, municipal and county governments, Transit agencies, bicycle coalitions, residents, employers, developers

- **Measure: Employment in "Main Centers"**

Maximize growth in existing centers to enhance civic and economic life and to protect natural areas and farmland.

What is the performance measure?	**Employment in "Main Centers"**
Why is the measure important?	NWI workers working in "Main Centers" will not only enjoy greater ease of access to their workplaces, but will also enjoy greater access to nearby opportunities reached via more mobility options while minimizing environmental impact.
What is the scope of analysis?	Municipalities in Lake, Porter, and LaPorte Counties together.
What data/analysis is needed?	Employment Data from Longitudinal Employer-Household Dynamics (LEHD)
What is happening today?	Employment in "Main Centers": 51,073
What is the targeted performance?	Increase 
Who could help achieve the targets?	US Department of Commerce, US Department of Labor, Indiana Economic Development Corporation, NIRPC, NWI Forum, One Region, municipal and county governments, Transit agencies, bicycle coalitions, residents, employers, developers

- **Measure: Average Walk Score in "Main Centers"**

Maximize growth in existing centers to enhance civic and economic life and to protect natural areas and farmland.

What is the performance measure?	**Average Walk Score in "Main Centers"**
Why is the measure important?	NWI residents, workers, and visitors should be able to conveniently walk to many types of destinations while in downtown areas and community centers.
What is the scope of analysis?	Municipalities in Lake, Porter, and LaPorte Counties together.
What data/analysis is needed?	Walk Score from www.walkscore.com
What is happening today?	Average Walk Score in "Main Centers": 48.1
What is the targeted performance?	Increase
Who could help achieve the targets?	US Department of Commerce, US Department of Transportation, INDOT, Indiana Economic Development Corporation, NIRPC, municipal and county governments, Transit agencies, bicycle coalitions, residents, employers, developers

- **Measure: Percent of Households Burdened by Housing Costs (>30% of household income spent on housing)**

Maximize growth in existing centers to enhance civic and economic life and to protect natural areas and farmland.

What is the performance measure?	**Percent households burdened by housing costs (>30% of household income spent on housing)**
Why is the measure important?	NWI households that spend high portions of their incomes on housing risk falling into poverty or homelessness and have less leftover income to save for other life goals and to spend on improving the NWI economy.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Housing costs (both owner and renter-occupied) as a percentage of household income from US Census Bureau
What is happening today?	Percent households burdened by housing costs: 27.8%
What is the targeted performance?	Decrease
Who could help achieve the targets?	US Department of Housing and Urban Development, US Department of Labor, Indiana Housing & Community Development Authority, OCRA, banks/financial institutions, developers, employers

Clean and protect the air, land, water, and natural habitats to sustain and enhance the environment's safety and health for all.

- **Measure: Number of Annual Ozone Emission Critical Value Exceedances**

Clean and protect the air, land, water, and natural habitats to sustain and enhance the environment's safety and health for all.

What is the performance measure?	**Number of annual ozone emission critical value exceedances**
Why is the measure important?	NWI residents, workers, and visitors deserve clean air to breathe and to not suffer poor air quality-related health ailments.
What is the scope of analysis?	Indiana Department of Environmental Management (IDEM)-regulated emissions monitors throughout Lake, Porter, and LaPorte County
What data/analysis is needed?	8-Hour Ozone Air Quality Action and Exceedance Days Summary from IDEM
What is happening today?	Number of annual ozone emission critical value exceedances: 4
What is the targeted performance?	Decrease 
Who could help achieve the targets?	US Environmental Protection Agency, US Department of Transportation, IDEM, INDOT, Transit agencies, NIRPC, NIPSCO, South Shore Clean Cities, residents, employers, environmental groups

- **Measure: Number of Voluntary Remediation Program sites**

Clean and protect the air, land, water, and natural habitats to sustain and enhance the environment's safety and health for all.

What is the performance measure?	**Number of Voluntary Remediation Program sites**
Why is the measure important?	Brownfield sites remediated and prepared for future use concentrates development in denser areas more likely to have existing infrastructure service while minimizing sprawl, while in turn resulting in better environmental quality for nearby residents and workers.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Voluntary Remediation Program (VRP) sites from IDEM
What is happening today?	Number of Voluntary Remediation Program sites: 105
What is the targeted performance?	Increase 
Who could help achieve the targets?	US Environmental Protection Agency, Indiana Department of Environmental Management, NIRPC, NWI Brownfields Coalition, municipal and county governments, employers, residents, developers

- **Measure: Number of Yearly Beach Closure Days**

Clean and protect the air, land, water, and natural habitats to sustain and enhance the environment's safety and health for all.

What is the performance measure?	**Number of yearly beach closure days**
Why is the measure important?	NWI residents, workers, and visitors deserve to access the world-class beaches that the Region offers without worrying that the beaches might be closed due to hazardous conditions.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Yearly beach closure days from IDEM
What is happening today?	Number of yearly beach closure days (32 beaches): 744
What is the targeted performance?	Decrease
Who could help achieve the targets?	US Environmental Protection Agency, IDEM, environmental groups, residents, employers, developers

- **Measure: Impaired Waters**

Clean and protect the air, land, water, and natural habitats to sustain and enhance the environment's safety and health for all.

What is the performance measure?	**Impaired Waters**
Why is the measure important?	NWI residents, workers, and visitors deserve clean water not only to drink but also to recreate in, navigate, and sustainably fish and protect for future generations.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	IDEM Section 303(D) List Of Impaired Waters
What is happening today?	Impaired Waters: 394
What is the targeted performance?	Decrease
Who could help achieve the targets?	US Environmental Protection Agency, IDEM, NIRPC, environmental groups, residents, employers, developers

- **Measure: Volatile Organic Compounds (VOC) reduction from Congestion Mitigation Air Quality (CMAQ)-funded projects (kg/day)**

Clean and protect the air, land, water, and natural habitats to sustain and enhance the environment's safety and health for all.

What is the performance measure?	**Volatile Organic Compounds (VOC) reduction from Congestion Mitigation Air Quality (CMAQ)-funded projects (kg/day)**
Why is the measure important? *Federally required*	VOCs are a key ingredient to producing ozone emissions, so using CMAQ funds to fund projects that reduce VOC emissions will help the Region lower ozone emissions and protect residents, workers, and visitors.
What is the scope of analysis?	CMAQ-funded projects in Lake, Porter, and LaPorte Counties.
What data/analysis is needed?	VOC emissions claimed in the CMAQ project applications for CMAQ-funded projects.
What is happening today?	VOC reduction from CMAQ-funded projects (kg/day): 10,327.75 (baseline year 2017)
What is the targeted performance?	1,600.00 by 2019 and 2,600.00 by 2021 (statewide targets)
Who could help achieve the targets?	US Environmental Protection Agency, US Department of Transportation, IDEM, INDOT, Transit agencies, NIRPC, NIPSCO, South Shore Clean Cities, residents, employers, environmental groups

- **Measure: Oxides of Nitrogen (NOx) reduction from Congestion Mitigation Air Quality (CMAQ)-funded projects (kg/day)**

Clean and protect the air, land, water, and natural habitats to sustain and enhance the environment's safety and health for all.

What is the performance measure?	**Oxides of Nitrogen (NOx) reduction from Congestion Mitigation Air Quality (CMAQ)-funded projects (kg/day)**
Why is the measure important? *Federally required*	NOx are a key ingredient to producing ozone emissions, so using CMAQ funds to fund projects that reduce NOx emissions will help the Region lower ozone emissions and protect residents, workers, and visitors.
What is the scope of analysis?	CMAQ-funded projects in Lake, Porter, and LaPorte Counties.
What data/analysis is needed?	NOx emissions claimed in the CMAQ project applications for CMAQ-funded projects.
What is happening today?	NOx reduction from CMAQ-funded projects (kg/day): 56,040.23 (baseline year 2017)
What is the targeted performance?	1,600.00 by 2019 and 2,200.00 by 2021 (statewide targets)
Who could help achieve the targets?	US Environmental Protection Agency, US Department of Transportation, IDEM, INDOT, Transit agencies, NIRPC, NIPSCO, South Shore Clean Cities, residents, employers, environmental groups

- **Measure: Carbon Monoxide (CO) reduction from Congestion Mitigation Air Quality (CMAQ)-funded projects (kg/day)**

Clean and protect the air, land, water, and natural habitats to sustain and enhance the environment's safety and health for all.

What is the performance measure?	**Carbon Monoxide (CO) reduction from Congestion Mitigation Air Quality (CMAQ)-funded projects (kg/day)**
Why is the measure important? *Federally required*	CO is an odorless yet extremely poisonous air pollutant, so using CMAQ funds to fund projects that reduce CO emissions will help protect NWI residents, workers, and visitors.
What is the scope of analysis?	CMAQ-funded projects in Lake, Porter, and LaPorte Counties.
What data/analysis is needed?	CO emissions claimed in the CMAQ project applications for CMAQ-funded projects.
What is happening today?	CO reduction from CMAQ-funded projects (kg/day): 512.49 (baseline year 2017)
What is the targeted performance?	200.00 by 2019 and 400.00 by 2021 (statewide targets)
Who could help achieve the targets?	US Environmental Protection Agency, US Department of Transportation, IDEM, INDOT, Transit agencies, NIRPC, NIPSCO, South Shore Clean Cities, residents, employers, environmental groups

- **Measure: Particulate Matter less than 10 microns in diameter (PM10) reduction from Congestion Mitigation**

Clean and protect the air, land, water, and natural habitats to sustain and enhance the environment's safety and health for all.

What is the performance measure?	**Particulate Matter less than 10 microns in diameter (PM10) reduction from Congestion Mitigation Air Quality (CMAQ)-funded projects (kg/day)**
Why is the measure important? *Federally required*	PM10 is harmful to the respiratory system, so using CMAQ funds to fund projects that reduce PM10 emissions will help protect NWI residents, workers, and visitors.
What is the scope of analysis?	CMAQ-funded projects in Lake, Porter, and LaPorte Counties.
What data/analysis is needed?	PM10 emissions claimed in the CMAQ project applications for CMAQ-funded projects.
What is happening today?	PM10 reduction from CMAQ-funded projects (kg/day): 0.00 (no historical applications claiming PM10 reductions)
What is the targeted performance?	0.30 by 2019 and 0.50 by 2021 (statewide targets)
Who could help achieve the targets?	US Environmental Protection Agency, US Department of Transportation, IDEM, INDOT, Transit agencies, NIRPC, NIPSCO, South Shore Clean Cities, residents, employers, environmental groups

Improve roadway, bicycle, sidewalk, and transit networks to revitalize existing urban and rural centers and enhance equity.

- **Measure: Percent of Environmental Justice (EJ) Area Population within ¼-mile of a Trail or Multi-Use Path**

Improve roadway, bicycle, sidewalk, and transit networks to revitalize existing urban and rural centers and enhance equity.

What is the performance measure?	**Percent of Environmental Justice (EJ) area population within ¼-mile of a trail or multi-use path**
Why is the measure important?	NWI residents in EJ areas, areas that experience heightened levels of demographic distress, expect a nonmotorized transportation system to serve them no less than in non-EJ areas.
What is the scope of analysis?	EJ areas in Lake, Porter, and LaPorte Counties together.
What data/analysis is needed?	Various demographic data from the US Census Bureau to determine EJ areas, trail and multi-use path location data from the Indiana Department of Natural Resources, municipal and county governments, and NIRPC
What is happening today?	Percent of EJ area population within ¼-mile of a trail or multi-use path: 9.8%
What is the targeted performance?	Increase 
Who could help achieve the targets?	US Department of Transportation, Indiana Department of Natural Resources, INDOT, NIRPC, municipal and county governments, residents, developers, bicycle coalitions

- **Measure: Population in Environmental Justice Areas within Transit Service Areas**

Improve roadway, bicycle, sidewalk, and transit networks to revitalize existing urban and rural centers and enhance equity.

What is the performance measure?	**Population in Environmental Justice areas within transit service areas**
Why is the measure important?	NWI residents in EJ areas, areas that experience heightened levels of demographic distress, expect a transit system to serve them no less than in non-EJ areas.
What is the scope of analysis?	EJ areas in Lake, Porter, and LaPorte Counties together.
What data/analysis is needed?	Various demographic data from the US Census Bureau to determine EJ areas, transit system location data from transit agencies
What is happening today?	Population in Environmental Justice areas within transit service areas: 49,658
What is the targeted performance?	Increase 
Who could help achieve the targets?	US Department of Transportation, INDOT, transit agencies, NIRPC, municipal and county governments, residents, developers

- **Measure: Percent of Interstate pavements in Good Condition**

Improve roadway, bicycle, sidewalk, and transit networks to revitalize existing urban and rural centers and enhance equity.

What is the performance measure?	**Percent of Interstate pavements in good condition**
Why is the measure important? *Federally required*	NWI residents, workers, and visitors expect a reasonable amount of pavement on the Region's Interstate System to be in good condition, preserving the life of their vehicles and minimizing health risks due to poor pavement quality.
What is the scope of analysis?	Interstate Highways in Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	For asphalt pavements: International Roughness Index (IRI), percent cracking, and percent rutting; for jointed concrete pavements: IRI, percent cracking, percent faulting; for continually reinforced concrete pavements: IRI, percent cracking
What is happening today?	Percent of Interstate pavements in good condition: Data currently unavailable, however, identified as a strategy to build capacity for creating a regional data and analysis framework.
What is the targeted performance?	At least 84.24% by 2019 and at least 84.24% by 2021 (statewide targets)
Who could help achieve the targets?	US Department of Transportation, INDOT, Indiana Toll Road Concession Company, NIRPC, freight carriers, motorists

- **Measure: Percent of Interstate Pavements in Poor Condition**

Improve roadway, bicycle, sidewalk, and transit networks to revitalize existing urban and rural centers and enhance equity.

What is the performance measure?	**Percent of Interstate pavements in poor condition**
Why is the measure important? *Federally required*	NWI residents, workers, and visitors expect a minimal amount of pavement on the Region's Interstate System to be in poor condition, preserving the life of their vehicles and minimizing health risks due to poor pavement quality.
What is the scope of analysis?	Interstate Highways in Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	For asphalt pavements: International Roughness Index (IRI), percent cracking, and percent rutting; for jointed concrete pavements: IRI, percent cracking, percent faulting; for continually reinforced concrete pavements: IRI, percent cracking
What is happening today?	Percent of Interstate pavements in poor condition: Data currently unavailable, however, identified as a strategy to build capacity for creating a regional data and analysis framework.
What is the targeted performance?	No more than 0.80% by 2019 and no more than 0.80% by 2021 (statewide targets)
Who could help achieve the targets?	US Department of Transportation, INDOT, Indiana Toll Road Concession Company, NIRPC, freight carriers, motorists

- **Measure: Percent of Non-Interstate National Highway System (NHS) Pavements in Good Condition**

Improve roadway, bicycle, sidewalk, and transit networks to revitalize existing urban and rural centers and enhance equity.

What is the performance measure?	**Percent of non-Interstate National Highway System (NHS) pavements in good condition**
Why is the measure important? *Federally required*	NWI residents, workers, and visitors expect a reasonable amount of pavement on the Region's major roads and highways to be in good condition, preserving the life of their vehicles and minimizing health risks due to poor pavement quality.
What is the scope of analysis?	Non-Interstate NHS routes in Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	For asphalt pavements: International Roughness Index (IRI), percent cracking, and percent rutting; for jointed concrete pavements: IRI, percent cracking, percent faulting; for continually reinforced concrete pavements: IRI, percent cracking
What is happening today?	Percent of non-Interstate NHS pavements in good condition: Data currently unavailable, however, identified as a strategy to build capacity for creating a regional data and analysis framework.
What is the targeted performance?	At least 78.71% by 2019 and at least 78.71% by 2021 (statewide targets)
Who could help achieve the targets?	US Department of Transportation, INDOT, Ports of Indiana, City of Gary, United Bridge Partners, NIRPC, freight carriers, motorists

- **Measure: Percent of non-Interstate National Highway System (NHS) pavements in poor condition**

Improve roadway, bicycle, sidewalk, and transit networks to revitalize existing urban and rural centers and enhance equity.

