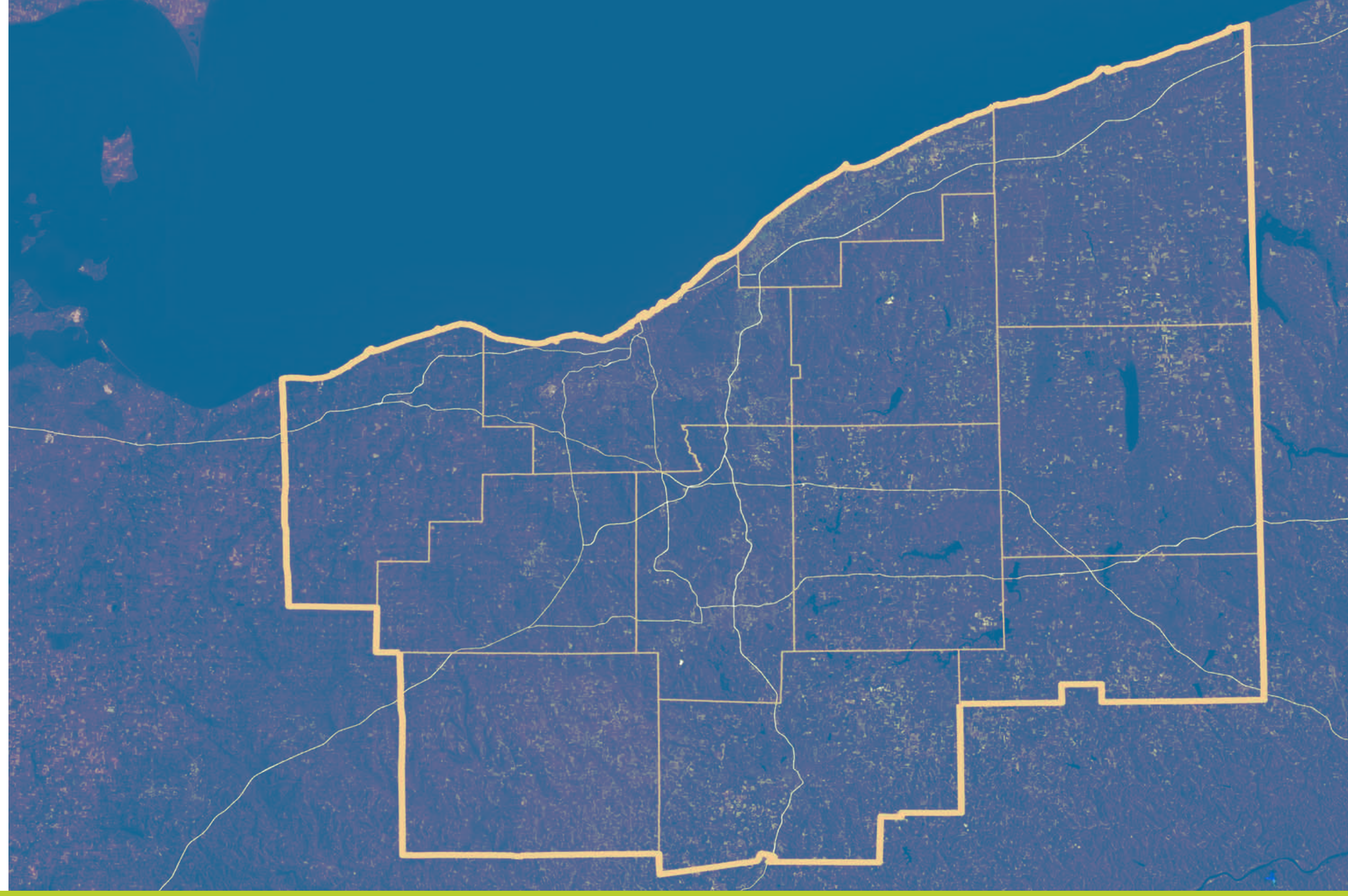
VIBRANT NEO 2040

VibrantNEO.org

For a more vibrant, resilient, and sustainable Northeast Ohio



Vibrant NEO 2040

A Vision, Framework, and Action Products for Our Future

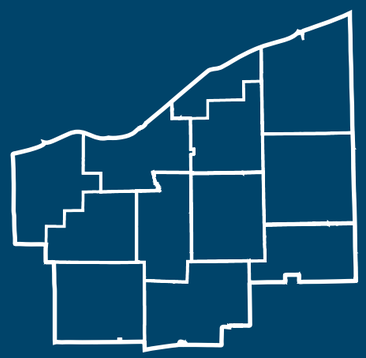
NEO Sustainable Communities Consortium

SASAKI

VIBRANT: energetic, dynamic, vivid, spirited, alive, colorful, vigorous, animated, responsive, electrifying.

RESILIENT: tough, strong, hardy, buoyant, robust, tenacious, resourceful.

SUSTAINABLE: maintainable, supportable, self-sufficient, viable, rational, reliable, sound, manageable, credible.



Vibrant NEO was launched to create a
more vibrant, resilient, and sustainable
Northeast Ohio – a Northeast Ohio that is full
of energy and enthusiasm, a good steward
of its built and natural resources, and
adaptable and responsive to change.

February 2014

ACKNOWLEDGEMENTS

NEOSCC and Vibrant NEO 2040 are largely funded by a highly competitive, first-of-its kind, $4.25M federal grant from the U.S. Department of Housing and Urban Development (HUD) as part of the Partnership for Sustainable Communities Initiative. The Sustainable Communities Initiative is an interagency collaboration among HUD, the U.S. Department of Transportation, and the U.S. Environmental Protection Agency. Locally, the Vibrant NEO 2040 initiative was funded matched with $2.2 in monetary, services and facilities support from the 33 Board Member Organizations including a significant matching grant from the Fund for Our Economic Future.

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Lucy Miller, Senior Management Analyst and Ohio Sustainability Officer

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Akron Metropolitan Housing Authority
Akron Urban League
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Ohio Environmental Protection Agency
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The Future of the Northeast Ohio Economy: the Northeast Ohio Regional Economic Competitiveness Strategy contributed by Edward W. (Ned) Hill, Dean, Levin College of Urban Affairs, and Cleveland State University

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Lorain County
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Medina County Metroparks
Mill Creek Metroparks
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Northeast Ohio Medical University
Oberlin Inn
OH! WOW – Children's Center for Science and Technology
Portage Area Regional Transit Authority
Portage County Planning Commission
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Youngstown Business Journal

CONTENTS

HOW TO READ THIS DOCUMENT

This document—***Vibrant NEO 2040: A Vision, Framework, and Action Products for Our Future***—is the central component of Vibrant NEO 2040. It describes the:

- Project background
- Regional context
- Scenario planning process and outcomes
- Regional Vision

These sections were written and sequenced to form a narrative arc, but the document can also be read like a reference guide, enabling readers to jump in and out of the text as they wish. Individual sections can be downloaded and read separately. The broader universe of Vibrant NEO 2040 products and outcomes, illustrated in the previous section, is referenced throughout the text and can also be downloaded online at **http://vibrantneo.org/**.

This document is intended for many different audiences. Some of the material was written for a broad audience, while other sections were written for technical experts, policy makers, and regional leadership. Information presented within a section generally goes from more general to more technical. The most detailed information is contained in the Technical Appendix, which is available online.

INTRODUCTION

PREFACE

A VIBRANT FUTURE

In 2010, leaders representing a 12-county region of Northeast Ohio recognized that our communities' futures are intertwined and concluded that the region could be more successful if we work to anticipate, prepare for, and build our future together, instead of apart. The Northeast Ohio Sustainable Communities Consortium (NEOSCC) was created to figure out how to achieve this goal.

NEOSCC's assignment was not to "plan" the future of Northeast Ohio—those are decisions for the leaders and residents of Northeast Ohio's communities to make. In broad terms, NEOSCC was created to answer three questions for Northeast Ohio:

1. What course is Northeast Ohio on?
2. What future does Northeast Ohio want for itself?
3. How do we make that future a reality?

NEOSCC launched its Vibrant NEO 2040 initiative to answer these questions and provide Northeast Ohio with two things: an aspirational **Vision** for the future and a **set of tools** needed to make it happen.

NEOSCC hopes that the shared vision for Northeast Ohio's future that was developed through Vibrant NEO 2040's robust engagement process can give communities a reason to align their planning and resource allocation decisions to build a healthier, more economically competitive, and socially equitable region.

WHAT DID WE FIND?

The Vision creation process used two kinds of inputs: objective findings and community values. Much of the three years of Vibrant NEO 2040 was spent collecting and analyzing data, modeling trends and alternatives, and interviewing experts across the region. This information provided the factual basis for the Vision.

This process revealed sobering facts about the course of the region. If Northeast Ohio continues to experience modest population and job growth, and we maintain our current approach to land use and infrastructure development, our region will face unprecedented challenges by 2040. Under this Trend Scenario, Northeast Ohio will experience:

- "Churn" with Lagging Growth: Minimal growth in population and jobs while continuing to spread out, abandoning our long-established cities and suburbs for newly developed communities at the edges of the region.
- Abandonment: Widespread abandonment of homes and businesses. An estimated 174,900 homes will be abandoned by 2040. Northeast Ohio will also continue to put at risk many of the significant community assets it has inherited from previous generations.
- Jeopardized Natural Resources: Continued threats to Northeast Ohio's natural resources as a result of the region's land use decisions and infrastructure investments.
- Extreme Fiscal Challenges for Local Governments: Rising costs from maintaining current development policies and practices will place **every county in the region at significant financial risk** as local governments find themselves faced with an unrelenting pressure to spend more tax dollars than they take in. In this scenario, Northeast Ohioans will have to choose between two bad options: acclimating to a diminished quality of life or paying significantly more in taxes and fees to maintain community services at levels they have come to expect.

WHAT DO WE WANT?

Thousands of Northeast Ohioans created the Vibrant NEO 2040 Vision by participating in a process that enabled them to discover and share the values and aspirations they hold in common and explore their choices about the future. NEOSCC synthesized the feedback it received and the choices participants made during the development of Vibrant NEO 2040.

Northeast Ohio residents aspire to create a region where:

- **We have created a regional economy that is competitive, growing, and fair**
- **We have strengthened our communities, built upon their assets, and improved their fiscal health**
- **We have grown stronger connections across our region both in our transportation networks and in our system of parks and natural areas**
- **We have been effective stewards of our resources and achieved a better balance between nature and the things we build**
- **We have worked together to improve our quality of life and have avoided squandering our regional inheritance and legacy**

Throughout this report, the Vibrant NEO 2040 Vision is described in specific, measurable actions and outcomes we need to achieve together. The implementation of Vibrant NEO 2040 is up to Northeast Ohio's communities and residents.

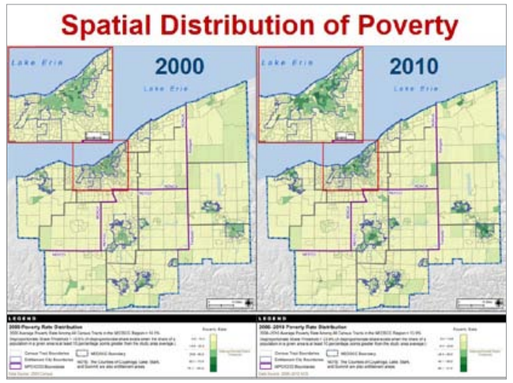
PRODUCTS AND OUTCOMES

This section provides a visual roadmap of the major Vibrant NEO 2040 products and outcomes. Some of these products and outcomes are presented within this document, while others are provided online at **http://vibrantneo.org/**.