What is the performance measure?	**Percent of non-Interstate National Highway System (NHS) pavements in poor condition**
Why is the measure important? *Federally required*	NWI residents, workers, and visitors expect a minimal amount of pavement on the Region's major roads and highways to be in poor condition, preserving the life of their vehicles and minimizing health risks due to poor pavement quality.
What is the scope of analysis?	Non-Interstate NHS routes in Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	For asphalt pavements: International Roughness Index (IRI), percent cracking, and percent rutting; for jointed concrete pavements: IRI, percent cracking, percent faulting; for continually reinforced concrete pavements: IRI, percent cracking
What is happening today?	Percent of non-Interstate NHS pavements in poor condition: Data currently unavailable, however, identified as a strategy to build capacity for creating a regional data and analysis framework.
What is the targeted performance?	No more than 3.10% by 2019 and no more than 3.10% by 2021 (statewide targets)
Who could help achieve the targets?	US Department of Transportation, INDOT, Ports of Indiana, City of Gary, United Bridge Partners, NIRPC, freight carriers, motorists

- **Measure: Percent of National Highway System (NHS) Bridge Area in Good Condition**

Improve roadway, bicycle, sidewalk, and transit networks to revitalize existing urban and rural centers and enhance equity.

What is the performance measure?	**Percent of National Highway System (NHS) bridge area in good condition**
Why is the measure important? *Federally required*	NWI residents, workers, and visitors expect a reasonable number of bridges in the Region to be in good condition, preserving the life of their vehicles and minimizing risk of injury or death due to poor bridge quality.
What is the scope of analysis?	NHS bridges in Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Deck condition, superstructure condition, substructure condition, approach roadway width, structure length, and deck width from National Bridge Inventory
What is happening today?	Percent of National Highway System (NHS) bridge area in good condition: 31.56% (baseline year 2017)
What is the targeted performance?	At least 48.32% by 2019 and at least 48.32% by 2021 (statewide targets)
Who could help achieve the targets?	US Department of Transportation, INDOT, Indiana Toll Road Concession Company, Ports of Indiana, City of Gary, county governments, United Bridge Partners, NIRPC, freight carriers, motorists

- **Measure: Percent of National Highway System (NHS) Bridge Area in Poor Condition**

Improve roadway, bicycle, sidewalk, and transit networks to revitalize existing urban and rural centers and enhance equity.

What is the performance measure?	**Percent of National Highway System (NHS) bridge area in poor condition**
Why is the measure important? *Federally required*	NWI residents, workers, and visitors expect a minimal number of bridges in the Region to be in poor condition, preserving the life of their vehicles and minimizing risk of injury or death due to poor bridge quality.
What is the scope of analysis?	NHS bridges in Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Deck condition, superstructure condition, substructure condition, approach roadway width, structure length, and deck width from National Bridge Inventory
What is happening today?	Percent of National Highway System (NHS) bridge area in poor condition: 4.20% (baseline year 2017)
What is the targeted performance?	No more than 2.63% by 2019 and no more than 2.63% by 2021 (statewide targets)
Who could help achieve the targets?	US Department of Transportation, INDOT, Indiana Toll Road Concession Company, Ports of Indiana, City of Gary, county governments, United Bridge Partners, NIRPC

- **Measure: Number of Vehicles Submitted for Replacement More than One Year from the End of their Useful Life**

Improve roadway, bicycle, sidewalk, and transit networks to revitalize existing urban and rural centers and enhance equity.

What is the performance measure?	**Number of vehicles submitted for replacement more than one year from the end of their useful life**
Why is the measure important? *Federally required*	In order to most efficiently and effectively distribute transit funding to all of the NWI operators, it is important that operators monitor the ages and conditions of their fleets and not prematurely apply for vehicle replacement grants.
What is the scope of analysis?	Transit operator fleets in Lake, Porter, and LaPorte Counties
What data/analysis is needed?	Vehicle types, ages, and mileage from the NWI transit operators
What is happening today?	Number of vehicles submitted for replacement more than one year from the end of their useful life: 0
What is the targeted performance?	0 (every year)
Who could help achieve the targets?	US Department of Transportation, INDOT, transit agencies, NIRPC, municipal and county governments

- **Measure: Number of Revenue Vehicles in Operation that have Met or Exceeded the End of their Useful Life**

Improve roadway, bicycle, sidewalk, and transit networks to revitalize existing urban and rural centers and enhance equity.

What is the performance measure?	**Number of revenue vehicles in operation that have met or exceeded the end of their useful life**
Why is the measure important? *Federally required*	NWI residents, workers, and visitors expect the transit vehicles they ride in to be in safe and operable condition.
What is the scope of analysis?	Transit operator revenue fleets in Lake, Porter, and LaPorte Counties
What data/analysis is needed?	Vehicle types, ages, and mileage from the NWI transit operators
What is happening today?	Number of revenue vehicles in operation that have met or exceeded the end of their useful life: Data currently unavailable, however, identified as a strategy to build capacity for creating a regional data and analysis framework.
What is the targeted performance?	No more than 50% of revenue vehicles in operation (every year)
Who could help achieve the targets?	US Department of Transportation, INDOT, transit agencies, NIRPC, municipal and county governments

- **Measure: Number of Revenue Vehicles Exceeding their Useful Life not Pending Replacement in a Grant**

Improve roadway, bicycle, sidewalk, and transit networks to revitalize existing urban and rural centers and enhance equity.

What is the performance measure?	**Number of revenue vehicles exceeding their useful life not pending replacement in a grant**
Why is the measure important? *Federally required*	NWI residents, workers, and visitors expect the transit vehicles they ride in to be in safe and operable condition. Asset management of their vehicles should be a top priority for transit operators.
What is the scope of analysis?	Transit operator revenue fleets in Lake, Porter, and LaPorte Counties
What data/analysis is needed?	Vehicle types, ages, and mileage from the NWI transit operators
What is happening today?	Number of revenue vehicles exceeding their useful life not pending replacement in a grant: Data currently unavailable, however, identified as a strategy to build capacity for creating a regional data and analysis framework.
What is the targeted performance?	No more than 20% of revenue vehicles in operation (every year)
Who could help achieve the targets?	US Department of Transportation, INDOT, transit agencies, NIRPC, municipal and county governments

- **Measure: Number of Non-Revenue Vehicles in Operation that have Met or Exceeded the End of their Useful Life**

Improve roadway, bicycle, sidewalk, and transit networks to revitalize existing urban and rural centers and enhance equity.

What is the performance measure?	**Number of non-revenue vehicles in operation that have met or exceeded the end of their useful life**
Why is the measure important? *Federally required*	NWI transit operators should not compromise the safety of their employees in maintaining their transit operations.
What is the scope of analysis?	Transit operator non-revenue fleets in Lake, Porter, and LaPorte Counties
What data/analysis is needed?	Vehicle types, ages, and mileage from the NWI transit operators
What is happening today?	Number of non-revenue vehicles in operation that have met or exceeded the end of their useful life: Data currently unavailable, however, identified as a strategy to build capacity for creating a regional data and analysis framework.
What is the targeted performance?	No more than 10% of non-revenue vehicles in operation (every year)
Who could help achieve the targets?	US Department of Transportation, INDOT, transit agencies, NIRPC, municipal and county governments

- **Measure: Annual Cost of Total Vehicle Replacements**

Improve roadway, bicycle, sidewalk, and transit networks to revitalize existing urban and rural centers and enhance equity.

What is the performance measure?	**Annual cost of total vehicle replacements**
Why is the measure important? *Federally required*	Operating and maintaining transit vehicles in good condition is important. At the same time, NWI residents, workers, and visitors expect transit funding to be available for other transit needs such as expansion, customer experience, security, etc.
What is the scope of analysis?	Transit operator fleets in Lake, Porter, and LaPorte Counties
What data/analysis is needed?	NWI transit operator applications for funding
What is happening today?	Annual cost of total vehicle replacements: $639,517
What is the targeted performance?	No more than 10% of total 5307 NWI apportionment
Who could help achieve the targets?	US Department of Transportation, INDOT, transit agencies, NIRPC, municipal and county governments

- **Measure: Number of Vehicles Submitted for Replacement that have a Designated "Inoperable" System**

Improve roadway, bicycle, sidewalk, and transit networks to revitalize existing urban and rural centers and enhance equity.

What is the performance measure?	**Number of vehicles submitted for replacement that have a designated "inoperable" system**
Why is the measure important? *Federally required*	Vehicles submitted for replacement that have a designated "inoperable" system means they are being replaced before the end of their useful lives, possibly at the expense of vehicles that actually are approaching the end of their useful lives.
What is the scope of analysis?	Transit operator fleets in Lake, Porter, and LaPorte Counties
What data/analysis is needed?	Vehicle types, ages, mileage, and system diagnostics from the NWI transit operators
What is happening today?	Number of vehicles submitted for replacement that have a designated "inoperable" system: 0
What is the targeted performance?	0 (every year)
Who could help achieve the targets?	US Department of Transportation, INDOT, transit agencies, NIRPC, municipal and county governments

- **Measure: Number of Vehicles that Have Been Funded that have Not Yet Met the End of their Useful Life**

Improve roadway, bicycle, sidewalk, and transit networks to revitalize existing urban and rural centers and enhance equity.

What is the performance measure?	**Number of vehicles that have been funded that have not yet met the end of their useful life**
Why is the measure important? *Federally required*	In order to most efficiently and effectively fund the NWI transit system residents, workers, and visitors enjoy, it is important that priority always be given to replacing vehicles that have met the end of their useful life.
What is the scope of analysis?	Transit operator fleets in Lake, Porter, and LaPorte Counties
What data/analysis is needed?	Vehicle types, ages, and mileage from the NWI transit operators
What is happening today?	Number of vehicles that have been funded that have not yet met the end of their useful life: Data currently unavailable, however, identified as a strategy to build capacity for creating a regional data and analysis framework.
What is the targeted performance?	0 (every year)
Who could help achieve the targets?	US Department of Transportation, INDOT, transit agencies, NIRPC, municipal and county governments

- **Measure: Number of Vehicles that Have Been Funded While Not on the Indiana Qualified Purchasing Agreement or Other State Cooperative Agreement**

Improve roadway, bicycle, sidewalk, and transit networks to revitalize existing urban and rural centers and enhance equity.

What is the performance measure?	**Number of vehicles that have been funded while not on the Indiana QPA or other state cooperative agreement**
Why is the measure important? *Federally required*	In order to remain compliant with federal and state procurement laws and to ensure that transit operators are procuring the most cost-effective and compliant vehicles, it is important to procure vehicles on the Indiana QPA or other cooperative agreement.
What is the scope of analysis?	Transit operator fleets in Lake, Porter, and LaPorte Counties
What data/analysis is needed?	List of vehicles/vendors on the Indiana QPA or other state cooperative agreement
What is happening today?	Number of vehicles that have been funded while not on the Indiana QPA or other state cooperative agreement: Data currently unavailable, however, identified as a strategy to build capacity for creating a regional data and analysis framework.
What is the targeted performance?	0 (every year)
Who could help achieve the targets?	US Department of Transportation, INDOT, transit agencies, NIRPC, municipal and county governments

Focus educational and workforce development initiatives on expanding skills that the modern economy requires.

- **Measure: Number of People Aged 18-34 with a College, Professional, or Doctoral Degree**

Focus educational and workforce development initiatives on expanding skills that the modern economy requires.

What is the performance measure?	**Number of people aged 18-34 with a college, professional, or doctoral degree**
Why is the measure important?	A higher number of young, working-age people with a higher education degree in NWI means that the NWI workforce is better equipped to sustain higher paying jobs and offer more diversity of employment opportunities to this high-skilled talent pool.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Educational Attainment and age from the US Census Bureau
What is happening today?	Number of people aged 18-34 with a college, professional, or doctoral degree: 41,338
What is the targeted performance?	Increase 
Who could help achieve the targets?	All levels of government, educational institutions, residents, employers, other education and workforce organizations

- **Measure: Labor Force Participation Rate**

Focus educational and workforce development initiatives on expanding skills that the modern economy requires.

What is the performance measure?	**Labor force participation rate**
Why is the measure important?	More NWI residents in the workforce means higher economic productivity and greater wealth in the Region, all else being equal. Also, the fewer NWI residents out of the workforce means that safety net programs can be more beneficial to the average recipient.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Labor force participation rate from the US Census Bureau
What is happening today?	Labor force participation rate: 61.2%
What is the targeted performance?	63.0% by 2035 and 68.0% by 2050
Who could help achieve the targets?	All levels of government, NWI Forum, One Region, educational institutions, residents, employers, other education and workforce organizations

- **Measure: Net Migration**

Focus educational and workforce development initiatives on expanding skills that the modern economy requires.

What is the performance measure?	**Net migration**
Why is the measure important?	More people moving into NWI than moving out signifies that the Region's economy and attractions are strong, and means NWI residents are finding more reasons to stay.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Migration from the US Census Bureau
What is happening today?	-1,272 (net outmigration)
What is the targeted performance?	Increase
Who could help achieve the targets?	All levels of government, NWI Forum, One Region, educational institutions, tourism bureaus, residents, employers

Collaborate regionally to welcome a diversity of people and talent to achieve mixed and balanced growth.

- **Measure: Gini Coefficient (income inequality)**

Collaborate regionally to welcome a diversity of people and talent to achieve mixed and balanced growth.

What is the performance measure?	**Gini Coefficient (income inequality)**
Why is the measure important?	The Region will provide better and more equal opportunities for residents to thrive if there is a more equal distribution of incomes across households.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together, US Census block groups
What data/analysis is needed?	Household income data from the US Census Bureau
What is happening today?	Gini coefficient: 0.44
What is the targeted performance?	Decrease 
Who could help achieve the targets?	US Department of Commerce, US Department of Housing and Urban Development, US Department of Labor, Indiana State Government, NIRPC, municipal and county governments, employers, residents, developers

- **Measure: ESRI Diversity Index**

Collaborate regionally to welcome a diversity of people and talent to achieve mixed and balanced growth.

What is the performance measure?	**ESRI Diversity Index**
Why is the measure important?	NWI residents, workers, and visitors who are more likely to encounter other residents, workers, and visitors different from themselves will have greater opportunities to gain more diverse perspectives and be more attuned to effective leadership.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	ESRI Diversity Index from ESRI
What is happening today?	ESRI Diversity Index: 56.8% (higher is more diverse)
What is the targeted performance?	Increase 
Who could help achieve the targets?	All levels of government, NIRPC, NWI Forum, One Region, educational institutions, employers, residents, developers, tourism bureaus, civic organizations

- **Moran's I of percent minorities (spatial clustering)**

Collaborate regionally to welcome a diversity of people and talent to achieve mixed and balanced growth.

What is the performance measure?	**Moran's I of percent minorities (spatial clustering)**
Why is the measure important?	Less spatial clustering of NWI residents into areas with similar racial and ethnic backgrounds means greater opportunities for NWI residents to gain diverse perspectives and be more attuned to effective leadership.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together, US Census block groups
What data/analysis is needed?	Race and ethnicity from the US Census Bureau, Moran's I from ESRI and GeoDa
What is happening today?	Moran's I of percent minorities: 0.83 (0 is perfect randomness, 1 is perfect segregation)
What is the targeted performance?	Decrease
Who could help achieve the targets?	All levels of government, NIRPC, NWI Forum, One Region, educational institutions, employers, residents, developers, tourism bureaus, civic organizations

- **Moran's I of median household income (spatial clustering)**

Collaborate regionally to welcome a diversity of people and talent to achieve mixed and balanced growth.

What is the performance measure?	**Moran's I of median household income (spatial clustering)**
Why is the measure important?	Less spatial clustering of NWI residents into areas with similar household incomes means greater opportunities for NWI residents to gain diverse perspectives and be more attuned to effective leadership.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together, US Census block groups
What data/analysis is needed?	Median Household Income from the US Census Bureau, Moran's I from ESRI and GeoDa
What is happening today?	Moran's I of percent minorities: 0.52 (0 is perfect randomness, 1 is perfect segregation)
What is the targeted performance?	Decrease
Who could help achieve the targets?	All levels of government, NIRPC, NWI Forum, One Region, educational institutions, employers, residents, developers, banks/financial institutions, tourism bureaus, civic organizations

- **Net migration**

Collaborate regionally to welcome a diversity of people and talent to achieve mixed and balanced growth.

What is the performance measure?	**Net migration**
Why is the measure important?	More people moving into NWI than moving out signifies that the Region's economy and attractions are strong, and means NWI residents are finding more reasons to stay.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Migration from the US Census Bureau
What is happening today?	-1,272 (net outmigration)
What is the targeted performance?	Increase 
Who could help achieve the targets?	All levels of government, NIRPC, NWI Forum, One Region, educational institutions, tourism bureaus, residents, employers

Build region-wide coalitions to advance environmental sustainability for the benefit of future generations.

- **Number of organizations participating in Watershed Groups**

Build region-wide coalitions to advance environmental sustainability for the benefit of future generations.

Why is the measure important?	Watershed Groups that meet in NWI will benefit from a larger and more diverse set of contributing organizations that will bring better informed perspectives to tackling the Region's water and watershed-related challenges.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Attendance sheets from Watershed Groups
What is happening today?	Number of organizations participating in Watershed Groups: *Pending* Data currently unavailable, however, identified as a strategy to build capacity for creating a regional data and analysis framework.
What is the targeted performance?	Pending baseline information
Who could help achieve the targets?	US Environmental Protection Agency, US Coast Guard, IDEM, IDNR, Lake Michigan Coastal Program, Calumet Collaborative, Alliance for the Great Lakes, NIRPC, NWI Forum, municipal and county governments, residents, employers, developers

- **Number of organizations participating in Air Quality Coalitions**

Build region-wide coalitions to advance environmental sustainability for the benefit of future generations.

What is the performance measure?	**Number of organizations participating in Air Quality Coalitions**
Why is the measure important?	Air Quality Coalitions that meet in NWI will benefit from a larger and more diverse set of contributing organizations that will bring better informed perspectives to tackling the Region's air quality-related challenges.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Attendance sheets from Air Quality Coalitions
What is happening today?	Number of organizations participating in Air Quality Coalitions: *Pending* Data currently unavailable, however, identified as a strategy to build capacity for creating a regional data and analysis framework.
What is the targeted performance?	Pending baseline information
Who could help achieve the targets?	US Environmental Protection Agency, IDEM, INDOT, transit agencies, NIRPC, NWI Forum, municipal and county governments, residents, employers, developers

- **Number of organizations participating in Brownfield Coalitions**

Build region-wide coalitions to advance environmental sustainability for the benefit of future generations.

What is the performance measure?	**Number of organizations participating in Brownfield Coalitions**
Why is the measure important?	Brownfield Coalitions that meet in NWI will benefit from a larger and more diverse set of contributing organizations that will bring better informed perspectives to tackling the Region's brownfield-related challenges and open up more opportunities for adaptive reuse and infill development.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Attendance sheets from Brownfield Coalitions
What is happening today?	Number of organizations participating in Brownfield Coalitions: *Pending* Data currently unavailable, however, identified as a strategy to build capacity for creating a regional data and analysis framework.
What is the targeted performance?	Pending baseline information
Who could help achieve the targets?	US Environmental Protection Agency, IDEM, IDNR, NIRPC, NWI Forum, One Region, municipal and county governments, residents, employers, developers

Prioritize transformative investments to elevate the position of the region and to attract a diversity of residents and high-quality economic opportunities.

- **Median Household Income in 2017 $**

Prioritize transformative investments to elevate the position of the region and to attract a diversity of residents and high-quality economic opportunities.

Why is the measure important?	NWI households that earn a higher income will be less likely to fall into poverty and homelessness and more likely to achieve life goals, ultimately benefiting the Region's economy and quality of life.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Median Household Income from US Census Bureau, CPI Inflation Calculator from the Bureau of Labor Statistics
What is happening today?	Median Household Income in 2017 $: $55,080
What is the targeted performance?	Increase 
Who could help achieve the targets?	US Department of Commerce, US Department of Labor, Indiana Economic Development Corporation, banks/financial institutions, educational institutions, NIRPC, NWI Forum, One Region, residents, employers

- **Moran's I of median household income (spatial clustering)**

Prioritize transformative investments to elevate the position of the region and to attract a diversity of residents and high-quality economic opportunities.

What is the performance measure?	**Moran's I of median household income (spatial clustering)**
Why is the measure important?	Less spatial clustering of NWI residents into areas with similar household incomes means greater opportunities for NWI residents to gain diverse perspectives and be more attuned to effective leadership.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together, US Census block groups
What data/analysis is needed?	Median Household Income from the US Census Bureau, Moran's I from ESRI and GeoDa
What is happening today?	Moran's I of percent minorities: 0.52 (0 is perfect randomness, 1 is perfect segregation)
What is the targeted performance?	Decrease 
Who could help achieve the targets?	All levels of government, NIRPC, NWI Forum, One Region, educational institutions, employers, residents, developers, banks/financial institutions, tourism bureaus, civic organizations

Prioritize transformative investments to elevate the position of the Region and to attract a diversity of residents and high-quality economic opportunities.

- **Jobs within transit service areas of fixed-route transit**

Prioritize transformative investments to elevate the position of the region and to attract a diversity of residents and high-quality economic opportunities.

What is the performance measure?	**Jobs within transit service areas of fixed-route transit**
Why is the measure important?	Jobs that are more accessible to NWI workers will be more resilient and better able to sustain employment, and from a more socioeconomically diverse and inclusive talent pool, and are less susceptible to volatile fuel cost swings.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Transit service areas from NWI transit operators, jobs from InfoUSA Group (available via contract with INDOT)
What is happening today?	Jobs within transit service areas of fixed-route transit: 86,922
What is the targeted performance?	Increase 
Who could help achieve the targets?	U.S. Department of Transportation, Transit agencies, Indiana Economic Development Corporation, NIRPC, NWI Forum, One Region, municipal and county governments, residents, employers, developers

Foster better communications, cooperation and coordination to bring people together across the lines that divide us.

- **Measure: Moran's I of percent minorities (spatial clustering)**

Foster better communications, cooperation and coordination to bring people together across the lines that divide us.

What is the performance measure?	**Moran's I of percent minorities (spatial clustering)**
Why is the measure important?	Less spatial clustering of NWI residents into areas with similar racial and ethnic backgrounds means greater opportunities for NWI residents to gain diverse perspectives and be more attuned to effective leadership.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together, US Census block groups
What data/analysis is needed?	Race and ethnicity from the US Census Bureau, Moran's I from ESRI and GeoDa
What is happening today?	Moran's I of percent minorities: 0.83 (0 is perfect randomness, 1 is perfect segregation)
What is the targeted performance?	Decrease 
Who could help achieve the targets?	All levels of government, NIRPC, NWI Forum, One Region, educational institutions, employers, residents, developers, tourism bureaus, civic organizations

- **Measure: Gini Coefficient (income inequality)**

Foster better communications, cooperation and coordination to bring people together across the lines that divide us.

What is the performance measure?	**Gini Coefficient (income inequality)**
Why is the measure important?	The NWI Region will provide better and more equal opportunities for residents to thrive if there is a more equal distribution of incomes across households.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together, US Census block groups
What data/analysis is needed?	Household income data from the US Census Bureau
What is happening today?	Gini coefficient: 0.44
What is the targeted performance?	Decrease 
Who could help achieve the targets?	US Department of Commerce, US Department of Housing and Urban Development, US Department of Labor, Indiana State Government, NIRPC, municipal and county governments, employers, residents, developers

- **Moran's I of median household income (spatial clustering)**

Foster better communications, cooperation and coordination to bring people together across the lines that divide us.

What is the performance measure?	**Moran's I of median household income (spatial clustering)**
Why is the measure important?	Less spatial clustering of NWI residents into areas with similar household incomes means greater opportunities for NWI residents to gain diverse perspectives and be more attuned to effective leadership.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together, US Census block groups
What data/analysis is needed?	Median Household Income from the US Census Bureau, Moran's I from ESRI and GeoDa
What is happening today?	Moran's I of median household income: 0.52 (0 is perfect randomness, 1 is perfect segregation)
What is the targeted performance?	Decrease 
Who could help achieve the targets?	All levels of government, NIRPC, educational institutions, employers, residents, developers, banks/financial institutions, tourism bureaus, civic organizations

- **Moran's I of Area Deprivation (AD) Index (spatial clustering)**

Foster better communications, cooperation and coordination to bring people together across the lines that divide us.

What is the performance measure?	**Moran's I of Area Deprivation (AD) Index (spatial clustering)**
Why is the measure important?	Less spatial clustering of NWI residents into areas with similar socioeconomic deprivation characteristics means greater opportunities for NWI residents to gain diverse perspectives and be more attuned to effective leadership.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together, US Census block groups
What data/analysis is needed?	Input from Socioeconomic data
What is happening today?	Moran's I of Area Deprivation Index (0 is perfect randomness and 1 is perfect segregation) : 0.6471
What is the targeted performance?	Decrease
Who could help achieve the targets?	US Department of Commerce, US Department of Labor, Indiana Economic Development Corporation, banks/financial institutions, educational institutions, NIRPC, residents, employers

- **Moran's I of earnings (spatial clustering)**

Foster better communications, cooperation and coordination to bring people together across the lines that divide us.

What is the performance measure?	**Moran's I of earnings (spatial clustering)**
Why is the measure important?	Less spatial clustering of NWI workers into areas with similar earnings means the Region is providing more diverse opportunities to exchange ideas with workers of different backgrounds for ultimately a more productive Region.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together, zip codes
What data/analysis is needed?	Payroll and employment from County Business Patterns
What is happening today?	Moran's I of earnings (0 is perfect randomness, 1 is perfect segregation): 0.1660
What is the targeted performance?	Decrease
Who could help achieve the targets?	US Department of Commerce, US Department of Labor, Indiana Economic Development Corporation, banks/financial institutions, educational institutions, residents, employers

Promote initiatives and policies to ensure healthy living, sustainability, quality of life, and prosperity.

- **Measure: Life Expectancy**

Promote initiatives and policies to ensure healthy living, sustainability, quality of life, and prosperity.

What is the performance measure?	**Life Expectancy**
Why is the measure important?	NWI residents who live longer will be able to enjoy a higher quality of life for a longer time and boost the Region's economy, while putting less stress on healthcare costs.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Life Expectancy from healthdata.org
What is happening today?	Life Expectancy: 77.1 years
What is the targeted performance?	Increase 
Who could help achieve the targets?	US Department of Health and Human Services, Centers for Disease Control and Prevention, medical insurance providers, Indiana State Department of Health, residents, medical and care providers

- **Measure: Premature Deaths per 100k**

Promote initiatives and policies to ensure healthy living, sustainability, quality of life, and prosperity.

What is the performance measure?	**Premature deaths per 100k**
Why is the measure important?	A Region with a lower premature death rate is a Region with healthier residents who enjoy a higher quality of life and put less strain on healthcare costs.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Premature deaths per 100k from indianaindicators.org
What is happening today?	Premature deaths per 100k: 404
What is the targeted performance?	Decrease 
Who could help achieve the targets?	US Department of Health and Human Services, Centers for Disease Control and Prevention, medical insurance providers, Indiana State Department of Health, residents, medical and care providers

- **Measure: Percent Adults Reporting Physical Inactivity**

Promote initiatives and policies to ensure healthy living, sustainability, quality of life, and prosperity.

What is the performance measure?	**Percent adults reporting physical inactivity**
Why is the measure important?	A more active NWI is a Region where residents, workers, and visitors get more opportunities to explore the Region's assets and enjoy a higher quality of life while doing so.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Percent adults reporting physical inactivity from indianaindicators.org
What is happening today?	Percent adults reporting physical inactivity: 27.9%
What is the targeted performance?	Decrease
Who could help achieve the targets?	US Department of Health and Human Services, medical insurance providers, Indiana State Department of Health, residents, medical and care providers, active transportation organizations

- **Measure: Number of Poor Mental Health Days per Month**

Promote initiatives and policies to ensure healthy living, sustainability, quality of life, and prosperity.

What is the performance measure?	**Number of poor mental health days per month**
Why is the measure important?	A Region experiencing fewer poor mental health days per month is a Region where residents, workers, and visitors enjoy a higher quality of life and are more able to interact with other residents, workers, and visitors.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Number of poor mental health days per month from indianaindicators.org
What is happening today?	Number of poor mental health days per month: 4.1
What is the targeted performance?	Decrease
Who could help achieve the targets?	US Department of Health and Human Services, Centers for Disease Control and Prevention, medical insurance providers, Indiana State Department of Health, residents, medical and care providers

- **Measure: Total Tons Recycled**

Promote initiatives and policies to ensure healthy living, sustainability, quality of life, and prosperity.

What is the performance measure?	**Total Tons Recycled**
Why is the measure important?	A Region where more waste is recycled is a Region where residents, workers, and visitors experience a higher quality of life, better steward resources for future generations, and make less impact on the environment.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Total tons recycled from county solid waste management districts
What is happening today?	Total Tons Recycled: 90,003.44
What is the targeted performance?	Increase 
Who could help achieve the targets?	US Environmental Protection Agency, IDEM, Indiana Recycling Coalition, NIRPC, county solid waste management districts, municipal and county governments, residents, employers, developers

- **Measure: Median Household Income in 2017 $**

Promote initiatives and policies to ensure healthy living, sustainability, quality of life, and prosperity.

What is the performance measure?	**Median household income in 2017 $**
Why is the measure important?	NWI households that earn a higher income will be less likely to fall into poverty and homelessness and more likely to achieve life goals, ultimately benefiting the Region's economy and quality of life.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Median Household Income from US Census Bureau, CPI Inflation Calculator from the Bureau of Labor Statistics
What is happening today?	Median Household Income in 2017 $: $55,080
What is the targeted performance?	Increase 
Who could help achieve the targets?	US Department of Commerce, US Department of Labor, Indiana Economic Development Corporation, banks/financial institutions, educational institutions, residents, employers

Endorse innovative energy and environmental strategies to achieve a balance that protects diverse and unique ecological treasures while fostering a sustainable economy.

- **Measure: Percent of Energy Produced from Non-Fossil Fuel Sources**

Endorse innovative energy and environmental strategies to achieve a balance that protects diverse and unique ecological treasures while fostering a sustainable economy.

What is the performance measure?	**Percent of energy produced from non-fossil fuel sources**
Why is the measure important?	A Region powered by higher percentages of energy from non-fossil fuel sources is a Region more resilient and less susceptible to volatile spikes in fossil fuel prices and with a lower impact on the environment with better air and water quality.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Net Summer Capacity (MW) from US Energy Information Administration US Energy Mapping System
What is happening today?	Percent of energy produced from non-fossil fuel sources: 0.64%
What is the targeted performance?	Increase 
Who could help achieve the targets?	US Environmental Protection Agency, IDEM, Indiana Utility Regulatory Commission, NIPSCO, NIRPC, municipal and county governments, residents, employers

- **Measure: Annual Tourism Spending**

Endorse innovative energy and environmental strategies to achieve a balance that protects diverse and unique ecological treasures while fostering a sustainable economy.

What is the performance measure?	**Annual tourism spending in 2017 $**
Why is the measure important?	A Region with more tourism spending is a Region that better attracts visitors, boosting the local economy and therefore raising quality of life for residents and workers, and increases the chance those visitors will one day become residents or workers.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Annual tourism spending from county convention and visitors bureaus
What is happening today?	Annual tourism spending in 2017 $: $1.7 billion
What is the targeted performance?	Increase 
Who could help achieve the targets?	US Department of the Interior, US Department of Transportation, INDOT, transit agencies, NIRPC, South Shore Convention and Visitors Authority, Indiana Dunes Tourism, LaPorte County Convention and Visitors Bureau, residents, employers

- **Measure: Total Tons Recycled**

Endorse innovative energy and environmental strategies to achieve a balance that protects diverse and unique ecological treasures while fostering a sustainable economy.