Conditions and Trends Platform

Web platform presenting the state of the region and significant regional trends

Regional Analysis of Impediments to Fair Housing Choice and Fair Housing Equity Assessment



A region-wide analysis of access to fair housing

Vibrant NEO 2040 Database

Data created and assembled as part of Vibrant NEO 2040, including standardized zoning and land use information for the 12-county area

Public Feedback Library

All public feedback received through the process is available online

Tool Kit and Best Practices

Tools for implementing the Vision

Policy Framework

Analysis of existing policy impacts and suggested future changes to achieve the Vision

Pilot Projects

Existing or proposed projects that demonstrate emerging best practices

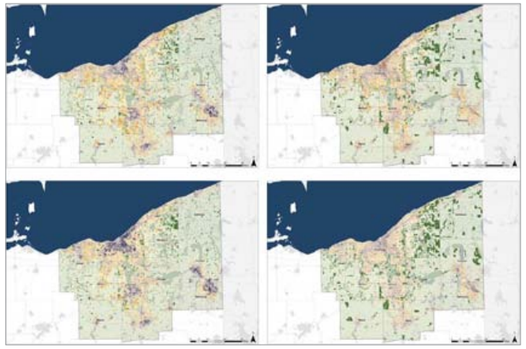
Dashboard

Design specifications for a regional dashboard to track Vision progress

Envision Tomorrow

Open source software tool used to generate the alternative scenarios

Scenarios

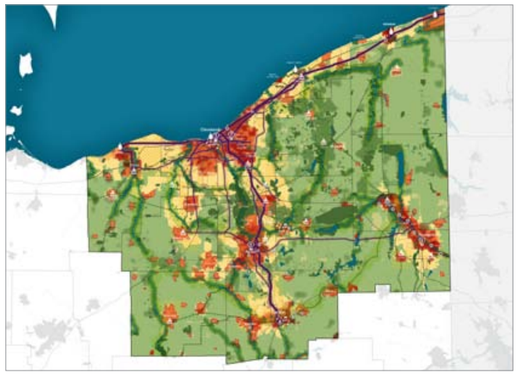


Four alternative futures for the region, with accompanying analysis (pg 23-81)

ImagineMyNEO

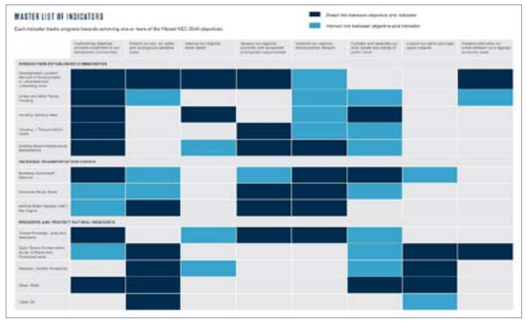
Online engagement tool to explore regional planning trade-offs and elicit public priorities (Results summary: pg 82-86)

Regional Vision



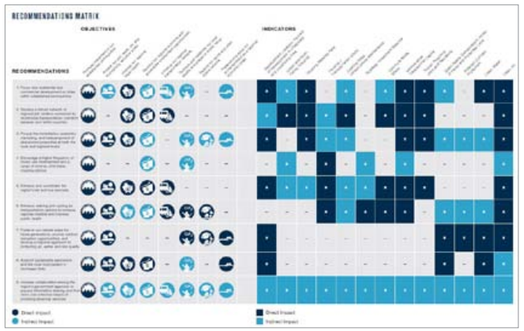
Aspirational future for Northeast Ohio (pg 89-220)

Indicators



Regional metrics and goals to assess progress toward the Vision (pg 106-121)

Recommendations



Recommendations and initiatives for achieving the Vision (pg 122-190)

Development Strategies

Local strategies for creating great places consistent with the Vision (pg 192-216)

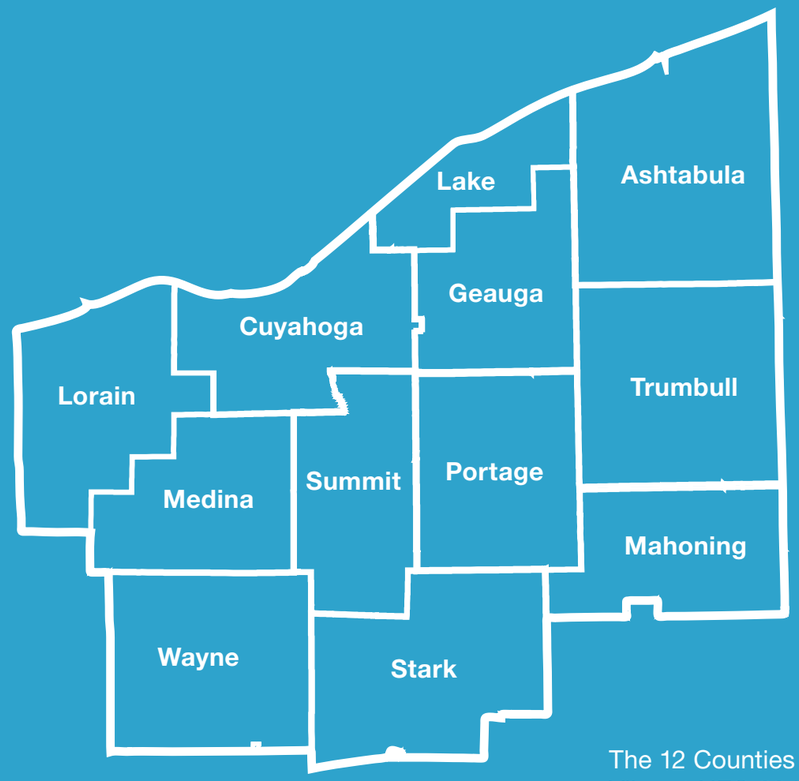
Everyday Actions

Individual citizen actions for advancing the Vision (pg 218-219)

Special Research Sections

Additional research addressing important regional topics, including Barriers to Redevelopment in Northeast Ohio (pg 135)**, Transit Supportive Policies** (pg 162)**, and the Economic Benefits of Complete Streets** (pg 169)

PROJECT BACKGROUND



The 12 Counties of Vibrant NEO 2040

WHAT IS VIBRANT NEO 2040?

Vibrant NEO 2040 is an initiative founded on the idea that a shared regional Vision and decision-making framework for the future of the 12 counties of Northeast Ohio (Ashtabula, Cuyahoga, Geauga, Lake, Lorain, Mahoning, Medina, Portage, Summit, Stark, Trumbull and Wayne), developed through a robust community and stakeholder engagement process, will lead to a healthier, more economically competitive, and socially equitable future for the region. Vibrant NEO 2040 represents an opportunity for Northeast Ohio communities to explore the region's long-term development patterns and for Northeast Ohioans to think together about what we want for the future of our region.

WHO IS VIBRANT NEO 2040?

PARTNERSHIP FOR SUSTAINABLE COMMUNITIES

The story of Northeast Ohio Sustainable Communities Consortium (NEOSCC) and Vibrant NEO 2040 began on June 19, 2009, when the US Department of Housing and Urban Development (HUD), the US Department of Transportation (DOT), and the US Environmental Protection Agency (EPA) jointly announced the formation of an interagency collaboration, the Partnership for Sustainable Communities.

The stated purpose of the Partnership is:

> To coordinate federal housing, transportation, water, and other infrastructure investments to make neighborhoods more prosperous, allow people to live closer to jobs, save households time and money, and reduce pollution.

The Partnership supported the Sustainable Communities Initiative, a competitive planning grant program administered by HUD and designed to promote the adoption of sustainable development practices at the local and regional levels.

In 2010, leaders of communities across the Northeast Ohio region began to discuss how best to respond to the opportunity presented by the Sustainable Communities Initiative. Early in these discussions, the Fund for Our Economic Future, a unique multi-county coalition of Northeast Ohio philanthropies and allied civic organizations, convened governmental and non-governmental organizations from each of the region's four metropolitan areas (Akron, Canton, Cleveland, and Youngstown/Warren) and encouraged them to apply jointly for funding from the first round of the highly-competitive Sustainable Communities Initiative. The Fund provided the catalytic funding essential to convene a diverse "proposal team" representing the 12 counties and prepare a competitive grant proposal. With the Northeast Ohio Areawide Coordinating Agency (NOACA) serving as the lead applicant, in 2010 the region secured a $4.25 million, three-year Sustainable Communities Regional Planning Grant from HUD to develop a strategic regional framework.

THE NORTHEAST OHIO SUSTAINABLE COMMUNITIES CONSORTIUM (NEOSCC)

NEOSCC is an Ohio 501(c)(3) nonprofit corporation established in January 2011 by the 23 members of the proposal team. Its mission is to create conditions for a more **vibrant, resilient, and sustainable** Northeast Ohio that is full of vitality, a good steward of its built and natural resources, and adaptable and responsive to change.

VIBRANT – Full of energy and enthusiasm; vigorous, lively, and vital

RESILIENT – Responsive to change; adaptable; able to spring back; rebound

SUSTAINABLE – Meeting present needs while retaining the ability to meet future needs; not exhausting resources

After receiving the federal grant, the Consortium expanded its membership to address more intentionally issues of diversity, inclusion, and geographic balance. Ten new members were added, bringing the total membership to 33.

Current Consortium members, listed by organization type, are:

Metropolitan Planning Organizations/Areawide Coordinating Agencies:

- Akron Metropolitan Area Transportation Study (AMATS): Summit and Portage counties and Chippewa Township in Wayne County
- Eastgate Regional Council of Governments (Eastgate): Mahoning and Trumbull counties as an MPO; Ashtabula, Mahoning and Trumbull as a Council of Governments
- Northeast Ohio Areawide Coordinating Agency (NOACA): Cuyahoga, Lake, Lorain, Medina and Geauga counties
- Stark County Areawide Transportation Study (SCATS): Stark County
- Northeast Ohio Four County Regional Planning and Development Organization (NEFCO): Portage, Stark, Summit, and Wayne counties

Counties:

- Ashtabula
- Cuyahoga
- Lorain
- Mahoning
- Stark
- Summit
- Trumbull

Cities:

- Akron
- Cleveland
- Elyria
- Youngstown

Colleges/Universities:

- Cleveland State University, Levin College of Urban Affairs
- Lorain County Community College, Public Services Institute
- Youngstown State University, Center for Urban and Regional Studies

Metropolitan Housing Authorities (MHAs):

- Akron MHA
- Cuyahoga MHA
- Stark MHA

Entities by Representation:

- Cleveland Metroparks (on behalf of the region's metropolitan, state, and federal park systems)
- Greater Cleveland Regional Transit Authority (on behalf of the region's transit systems)
- Summit County Health District (on behalf of the region's health districts and departments)

Regional Non-Governmental Organizations:

- Fund for Our Economic Future
- Regional Prosperity Initiative

Community-Based Organizations:

- Akron Urban League
- Catholic Charities, Diocese of Youngstown
- The Center for Community Solutions
- Cleveland Museum of Natural History
- Northeast Ohio Community Development Alliance
- Policy Bridge

PROJECT STAFF, VOLUNTEERS, AND CONSULTANT TEAM

The NEOSCC Board has been supported by a professional Program Management Office (PMO) staff hired to guide development of the Vibrant NEO 2040 and action products. The PMO established its main office in Akron, Ohio, in a space donated by the City of Akron with furniture donated by the City of Youngstown. The Consortium also established field offices in downtown Cleveland and in downtown Youngstown in spaces provided by NOACA and the Eastgate Regional Council of Governments, respectively. The Consortium engaged a staff of full- and part-time employees, augmented by in-kind leveraged match staff resources from board members.

In addition to paid and in-kind staff, the Consortium has been supported by a wide range of local subject matter experts and a team of consultants, both local and national. The Consortium engaged representatives of 170 organizations to participate in its five Work Streams, two Enabling Working Groups, four Product Working Groups and seven Caucuses. These individuals selflessly shared their knowledge and passion for Northeast Ohio, thus enriching Vibrant NEO 2040 and ensuring that it speaks with an authentic voice to the concerns of our people and our communities. Among these contributors were professional planners, geographers, economists, urban designers, and GIS specialists from Cleveland State University's Northern Ohio Data and Information Service (NODIS) and Youngstown State University's Center for Urban and Regional Studies and the Lorain County Community College's Public Services Institute.

To augment and support the work of local staff and volunteers, the Consortium's Board elected to engage a team of local and national consultants. The initial team included R Strategy of Cleveland (media and communications), 427 Design of Akron (website development), and Currere Associates of Cleveland (organizational development). The Consortium subsequently engaged a multi-disciplinary team, headed by Sasaki Associates of Watertown, Massachusetts, to lead the scenario planning and fiscal impact analysis effort that lies at the center of Vibrant NEO 2040. Sasaki brought to the project a depth of national and international experience in regional planning. The full consultant team included Fregonese Associates of Portland, Oregon (scenario planning), Nelson\ Nygaard of San Francisco, California (transportation planning),

City Architecture of Cleveland (urban design and development strategy), and Cobalt Group (community engagement). Finally, the Consortium engaged Strategy Design Partners of Cleveland to assist in defining its mission, activities, and organizational structure following the completion of the Vibrant NEO 2040 Vision.

HOW WAS VIBRANT NEO 2040 DEVELOPED?

The Vibrant NEO 2040 process was designed to achieve a broadly-supported, publicly-created, region-wide Vision of how Northeast Ohio's citizens want the region to develop over the course of the next several decades. In short, the process focused on **where we are, where we could go, and where we want to be**.