What is the performance measure?	**Total Tons Recycled**
Why is the measure important?	A Region where more waste is recycled is a Region where residents, workers, and visitors experience a higher quality of life, better steward resources for future generations, and make less impact on the environment.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Total tons recycled from county solid waste management districts
What is happening today?	Total Tons Recycled: 90,003.44
What is the targeted performance?	Increase 
Who could help achieve the targets?	US Environmental Protection Agency, IDEM, Indiana Recycling Coalition, NIRPC, county solid waste management districts, municipal and county governments, residents, employers, developers

- **Measure: Water Use per Capita**

Endorse innovative energy and environmental strategies to achieve a balance that protects diverse and unique ecological treasures while fostering a sustainable economy.

What is the performance measure?	**Water Use per Capita**
Why is the measure important?	NWI residents, workers, and visitors who better conserve water will help the Region be more resilient to Climate Change, allow other residents, workers, and visitors to better enjoy water resources, and preserve water resources for future generations.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Population from US Census Bureau, Water Use from US Geological Survey
What is happening today?	Water Use per Capita (gallons/person): 2,696.7
What is the targeted performance?	Decrease 
Who could help achieve the targets?	US Environmental Protection Agency, IDEM, Lake Michigan Coastal Program, Calumet Collaborative, Alliance for the Great Lakes, NIRPC, municipal and county governments, residents, employers, developers

- **Measure: Number of LEED-certified buildings**

Endorse innovative energy and environmental strategies to achieve a balance that protects diverse and unique ecological treasures while fostering a sustainable economy.

What is the performance measure?	**Number of LEED-certified buildings**
Why is the measure important?	A Region with more LEED-certified buildings is a Region where more of the built environment is built to the best energy efficiency and lowest environmental impact standards, improving quality of life and increasing resiliency.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Number of LEED-certified buildings from US Green Building Council
What is happening today?	Number of LEED-certified buildings: 40
What is the targeted performance?	Increase
Who could help achieve the targets?	US Environmental Protection Agency, US Green Building Council, IDEM, NIRPC, municipal and county governments, educational institutions, residents, employers, developers

Adopt technological innovation that enhances the safe and fluid movement of people and goods to enable a flourishing economy.

- **Measure: Number of Trips Made by Shared Mobility Services**

Adopt technological innovation that enhances the safe and fluid movement of people and goods to enable a flourishing economy.

What is the performance measure?	**Number of trips made by Shared Mobility services**
Why is the measure important?	NWI residents, workers, and visitors who make more trips via shared mobility services (Uber, Lyft, bikeshare/scooter-share programs) will potentially be able to reach more NWI destinations while foregoing car ownership, with uncertain transit and congestion impacts.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Number of trips made by Shared Mobility services in future Household Travel Surveys/other mode studies
What is happening today?	Pending updated Household Travel Survey data
What is the targeted performance?	Increasing but depends on baseline from updated Household Travel Survey data
Who could help achieve the targets?	US Department of Transportation, INDOT, transit agencies, NIRPC, municipal and county governments, residents, employers, shared mobility providers

- **Measure: Number of Alternatively Fueled/Powered Vehicles Registered**

Adopt technological innovation that enhances the safe and fluid movement of people and goods to enable a flourishing economy.

What is the performance measure?	**Number of alternatively fueled/powered vehicles registered**
Why is the measure important?	A NWI Region with more alternatively fueled/powered vehicles is a Region more resilient to Climate Change and the volatility of fossil fuels with cleaner air for residents, workers, and visitors to enjoy.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Number of alternatively fueled/powered vehicles registered from South Shore Clean Cities and/or the Indiana Bureau of Motor Vehicles
What is happening today?	Data currently unavailable, however, identified as a strategy to build capacity for creating a regional data and analysis framework.
What is the targeted performance?	Target currently unavailable, however, identified as a strategy to build capacity for creating a regional data and analysis framework.
Who could help achieve the targets?	US Environmental Protection Agency, US Department of Transportation, IDEM, INDOT, NIRPC, NIPSCO, South Shore Clean Cities, municipal and county governments, residents, employers, automakers

- **Measure: Number of Connected or Automated Vehicles (CAVs) Registered Plus Fleet Size of CAVs Licensed to Operate in NWI**

Adopt technological innovation that enhances the safe and fluid movement of people and goods to enable a flourishing economy.

What is the performance measure?	**Number of Connected or Automated Vehicles (CAVs) registered plus fleet size of CAVs licensed to operate in NW Indiana**
Why is the measure important?	NWI residents, workers, and visitors will stay safe on the Region's roads and highways while being more time productive while traveling, and younger and older Region residents, workers, and visitors will be able to use the Region's roads and highways.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Vehicle registrations from the Indiana Bureau of Motor Vehicles when data becomes available
What is happening today?	*Pending data availability from Indiana Bureau of Motor Vehicles.* Data currently unavailable, however, identified as a strategy to build capacity for creating a regional data and analysis framework.
What is the targeted performance?	Increasing but depends on data availability from Indiana Bureau of Motor Vehicles
Who could help achieve the targets?	US Department of Transportation, National Highway Traffic Safety Administration, INDOT, transit operators, NIRPC, municipal and county governments, residents, employers, shared mobility providers, automakers

- **Measure: Percent of Person Miles Traveled on the Interstate that are Reliable**

Adopt technological innovation that enhances the safe and fluid movement of people and goods to enable a flourishing economy.

What is the performance measure?	**Percent of person miles traveled on the Interstate that are reliable**
Why is the measure important? *Federally required*	NWI residents, workers, and visitors should be able to somewhat reliably plan how long a journey will take on the Region's Interstate Highways.
What is the scope of analysis?	Interstate Highways in Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Travel time from the National Performance Measure Research Data Set (NPMRDS), Annual Average Daily Traffic (AADT) from Highway Performance Monitoring System (HPMS), vehicle occupancy factors from US Department of Transportation
What is happening today?	Percent of person miles traveled on the Interstate that are reliable: 83.0%
What is the targeted performance?	90.5% by 2019 and 92.8% by 2021 (statewide targets)
Who could help achieve the targets?	US Department of Transportation, INDOT, Indiana Toll Road Concession Company, transit operators, NIRPC, freight carriers, motorists, employers, developers

- **Measure: Percent of Person Miles Traveled on the Non-Interstate NHS that are Reliable**

Adopt technological innovation that enhances the safe and fluid movement of people and goods to enable a flourishing economy.

What is the performance measure?	**Percent of person miles traveled on the non-Interstate NHS that are reliable**
Why is the measure important? *Federally required*	NWI residents, workers, and visitors should be able to somewhat reliably plan how long a journey will take on the Region's major roads and highways.
What is the scope of analysis?	Non-Interstate NHS routes in Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Travel time from the National Performance Measure Research Data Set (NPMRDS), Annual Average Daily Traffic (AADT) from Highway Performance Monitoring System (HPMS), vehicle occupancy factors from US Department of Transportation
What is happening today?	Percent of person miles traveled on the non-Interstate NHS that are reliable: 95.0%
What is the targeted performance?	89.8% by 2021 (statewide target)
Who could help achieve the targets?	US Department of Transportation, INDOT, Ports of Indiana, City of Gary, United Bridge Partners, NIRPC, freight carriers, motorists, employers, developers

- **Measure: Truck Travel Time Reliability Index (TTTRI)**

Adopt technological innovation that enhances the safe and fluid movement of people and goods to enable a flourishing economy.

What is the performance measure?	**Truck Travel Time Reliability Index (TTTRI)**
Why is the measure important? *Federally required*	Freight carriers and truckers should be able to somewhat reliably plan how long a journey will take on the Region's Interstate Highways.
What is the scope of analysis?	Interstate Highways in Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Travel time from the National Performance Measure Research Data Set (NPMRDS)
What is happening today?	Truck Travel Time Reliability Index (TTTRI): 1.54 (1 is perfect reliability, higher is less reliable)
What is the targeted performance?	1.27 by 2019 and 1.24 by 2021 (statewide targets)
Who could help achieve the targets?	US Department of Transportation, INDOT, Indiana Toll Road Concession Company, transit operators, NIRPC, freight carriers, motorists, employers, developers

- **Measure: Peak Hours of Excessive Delay per capita in the Chicago, IL-IN Urbanized Area**

Adopt technological innovation that enhances the safe and fluid movement of people and goods to enable a flourishing economy.

What is the performance measure?	**Peak hours of excessive delay per capita in the Chicago, IL-IN Urbanized Area**
Why is the measure important? *Federally required*	A Chicago and NWI Region with fewer peak hours of excessive delay per capita is a Region where residents, workers, and visitors waste less time in traffic congestion.
What is the scope of analysis?	National Highway System (NHS) routes in the Chicago, IL-IN Urbanized Area (UZA)
What data/analysis is needed?	Travel time from the National Performance Measure Research Data Set (NPMRDS), Annual Average Daily Traffic (AADT) and speed limits from Highway Performance Monitoring System (HPMS), vehicle occupancy factors from US Department of Transportation
What is happening today?	Peak hours of excessive delay per capita in the Chicago, IL-IN Urbanized Area: 14.4
What is the targeted performance?	No more than 15.4 by 2021 (unified target for the entire Chicago, IL-IN Urbanized Area)
Who could help achieve the targets?	US Department of Transportation, Illinois Department of Transportation, INDOT, Chicago Metropolitan Agency for Planning, NIRPC, municipal and county governments, NHS owners/operators, motorists, freight carriers, transit agencies, employers, developers

Embrace a dynamic, diversified and sustainable economy that attracts and retains talent, enhances quality of life, and increases personal and household income.

- **Measure: Number of People Aged 18-34 with a College, Professional, or Doctoral degree**

Embrace a dynamic, diversified and sustainable economy that attracts and retains talent, enhances quality of life, and increases personal and household income.

What is the performance measure?	**Number of people aged 18-34 with a college, professional, or doctoral degree**
Why is the measure important?	A higher number of young, working-age people with a higher education degree in NWI means that the Region's workforce is better equipped to sustain higher paying jobs and offer more diversity of employment opportunities to this high-skilled talent pool.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Educational Attainment and age from the US Census Bureau
What is happening today?	Number of people aged 18-34 with a college, professional, or doctoral degree: 41,338
What is the targeted performance?	Increase 
Who could help achieve the targets?	All levels of government, educational institutions, residents, employers, other education and workforce organizations

- **Measure: Percent Adults Reporting Physical Inactivity**

Embrace a dynamic, diversified and sustainable economy that attracts and retains talent, enhances quality of life, and increases personal and household income.

What is the performance measure?	**Percent adults reporting physical inactivity**
Why is the measure important?	A more active NWI is a Region where residents, workers, and visitors get more opportunities to explore the Region's assets and enjoy a higher quality of life while doing so.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Percent adults reporting physical inactivity from indianaindicators.org
What is happening today?	Percent adults reporting physical inactivity: 27.9%
What is the targeted performance?	Decrease 
Who could help achieve the targets?	US Department of Health and Human Services, medical insurance providers, Indiana State Department of Health, US Department of Transportation, INDOT, NIRPC, local governments, residents, medical and care providers, active transportation organizations

- **Measure: Number of Poor Mental Health Days per Month**

Embrace a dynamic, diversified and sustainable economy that attracts and retains talent, enhances quality of life, and increases personal and household income.

What is the performance measure?	**Number of poor mental health days per month**
Why is the measure important?	A Region experiencing fewer poor mental health days per month is a Region where residents, workers, and visitors enjoy a higher quality of life and are more able to interact with other residents, workers, and visitors.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Number of poor mental health days per month from indianaindicators.org
What is happening today?	Number of poor mental health days per month: 4.1
What is the targeted performance?	Decrease 
Who could help achieve the targets?	US Department of Health and Human Services, Centers for Disease Control and Prevention, medical insurance providers, Indiana State Department of Health, local governments, residents, medical and care providers

- **Measure: Median Earnings per Worker in 2017 $**

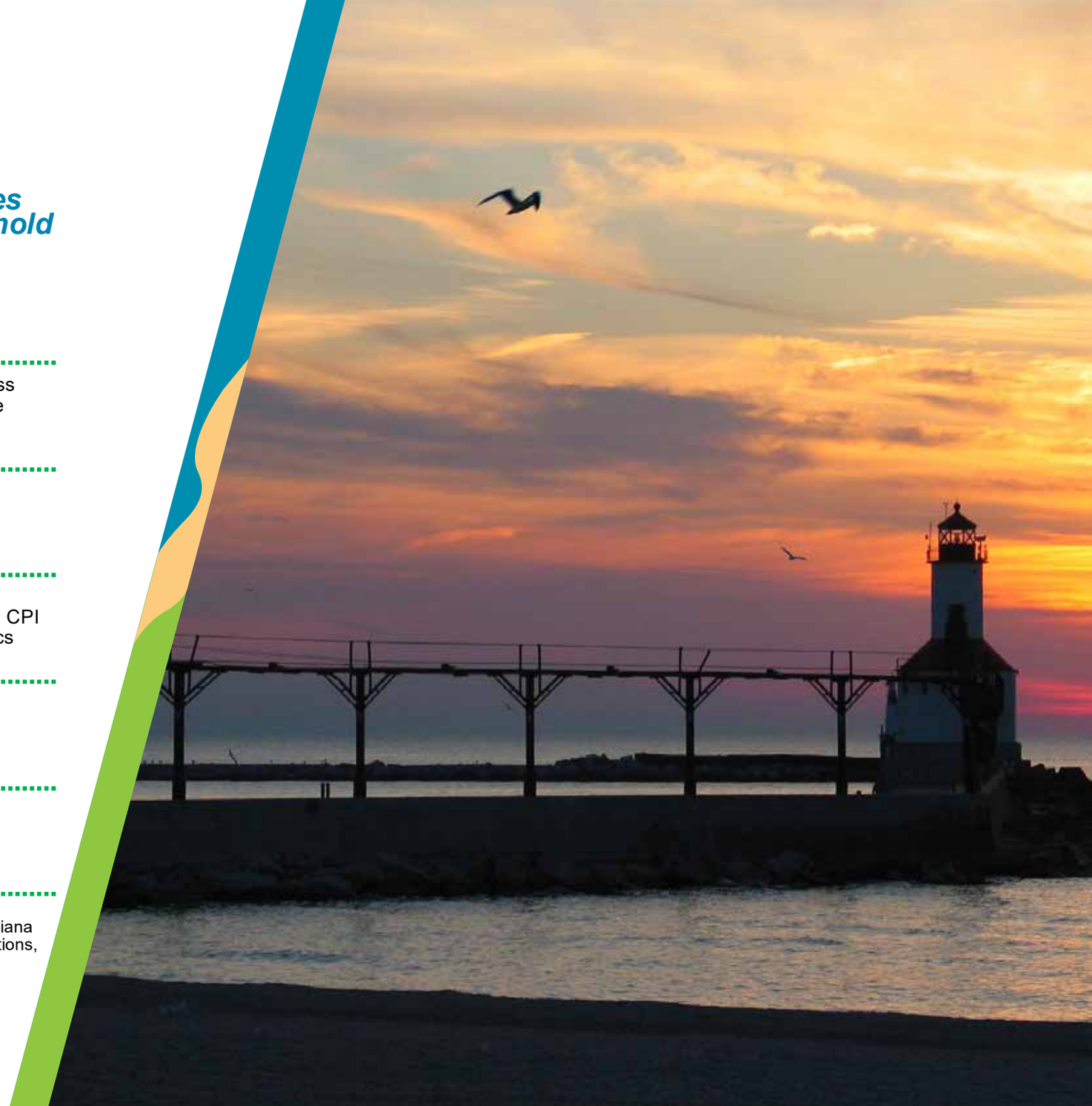
Embrace a dynamic, diversified and sustainable economy that attracts and retains talent, enhances quality of life, and increases personal and household income.

What is the performance measure?	**Median earnings per worker in 2017 $**
Why is the measure important?	A Region with higher median earning per worker is a Region where workers enjoy a higher quality of life, are less likely to fall into poverty or homelessness, and better contribute to the Region's economy.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Median earnings per worker from US Census Bureau, CPI Inflation Calculator from the Bureau of Labor Statistics
What is happening today?	Median earnings per worker in 2017 $: 32,295
What is the targeted performance?	Increase 
Who could help achieve the targets?	US Department of Commerce, US Department of Labor, Indiana Economic Development Corporation, banks/financial institutions, educational institutions, NIRPC, residents, employers

- **Measure: Median Household Income in 2017 $**

Embrace a dynamic, diversified and sustainable economy that attracts and retains talent, enhances quality of life, and increases personal and household income.