The first phase of the Consortium's work was centered around gathering data on current conditions and trends. Board members committed in-kind staff for the project, who, along with local subject matter experts and engaged citizens, were convened in five core **Work Stream** committees that ultimately comprised over 150 individuals and 120 organizations. The Work Streams were organized by the following subject areas:

- Economic Development
- Environment
- Housing and Communities
- Connections (Multimodal Transportation)
- Quality Connected Places (Place-based Design)

Two additional Enabling Working Groups were created to ensure that the Regional Vision would be based on sound data (objective findings) and a clear articulation of the region's shared concerns and aspirations (community values):

- Communications and Engagement Working Group (CEWS)
- Data/GIS (Geographic Information Systems) Working Group

The five Work Streams each identified key findings that were based on their review of existing plans and data. The result of this work was the creation of a **Conditions & Trends Platform** that integrated these finding and existing plans into a single resource that explored the current state of the region. The Conditions & Trends Platform and additional research from the Workstreams are available at http://vibrantneo.org/. The information that the Platform provided formed the foundation for developing alternative futures for the region.

In order to explore these alternative futures, Vibrant NEO 2040 utilized **scenario planning** to engage people from across Northeast Ohio to participate in a scenario-building process that focused on the topics that Northeast Ohioans think are most important. Working with the information gathered through this process and the other aspects of **engagement**, the Project Team created a **Trend Scenario** and a set of **Alternative Scenarios** for Northeast Ohio's future.

The Project Team used scenarios because the future is uncertain. One policy may work well if the future is like the past, but what if the future is different? Scenario planning acknowledges that there is no such thing as a crystal ball: rather than trying to predict the future, scenarios enable us to explore several possible futures before we commit to a course of action. **Scenarios are not plans or forecasts—they are tools for asking "what if…" and sparking meaningful discussion about the region's future.**

As part of understanding the likely results of the choices we make, the Project Team was particularly interested in discerning the financial implications of the scenarios. To accomplish this, Vibrant NEO 2040 developed a regional **Fiscal Impact Tool** that demonstrated the financial trade-offs the region might have to make to achieve its aspirations.

Synthesizing the information received through engagement and the insights provided by the scenarios, the Vibrant NEO 2040 process culminated in the creation of a **Regional Vision**, which is an aspirational future for Northeast Ohio and a set of tools and knowledge necessary to achieve it. The Vision has many components, including a list of objectives, maps, indicators, targets, and recommendations. It also presents a number of specific resources such as precedents, case studies, best practices, funding resources, and more.

Major Findings of the Conditions and Trends Platform

- 7% fewer people live in the region than did in 1970
- 5% more of our land has been developed since 1979
- 23% fewer people reside per developed acre since 1979
- 11% fewer people were employed in Northeast Ohio per developed acre in 2006 than in 1979
- 4% more daily vehicle miles are traveled since 2000, despite a 2.5% decrease in population
- 79% of our trips in Northeast Ohio are driven alone
- 100% more freeway miles were built from 2000 to 2010 than were built in 1990 to 2000
- 31% of all in-bound freight enters the region on rail (displacing 5.1million trucks)
- 10% of the projected total of all brownfield sites have been identified
- 90% of Northeast Ohioans live within one mile of a park or protected space

Some of the tools have been packaged as **Action Products** for direct application by regional leadership. The Action Products are available online at http://vibrantneo.org/ and include the following elements:

Tool Kit and Best Practices: Assembled to empower the local and regional actions essential for transformation. Included is the Regional Analysis of Impediments to Fair Housing Choice/Fair Housing Equity Assessment and generalized regional land-use and zoning data.

Policy Recommendations: Policy changes recommended by Vibrant NEO 2040 to have a high impact on regional sustainability.

Pilots: A listing of innovative, replicable, real-world solutions reflective of the goals and objectives of the Regional Vision.

Dashboard: A quick reference guide to keep the region moving in the right direction. The draft dashboard includes indicators and measures, prioritized by the public and Consortium members, which cover topics such as land use, transportation, environmental protection, the economy, health, and quality of life.

OUTREACH AND ENGAGEMENT

Outreach and engagement were fundamental to Vibrant NEO 2040. Based on the successes and challenges of previous engagement efforts in Northeast Ohio, and given the scale of the Vibrant NEO 2040 initiative, the NEOSCC Board determined that it was critical to engage a diverse group of community leaders, stakeholders, and residents throughout the 12 counties. The Project Team understood that the Regional Vision would only be successful if were built on our region's unique values and expressed what is important to the residents of Northeast Ohio.

The Project Team had the following goals related to outreach and engagement:

- Reach out to as many individuals and organizations throughout the 12 counties as possible, paying particular attention to groups that are typically underserved or unrepresented in the planning process
- Create an understanding of regional and local challenges and opportunities
- Engage the public in a dialogue that develops common ground for collaboration and action
- Develop and nurture enduring relationships, both existing and new
- Implement and model an engagement platform that is both vibrant and enduring

In order to meet these aspirations, the Project Team identified four key elements of its engagement process to ensure a more meaningful participatory experience: **Learning, Sharing, Creating, and Acting**.

The Project Team used a multi-format, multi-pronged approach to achieve these goals that included the following elements:

- **Network of Networks**: a two-tiered network of regional leaders and engaged stakeholders from a diverse range of sectors and backgrounds. The initial step was to establish relationships with network leaders from throughout the region each of whom subsequently brought their own network to the Vibrant NEO effort. The Network served as a foundation for later outreach and engagement events.
- **Surveys**: two statistically valid surveys conducted over the phone and online intended to assess regional values, attitudes, and aspirations. See the section titled Our Region's Shared Concerns later in the Introduction for a summary of the results.
- **Targeted Outreach**: the Project Team convened meetings throughout the Vibrant NEO process with several strategic stakeholder groups, including elected officials and the Young Leaders Network. See vibrantneo.org and the section titled Our Region's Shared Concerns for more information.
- **Public Scenario Planning Events**: 27 large, public events were conducted throughout 2013 to present updates and solicit feedback on the scenario planning process. These events, and their outcomes, are described in detail in the sections on the Trend Scenario, Alternative Scenarios, and the Regional Vision.
- **ImagineMyNEO**: an interactive, online tool offering participants the chance to explore potential policies and investments and to learn about planning issues, opportunities, and trade-offs. More information can be found at the end of the Alternative Scenarios section.
- **Expert Caucuses**: small groups of regional leaders and technical experts formed to provide guidance on the creation of the Recommendations in the Regional Vision. Seven caucuses were convened with 100 individuals. See the Regional Vision section for more information.

VIBRANT NEO 2040 TIMELINE

2010

October 2010

NORTHEAST OHIO AWARDED GRANT

November 2010

1ST MEETING OF NEOSCC BOARD

2011

January 2011

ARTICLES OF INCORPORATION FILED TO CREATE NEOSCC

April 2011

ORIGINAL WORK PLAN APPROVED BY HUD

June 2011

ENGAGEMENT OF PROFESSIONAL STAFF BEGINS

August 2011

PROJECT MANAGEMENT OFFICE OPENS ITS DOORS

September 2011

FIVE WORK STREAMS AND TWO ENABLING WORK GROUPS LAUNCHED

September 2011 – June 2012

WORK STREAMS INCLUDING OVER 120 DIFFERENT ORGANIZATIONS ANALYZE THE CURRENT TRENDS OF THE REGION

September 2011

NEOSCC.ORG LAUNCHES (LATER RENAMED VIBRANTNEO.ORG)

2012

January 2012

COMMUNICATIONS AND ENGAGEMENT FRAMEWORK PUBLISHED

April 2012 – June 2012

WHAT DOES VIBRANT LOOK LIKE EVENTS FOR YOUNG LEADERS IN 5 LOCATIONS THROUGH THE REGION

NEOSCC

April 2012

1ST EVER 12 COUNTY LAND USE MAP PRESENTED

April 2012

1ST PUBLIC OPINION POLL CONDUCTED

June 2012

LAUNCH OF THE CONDITIONS AND TRENDS PLATFORM

June 2012

BOARD BEGINS TRAVELLING MEETINGS IN MAHONING COUNTY

NEOSCC

July 2012

BOARD VISITS LORAIN COUNTY

NEOSCC

July 2012

1ST EVER 12 COUNTY ZONING MAP PRESENTED

August 2012

BOARD APPROVES UPDATED WORK PLAN, INCLUDING SCENARIO PLANNING AND FOUR ACTION PRODUCTS

August 2012

BOARD VISITS STARK COUNTY

NEOSCC

September 2012

BOARD VISITS CUYAHOGA COUNTY

NEOSCC

September 2012

VIBRANT NEO 2040 IS ANNOUNCED AS THE NAME FOR THE VISIONING PROCESS

September 2012

REGIONAL ANALYSIS OF IMPEDIMENTS FOR FAIR HOUSING CHOICE AND FHEA LAUNCHED

October 2012

BOARD VISITS ASHTABULA COUNTY

October 2012

VIBRANTNEO.ORG IS LAUNCHED

November 2012

BOARD VISITS SUMMIT COUNTY

2013

January 2013

NEOSCC BEGINS WORK WITH CONSULTING TEAM LED BY SASAKI ASSOCIATES FOR SCENARIO PLANNING, FISCAL IMPACT ANALYSIS, AND REGIONAL PLANNING

February 2013

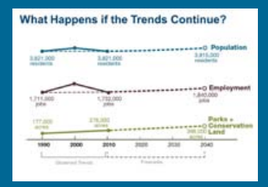
QUALITY CONNECTED PLACES FINAL REPORT PRESENTED

March 2013

REGIONAL AI FAIR HOUSING FORUMS HELD IN 12 LOCATIONS

April 2013

TREND SCENARIO PRESENTED AT BOARD MEETING



April – May 2013

TREND SCENARIO PUBLIC WORKSHOPS HELD IN SIX LOCATIONS

Fregonese Associates

May 2013

BOARD VISITS PORTAGE COUNTY

AMATS

June 2013

IMAGINE MYNEO LAUNCHES

June 2013

REGIONAL AI DRAFT REPORT REVIEW SESSIONS HELD IN 11 LOCATIONS

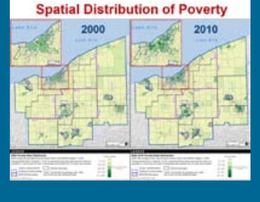
June – July 2013

IMAGINEMYNEO VISITS EVENTS IN NINE COUNTIES

NEOSCC

July 2013

REGIONAL AI FINAL REPORT PRESENTED



July 2013

ALTERNATIVE SCENARIOS PRESENTED AT BOARD MEETING

July – August 2013

ALTERNATIVE SCENARIOS OPEN HOUSES HELD IN 10 LOCATIONS

Fregonese Associates

August 2013

BOARD VISITS MEDINA COUNTY

Medina County Park District

September 2013

PRELIMINARY DRAFT OF REGIONAL VISION PRESENTED

October 2013

VISION SESSIONS HELD IN 11 LOCATIONS

NEOSCC

October 2013

SEVEN SUBJECT MATTER CAUCUSES CONVENED TO REVISE RECOMMENDATIONS

2014

February 25, 2014

NEOSCC BOARD APPROVES AND ENDORSES THE VIBRANT NEO 2040 VISION, FRAMEWORK AND ACTION PRODUCTS

IMPLEMENTATION

- REGIONAL ORGANIZATIONS
- COUNTIES
- CITIES
- TOWNS
- TOWNSHIPS
- LOCAL ORGANIZATIONS

REGIONAL CONTEXT

RATIONALE FOR LONG-TERM, REGIONAL THINKING IN NORTHEAST OHIO

The choices we make today will have profound consequences on our communities many generations from now. Simply put, **what legacy are we going to leave for future generations?** What kind of future do we want to create for our children and grandchildren? A collaborative vision of the future based on shared values enables better planning and decision-making today and throughout the next 25 years.

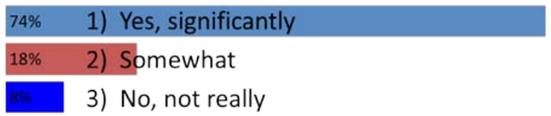
Northeast Ohio increasingly functions as an economically integrated region. In prior generations, most people lived and worked in the same community. Vibrant NEO 2040 recognizes that the world is changing and our region must change with it. Increasingly our country's metropolitan regions—and not just our historical core cities—are the geographic units of global competitiveness. The degree of a region's success in the global marketplace depends on how agile it is in meeting the demands of an ever-changing global economy; therefore, we must work together as a region to address our challenges and safeguard our future.

Vibrant NEO 2040 recognizes that Northeast Ohio is a unique, "polycentric" region built around seven "legacy cities" and their suburbs. These legacy cities—Akron, Canton, Cleveland, Elyria, Lorain, Warren, and Youngstown—were the region's economic engines in the industrial era. Since 1980, they have lost industrial jobs and employment opportunities as once-booming businesses downsized or closed entirely, leaving behind industrial brownfields, abandoned neighborhoods, and downtowns emptied of the department stores and other retail activities that once made them the center of community life.

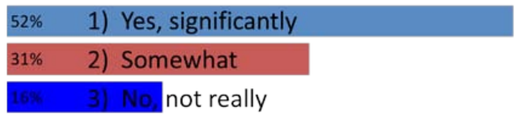
Northeast Ohio, like many other Great Lakes regions, has experienced little, if any, growth in population and employment over the past several decades, but at the same time has experienced significant new residential, commercial,

Polling Question: Is your community's future (positive or negative) linked to the rest of the communities in Northeast Ohio?

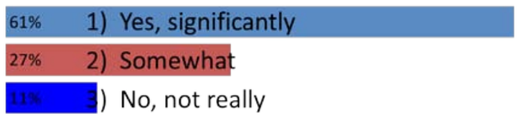
CLEVELAND



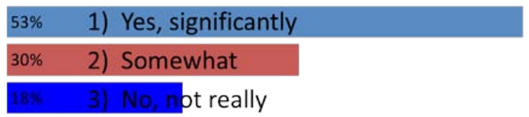
AKRON



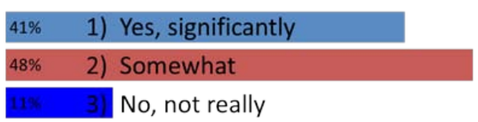
WARRENSVILLE HEIGHTS



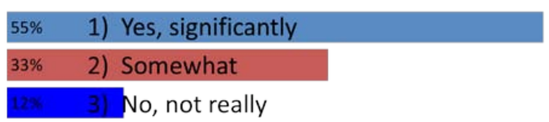
CANTON



OBERLIN



WARREN



Data source: Trend Scenario Feedback—Public Feedback

74% of NEO residents say their community's economic future depends a lot on the rest of Northeast Ohio[1]

and industrial development. While the new development that has taken place at the edges of our already-established communities mirrors development patterns found in regions experiencing significant population growth, Northeast Ohio's new fringe development has been accompanied by wide-spread abandonment of long-established communities in the region's legacy cities and 1st ring suburbs. This pattern of "no-growth sprawl" creates long-term fiscal challenges for our region's governments and unnecessarily burdens the region's taxpayers.

Though Northeast Ohio faces many challenges, the region also possesses significant assets which should be celebrated and leveraged to their fullest potential. These assets, viewed regionally, can serve to drive residential and business retention and growth, and offer an opportunity to improve the quality of life for all.

Transportation and environmental systems also operate on a regional scale. Roads, buses, trains, and trails cross local boundaries and require coordination across many different communities and levels of government. Rivers and lakes also transcend political boundaries: decisions made by residents living upstream directly affect their neighbors living downstream. Systems like these connect the communities of Northeast Ohio, and since these systems function regionally, we are well served to consider them regionally.

Vibrant NEO 2040 provided a forum for Northeast Ohioans to engage in community visioning—a grassroots process of exploring and articulating community values, priorities, and shared concerns—to craft a shared vision for the region's long-term future, complete with goals related to its major systems of land use, housing, transportation, economic development, and environmental protection. The Consortium believes that, by viewing systems through both a regional and a local lens and encouraging associated communities of practice among local governments and non-profit organizations, Northeast Ohio can improve efficiency across all sectors, lessen the burden on government, and improve the region's ability to compete in the emerging global economy. Put simply, collaboration is the key to both resilience and growth.

Members of the public that attended the Vibrant NEO 2040 Trend Scenario Workshops largely shared the idea that **the health of individual communities is critically linked to the health of the overall region**, as indicated by the keypad poll results shown on the previous page.

OUR REGION'S SHARED CONCERNS

Prior to the onset of the scenario planning process, the PMO and local consultants looked to identify local and regional concerns and opportunities in Northeast Ohio. Utilizing surveys, Young Leader engagement, and a series of county briefings, NEOSCC was able to raise awareness about Vibrant NEO 2040 and begin preliminary conversations to learn what matters most to the region.

In the opinion surveys conducted during the month of April 2012, participants expressed concerns about jobs and education, as well as ensuring that Northeast Ohio is a sustainable place to live for future generations (92%). There was general satisfaction found with the quality-of-life aspects of the region, but a split on what direction the region was headed.

The most important regional goals for residents were:

- **Developing a wide variety of good jobs**
- **Decreasing the number of people who live in poverty**
- **Having a variety of housing options**
- **Strengthening environmental protections**

Almost all residents (89%) indicated a desire for local governments to work more closely together to grow the economy. This collaboration is important to the residents as 74% indicated that their area's economic future depends a lot on the rest of Northeast Ohio. The region is also open to change, with 72% of all participants indicating that adapting to changing conditions is more important than preserving the traditional ways of doing things.

Launched nearly at the same time as the survey, five "What Does Vibrant Look Like?" Young Leader events that drew 330 participants were held at regional venues. Participants at each location offered differing opinions on what makes for a vibrant region, but there were also a great number of similarities between the Young Leaders. For instance, the need for more public transit was a popular topic in Lorain County, while other communities that already have robust transit systems called for greater efficiency and usage of existing transit services.

The Young Leaders identified key actions that are turning communities around in Northeast Ohio, including the creation of independent businesses and entrepreneurship that can lead to attracting or retaining talent in an area, fixing infrastructure, reusing vacant buildings, a positive attitude toward committing to a community, and initiatives such as the Euclid Corridor Project and the Oberlin Project.

These events were followed by another series of Young Leader engagement activities that explored the Conditions & Trends Platform findings. While some differences again arose by geography, there were also consistent concerns about housing choices, cleaning up Northeast Ohio's industrial legacy, the reliance on cars, lack of alternative transportation options, and the connection between education and the economy.

In the fourth quarter of 2012 and the first quarter of 2013, NEOSCC conducted a series of county briefings to discuss Vibrant NEO 2040. Conversations at these briefings focused on important local issues including workforce and economic development, housing and how to deal with abandonment, brownfield remediation for both economic and environmental benefit, and making better connections across the region. These briefings were also an opportunity to discuss the

1 Data source: NEOSCC Survey, 2013 (NEOSCC and TRIAD Research Group)

Vibrant NEO process and how it fit in with local initiatives. Participants wanted to ensure that the process respected individual and local decision-making in the counties, townships, and villages. One group of attendees also expressed their distrust of the process and disagreement with the initiative as a whole.

There were strong recommendations made that the process be as customized locally as possible. Participants stressed that this would enable the engagement process to truly connect with local issues and opportunities. They also shared some of the success and best practices that had been implemented or that were currently underway in their areas. Participants also wanted to explore how some of these best practices could be furthered by the Vibrant NEO 2040 process.

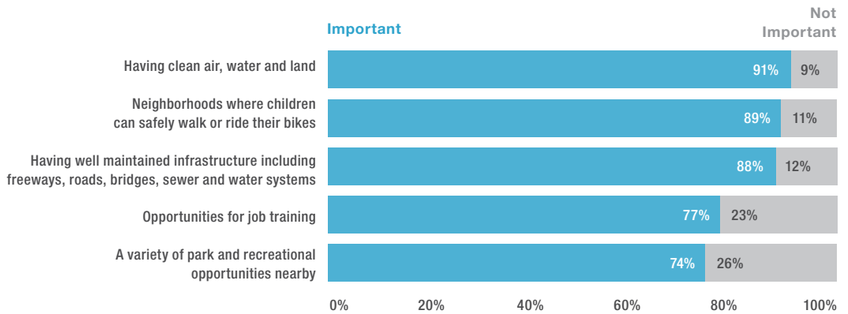
The documentation of the public polling, Young Leader engagement, and county briefings was used as a basis for some of the early discussions in the scenario planning process, including the development of the ImagineMyNEO online tool. It continued to be utilized as the scenarios and the Regional Vision were developed.

In 2013, a second public opinion survey was conducted. Like the first survey, this one focused on the following issues: perceptions of the region, quality of life, sustainability, and the role of government. The results were used to inform the scenario planning process and the development of the Regional Vision.

In both surveys, satisfaction with Northeast Ohio as a place to live ranged from 86 to 89%. In the second survey, more participants said “things are getting better” (up from 39% to 45%). There was also consistency in what is important to the area where they live and their priorities for sustainability. The three most identified priorities were clean air, water, and land (91%), safe neighborhoods (89%), and well maintained infrastructure (88%).

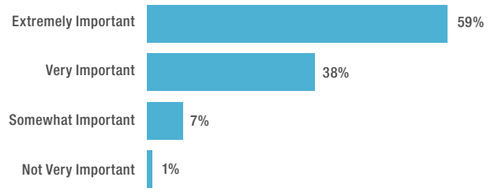
PUBLIC OPINION POLLS

TOP 5 FACTORS THAT MATTER TO RESIDENTS



A clean environment, safe neighborhoods, and a well maintained infrastructure are most important to residents and where they live

IMPORTANCE OF MAKING SURE NORTHEAST OHIO IS A SUSTAINABLE PLACE TO LIVE FOR FUTURE GENERATIONS



Just over half of NEO residents said it is extremely important that Northeast Ohio remain sustainable for future generations.

NEOSCC and TRIAD Research Group; top graph shows 2013 results, bottom graph shows 2012

OUR REGION'S SHARED HISTORY

At the core of Northeast Ohio is the historic Connecticut Reserve: 10 of the region's 12 counties lie within its boundaries (Ashtabula, Cuyahoga, Geauga, Lake, Lorain, Mahoning (part), Medina, Portage, Summit (part), and Trumbull). Only Stark and Wayne lie entirely outside the Reserve. The unique development patterns and civic traditions established during the early years of the Reserve continue to exert influence on our region's development.

The history of the Connecticut Western Reserve begins in 1662 when King Charles II granted the Colony of Connecticut a Charter establishing, among other provisions, expansive colonial boundaries: the colony's territory extended from the Atlantic coast to the Pacific Ocean (the "South Sea") between the 41st and 42nd and 2 minute parallels. The fact that the Charter established boundaries that conflicted with the claims of New York and Pennsylvania was to become a source of conflict in later years.

Following the Revolutionary War, the new nation faced the challenge of settling the expansive and often conflicting claims of the colonies to lands west of the Appalachian Mountains. In addition to Connecticut, Virginia, Massachusetts, North Carolina, South Carolina and Georgia each asserted claims to western lands based on their royal charters or grants. All but Connecticut agreed to abandon their claims in exchange for assumption of their Revolutionary War debt by the national government. Connecticut claimed that it would lose land that been granted to it by the 1662 Charter due to the counter claims by New York and Pennsylvania and held out until it succeeded in securing the right to retain a 3.3 million acre "Western Reserve" extending 120 miles west of the Pennsylvania border. The state saw this land as an opportunity to raise funds to support public education and compensate Connecticut citizens who property had been burned by the British during the Revolutionary War.

Connecticut sold the bulk of its holdings to the Connecticut Land Company, a real estate syndicate, for $1.2 million and invested the proceeds in the state's school system. The state retained some 500,000 acres at the western end of the Reserve and granted it as compensation to the victims of the Revolution. Known as the "Fire Lands," it became today's Erie and Huron Counties.

Map of the Connecticut Western Reserve

Ohio Historical Society, Map of Connecticut Western Reserve , "Connecticut Western Reserve," Ohio History Central, http://www.ohiohistorycentral.org/w/Connecticut_Western_Reserve (accessed on 14, November 2013).

EARLY EUROPEAN SETTLEMENT

The Connecticut Land Company sent General Moses Cleaveland, one of its investors, and a company of surveyors to subdivide the land into townships and lots. Cleaveland and his surveyors demonstrated their "Yankee ingenuity," deciding to subdivide the Reserve into 25 square mile (5 mile by 5 mile) townships rather than follow the US Land Ordinance of 1785 that required lands under national control be subdivided into 36 square townships (6 mile by 6 mile).