What is the performance measure?	**Median household income in 2017 $**
Why is the measure important?	NWI households that earn a higher income will be less likely to fall into poverty and homelessness and more likely to achieve life goals, ultimately benefiting the Region's economy and quality of life.
What is the scope of analysis?	Lake, Porter, and LaPorte Counties together
What data/analysis is needed?	Median Household Income from US Census Bureau, CPI Inflation Calculator from the Bureau of Labor Statistics
What is happening today?	Median Household Income in 2017 $: $55,080
What is the targeted performance?	Increase ▲
Who could help achieve the targets?	US Department of Commerce, US Department of Labor, Indiana Economic Development Corporation, banks/financial institutions, educational institutions, NIRPC, residents, employers



Checklist on Federally Required Elements of a Long-Range Plan

§450.324 Development and content of the metropolitan transportation plan

On the following pages, the language from the federal regulations governing long-range plans is presented in italicized text and with a demonstration of how this long-range plan has addressed each required element of a long-range plan in bolded text *(Title 23—Highways PART 450—PLANNING ASSISTANCE AND STANDARDS Subpart C—Metropolitan Transportation Planning and Programming* [81 FR 34135, May 27, 2016, as amended at 81 FR 93473, Dec. 20, 2016; 82 FR 56544, Nov. 29, 2017] https://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&SID=17892ae7f28c52fd5ff10ae76aa27124&mc=true&n=sp23.1.450.c&r=SUBPART&ty=HTML#se23.1.450_1324)

(a) The metropolitan transportation planning process shall include the development of a transportation plan addressing no less than a 20-year planning horizon as of the effective date. In formulating the transportation plan, the MPO shall consider factors described in §450.306 as the factors relate to a minimum 20-year forecast period. In nonattainment and maintenance areas, the effective date of the transportation plan shall be the date of a conformity determination issued by the FHWA and the FTA. In attainment areas, the effective date of the transportation plan shall be its date of adoption by the MPO.

The *NWI 2050 Plan* (Plan) has a horizon year of 2050, which is 30-years from the intended effective date of July 1, 2020. The Plan considers each of the factors described in §450.306.

(b) The transportation plan shall include both long-range and short-range strategies/actions that provide for the development of an integrated multimodal transportation system (including accessible pedestrian walkways and bicycle transportation facilities) to facilitate the safe and efficient movement of people and goods in addressing current and future transportation demand.

The Plan includes both long-range and short-range strategies/actions that provide for an integrated and multi-modal transportation system. This is accomplished with the "Action Plan" section of the document that lists thirteen investment programs and sixteen major planning initiatives supported by over 300 discrete strategies. The Action Plan also includes a robust performance-based planning framework of 98 measures to track progress and to indicate where adjustments in planning tasks and programming may be needed in the future.

(c) The MPO shall review and update the transportation plan at least every 4 years in air quality nonattainment and maintenance areas and at least every 5 years in attainment areas to confirm the transportation plan's validity and consistency with current and forecasted transportation and land use conditions and trends and to extend the forecast period to at least a 20-year planning horizon. In addition, the MPO may revise the transportation plan at any time using the procedures in this section without a requirement to extend the horizon year. The MPO shall approve the transportation plan (and any revisions) and submit it for information purposes to the Governor. Copies of any updated or revised transportation plans must be provided to the FHWA and the FTA.

The Plan is an update of the plan adopted and approved in 2015. The Plan will be submitted to both INDOT, FHWA, and FTA as required by this section.

(d) In metropolitan areas that are in nonattainment for ozone or carbon monoxide, the MPO shall coordinate the development of the metropolitan transportation plan with the process for developing transportation control measures (TCMs) in a State Implementation Plan (SIP).

While Northwestern Indiana is in nonattainment for ozone, the Indiana SIP includes no Transportation Control Measures (TCMs). The Indiana Department of Environmental Management was the lead agency in developing the Indiana SIP, and NIRPC contributed to the process. All parties agreed, with the EPA's final approval, that no TCMs were necessary to include in the Indiana SIP.

(e) The MPO, the State(s), and the public transportation operator(s) shall validate data used in preparing other existing modal plans for providing input to the transportation plan. In updating the transportation plan, the MPO shall base the update on the latest available estimates and assumptions for population, land use, travel, employment, congestion, and economic activity. The MPO shall approve transportation plan contents and supporting analyses produced by a transportation plan update.

The Plan includes the latest assumptions for all factors required by this section of the regulation. The population and employment forecasts were completed by taking the combination of other forecasts already completed for Northwestern Indiana. This approach proved to be conservative and consistent with the forecasts of the Chicago Metropolitan Agency for Planning which shares an urbanized area with Northwestern Indiana. Land use assumptions were included in the travel demand model and congestion data was updated from the National Performance Management Research Data Set (NPMRDS).

(f) The metropolitan transportation plan shall, at a minimum, include:

(1) The current and projected transportation demand of persons and goods in the metropolitan planning area over the period of the transportation plan;
The Plan forecasts this through utilization of its travel demand model in conjunction with the Air Quality Determination Report.

(2) Existing and proposed transportation facilities (including major roadways, public transportation facilities, intercity bus facilities, multimodal and intermodal facilities, nonmotorized transportation facilities (e.g., pedestrian walkways and bicycle facilities), and intermodal connectors) that should function as an integrated metropolitan transportation system, giving emphasis to those facilities that serve important national and regional transportation functions over the period of the transportation plan.
Existing transportation facilities are documented on several maps throughout the Plan. This includes a roadway classification map, freight and passenger rail map, transit map, multi-use trails map (both existing and proposed), and a map of proposed commuter rail expansions. Roadway expansions or new roadways are described in the Action Plan under the "Investments to Make" section.

(3) A description of the performance measures and performance targets used in assessing the performance of the transportation system in accordance with §450.306(d).
The performance measures included within this Plan are substantial and fully described in the Action Plan under the "Progress to Measure" section. Each measure is described for its importance, where the data will come from, and a desired trend in performance. Specific targets are included for all measures federally required.

(4) A system performance report and subsequent updates evaluating the condition and performance of the transportation system with respect to the performance targets described in §450.306(d), including—

(i) Progress achieved by the metropolitan planning organization in meeting the performance targets in comparison with system performance recorded in previous reports, including baseline data; and
The Plan satisfies this requirement by including thE FHWA and FTA federally required performance measures with their associated baseline data and targets in the Progress to Measure section of the Action Plan. Since this is the first system performance report NIRPC has written, there is no comparison with previous system performance reports upon which to note the progress achieved. NIRPC has committed to publishing a Performance-based Planning dashboard in strategy #33 of the Action Plan which will demonstrate an ongoing comparison in system performance with the baseline conditions and progress toward achieving targets. Also, in subsequent long-range plans, the system performance report will include a description of the progress achieved toward meeting performance targets.

(ii) For metropolitan planning organizations that voluntarily elect to develop multiple scenarios, an analysis of how the preferred scenario has improved the conditions and performance of the transportation system and how changes in local policies and investments have impacted the costs necessary to achieve the identified performance targets.
The scenario planning utilized in the Plan does not choose a preferred scenario as that is contradictory to the point of the style of scenario planning employed. The scenario planning effort only encourages the reader of the Plan to consider various qualitative factors that may drive possible futures for Northwestern Indiana. This scenario planning method was derived from the National Cooperative Highway Research Program Report 750: The Foresight Series, and seeks to help in the identification of strategies or investments that would be beneficial in any potential future, not a preferred future, as planners cannot dictate the future.

(5) Operational and management strategies to improve the performance of existing transportation facilities to relieve vehicular congestion and maximize the safety and mobility of people and goods;

The NWI 2050 Plan includes at least ten strategies in the Action Plan that either directly or indirectly address operational and management strategies to improve the performance of existing transportation facilities to relieve vehicular congestion and maximize the safety and mobility of people and goods. They are:

Plan for Continually Improved Investment Prioritization:
7. Identify and prioritize high-crash areas that could be improved quickly with cost effective solutions.
8. Improve the regional transportation network by pursuing funding opportunities to address bottlenecks in key regional corridors.

Plan for Asset Vulnerability from Climate Change
4. Improve resiliency and reduce congestion by sharing data and plans with local Emergency Planning Committees to help them with decision-making and improving evacuation plans.

Plan for a Regional Data and Analysis Framework
25. Compile and map roadway crash data to prioritize high crash corridors in the Highway Safety Improvement Program funding grants.
27. Share data on traffic volumes and other transportation attributes that NIRPC collects throughout the region.
30. Improve transportation network reliability by compiling, analyzing and mapping reliability data for roadways in order to prioritize funding.
31. Reduce congestion increase transit efficiency by compiling, analyzing and mapping roadway bottleneck data in order to prioritize funding.
36. Improve safety, efficiency, and regional interoperability of the transportation system by developing, maintaining and communicating the Intelligent Transportation Systems Regional Architecture.

Plan for an Engaged Public and Share Best-practices
20. Improve emergency response times and reduce congestion by convening a regional stakeholder group to plan signal preemption and signal coordination projects.

Plan for Economic Development
9. Work with intermodal facilities and freight carriers to identify locations with high levels of freight movement and to plan strategies for alleviating freight-related congestion.

(6) Consideration of the results of the congestion management process in TMAs that meet the requirements of this subpart, including the identification of SOV projects that result from a congestion management process in TMAs that are nonattainment for ozone or carbon monoxide.

As a Transportation Management Area (TMA) conducting metropolitan transportation planning for an Urbanized Area greater than 200,000 in population, the region's Metropolitan Planning Organization (MPO) is required to follow a Congestion Management Process (CMP) pursuant to 23 CFR 450 Part 322. The CMP is a process that the MPO uses to select transportation projects to effectively manage congestion by ensuring that capacity adding transportation projects such as new roads or added travel lanes only be selected after considering non-capacity adding alternatives. Examples of non-capacity adding alternatives include both supply and demand management strategies. Examples of supply management strategies include overhead traffic message signs and electronic tolling, while examples of demand management strategies include carpooling and flexible work scheduling. The capacity adding projects included in the NWI 2050 Plan have been filtered through the CMP.

(7) Assessment of capital investment and other strategies to preserve the existing and projected future metropolitan transportation infrastructure, provide for multimodal capacity increases based on regional priorities and needs, and reduce the vulnerability of the existing transportation infrastructure to natural disasters. The metropolitan transportation plan may consider projects and strategies that address areas or corridors where current or projected congestion threatens the efficient functioning of key elements of the metropolitan area's transportation system.

Each projected selected and programmed within the short-range element of this Plan and corresponding 2020-2024 Transportation Improvement Program was assessed for impacts upon desired outcomes including those required by this section of the regulation. There were nine scoring criteria utilized for the evaluation of projects considered for programming. Within each of the thirteen investment programs the nine criteria were applied in unique ways to more specifically consider the desired outcomes of the investment programs. As it relates to congestion the Plan follows the Congestion Management Process currently in force and considers roadway expansions as a strategy of last resort, placing emphasis instead on other strategies. This is documented in the Connected chapter of the Plan.

(8) Transportation and transit enhancement activities, including consideration of the role that intercity buses may play in reducing congestion, pollution, and energy consumption in a cost-effective manner and strategies and investments that preserve and enhance intercity bus systems, including systems that are privately owned and operated, and including transportation alternatives, as defined in 23 U.S.C. 101(a), and associated transit improvements, as described in 49 U.S.C. 5302(a), as appropriate;

The Plan continues to support intercity bus investments, especially those proposed and currently operated by the City of Valparaiso to make connections to the City of Chicago. The Plan also encourages greater connections across the Northwestern Indiana region where there are currently few connections. This is consistent with the Coordinated Human Services Transportation Public Transit Plan currently in force.

(9) Design concept and design scope descriptions of all existing and proposed transportation facilities in sufficient detail, regardless of funding source, in nonattainment and maintenance areas for conformity determinations under the EPA's transportation conformity regulations (40 CFR part 93, subpart A). In all areas (regardless of air quality designation), all proposed improvements shall be described in sufficient detail to develop cost estimates;

The short-range and long-range elements of the "Investments to Make" section of the Action Plan in the NWI 2050 Plan as well as in the Air Quality Conformity Report include such descriptions and cost estimates.

(10) A discussion of types of potential environmental mitigation activities and potential areas to carry out these activities, including activities that may have the greatest potential to restore and maintain the environmental functions affected by the metropolitan transportation plan. The discussion may focus on policies, programs, or strategies, rather than at the project level. The MPO shall develop the discussion in consultation with applicable Federal, State, and Tribal land management, wildlife, and regulatory agencies. The MPO may establish reasonable timeframes for performing this consultation;

The Plan places great emphasis on the connections between the transportation system and the environment. The Plan and the corresponding 2020-2024 Transportation Improvement Program also includes for the investment in environmental mitigation as it relates to stormwater through the "Environment" investment program. Further, a major planning initiative recommended by the Plan and contained in the 2020 element of the 2019-2020 Unified Planning Work Program, is an evaluation of transportation assets for their vulnerability from climate change.

(11) A financial plan that demonstrates how the adopted transportation plan can be implemented.

(i) For purposes of transportation system operations and maintenance, the financial plan shall contain system-level estimates of costs and revenue sources that are reasonably expected to be available to adequately operate and maintain the Federal-aid highways (as defined by 23 U.S.C. 101(a)(5)) and public transportation (as defined by title 49 U.S.C. Chapter 53).

A table of reasonably expected revenues is presented for both roadway and transit projects in the financial plan. The methodology was borrowed from a fellow Indiana MPO. INDOT provided its expenditure amount by lane mile from 2012 to demonstrate its capacity to maintain its roadways.

(ii) For the purpose of developing the metropolitan transportation plan, the MPO(s), public transportation operator(s), and State shall cooperatively develop estimates of funds that will be available to support metropolitan transportation plan implementation, as required under §450.314(a). All necessary financial resources from public and private sources that are reasonably expected to be made available to carry out the transportation plan shall be identified.

Funding was estimated from the Sharing Agreement financial estimates provided by INDOT for FHWA funds. FTA funds were estimated using

apportionment tables. The Technical Planning Committee advised staff at their February 2019 meeting on how much revenue growth to assume - 1.5% per annum. Often used Tax Increment Finance generated funds to support transportation investments were reflected, not by sum, rather spatially where those zones exist throughout NWI in a map in the Financial Plan.

(iii) The financial plan shall include recommendations on any additional financing strategies to fund projects and programs included in the metropolitan transportation plan. In the case of new funding sources, strategies for ensuring their availability shall be identified. The financial plan may include an assessment of the appropriateness of innovative finance techniques (for example, tolling, pricing, bonding, public private partnerships, or other strategies) as revenue sources for projects in the plan.

All projects listed within the Plan can be funded with federal funds allocated to NWI with required local match. No projects assume additional funding support, except for NICTD's expansion and double tracking projects. These projects are called out specifically in the Financial Plan and list funding details. However, a major initiative recommended by the NWI 2050 Plan is to identify a better mechanism to finance major transformative investments, especially for roadway projects. This task will get underway in the 2020 Unified Planning Work Program.

(iv) In developing the financial plan, the MPO shall take into account all projects and strategies proposed for funding under title 23 U.S.C., title 49 U.S.C. Chapter 53 or with other Federal funds; State assistance; local sources; and private participation. Revenue and cost estimates that support the metropolitan transportation plan must use an inflation rate(s) to reflect "year of expenditure dollars," based on reasonable financial principles and information, developed cooperatively by the MPO, State(s), and public transportation operator(s).

Project estimates reflect "year of expenditure dollars." This is accomplished in the short-range element through project cost estimating per INDOT, and with a 4% inflation rate in the long-term per FHWA regulation.

(v) For the outer years of the metropolitan transportation plan (i.e., beyond the first 10 years), the financial plan may reflect aggregate cost ranges/cost bands, as long as the future funding source(s) is reasonably expected to be available to support the projected cost ranges/cost bands.

This is exactly how the financial plan is laid out. It reflects FHWA, FTA, and required local matching funds targeted to the investment program that reflects the priorities of this Plan.

(vi) For nonattainment and maintenance areas, the financial plan shall address the specific financial strategies required to ensure the implementation of TCMs in the applicable SIP.

The Indiana SIP does not contain any TCMs.

(vii) For illustrative purposes, the financial plan may include additional projects that would be included in the adopted transportation plan if additional resources beyond those identified in the financial plan were to become available.

This plan does not include illustrative projects.

(viii) In cases that the FHWA and the FTA find a metropolitan transportation plan to be fiscally constrained and a revenue source is subsequently removed or substantially reduced (i.e., by legislative or administrative actions), the FHWA and the FTA will not withdraw the original determination of fiscal constraint; however, in such cases, the FHWA and the FTA will not act on an updated or amended metropolitan transportation plan that does not reflect the changed revenue situation.

This does not apply to this Plan at adoption.

12) Pedestrian walkway and bicycle transportation facilities in accordance with 23 U.S.C. 217(g).

The NWI 2050 Plan contains substantial attention to both pedestrian and bicycle transportation in both strategies and investments to be pursued. All are identified within the Action Plan. The Plan also discusses at length the importance of Complete Streets and Multi-Use Trails throughout the document.

(g) The MPO shall consult, as appropriate, with State and local agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation concerning the development of the transportation plan. The consultation shall involve, as appropriate:

(1) Comparison of transportation plans with State conservation plans or maps, if available; or

A map is provided to compare the transportation network with natural lands throughout NWI.

(2) Comparison of transportation plans to inventories of natural or historic resources, if available.

The NWI 2050 Plan was developed with significant input from the Commission's committees. One committee was the Environmental Management and Policy Committee whose membership includes those identified in the regulation.

(h) The metropolitan transportation plan should integrate the priorities, goals, countermeasures, strategies, or projects for the metropolitan planning area contained in the HSIP, including the SHSP required under 23 U.S.C. 148, the Public Transportation Agency Safety Plan required under 49 U.S.C. 5329(d), or an Interim Agency Safety Plan in accordance with 49 CFR part 659, as in effect until completion of the Public Transportation Agency Safety Plan, and may incorporate or reference applicable emergency relief and disaster preparedness plans and strategies and policies that support homeland security, as appropriate, to safeguard the personal security of all motorized and non-motorized users.

The evaluation process to target funds to investment programs began first with identifying federal-aid eligible project types. Any under consideration for safety funds were screened and evaluated for HSIP eligibility by confirming first that they were consistent with the Indiana SHSP. Each project type was then evaluated for their impact on desired NWI 2050 Plan outcomes in combination with the requirements of this regulation to consider the priorities, goals, countermeasures in the Highway Safety Improvement Program.

(i) An MPO may, while fitting the needs and complexity of its community, voluntarily elect to develop multiple scenarios for consideration as part of the development of the metropolitan transportation plan.

(1) An MPO that chooses to develop multiple scenarios under this paragraph (i) is encouraged to consider:

(i) Potential regional investment strategies for the planning horizon;

(ii) Assumed distribution of population and employment;

(iii) A scenario that, to the maximum extent practicable, maintains baseline conditions for the performance areas identified in §450.306(d) and measures established under 23 CFR part 490;

(iv) A scenario that improves the baseline conditions for as many of the performance measures identified in §450.306(d) as possible;

(v) Revenue constrained scenarios based on the total revenues expected to be available over the forecast period of the plan; and

(vi) Estimated costs and potential revenues available to support each scenario.

(2) In addition to the performance areas identified in 23 U.S.C. 150(c), 49 U.S.C. 5326(c), and 5329(d), and the measures established under 23 CFR part 490, MPOs may evaluate scenarios developed under this paragraph using locally developed measures.

The scenario planning utilized in the Plan does not choose a preferred scenario as that is contradictory to the point of the style of scenario planning employed. The scenario planning effort only encourages the reader of the Plan to consider various qualitative factors that may drive possible futures for Northwestern Indiana. This scenario planning method was derived from the National Cooperative Highway Research Program Report 750: The Foresight Series, and seeks to help in the identification of strategies or investments that would be beneficial in any potential future, not a preferred future, as planners cannot dictate the future.

(j) The MPO shall provide individuals, affected public agencies, representatives of public transportation employees, public ports, freight shippers, providers of freight transportation services, private providers of transportation (including intercity bus operators, employer-based commuting programs, such as carpool program, vanpool program, transit benefit program, parking cashout program, shuttle program, or telework program), representatives of users of public transportation, representatives of users of pedestrian walkways and bicycle transportation facilities, representatives of the disabled, and other interested parties with a reasonable opportunity to comment on the transportation plan using the participation plan developed under §450.316(a).

The NWI 2050 Plan was developed with a robust outreach strategies open to all interested parties starting with a kick-off engagement round of public participation in April 2018. This

was followed by two rounds of pop-up events to gain input on influences to the future and priorities for funding projects. The Plan was also substantially influenced by the various committees of the Commission which by topic include the members who address those that are required by this subpart, if applicable to NWI (no known carpool programs, for example). The final engagement round in April 2019 included more pop-up events and four open houses and formal public hearings with a 30-day public comment period.

(k) The MPO shall publish or otherwise make readily available the metropolitan transportation plan for public review, including (to the maximum extent practicable) in electronically accessible formats and means, such as the World Wide Web.
The Plan was made available on the NIRPC website as of April 1 to kick-off the 30-day public comment period, was available at the four open houses and formal public hearings. The Plan executive summary was translated into both braille and Spanish so that they would be available upon request.

(l) A State or MPO is not required to select any project from the illustrative list of additional projects included in the financial plan under paragraph (f)(11) of this section.
This section is not applicable as the Plan does not have an illustrative list of projects, rather it is a program based plan.

(m) In nonattainment and maintenance areas for transportation-related pollutants, the MPO, as well as the FHWA and the FTA, must make a conformity determination on any updated or amended transportation plan in accordance with the Clean Air Act and the EPA transportation conformity regulations (40 CFR part 93, subpart A). A 12-month conformity lapse grace period will be implemented when an area misses an applicable deadline, in accordance with the Clean Air Act and the transportation conformity regulations (40 CFR part 93, subpart A). At the end of this 12-month grace period, the existing conformity determination will lapse. During a conformity lapse, MPOs can prepare an interim metropolitan transportation plan as a basis for advancing projects that are eligible to proceed under a conformity lapse. An interim metropolitan transportation plan consisting of eligible projects from, or consistent with, the most recent conforming transportation plan and TIP may proceed immediately without revisiting the requirements of this section, subject to interagency consultation defined in 40 CFR part 93, subpart A. An interim metropolitan transportation plan containing eligible projects that are not from, or consistent with, the most recent conforming transportation plan and TIP must meet all the requirements of this section.

The conformity determination was shared with the Interagency Consultation Group in advance of the public comment period. The report was made available to the public thirty days starting April 1, 2019. No comments were received.

Air Quality Conformity Determination Report

Between

The **Northwestern Indiana 2050 Plan (NWI 2050 Plan) and**

The **2020 to 2024 Transportation Improvement Program (2020-2024 TIP)**

and

The **Indiana State Implementation Plan (SIP)**

May 16, 2019

Northwestern Indiana Regional Planning Commission

www.nirpc.org

Table of Contents

Acknowledgements

This *Air Quality Conformity Determination Report* between the Northwestern Indiana 2050 Plan (NWI 2050 Plan), the 2020 to 2024 Transportation Improvement Program (2020-2024 TIP) and the Indiana State Implementation Plan (SIP) was prepared by the Northwestern Indiana Regional Planning Commission (NIRPC). Individuals from the following agencies (hereafter collectively referred to as the Interagency Consultation Group on Air Quality or ICG) contributed their efforts towards the completion of the *Air Quality Conformity Determination Report*. They include:

- Northwestern Indiana Regional Planning Commission (NIRPC)
- Indiana Department of Transportation (INDOT)
- Indiana Department of Environment Management (IDEM)
- Federal Highway Administration (FHWA)
- Federal Transit Administration (FTA)
- United States Environmental Protection Agency (EPA)

Executive Summary

As part of its transportation planning process as a Metropolitan Planning Organization, NIRPC at least every 4 years is required to develop both a Metropolitan Transportation Plan, a plan of the Northwestern Indiana Region's priorities for the next few decades, as well as a Transportation Improvement Program, a listing of transportation projects that are consistent with the Metropolitan Transportation Plan. Because NIRPC administers these transportation planning requirements in at least one area designated by the United States Environmental Protection Agency (EPA) as nonattainment or maintenance for one or more criteria pollutants in the Clean Air Act (CAA), NIRPC is also subjected to air quality conformity requirements.

The Clean Air Act (CAA) section 176(c) (42 U.S.C. 7506(c)) requires that federally funded or approved highway and transit activities are consistent with ("conform to") the purpose of the State Implementation Plan (SIP). Conformity to the purpose of the SIP means that transportation activities will not cause or contribute to new air quality violations, worsen existing violations, or delay timely attainment of the relevant NAAQS or any interim milestones (42 U.S.C. 7506(c)(1)). EPA's air quality conformity rules establish the criteria and procedures for determining whether metropolitan transportation plans (MTPs), transportation improvement programs (TIPs), and federally supported highway and transit projects conform to the SIP (40 CFR Parts 51.390 and 93).

Of the six criteria pollutants regulated by the CAA (Ozone, Particulate Matter, Carbon Monoxide, Lead, Sulfur Dioxide, and Nitrogen Dioxide), only Ozone applies for this *Air Quality Conformity Determination Report* because it is the only one of the pollutants for which EPA has designated portions of the NIRPC planning area (Lake, Porter, and LaPorte Counties) nonattainment or maintenance that the ICG has found to have transportation-related emissions contributing to the nonattainment or maintenance designation. The EPA has made area designations for Ozone for the 1997, 2008, and 2015 National Ambient Air Quality Standards (NAAQSs). Air quality conformity must be demonstrated for the area designated under each NAAQS, unless an area for a newer designation is completely within the area from an older designation, in which case demonstrating conformity for the larger area is considered adequate for meeting the air quality conformity determination requirements. Lake and Porter Counties are designated as maintenance for the 1997 Ozone NAAQS and nonattainment for the 2008 Ozone NAAQS. Portions of northern Lake County are designated as nonattainment for the 2015 Ozone NAAQS, but since this area is completely within the area designated by the 2008 NAAQS, an air quality conformity determination for the 2008 Ozone NAAQS is adequate for the 2015 NAAQS. LaPorte County is designated maintenance for the 1997 Ozone NAAQS. Per the *South Coast Air Quality Management District v. EPA* decision and EPA's *Transportation Conformity Guidance for the South Coast II Court Decision*, LaPorte County is subjected to less stringent air quality conformity determination requirements.

This *Air Quality Conformity Determination Report* was completed consistent with CAA requirements, existing associated regulations at 40 CFR Parts 51.390 and 93, and the *South Coast II* decision, according to EPA's *Transportation Conformity Guidance for the South Coast II Court Decision* issued on November 29, 2018.

1.0 Background

1.1 Air Quality Conformity Process

The concept of air quality conformity was introduced in the Clean Air Act (CAA) of 1970, which included a provision to ensure that transportation investments conform to a State implementation plan (SIP) for meeting the Federal air quality standards. Conformity requirements were made substantially more rigorous in the CAA Amendments of 1990. The air quality conformity regulations that detail implementation of the CAA requirements were first issued in November 1993, and have been amended several times. The regulations establish the criteria and procedures for transportation agencies to demonstrate that air pollutant emissions from MTPs, TIPs and projects are consistent with ("conform to") the State's air quality goals in the SIP. This document has been prepared for State and local officials who are involved in decision making on transportation investments.

Air quality conformity is required under CAA Section 176(c) to ensure that Federally-supported (though not necessarily federally funded) transportation activities are consistent with ("conform to") the purpose of a State's SIP. Air quality conformity establishes the framework for improving air quality to protect public health and the environment. Conformity to the purpose of the SIP means Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) funding and approvals are given to highway and transit activities that will not cause new air quality violations, worsen existing air quality violations, or delay timely attainment of the relevant air quality standard, or any interim milestone.

Lake, Porter, and LaPorte Counties were designated as nonattainment for the 1997 Ozone NAAQS effective June 15, 2004 according to 69 FR 23857. On July 19, 2007, LaPorte County was reclassified to attainment with a maintenance plan (became a maintenance area) according to 72 FR 39574. On May 11, 2010, Lake and Porter Counties were reclassified to attainment with a maintenance plan (became a maintenance area) according to 75 FR 26113.

Lake and Porter Counties were designated as nonattainment for the 2008 Ozone NAAQS effective July 20, 2012 according to 77 FR 34221. EPA denied IDEM's redesignation request for Lake and Porter Counties for attainment on January 9, 2015, so Lake and Porter Counties remain a nonattainment area for the 2008 Ozone NAAQS.

Portions of Lake County (Calumet, Hobart, North, Ross, and St. John Townships) were designated as nonattainment for the 2015 Ozone NAAQS effective August 3, 2018 according to 83 FR 25776. Since these townships are all completely within the 2008 Ozone NAAQS nonattainment area that spans all of Lake and Porter Counties, demonstrating air quality conformity for all of Lake and Porter Counties with respect to the 2008 Ozone NAAQS satisfies the requirement for demonstrating air quality conformity for the Lake County portion of the 2015 Ozone NAAQS.

2.0 Metropolitan Transportation Plan (MTP)

Metropolitan Planning Organizations (MPOs) operating fully or in part in NAAQS nonattainment or maintenance areas such as NIRPC are required to develop a metropolitan transportation plan (MTP) at least every 4 years that looks out to a horizon at least 20 years in the future according to 23 CFR Part 450.324.

2.1 Northwestern Indiana 2050 Plan (NWI 2050 Plan)

The NWI 2050 Plan is scheduled to be adopted by the NIRPC Full Commission on May 16, 2019.[1] This plan satisfies the requirements mentioned in section 2.0 above and upon adoption will be the MTP for the Northwestern Indiana Region that includes all of Lake, Porter, and LaPorte Counties in Indiana.