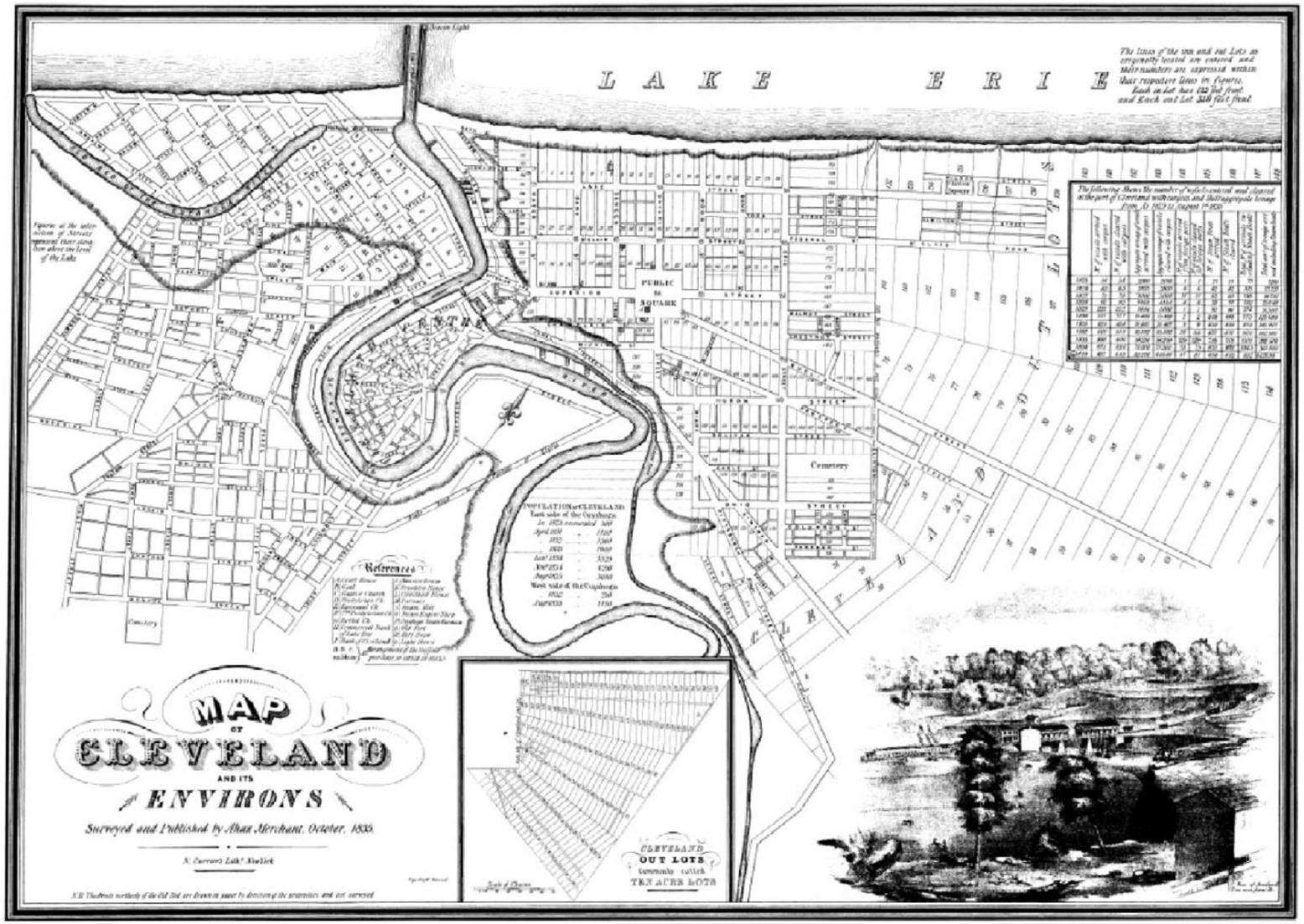
On the banks of the Cuyahoga River, Cleaveland and his party surveyed a new city that was to bear his name (shortened to "Cleveland" early in the city's history by a printer wanting to save space on his paper's masthead). Founded in 1796, Cleveland was destined to become the northern terminus of the Ohio and Erie Canal thirty years later and to emerge as the region's largest and wealthiest industrial city.

At the time of their survey, however, Cleaveland and his party were content to lay out an agricultural market town centered on a large and regularly-shaped public square and surrounded by small "town lots" that extended out upon radiating streets. This pattern was to define a unique place type, the Western Reserve Town, which spread throughout the Reserve.

Cleaveland returned to Connecticut after the summer of 1796, never to return. His surveyors remained for several years surveying the Land Company's vast holding. As they came from New England, they brought with them both the tradition of local self-determination and direct democracy best known as the "New England town meeting" and the community design concept of the New England town. In township after township, the early settlers intentionally planned their communities in accordance with time-tested principles: each community was centered on a public square or town green which had a geometric shape, such as a rectangle or triangle when a true square was not employed. Around this square, sites were located for a court house, houses of worship, a school or a college. Beyond the square, the surveyors laid out a ring of small "town lots" suitable for erecting a house or business. Beyond this compact core, they laid out larger parcels for farming.

A Western Reserve Public Square *Painting by Sebastian Heine and Lewis Chevalier, Western Reserve Historical Society*

First Published Map of Cleveland (1835) by Ahaz Merchant



Ahaz Merchant, Cleveland and its Environs (1835) *"Local Cleveland Area History," Michael Schwartz Library, Cleveland State University, http://researchguides.csuohio.edu/content.php?pid=235933&sid=2225318 (accessed 14, November 2013).*

Stark and Wayne counties and portions of Mahoning and Summit counties lie to the south of the Western Reserve in the Congress Lands North of the Old Seven Ranges. This land was surveyed between 1801 and 1807 into 36 square mile townships in accordance the requirements of the Land Ordinance of 1785. While outside the boundaries of the Western Reserve, these counties share many of the geographic features, land use practices, development patterns, and civic values of the counties to the north.

A TRADITION OF LOCAL GOVERNMENT

Ohio, by law and custom, is a state that strongly favors local decision making, particularly in the area of land use. Unlike many other states, Ohio does not assert a superior right to intervene in local decision making by requiring that local governments adopt plans and zoning codes that conform to state-established guidelines or make use of state-wide standards and projections in calculating the amount of land required for different land uses. While the state requires that county governments undertake a land use planning activities on behalf of their townships, it otherwise defers to the principle of municipal home rule when dealing with land use at the local level.

The principle of local decision making finds its basis not only in the state constitution but also in the unique history of the Western Reserve as a place apart from the rest of state. Unlike the communities established to the west and south of the Reserve, Western Reserve communities were not subject to the national land policies established by Land Ordinance of 1785. These national land policies were applied to land relinquished to the national government by the states and Native American tribes and required that this land be surveyed into square townships with each side measuring 6 miles. The township was further divided into 1 square mile sections. In each 36 square mile township, range 16 was to be set aside for a public school. Four sections were to be retained by the national government to provide land bounties to Revolutionary War veterans.

Because Connecticut retained ownership of the lands of the Western Reserve, it was not subject to the provisions of the Land Ordinance. Rather than provide for public education in

the Reserve, the State of Connecticut chose to sell the land in its entirety to the Connecticut Land Company and invest the $1.3 million proceeds in public education in Connecticut.

This unique history means that for the Western Reserve, what was important to an individual community when defining the "public interest" or "common benefit" would need to emerge from community members and land owners independent of national or state policy. The results of this local decision-making often included setting a common space at the center of town, building public schools on donated land, building churches shared by several denominations, and establishing shared obligations for local defense, road building, and clearing forest land for farms.

The early reliance on local decision-making and shared responsibility for the common good shaped the form of Western Reserve communities, as well as their civic institutions and political traditions. While not required to adopt a standardized settlement pattern, Western Reserve communities developed a distinctive form. The tradition of localism later manifested itself in the history of fiercely independent home-rule industrial cities that successfully resisted "good government" efforts to merge them with adjacent communities or with their home counties, and in the proliferation of independent home-rule suburbs that surround each of the region's legacy industrial cities.

The tradition of local citizens taking responsibility for local decisions is deeply embedded in the civic culture of Northeast Ohio. To some advocates of "regionalism," Northeast Ohio's practice of relying on local government as the nexus of community decision-making is an impediment to governmental efficiency and civic progress. To others, local government will shape Northeast Ohio's future as individual communities effectively address the challenges they face. Vibrant NEO 2040 builds upon our traditions of civic collaboration and mutual aid that have long enabled local communities to work together to address mutual concerns and provides a Vision and Framework for the region that encourages local communities to work collaboratively at the county, metropolitan, and regional scales to build a more prosperous future.

THE INDUSTRIALIZATION AND URBANIZATION OF NORTHEAST OHIO (1830-1960)

Northeast Ohio encompasses four metropolitan areas, each of which is anchored by one or more of the region's seven historically industrial cities: Akron, Canton, Cleveland, Elyria, Lorain, Warren, and Youngstown. For over 180 years, the growth, decline, and re-emergence of these legacy cities and their adjacent suburbs have defined patterns of land use, transportation, and development in Northeast Ohio. Understanding these patterns is an essential step in developing an authentic vision for Northeast Ohio and building a framework for our region's future.

The 12 counties of Northeast Ohio remained uniformly rural during the first several decades of development. With the development of canals from the early 1830s, the character of Northeast Ohio became increasingly industrial. The Ohio and Erie Canal linked Cleveland on Lake Erie and Portsmouth on the Ohio River, making a direct connection between the Great Lakes basin and the Gulf of Mexico and opening Northeast Ohio to the ports of New York (via the Erie Canal) and New Orleans (via the Ohio and Mississippi Rivers). The canal was a spine of waterborne commerce through Cleveland, Akron, and Massillon, each of which became centers of the export industry in their own right. The shorter Pennsylvania and Ohio Canal connected Akron, Warren, and Youngstown to Pittsburgh and likewise supported the early industrialization of the Mahoning Valley.

By 1860, railroads were superseding canals as preferred means of transporting goods and passengers. Cleveland had already leveraged its position at the northern terminus of the Canal to become the state's most active lake port and a center of commerce and industry. It attracted investments from several major railroad services. The New York Central and Pennsylvania railroads built termini on Lake Erie and instituted regular passenger service to the city; the Baltimore and Ohio, Erie Lackawanna, and Nickel Plate followed suit. Cleveland's favorable location in an expanding national network of infrastructure enabled it to mature into a national center of heavy industry supported by a diverse manufacturing base in iron and steel, oil, automobile, ship building, electrical equipment and electric light, telegraph, and the needle trades.

Akron's position along the Ohio and Erie Canal and the intersection with the Ohio and Pennsylvania Railroad also afforded it development opportunities in manufacturing and distribution. The rubber industry came to dominate the city's economy, though other areas of production, including cereals, farm equipment, and matches also thrived.

Youngstown, Warren, and the smaller cities of the Mahoning Valley between them emerged as a "steel valley" destined to become the country's third largest center of steel production at its height, leveraged its strategic location halfway between the two larger steel centers of Cleveland and Pittsburgh. In addition to iron and steel, the Valley was home to aluminum production as well as machined goods, kitchen equipment, and, most recently, automobiles.

Canton, unlike it fellow industrial centers, missed the canal era and built its future on the rail network that grew to serve it. By the 1880s it had a diversified manufacturing economy that included the production of iron and steel, agricultural implements, and watches. More recently, the city has been known for its production of bearings, vacuum cleaners, and security devices.

The region's rail network created several other smaller industrial centers around their harbor termini. Lorain and Elyria emerged as industrial cities around the steel, ship building, automobile, and medical equipment industries while Ashtabula's port served as a gateway to the steel centers in Youngstown and Pittsburgh and a center of chemical production.

The burgeoning industrial cities of Northeast Ohio attracted large numbers of immigrants—both from the United States and from Europe—who arrived to work in the region's mills and factories via the direct rail connections from East Coast ports of entry. Immigrants came from the British Isles and Ireland, Germany, Italy, Russia, and Eastern Europe, later joined by migrants from the American South and Appalachia, and settled in ethnic neighborhood segregated by country of origin, race, and in some cities, by position in the mill or factories. The immigration fueled explosive growth: during the 50 years from 1910 to 1960, Northeast Ohio's seven legacy cities collectively grew by almost 100%, from about 800,000 to 1,600,000. This accounted for at least a third of the growth of the 12-county region over the same time period.

Immigrants to the region brought diverse customs, music and foods; religious affiliations and practices; and architectural traditions, creating rich tapestries of unique communities that live on today in the shared memories, customs, and affiliations of their descendants. While many of the ethnic communities and their "old neighborhoods" close to the mills and factories have disappeared, significant artifacts of this era persist in the many historic churches and commercial buildings they built.

THE DEINDUSTRIALIZATION AND SUBURBANIZATION OF NORTHEAST OHIO (1960-2010)

With the end of World War II, a host of policy initiatives such as the GI Bill, federally guaranteed mortgages, and the development of the region's freeway network encouraged city dwellers to begin leaving the "old neighborhoods" for modern suburbs developed beyond the boundaries of the legacy cities and their early suburbs. The process of suburban migration began modestly in the 1950s and 1960s and accelerated in the decades that followed. Lured by the opportunity to buy a new or newer house than the one they left behind, and pushed by the dysfunction they perceived to be growing in many of the region's cities, households in large numbers settled the suburban cities and townships surrounding the region's industrial cities.