The NWI 2050 Plan includes the following regionally significant, non-exempt transportation projects completed since the 2017 baseline year subject to the air quality conformity requirements (see Appendix A-2 for Regional Significance Guidance):

[1] Available at: http://bit.ly/NWI2050Plan

Table 2.1.1 Air Quality Conformity-Required Projects Included in NWI 2050 Plan

Projects Complete by 2020	Beginning Point	End Point	Sponsor	Federal Estimated Cost (YOE)	Non-Federal Estimated Cost (YOE)
I 65 Added Travel Lanes	US 30	SR 2	INDOT	2018: $55,800,000	2018: $6,200,000
Cline Ave Bridge	Riley Rd Interchange	Michigan Ave Interchange	East Chicago	$0	2019: $150,000,000
45th Ave Added Center Turn Lane	Chase St	Grant St	Lake County	2016: $184,780	2016: $46,195
101st Ave Added Travel Lanes	Georgia St	Mississippi St	Merrillville	2019: $2,423,000	2019: $643,546
Parrish Ave Added Center Turn Lane	Joliet St	US 231	St. John	$0	2018: $1,950,000
Broadway Metro Express	Gary Metro Center	Methodist Southlake Hospital	Gary Public Transportation Corporation	2017: $7,600,000	2017: $1,900,000
US 20 Added Center Turn Lane	US 421	US 35/SR 212	INDOT	2018: $8,961,600	2018: $2,240,400
US 20 Interchange Modification at US-35/SR 212	Meer Rd	US 35/SR 212 Interchange	INDOT	2018: $517,600	2018: $129,400
US 20 New Interchange at SR 2	1,590 feet from US 20/SR 2 Interchange	1,590 feet from US-20/SR-2 Interchange	INDOT	2019: $9,398,400	2019: $2,349,600

Projects Complete by 2025	Beginning Point	End Point	Sponsor	Federal Estimated Cost (YOE)	Non-Federal Estimated Cost (YOE)
US 41 Added Center Turn Lane	Standard Ave	US 231	INDOT	2019: $3,991,200	2019: $997,800
SR 49 Consecutive Intersection Improvements	Porter Ave	Gateway Blvd	INDOT	2023: $10,856,317	2023: $2,714,079
US 20 Added Center Turn Lane	SR 39	Fail Rd	INDOT	2023: $14,460,108	2023: $3,615,027
109th Ave Consecutive Intersection Improvements	SR 53	Iowa St	Crown Point/INDOT	2021: $2,643,125	2021: $7,576,875
Gostlin St/Sheffield Ave/Chicago St Added Travel Lanes	Illinois State Line	US 41	Hammond	2020: $9,400,000	2020: $2,350,000
45th St Added Center Turn Lane	Whitcomb St	Chase St	Lake County	2020: $2,255,000	2020: $563,750
Mississippi St Added Travel Lanes	93rd Ave	101st Ave	Merrillville	2020: $3,612,000	2020: $903,250
45th St Grade Separation and Realignment	0.3 miles West of Calumet Ave	Southwood Dr	Munster	2019: $16,800,000	2019: $4,843,293
93rd Ave Added Center Turn Lane	White Oak Ave	US 41	St. John	$0	2024: $3,487,347
109th Ave Added Center Turn Lane	Calumet Ave	US 41	St. John	$0	2024: $3,812,928
Calumet Ave Added Center Turn Lane	101st Ave	109th Ave	St. John	$0	2024: $3,398,710
Kennedy Ave Expansion	Oak St	US 30	Schererville	2024: $12,465,179	2024: $3,116,295
Vale Park Rd Extension	Winter Park Dr	Windsor Tr	Valparaiso	$0	2020: $4,480,000
South Shore Line Double Track	Tennessee St	Michigan Blvd	NICTD	$0	2022: $388,603,154
West Lake Corridor commuter rail service	Hammond Gateway Station	Main St - Munster/Dyer	NICTD	$0	2022: $768,335,733

Projects Complete by 2030	Beginning Point	End Point	Sponsor	Federal Estimated Cost (YOE)	Non-Federal Estimated Cost (YOE)
US 41 Added Center Turn Lane	US 231	SR 2	INDOT	2028: $36,877,815	2028: $9,219,454
Main St Extension	Burnham Ave (Illinois)	Columbia Ave/Sheffield Ave	Munster	2028: $2,631,548	2028: $657,887
Willowcreek Rd Extension	700 N	SR 130	Porter County	2025: $4,617,000	2025: $1,188,000
85th Ave Added Center Turn Lane	US 41	Parrish Ave	St. John	$0	2028: $5,828,139
93rd Ave Added Travel Lanes	Calumet Ave	Cline Ave	St. John	$0	2028: $36,217,098
109th Ave Added Travel Lanes	Calumet Ave	US 41	St. John	$0	2028: $10,220,018
Blaine Ave Added Center Turn Lane	93rd Ave	101st Ave	St. John	$0	2028: $5,438,393
Calumet Ave Added Travel Lanes	101st Ave	109th Ave	St. John	$0	2028: $9,906,218
Cline Ave Added Travel Lanes	101st Ave	109th Ave	St. John	$0	2028: $4,513,833
White Oak Ave Added Center Turn Lane	93rd Ave	101st Ave	St. John	$0	2028: $7,051,199
Kennedy Ave Added Travel Lanes	Main St	Oak St	Schererville	2025: $4,936,400	2025: $1,234,100
Vale Park Rd Added Center Turn Lane	Calumet Ave	Silhavy Rd	Valparaiso	2027: $3,423,275	2027: $855,819

Projects Complete by 2040	Beginning Point	End Point	Sponsor	Federal Estimated Cost (YOE)	Non-Federal Estimated Cost (YOE)
Division Rd Added Center Turn Lane	Sturdy Rd	375 E	Valparaiso	2038: $2,868,640	2040: $717,160
LaPorte County Eastern Bypass	SR 39	US 35	LaPorte County	2035: $104,000,000	2035: $26,000,000

Projects Complete by 2050	Beginning Point	End Point	Sponsor	Federal Estimated Cost (YOE)	Non-Federal Estimated Cost (YOE)
Division Rd Added Center Turn Lane	SR 2	Sturdy Rd	Valparaiso/Porter County	2048: $6,151,100	2048: $1,537,775

3.0 Transportation Improvement Program (TIP)

Metropolitan Planning Organizations (MPOs) such as NIRPC are required to develop a Transportation Improvement Program (TIP), which is a listing of FHWA and FTA funded transportation projects, covering a period of at least 4 years and in cooperation with the state and public transit providers according to 23 CFR Part 450.326. MPOs in Indiana produce TIPs covering 5 years.

3.1 2020 to 2024 Transportation Improvement Program (TIP)

The 2020 to 2024 Transportation Improvement Program (2020-2024 TIP) is scheduled to be adopted by the NIRPC Full Commission on May 16, 2019.[2] The 2020-2024 TIP satisfies the requirements mentioned in section 3.0 above and upon adoption will be the TIP for the Northwestern Indiana Region that includes all of Lake, Porter, and LaPorte Counties in Indiana.

The 2020-2024 TIP includes all federally funded projects in the State Fiscal Years 2020 to 2024 (July 1, 2019 through June 30, 2024) but does not include all of the projects listed in Table 2.1.1 above, namely those beyond the year 2024 or those that are not federally funded.

[2] Available at http://bit.ly/20-24TIP

4.0 Air Quality Conformity Determination: General Process

Generally, demonstrating air quality conformity between an MTP/TIP and a SIP means showing that regionally significant, non-exempt highway and transit projects will not cause new air quality violations, worsen existing air quality violations, or delay timely attainment of the relevant air quality standard, or any interim milestone. The State of Indiana developed a Regional Significance Guidance document included in Appendix A-2 that satisfies the 40 CFR Part 93.101 definition of regionally significant project. A non-exempt project is any project not included as an exempt project type in 40 CFR Part 93.126. Thus, demonstrating air quality conformity is required for any transportation project that meets the Regional Significance Guidance and that is not on the list of exempt projects.

In nonattainment or maintenance areas for transportation-related criteria pollutants, demonstrating air quality conformity is required for all newly adopted MTPs and TIPs, and for any amendments to MTPs or TIPs that include regionally significant, non-exempt projects. Since the NWI 2050 Plan is a newly adopted MTP and the 2020-2024 TIP is a newly adopted TIP, it is necessary to demonstrate air quality conformity to the SIP with respect to the applicable criteria pollutants and their associated precursors. In this case the only applicable criteria pollutant is Ozone, which includes Nitrous Oxides (NOx) and Volatile Organic Compounds (VOC) as precursors.

5.0 Requirements

5.1 Overview

The air quality conformity regulation at 40 CFR 93.109 sets forth the criteria and procedures for demonstrating air quality conformity. The air quality conformity criteria for MTPs and TIPs include: latest planning assumptions (93.110), latest emissions model (93.111), consultation (93.112), transportation control measures (93.113(b) and (c), fiscal constraint, consistency with motor vehicle emissions budgets in the SIP, and regional emissions analysis or interim emissions test (93.118 and/or 93.119).

For the 1997 Ozone NAAQS areas that are not designated nonattainment or maintenance for either the 2008 Ozone NAAQS or 2015 Ozone NAAQS (i.e. LaPorte County), air quality conformity can be demonstrated with only the latest planning assumptions, consultation, transportation control measures, and fiscal constraint requirements per 40 CFR 93.109(c) and the EPA Transportation Conformity Guidance for the South Coast II Court Decision.[3] Thus, all of the additional requirements in the previous paragraph only are applied to demonstrating air quality conformity with respect to Lake and Porter Counties in this *Air Quality Conformity Determination Report*.

5.2 Latest Planning Assumptions

Use of the latest planning assumptions in demonstrating air quality conformity is required per 40 CFR 93.110 of the Transportation Conformity Rule. Use of the latest planning assumptions ensures that the underlying assumptions and data that are inputted into the regional emissions analysis accurately reflect the planning assumptions of the region demonstrating air quality conformity. As part of the NWI 2050 Plan and 2020 to 2024 TIP development, the Northwestern Indiana Region developed demographic forecasts for population and employment growth as shown on Table 5.2.1.

Table 5.2.1 Demographic Baseline and Forecasts for Lake, Porter, and LaPorte Counties

Year	Population	Households	Employment
2017	766,924	291,750	286,970
2020	773,689	294,313	292,121
2025	784,974	298,567	300,688
2030	796,251	302,838	309,281
2040	818,813	311,378	326,436
2050	841,382	319,903	343,604

Population forecasts are based on the baseline 2017 year as found in the US Census Bureau's American Community Survey, 2013-2017 Estimates Table B01003. The 2050 horizon year population forecast is based on an average of 5 different sources that have already conducted population forecasts for the NWI Region: INDOT Statewide Travel Demand Model, INDOT REMI PI+ 2.0 Model, Woods & Poole Economics, Inc., Louis Berger Group (for the Chicago Metropolitan Agency for Planning), and the Indiana Business Research Center.[4] The interim years between the 2017 baseline year and the 2050 horizon

[3] Available from https://www.epa.gov/sites/production/files/2018-11/documents/420b18050.pdf
[4] INDOT Statewide Travel Demand Model, INDOT REMI PI+ 2.0 Model, and Woods & Poole Economics, Inc. population forecasts were emailed to NIRPC by INDOT on October 11, 2017 and have privacy restrictions- these forecasts are technically for a 2045 horizon year that is extrapolated out to 2050 based on a linear trend model of fit; Louis Berger Group forecasts are available at https://datahub.cmap.illinois.gov/dataset/89f66569-5f51-4c14-8b02-5ecc1ca00909/resource/a812de2f-d465-47f2-87df-

year are extrapolated from a simple linear trend model of fit. Household forecasts are based on the baseline 2017 year as found in the US Census Bureau's American Community Survey, 2013-2017 Estimates Table S1101. All other years are based on the number of persons per household for each county found by dividing the county's population by its number of households. Employment forecasts are based on the baseline 2017 year as found in the US Bureau of Labor Statistics' Quarterly Census of Employment and Wages (QCEW) State and County Wages series annual average employment. The 2050 horizon year employment forecast is based on an average of 4 different sources that have already conducted employment forecasts for the NWI Region: INDOT Statewide Travel Demand Model, INDOT REMI PI+ 2.0 Model, Woods & Poole Economics, Inc., and Louis Berger Group (for the Chicago Metropolitan Agency for Planning).[5] The interim years between the 2017 baseline year and the 2050 horizon year are extrapolated from a simple linear trend model of fit.

The Highway Performance Monitoring System (HPMS) data provides the basis or an analysis of the growth in Vehicle-Miles of Travel as shown on Table 5.2.2.

0427e81da2cf/download/CMAPSocioeconomicForecastFinal-Report04Nov2016.pdf; Indiana Business Research Center forecasts available at http://www.stats.indiana.edu/pop_proj/

[5] INDOT Statewide Travel Demand Model, INDOT REMI PI+ 2.0 Model, and Woods & Poole Economics, Inc. forecasts were emailed to NIRPC by INDOT on October 11, 2017 and have privacy restrictions- these forecasts are technically for a 2045 horizon year that is extrapolated out to 2050 based on a linear trend model of fit; Louis Berger Group forecasts are available at https://datahub.cmap.illinois.gov/dataset/89f66569-5f51-4c14-8b02-5ecc1ca00909/resource/a812de2f-d465-47f2-87df-0427e81da2cf/download/CMAPSocioeconomicForecastFinal-Report04Nov2016.pdf

Table 5.2.2 Growth in Vehicle Miles Traveled (VMT) in Lake, Porter, and LaPorte Counties

Year	Daily VMT Estimate (HPMS)	Annual Rate of Growth
1992	17,722,061	
1993	18,160,891	2.48%
1994	18,663,552	2.77%
1995	19,847,112	6.34%
1996	19,842,716	-0.02%
1997	21,058,741	6.13%
1998	21,638,065	2.75%
1999	21,249,847	-1.79%
2000	21,527,000	1.33%
2001	21,987,000	2.11%
2002	22,147,635	0.73%
2003	22,201,000	0.24%
2004	22,154,000	-0.21%
2005	22,216,000	0.28%
2006	22,305,000	0.40%
2007	22,397,000	13.95%
2008	21,792,000	-13.96%
2009	26,507,120	21.21%
2010	20,359,000	-23.19%
2011	26,545,000	30.38%
2012	25,461,000	-4.08%
2013	26,066,000	2.37%
2014	26,797,850	2.81%
2015	29,805,800	11.22%
2016	30,858,000	3.53%
2017	31,044,000	0.60%

Based on this data, the actual annual rate of growth of travel can be determined. For the three-county area as shown in Table 5.2.2, the rates range from -23.19% to 30.38% between 1992 and 2017. Over this period, the annual rate of daily VMT growth is 2.27%.

Vehicle registration data have been received from the Indiana Bureau of Motor Vehicles. These data are split by vehicle type, and have an associated date of approximately December 31, 2014. The Indiana Department of Environmental Management provided vehicle age information for cars and light trucks, from the application of a vehicle identification number (VIN) decoder as well as registrations by vehicle type directly from the Bureau of Motor Vehicles. This vehicle registration data have been used in MOVES, reflecting vehicle fleet age by vehicle type for smaller vehicles. For larger vehicle types, default data have been determined to be the best available fleet age information.

The methods and assumptions for the transportation network model in the regional emissions analysis are included in the NIRPC Travel Demand Model Documentation Report.[6]

[6] Available at https://www.nirpc.org/wp-content/uploads/2019/03/NIRPC-Travel-Demand-Model.pdf

5.3 Latest Emissions Model

For demonstrating air quality conformity for the Lake and Porter Counties 2008 Ozone NAAQS, the MOVES2014a model has been used for this *Air Quality Conformity Determination Report*. Although technically the MOVES2014b is the latest emissions model, EPA allows MOVES2014a to satisfy the latest emissions model requirements for air quality conformity purposes.[7] The latest emissions model requirement does not apply to demonstrating air quality conformity for the 1997 Ozone NAAQS with respect to LaPorte County as mentioned in the EPA *Transportation Conformity Guidance for the South Coast II Court Decision*. The Motor Vehicles Emissions Budgets (MVEB) for 2008 Ozone NAAQS with respect to Lake and Porter Counties are based on the INDOT Air Quality Post-Processor (AQPP), which combines inputs from the NIRPC Travel Demand Model and MOVES2014a.

5.4 Consultation Requirements

The consultation requirements in 40 CFR 93.112 were addressed both for interagency consultation and public consultation.

Interagency consultation was conducted with NIRPC, INDOT, IDEM, FHWA, FTA, and EPA. NIRPC sent an email to representatives from each of these agencies with a draft copy of this *Air Quality Conformity Determination Report* on March 22, 2019. Representatives from each of these agencies offered feedback and recommended edits as appropriate and during a teleconference call on March 29, 2019, and these are reflected in this *Air Quality Conformity Determination Report*. Interagency consultation was conducted consistent with the Indiana Conformity SIP. See section 7.1 for details of the interagency consultation correspondence.

Public consultation was conducted consistent with planning rule requirements in 23 CFR 450. NIRPC followed its 2014 Public Participation Plan.[8] The *Air Quality Conformity Determination Report* was made available to public comment on the NIRPC website from April 1, 2019 to April 30, 2019, fulfilling the 30-day public comment period that the 2014 Public Participation Requires for Conformity Determinations. No comments were received.

5.5 Timely Implementation of TCMs

The Indiana SIP with respect to Lake, Porter, and LaPorte Counties does not include any TCMs.