The growth of suburbs at the edges of the region's metropolitan areas corresponded to widespread demolition of working class neighborhoods in the legacy cities. Much of this destruction was done in the name of "urban renewal." The development of public housing and the construction of the region's interstate highway system reflected the widespread belief that the future of the region's legacy cities lay in modernizing their downtowns, reducing the density of their neighborhoods, and moving large numbers of people via freeway corridors to new communities beyond the teeming neighborhoods of the industrial city.

Dense white ethnic and African American neighborhoods in the cities bore the brunt of this "progress." Households that could afford to move to other neighborhoods or adjacent suburbs did so. Many could not afford to, or were barred by discriminatory real estate practices in both the cities and the suburbs; these households moved into the few city neighborhoods they could afford, often relocating to public housing. Severe overcrowding and concentrated poverty resulted, contributing directly to urban riots in Cleveland (1966 and 1968), Akron (1968), and Youngstown (1968).

The migration from the centers of our region to the perimeters came during a period when the region's industrial base was undergoing profound and permanent change. Beginning in the late 1960s and early 1970s, the region's industrial firms stopped their practice of importing labor from outside the region to support the growth of production and began substituting technology for labor. "Automation" accelerated dramatically as the growth of available computing power fueled the spread of robotics, automated processing, remote sensing, and "workerless" factories. To be profitable, manufacturing firms found that they needed fewer, more highly-skilled workers that would enable them to replace labor-intensive production processes with those requiring fewer workers to produce the same output.

Changes in production technology were accompanied by changes in freight movement patterns as firms moved away from rail transport—and urban sites that provided access to freight rail—to truck transport. This shift privileged suburban sites that had ready access to the region's freeway network. Multi-story factories with rail sidings lost favor as places to "make things" and were abandoned; the new commercial and industrial vernacular became single-story, truck-friendly, greenfield suburban sites.

Also impacting the practices and patterns of production in the region was the emergence of stringent environmental regulations promulgated by state and federal agencies to clean the air, water, and land, often disadvantaging older mills and factories which employed "dirty technologies" in their production processes. Rather than retrofit their aging factory, many firms choose to abandon them and shift production and jobs elsewhere. One of the earliest and most dramatic examples of this pattern of abandonment was the decision by Standard Oil of Ohio (SOHIO) in 1966 to shut down Refinery #1 in Cleveland—John D. Rockefeller's first refinery—because meeting environmental regulations was perceived as too costly.

Finally, the development of increasingly sophisticated tools to reduce costs and manage capital allocation gave rise to widespread "rationalization" of the region's historic base industries. This began with the closure of SOHIO Refinery #1 in 1966, picked up speed with the closure of Youngstown Sheet and Tube in 1977, and accelerated in the 1980s, culminating in the loss of Akron's rubber industry following Sir James Goldsmith's attempted hostile takeover of Goodyear in 1986. The region's legacy cities experienced a rush of plant closings, layoffs, and industrial abandonment as capital fled Northeast Ohio for more economically attractive regions of the country and the world.

The region's industrial decline has come at a demographic price. During the 50 years from 1960 to 2010, Northeast Ohio's seven legacy industrial cities (Cleveland, Akron, Canton, Lorain, Elyria, Youngstown and Warren) collectively shrunk by 44.7%, from about 1,600,000 to slightly less than 800,000. The 12-county region's population growth was virtually flat, with a very modest 1.9% increase in the same 50-year period.

During the past 25 years (1985-2010) the region's legacy cites have worked to stabilize their neighborhoods and reimagine their futures. Cleveland has focused on preserving its historic fabric by renovating the Playhouse Square theaters and repurposing obsolete office buildings, factories, and schools; building new housing; and expanding neighborhood capacity. It has leveraged its universities—Cleveland State and Case Western Reserve—and its hospitals and research centers to build its biomedical cluster. Akron has worked to retain its legacy rubber industry, stabilize its neighborhoods, and leverage the University of Akron, a national leader in polymers. Canton has focused on retaining legacy industries and attracting the emerging oil and gas industry. Youngstown has built its manufacturing base and leveraged Youngstown State and the Youngstown Business Incubator to attract the America Makes, the National Additive Manufacturing Innovation Institute.

SPECIAL SECTION:

THE FUTURE OF OUR REGIONAL ECONOMY: A REPORT FROM THE NORTHEAST OHIO REGIONAL ECONOMIC COMPETITIVENESS STRATEGY (RECS)

Northeast Ohio's Regional Economic Competitiveness Strategy (RECS) is an economic development planning initiative involving 150 private sector business leaders engaged to examine the region's current economy and assess its future. The initiative is led by TeamNeo, a collaboration of the region's Chambers of Commerce, and the Fund for Our Economic Future (the Fund), a collaboration of the region's philanthropic organizations, and focuses on the economy of TeamNeo's 18-county Northeast Ohio region.

The RECS process began in 2011 and has taken place concurrently with the Vibrant NEO 2040 Regional Visioning process. In so far as the two efforts involve several of the same organizations, including the Fund and Cleveland State University's Levin College of Urban Affairs, the leadership of NEOSCC agreed to align its spatially driven 30-year (2010–2040) examination of the region's future with the RECS aspatial analysis of the region's economy for the varying time periods extending up to 15 years (2010–2025).

The RECS project began with a deep analysis of the region's existing competitive strengths and an assessment of the drivers of the region's economy. Additionally, the region's cyclical performance over time was examined. As part of the assessment of the cyclical performance of the economy, two employment scenarios were generated.

The first scenario was based on an extrapolation of the performance of the economy in terms of jobs, income, and gross product. The projections were expressed as percentage difference from the nation's average growth rate. The second scenario was based on a number of assumptions that would boost the growth rates of these three variables up to national average growth rates. NEOSCC and its consultants used the growth rates modeled in the second RECS scenario to establish growth projections from 2010 to 2040 in the Vibrant NEO 2040 scenario planning analysis.

The findings of the RECS economic planning process were spatially agnostic. The planning effort took on three distinct competitive themes based on time.

In the near term (1 to 5 years into the future) the region's development challenge is one of marketing the region's current set of competitive assets (people, places, and products) to business investors. This was widely referred to as "selling the assets we have."

In the medium term (5 to 10 years in the future), the region's competitive challenge is one of investing to improve the competitive positions of the industries that make up the current economic base. This was frequently described as "strategic investing in competitive assets."

In the long term (10 to 15 years and beyond), the region must focus on investing in ways that develop new, more competitive, regional economic assets. These are people (education), ideas (intellectual property that can serve as the basis of new products), and places (an environment that supports quality places in fiscally sustainable ways.) This was termed as "investing in new competitive assets."

The RECS analysis found that Northeast Ohio remains a vibrant manufacturing region with very strong competitive positions in the automobile industry, supply chains that service the aircraft, truck and rail industries, and chemicals (especially plastics, paints, and coatings). The region's manufacturing base is enjoying an improvement in its international competitive position due to increased labor costs in China, the increased cost of international shipping, and the effort of major Original Equipment Manufacturers (OEMs) to shorten their supply chains. This has become especially evident in the automobile industry.

The chemicals industry increased its national market share over the study period. Both chemicals and plastics expect that their competitive positions will improve as the nation's economy switches from oil as the principal energy source to one based on natural gas. Further benefits will flow to the manufacturing base if the region's natural gas liquids are "cracked" somewhere in the tri-state region that contains the Utica shale formation.

Stark, Mahoning, and Trumbull counties have emerged as service locations for the natural gas industry. Additionally, manufacturers throughout the region are finding opportunities in providing drilling supplies, including pipe, and materials related to building and maintaining the infrastructure that connects the wells to the national distribution and refining networks.

Both the economic opportunities and the land use and environmental issues that attend the development of the region's oil and gas industry are emerging throughout Northeast Ohio. Balancing the region's need for economic growth, the desire of land owners to extract value from their property, and the desire of citizens for clean air, land, and water will require thoughtful analysis and careful balance in the years to come.

The medical instruments industry may also be joining the region's economic base through a combination of the high performance of the region's venture capital industry and efforts to support technology-based entrepreneurship. A second area of strength that lies behind the medical instruments industry is the strong performance of the medical imaging cluster in Cleveland's eastern suburbs.

Another emerging nexus of related economic activity is food production and processing. This is an industry that spans the entire region and is urban, suburban, and rural. The emergence niche markets for local food, the vibrancy of traditional agricultural markets and practices, and significant investment in nationally distributed food products manufacturing strongly suggest the continued strengthening of this sector.

One asset that can generate disruptive industrial change based on agricultural products is the Ohio Agricultural Research and Development Center in Wayne County. The role of agriculture in the region's future and the continued loss of prime farmland to urbanization are related land use issues facing the region.

RECS and NEOSCC jointly recognize that the emergence of high value local food and localized distribution through farmer's markets, locally owned grocery stores, and restaurants that source locally provide a tangible connection between the land and the economy and bridges the region's urbanized areas and its rural communities.

The strong presence of manufacturing, the location of the region in relation to the population centers of the United States and Canada, and the deep supplies of natural gas mean that the region is and will continue to be an important hub of truck-based logistics. A critical land use issue facing the region's communities is the need to maintain a high quality road network that provides competitive, "just in time" truck access to the region's manufacturing firms and logistics facilities, both of which are typically found on low-density suburban industrial sites.

The region has witnessed strong performance in headquarters locations and in related professional services. There are globally competitive headquarters operations centered on each of the region's central cities, though the weight of this activity is centered on the I-77 and the I-271/SR 8 corridors connecting Cleveland, Akron and Canton. Ensuring that the region's centers of corporate headquarters and professional services remain attractive and nationally competitive is a land use and development challenge that will face Northeast Ohio in the years to come.

NEAR-TERM STRATEGY: STRENGTHEN THE CURRENT ECONOMIC BASE

Reinforcing the competitive position of the current economic base is RECS's focus for near-term action. The RECS analysis identified three near-term actions that respond to an opportunity that its competitive review revealed. Each has impacts that span the entire Northeast Ohio region.

Prepare the region's work force for the future: There are three forces reshaping the demand side of labor markets. First, the industries in the region's economic base require a literate and numerate workforce with a complementary set of soft skills to be globally competitive at all levels. Second, manufacturing is undergoing a disruptive new industrial revolution. The digitization of the factory floor and the use of integrated flexible manufacturing systems have changed global locational economics. Manufactures will require relatively less labor in the future, but that labor will be much more technically sophisticated. Finally, the current workforce is aging. The labor market will be more highly stressed by the demand to replace existing workers then in responding to the creation of net new jobs. These challenges exist at a time when our region has a surplus of under-skilled workers relative to market demand.

Preserve and expand the region's system of air service while rationalizing the region's air service capacity: Access to national and global areas of commerce is important to the region's headquarters and professional services industries. Correspondingly, global access to the region is important to the region's tourism industry and to attracting flows of investment capital. At the same time, the region has a significant air service capacity, some of which is arguably redundant. The region's existing capacity is neither recognized nor invested in and managed as a system. This capacity is expensive to maintain even though some of the true economic cost is offset by subsidies from the federal government. By taking a thoughtful, regionally-balanced and collaborative approach, Northeast Ohio could rationalize its existing capacity and manage the air service system for the benefit of the region as a whole

Obtain as much economic advantage as possible from the development of the shale natural gas resource: The Utica Shale formation contains a mixture of natural gas liquids ("wet gas") and methane ("dry gas"). This resource is a relatively low-cost and dependable source of energy to both manufacturers and the logistics industry. If the capacity is established in or near the region to refine ethane from natural gas liquids, then substantial competitive benefit will flow to the region's chemicals, paints and coatings, and plastics industries. At the same time, the extraction, transportation, and refining of wet and dry gas must be done in ways that preserve environmental quality.

MEDIUM-TERM STRATEGY: CHANGE THE PRODUCT MIX

Northeast Ohio's economy is large and complicated. The regional economy is not dominated by any one product. Instead its traded sector is comprised of a highly diverse portfolio of products. Those products are capital intensive and technologically sophisticated, but they tend to be old. And, because they are old, growth is slow and competitors abound. This raises the imperative of changing the mix of products within the traded sector's portfolio. The RECS has three responses aimed at the medium term:

Focus on product innovation: This is designed to stimulate, support, and speed up product innovation within existing firms.

Support "Gazelle" companies: Identify infant businesses with strong business plans, proprietary intellectual property that is the basis of a product, and a leadership team that is committed to building a high growth company.

Build and support an innovation infrastructure: The innovation infrastructure includes stimulating entrepreneurship, supporting technical innovation, accelerating technology transfer, and catalyzing private placement capital markets.

LONG-TERM STRATEGY: GET SMARTER

The RECS analysis led to the conclusion that the long-term asset value of the region's workforce has to improve if the region is to compete and to provide good incomes. Specifically, educational attainment has to improve across the board. The analysis notes that Northeast Ohio is a region that traditionally has secondary school graduation rates that are above the national average, higher educational attainment rates among its adult population that are below the national average, and levels of literacy and numeracy among its central city populations that are disastrously low.

RECS acknowledges that improving the region's overall educational attainment is a long-term initiative that overlaps with the more immediate need to meet the region's workforce challenge. While the region's workforce efforts can be characterized as near- and medium-term because they either connect current workers to the labor market or improve the skills of current workers to match existing jobs, efforts to improve educational attainment are medium- to long-term because they aim to change the quality of the educated workforce in fundamental ways.

TREND SCENARIO

WHERE ARE WE GOING TOGETHER?

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To plan ahead, we need to understand where we are currently headed. The Trend Scenario was developed to help us understand the current trajectory of Northeast Ohio. This scenario shows us what the region could be like in 2040 if current trends continue. (See the Scenario Planning section in the Introduction for more information about the logic of the Vibrant NEO 2040 scenarios.)

SUMMARY OF SCENARIO MODELING PROCESS

1. Quantitative Projections: If current trends continue, how many people, jobs, and acres of conservation will the region have in 2040?
2. Development mix and land uses: How many homes, businesses, and other structures will be needed to accommodate the new people and jobs? What style of development will these new buildings have? Will they be suburban subdivisions or more compact neighborhoods? How many more homes will be abandoned if current trends continue?
3. Geographic allocation of new development: Where in the region will this new construction occur? What areas are likely to lose population?
4. Analysis: What are the fiscal, environmental, and quality-of-life impacts of these changes?

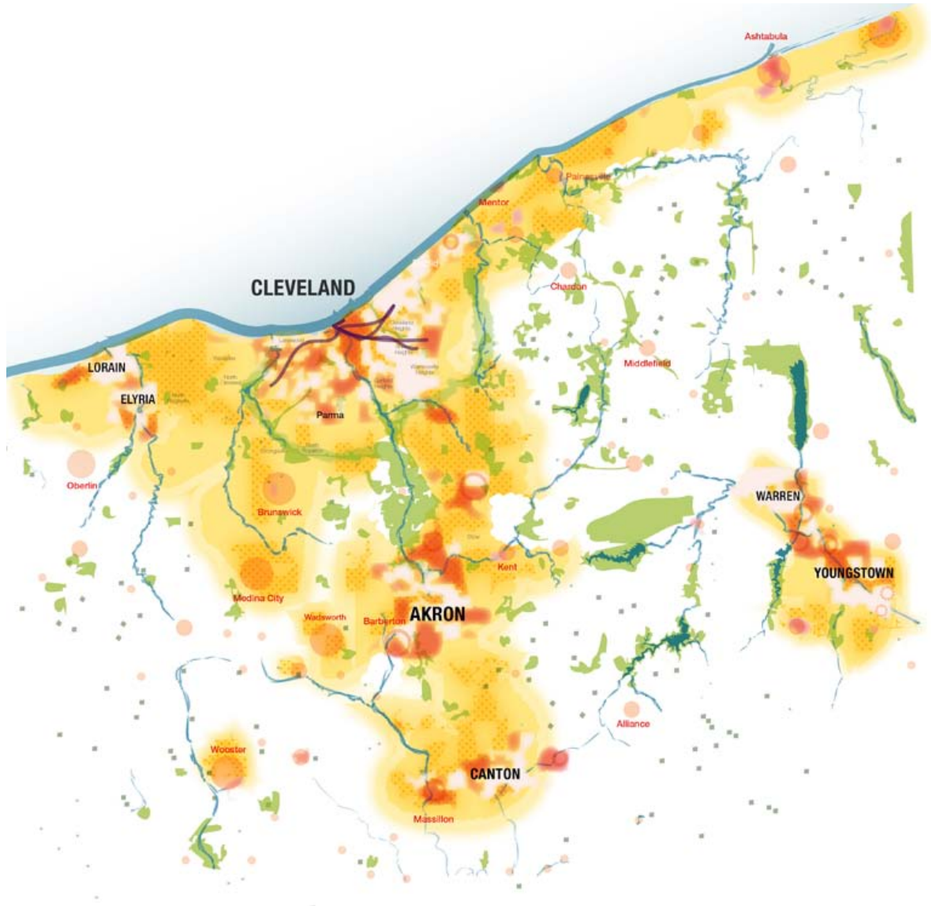
CURRENT TRAJECTORY

Northeast Ohio is changing. Central cities that were historically the centers of the region are experiencing abandonment. Once dense urban neighborhoods now struggle with high rates of vacancy. Outside of the cities, working farmland and undeveloped landscapes are being converted to new subdivisions, office parks, and shopping centers as people and jobs move to the suburbs. The distances between jobs, schools, homes, stores, and parks are increasing, and transportation options are increasingly limited to personal vehicles. **What will the region be like in 2040 if these trends continue?**

What does Sewered Urbanized Area mean?

The yellow region on the map is labeled as the "Sewered Urbanized Area." It is "sewered" because the area within this boundary is served by sewer lines. It is "urban" because it is defined as such by the US Census. The Census definition does not mean that places within the boundary are urban in the sense that they have tall buildings, feel like cities, or even that they are heavily developed; it is a technical definition meaning places with a minimum of 2,500 residents and their surrounding territories.[1]

1 The full definition can be found at http://www.census.gov/geo/reference/usa/urban-rural-2010.html



Current Trajectory

- Legacy Communities: Stable
- Legacy Communities: Shrinking
- Growing Communities
- Sewered, Urbanized Area
- Town or Village
- Parks and Conservation
- Rapid Transit Connection

SUMMARY OF QUANTITATIVE TRENDS: POPULATION, EMPLOYMENT, AND CONSERVATION

The foundation of the Trend Scenario is a series of projections that estimate how many people, jobs, households, housing units, and acres of conservation will be in the region by 2040 if current rates of growth continue. The 2040 projections are based on county-level trends over the past two decades. This time period was selected as the best representation of the region as 'stabilized yet challenged' and was long enough to capture several market cycles, a critical factor for long-range estimates. For each county, annual rates of change from 1990-2010 were extrapolated through 2040. For a more detailed discussion about the process of calculating these numbers, please refer to the Technical Appendix. It is important to emphasize that the numbers used for the Trend Scenario are empirically derived: they are not guess-work or based on the opinions of the Project Team—they are mathematical extrapolations of the past.

TREND SCENARIO SUMMARY OF PROJECTIONS

	CURRENT	2040
Population	3,821,300 residents	3,914,600 residents
Employment	1,710,800 jobs	1,839,800 jobs
Parks and Conservation Land	276,000 acres	389,000 acres

PEOPLE AND JOBS

Region-wide, population and employment growth has been virtually flat. Population is on track to increase by slightly less than 100,000 across the region, from 3.82 million in 2010 to 3.91 million in 2040. Employment is also on track to increase by about 100,000 region-wide, from 1.56 million in 2010 to 1.65 million in 2040. These increases translate to annual growth rates of 0.08% for population and 0.25% for employment.

At first, these flat region-wide totals may suggest that the region will not see much change over the next few decades. However, a closer look at the county-wide numbers provides a more complete story. Some counties are growing rapidly while others are shrinking.

For instance, Cuyahoga[2] and Mahoning counties are losing about 0.5% of their population per year, while Medina County, the fastest growing county in the region, is adding population at an annual rate of 2.2%. As the next section will show, these changes will result in significant impacts to open space, public sector fiscal health, transportation options, and more.

The contrast between county-level changes and regional changes is significant. Even though individual counties may be increasing in population and jobs, their increases are predominately a result of movement within the region. Medina, Portage, Wayne, and Geauga counties together are projected to increase by 194,000 residents, even though we've seen that the region as a whole is only projected to grow by 93,400. Where are the additional new residents in these four counties coming from? The new residents are largely moving from Cuyahoga, Mahoning, and Trumbull counties.[3] The growth of some counties in the region is linked to, and a result of, decline in others, as people and jobs are moving away from legacy cities.

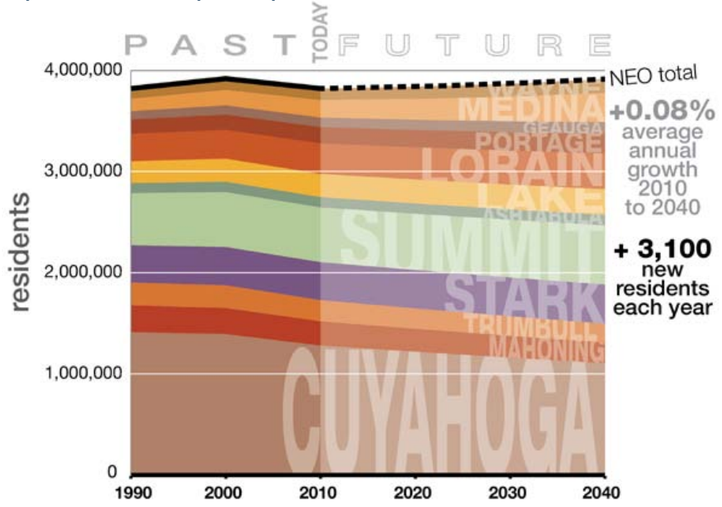
2 Although it will continue to lose population and employment if current trends continue, Cuyahoga County in 2040 will still account for 28% of all residents and 34% of jobs in the region, more than any other county. The changes in the scenarios will produce significant environmental, fiscal, and community impacts, but the overall picture of population distribution in the region will not be radically different.

3 In net, Cuyahoga, Mahoning, and Trumbull counties are projected to experience declines and Medina, Portage, Wayne, and Geauga are projected to grow. Of course, in reality, not everyone who moves away from the first set of counties moves to one in the second set.

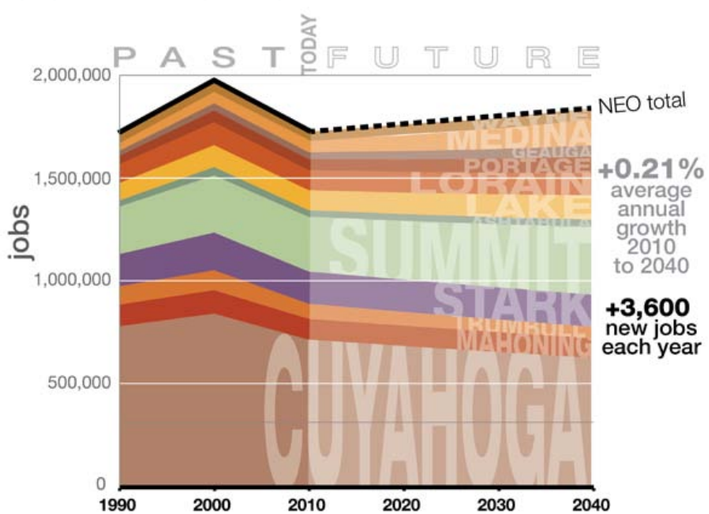
PARKS AND CONSERVATION LAND

Approximately 7% of Northeast Ohio is currently conserved, and the trend has been to conserve an additional 1% each decade.[4] At the current rate of conservation, approximately 10% of the region will be conserved by 2040. While this trend is positive, many local conservation partners surveyed for the Western Reserve Land Conservancy's "Common Ground" report believe it should be higher. 92% of the surveyed partners felt 10% was appropriate as a minimum conservation goal, but more than two-thirds felt 15% was a better standard for regional conservation.[5]

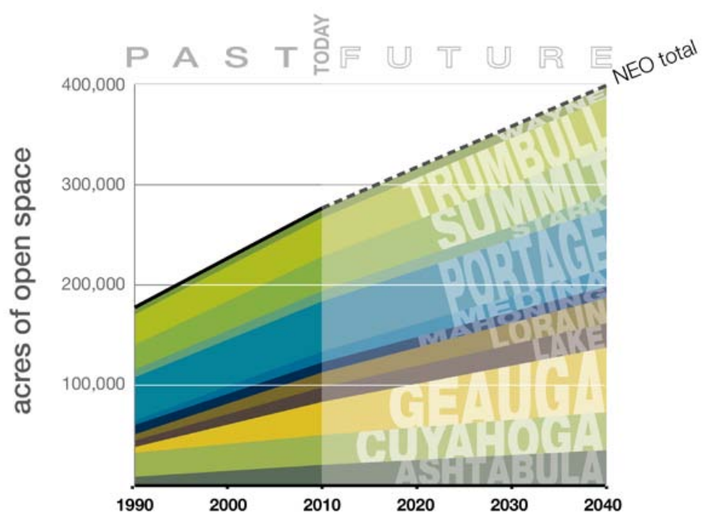
Population Trends by County



Employment Trends by County



Conservation Trends by County



4 "Common Ground: The land protection report for northern Ohio" (WRLC, Dec. 2012)