5.6 Fiscal Constraint

Air quality conformity requirements in 40 CFR 93.108 state that transportation plans and TIPs must be fiscally constrained consistent with DOT's metropolitan planning regulations at 23 CFR part 450. The NWI 2050 Plan and 2020-2024 TIP are fiscally constrained, as demonstrated in the Action Plan section of the NWI 2050 Plan[9] and section Fiscal Constraint section of the 2020-2024 TIP.[10]

---

[7] See https://www.epa.gov/moves/latest-version-motor-vehicle-emission-simulator-moves
[8] Available at https://nirpc.org/media/48081/nirpc_2014_ppp_final_adopted_12.11.2014.pdf
[9] Available at http://bit.ly/NWI2050Plan
[10] Available at http://bit.ly/20-24TIP

5.7 Consistency with the Motor vehicle emissions budgets in the SIP

This *Air Quality Conformity Determination Report* is prepared consistent with the applicable EPA-approved Motor vehicle emissions budgets (MVEB) for the Ozone precursors of NOx and VOC. The MVEB are based on prior consultation between members of the Interagency Consultation Group on Air Quality (see Acknowledgments section) and are formulated using the latest emissions model and the NIRPC Travel Demand Model. Table 5.9.1 shows the MVEB for the applicable analysis years in the Regional Emissions Analysis. The consistency with the Motor vehicle emissions budgets requirement does not apply to demonstrating air quality conformity for the 1997 Ozone NAAQS with respect to LaPorte County as mentioned in the EPA *Transportation Conformity Guidance for the South Coast II Court Decision*.

5.8 Regional Emissions Analysis Methodology

The regional emissions analysis applicable to Lake and Porter Counties has estimated emissions of VOC and NO_X as ozone precursors. The regional emissions analysis includes estimates of emissions from the entire transportation system, including all regionally significant, non-exempt projects contained in the NWI 2050 Plan (see Table 2.1.1) and all other regionally significant, non-exempt highway and transit projects expected in the nonattainment area in the time frame of the transportation plan. Table 5.9.1 shows that regional emissions for the ozone precursors fall at or below the budgets in the State Implementation Plan for the 2008 Ozone NAAQS with respect to Lake and Porter Counties.

The emissions analysis methodology meets the requirements of 40 CFR 93.122(b) of the Transportation Conformity Rule, for air quality conformity determinations based on estimates of regional transportation-related emissions completed after January 1, 1997.

Implementation of the Lake and Porter County projects in the NWI 2050 Plan and 2020-2024 TIP results in motor vehicle emissions that are at or below the levels of the applicable Motor vehicle emissions budgets, as shown in Table 5.9.1.

The regional emissions analysis for the transportation projects includes calculations of vehicle emissions at the aggregate level for the entire transportation system, including all regionally significant, non-exempt projects expected in the nonattainment area. The analysis includes FHWA/FTA-funded projects proposed in the NWI 2050 Plan, all Indiana Toll Road projects and all other regionally significant, non-exempt projects which are disclosed to NIRPC (see Table 2.1.1 for the complete list). Vehicle miles traveled (VMT) from projects which are not regionally significant and non-exempt are estimated in accordance with reasonable professional practice, using the NIRPC Travel Demand Model.

The regional emissions analysis does not include any TCM. The regional emissions analysis does not include emissions reduction credit from projects, programs, activities, or control measures which require a regulatory action in order to be implemented.

Ambient temperatures used for the regional emissions analysis are consistent with those used to estimate the emissions in 2017. All other factors, for example the fraction of travel in a hot stabilized engine mode, are consistently applied.

Reasonable methods have been used to estimate nonattainment area VMT on off-network roadways within the urban transportation planning area, and on roadways outside the urban transportation planning area. For 2017, 2020, 2025, 2030, 2040, and 2050, estimates of regional transportation-related emissions used to support the conformity determination have been made using the MOVES2014a post-processor updated with the latest vehicle registration data. Regional transportation-related emissions estimates are included for 2011

since 2011 appears in the Lake and Porter Counties 2008 Ozone NAAQS attainment demonstration.

Land use, population, employment, and other network-based travel model assumptions have been documented based on the best available information (see Section 5.3). The distribution of population, households, and employment is based on prior 5-year moving averages of those trends in each of the 380 Travel Analysis Zones (TAZs) in Lake and Porter Counties and is a reasonable state of the practice.

A capacity-sensitive assignment methodology has been used, and emissions estimates are based on a methodology, which differentiates between peak and off-peak link volumes and speeds, and uses speeds based on final assigned volumes, post-processed in the database. TAZ-to-TAZ travel impedances used to distribute trips between origin and destination pairs are in reasonable agreement with the travel times that are estimated from final assigned traffic volumes, using a feedback procedure iterated five times. These times have also been used for modeling mode splits. The network-based travel model is reasonably sensitive to changes in the time(s), cost(s), and other factors affecting travel choices. Reasonable methods in accordance with good practice have been used to estimate traffic speeds and delays in a manner that is sensitive to the estimated volume of travel on each roadway segment represented in the network-based travel model. Highway Performance Monitoring System (HPMS) estimates of vehicle miles traveled (VMT) are considered the primary measure of VMT within the portion of the nonattainment area and for the functional classes of roadways included in the nonattainment area.

The regional emissions analysis requirement does not apply to demonstrating air quality conformity for the 1997 Ozone NAAQS with respect to LaPorte County as mentioned in the EPA *Transportation Conformity Guidance for the South Coast II Court Decision*.

5.9 Regional Emissions Analysis Results

Table 5.9.1 shows the Regional Emissions Analysis Results for demonstrating air quality conformity between the NWI 2050 Plan and 2020 to 2024 TIP and the Indiana SIP for the 2008 Ozone NAAQS with respect to Lake and Porter Counties.

Table 5.9.1 Regional Emissions Analysis for Lake and Porter Counties - 2008 Ozone NAAQS

Year:	2011	2017	2020	2025	2030	2040	2050
NOx Budget	28.41	16.68	16.68	16.68	16.68	16.68	16.68
NOx Emissions	24.70	12.85	13.01	8.53	6.62	5.23	5.34
VOC Budget	11.02	6.85	6.85	6.85	6.85	6.85	6.85
VOC Emission	9.58	6.07	6.18	4.91	3.77	2.59	2.57

As shown in Table 5.9.1, baseline and forecasted emissions for the Ozone precursors of NOx and VOC are at or below the motor vehicle emissions budgets (MVEBs) in the Indiana SIP. Therefore, air quality conformity is demonstrated for the NWI 2050 Plan and 2020-2024 TIP for the 2008 Ozone NAAQS with respect to Lake and Porter Counties. Per the EPA *Transportation Conformity Guidance for the South Coast II Court Decision*, air quality conformity is demonstrated for the NWI 2050 Plan and 2020-2024 TIP for the 1997 Ozone NAAQS with respect to LaPorte County without a regional emissions analysis. Only the latest planning assumptions, consultation, transportation control measures, and fiscal constraint are required to demonstrate air quality conformity with respect to LaPorte County.

6.0 Conclusion

The air quality conformity determination process completed for the Northwestern Indiana 2050 Plan (NWI 2050 Plan) and the 2020 to 2024 Transportation Improvement Program (2020-2024 TIP) demonstrates that these planning documents meet the Clean Air Act and Transportation Conformity Rule requirements for the applicable National Ambient Air Quality Standards (NAAQS).

7.0 Appendices

7.1 Appendix A-1: Interagency Consultation Group Correspondence

NIRPC staff emailed members of the Interagency Consultation Group on Air Quality, comprised of NIRPC, INDOT, IDEM, FHWA, FTA, and EPA, a draft of this *Air Quality Conformity Determination Report* on March 22, 2019.

On March 26, 2019, Anthony Maietta of EPA, and Shawn Seals of IDEM, notified Scott Weber of NIRPC, that the motor vehicle emissions budgets developed for the 2008 Ozone NAAQS with respect to Lake and Porter Counties supersede the Motor vehicle emissions budgets developed for the 1997 Ozone NAAQS with respect to Lake and Porter Counties. Anthony Maeitta and Shawn Seals also notified Scott Weber that demonstrating Air quality conformity to the 2008 Ozone NAAQS with respect to all of Lake and Porter Counties fulfills the requirement to demonstrate Air quality conformity to the 2015 Ozone NAAQS with respect to 5 townships in Lake County since those townships are completely within the Lake and Porter Counties geography for the 2008 Ozone NAAQS and since there are no motor vehicle emissions budgets yet for the 2015 Ozone NAAQS geography.

On March 29, 2019, there was an Interagency Consultation Group on Air Quality teleconference call. Scott Weber and Trey Wadsworth of NIRPC, Frank Baukert and Stephanie Belch of INDOT, Shawn Seals of IDEM, Joyce Newland of FHWA, and Anthony Maietta of EPA participated. All parties agreed with the project list in Table 2.1.1 upon hearing NIRPC's explanation that it included all of the draft STIP INDOT projects as well as Local Public Agency projects that NIRPC staff had heard about from reaching out to the Employees in Responsible Charge (ERCs). All parties agreed with the draft report in terms of the Requirements in Section 5. Scott Weber thanked Anthony Maeitta and Shawn Seals for their correspondence on March 26, 2019 in regards to clarifying which motor vehicle emissions budgets apply to this air quality conformity determination. Joyce Newland asked that all members of the ICG receive the link to the Federal Register and the motor vehicle emissions budgets for Lake and Porter Counties for the 2008 Ozone NAAQS. Shawn Seals responded that he would email the link out to the members of the ICG. Scott Weber thanked Frank Baukert for providing the updated INDOT HPMS Adjustment Fractions and asked that since he had only recently received them from INDOT and did not yet have all of the Air Quality Modeling results using them, that the ICG grant him additional time to revise the emissions in Table 5.9.1 using these latest HPMS Adjustment Fractions. The ICG agreed with Scott Weber's request given information from Scott that when he modeled the 2020 emissions based on the updated HPMS Adjustment Fractions, the emissions only changed by a few hundredths of a ton per summer day. The ICG agreed with NIRPC's planned public comment period and upcoming adoption schedule for this Air Quality Conformity Determination Report as well as the NWI 2050 Plan and 2020-2024 TIP.

NIRPC staff posted this *Air Quality Conformity Determination Report* document to the NIRPC website for public comment on April 1, 2019 through April 30, 2019. No comments were received.

7.2 Appendix A-2: Regional Significance Guidance

Regional Significance Guidance

This document is being provided as a guidance resource for local municipalities and project implementers to:

1. Help define what is meant by the term "regionally significant project"
2. Provide information on the regional air quality conformity process
3. Provide guidance on expected project-level informational requirements of local municipalities.

This document does not in any way change, modify, or supersede any regulatory or statutory requirements of the Clean Air Act, Clean Air Act Amendments, or other related federal and state legislation. The final determination on whether a project can be considered regionally significant is reserved by the air quality consultation committee.

NIRPC provides the conformity process as a service to local governments. By excluding regionally significant projects from the regional emissions analysis, project implementers may risk a violation of the Clean Air Act, and non-conformity for the regional transportation plan and transportation improvement program. The applicable federal regulations are included at the end of this document.

NIRPC's transportation network model includes all roads functionally classified a collector and higher and all interchange ramps. The collectors and some local roads are included to accurately load traffic onto the higher classification roads, including the minor arterials, principal arterials, expressways and interstates. All roads functionally classified as Minor Arterial or above should be considered as regionally significant. This includes all freeways, expressways, interchange ramps, principal arterials and minor arterials. All fixed guide-way transit services, including commuter rail are regionally significant. Fixed route bus services can also be regionally significant when they offer a significant alternative to regional highway travel.

Transportation projects, whether single or multi-jurisdictional, that modify these facilities can be regionally significant. Individually, projects can be considered as regionally significant when they are above certain thresholds. Collectively, when a series of smaller projects on a regionally significant facility are completed, the overall improvements can be regionally significant.

Thresholds of regional significance for the anticipated overall improvement projects are listed:

Interstates, Expressways, Toll Roads	
Expansion Type	Threshold
New Segment	No Minimum
Added Through Lanes	No Minimum
Continuous Auxiliary Lanes	> ¼ mile
New Interchanges	No Minimum
Modification of Existing Interchanges	AQ Consultation Required

Principal Arterials	
Expansion Type	Threshold
New Segment	No Minimum
Added Through Lanes	No Minimum
Continuous Auxiliary Lanes	> 1 mile
New Interchanges	No Minimum
Modification of Existing Interchanges	AQ Consultation Required
Separation of existing railroad grade crossings	Not regionally significant

Minor Arterials	
Expansion Type	Threshold
New Segment	¾ to 1 mile - AQ Consultation Required
New Segment	> 1 mile
Added Through Lanes	¾ to 1 mile - AQ Consultation Required
Added Through Lanes	> 1 mile
Continuous Auxiliary Lanes	> 1 mile
Separation of existing railroad grade crossings	Not regionally significant

Rail and Fixed Guide-way Transit	
Expansion Type	Threshold
New Route or Service	No Minimum
Route Extension with Station	> 1 mile from current terminus
Added track or guide-way capacity	> 1 mile
New Intermediate Station	AQ Consultation Required

Bus and Demand Response Transit	
Expansion Type	Threshold
New Fixed Route	AQ Consultation Required
New Demand Response Service	Not Regionally Significant
Added Service to existing	Not Regionally Significant

New segments or added through lanes on arterials that are also associated with large land development projects may need AQ consultation even if the project is below the threshold in the table. Land development projects can be regionally significant when they have the potential to generate many trips or vehicle-miles of travel. Such developments are incorporated into the regional model during the update of socioeconomic forecasts, at the beginning of the update cycle for a new regional transportation plan. Local agencies shall provide their comprehensive plans to NIRPC as they're updated, which reflect the known development projects.

Local agencies should proactively include anticipated developments in their comprehensive plans without specific reference to potential high profile private sector developments.

Implementation

Conceptual "place-holder" projects can be included in the conformity determination long before commitments are made for their implementation. For plan milestone years, anticipated projects should be included. Local agencies shall submit to NIRPC thoroughfare plans that use the functional classification system as they're adopted. Functional classification changes shall be done in the context of the Regional Transportation Plan.

At the start of each conformity cycle, NIRPC will solicit new project and related development information from all local agencies, so that the analysis will use the latest planning assumptions. Local agencies that wish to proceed with transportation improvement projects, regardless of funding sources, must respond to the solicitation to be sure that their projects are included in the regional emissions analysis. Projects that are excluded from the analysis may be delayed until the next conformity cycle (a minimum of six months), when they will be included in the regional emissions analysis. In addition, at the start of each plan update cycle NIRPC will request an update of land development that local agencies anticipate, for inclusion in the regional emissions analysis, by including updated population, household and employment data.

This guidance is intended to help NIRPC and project sponsors to comply with the following federal regulation: **40 CFR Part 93** (Transportation Conformity Rule Amendments: Flexibility and Streamlining; Final Rule) **§93.101** (Definitions) *Regionally significant project means a transportation project (other than an exempt project) that is on a facility which serves regional transportation needs (such as access to and from the area outside the region, major activity centers in the region, major planned developments such as new retail malls, sports complexes, etc., or transportation terminals as well as most terminals themselves) and would normally be included in the modeling of a metropolitan area's transportation network, including at a minimum all principal arterial highways and all fixed guideway transit facilities that offer an alternative to regional highway travel.*; **§93.105** (Consultation) **(c)** (Interagency Consultation Procedures: Specific Processes) *Interagency consultation procedures shall also include the following specific processes:* **(ii)** *Determining which minor arterials and other transportation projects should be considered "regionally significant" for the purposes of regional emissions analysis (in addition to those functionally classified as principal arterial or higher or fixed guideway systems or extensions that offer an alternative to regional highway travel), and which projects should be considered to have a significant change in design concept and scope from the transportation plan or TIP.*; **§93.121** (Requirements for adoption or approval of projects by other recipients of funds designated under title 23 U.S.C. or the Federal Transit Laws.) **(a)** *Except as provided in paragraph (b) of this section, no recipient of Federal funds designated under title 23 U.S.C. or the Federal Transit Laws shall adopt or approve a regionally significant highway or transit project, regardless of funding source, unless the recipient finds that the requirements of one of the following are met:* **(1)** *The project was included in the first three years of the most recently conforming transportation plan and TIP (or the conformity determination's regional emissions analysis), even if conformity status is currently lapsed; and the project's design concept and scope have not changed significantly from those analyses; or* **(2)** *There is a currently conforming transportation plan and TIP, and a new regional emissions analysis including the project and the currently conforming plan and TIP demonstrates that the transportation plan and TIP would still conform if the project were implemented (consistent with the requirements of §93.118 and/or 93.119 for a project not from a conforming transportation plan and TIP).* **(b)** *In isolated rural nonattainment areas and maintenance areas subject to §93.109(g), no recipient…*