5 "Common Ground: The land protection report for northern Ohio" (WRLC, Dec. 2012)

WHAT KINDS OF PLACES ARE INCLUDED IN THE SCENARIO MAPS? LAND USES IN NEO

Mixed-use

City Architecture

Commercial
(Stores, restaurants, and offices)

Valeria Everett (Flickr.com)

Industrial

Sharon M Leon (Flickr.com)

Other Built (Public buildings, hospitals, parking lots, roads, schools, and airports)

Doug Kerr (Flickr.com)

Residential: Urban or Multifamily

City Architecture

Residential: Suburban

City Architecture

Residential: Rural

Steve Wall (Flickr.com)

Abandoned
(Vacant structures and abandoned lots)

Ed Kohler (Flickr.com),

Parks and Conservation

Davey Nin (Flickr.com)

Agriculture

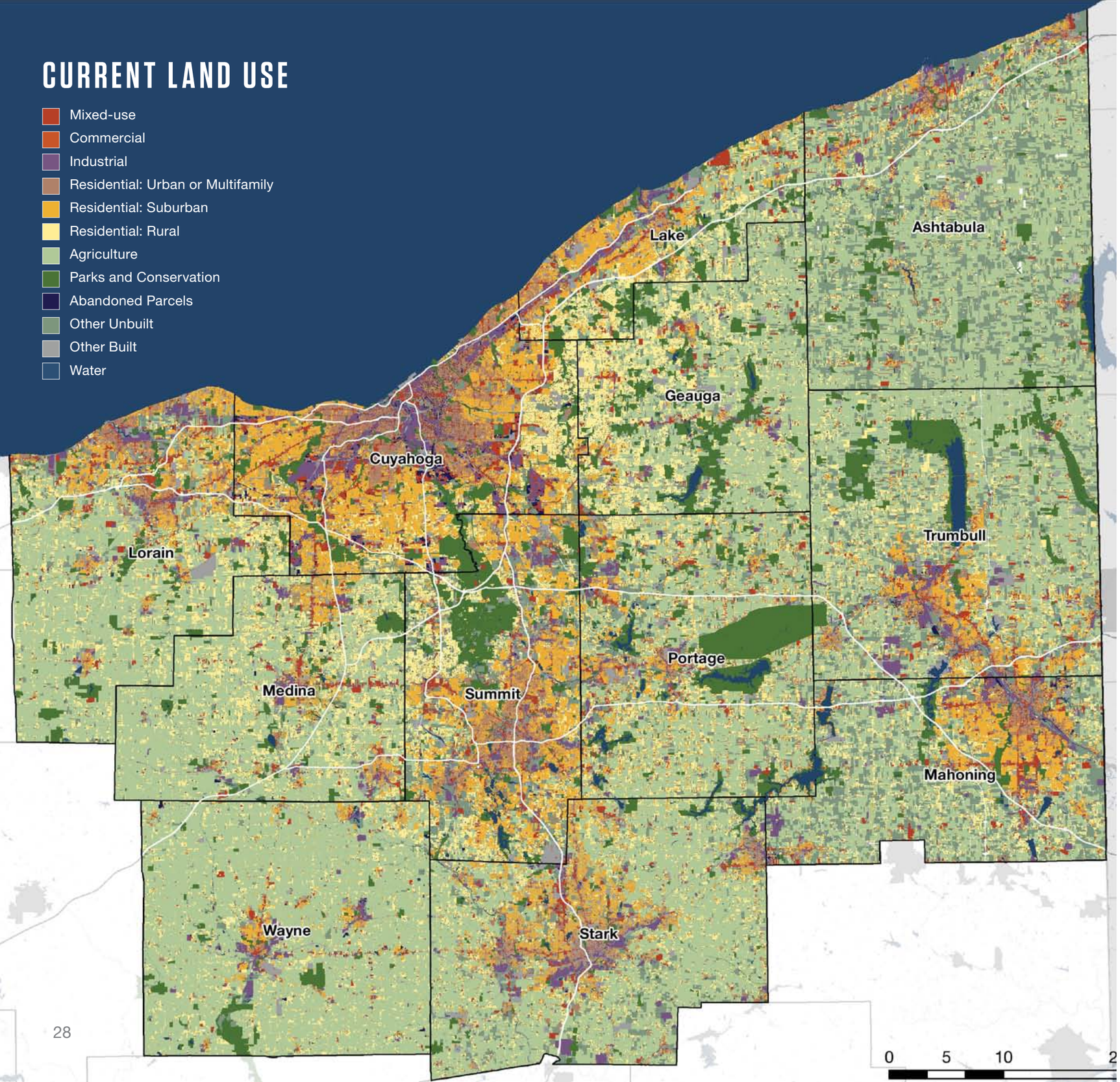
Michael Meiser (Flickr.com)

Other Unbuilt (Undeveloped land that is not conserved, cemeteries, and utility easements)

Garden Beth (Flickr.com)

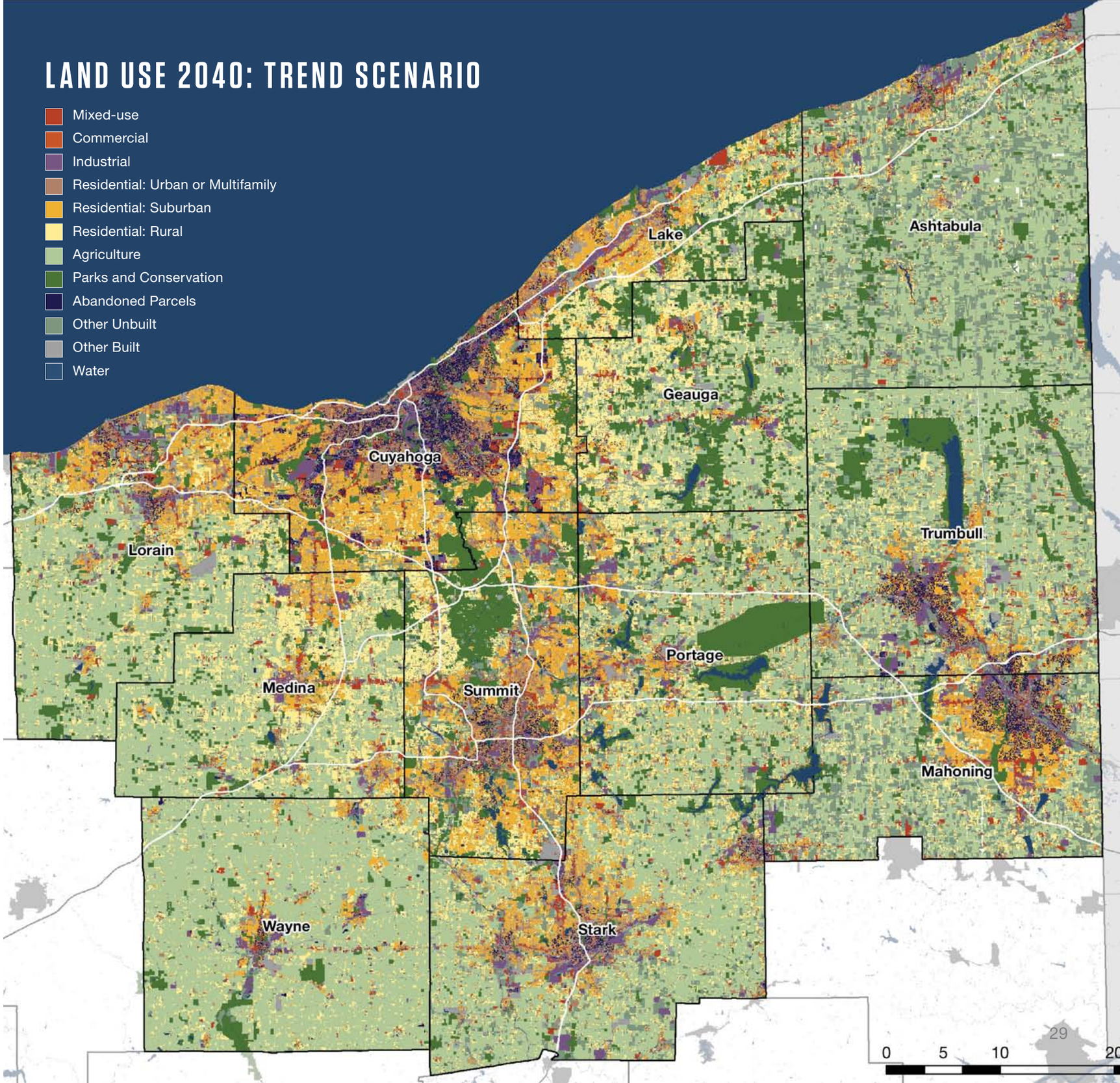
CURRENT LAND USE

- Mixed-use
- Commercial
- Industrial
- Residential: Urban or Multifamily
- Residential: Suburban
- Residential: Rural
- Agriculture
- Parks and Conservation
- Abandoned Parcels
- Other Unbuilt
- Other Built
- Water



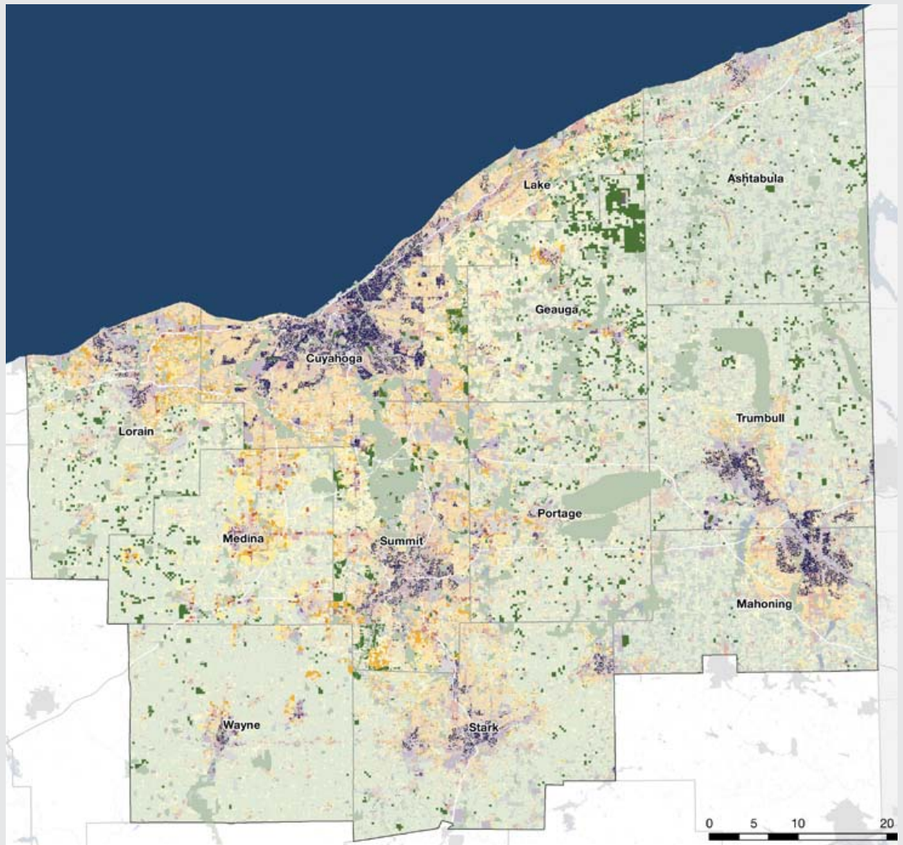
Having trouble spotting the differences?

The differences between these maps may be hard to see, but even small changes have big impacts. Each pixel of color represents an area slightly larger than 2 football fields. Add up all the small changes, and the impacts to quality of life, local budgets, and the environment are quite significant. The next two pages highlight the changes in more detail.



NEO 2040: TREND SCENARIO

WHAT MIGHT THE REGION BE LIKE IN 2040 IF CURRENT DEVELOPMENT RATES, PATTERNS, AND POLICIES CONTINUE?



NEO 2040: Trend Scenario, Changes from Current Highlighted

- Mixed-use
- Commercial
- Industrial
- Residential: Urban or Multifamily
- Residential: Suburban
- Residential: Rural
- Agriculture
- Parks and Conservation
- Abandoned Parcels
- Other Unbuilt
- Other Built
- Water

Outcomes:

- Abandonment increases the most in legacy cities, but also significantly impacts several smaller towns like Ashtabula, Alliance, and Massillon
- Urban and multifamily homes are the predominant home types abandoned (-20% between 2010 and 2040)
- New development is primarily suburban and rural residential, and it occurs at or beyond the edges of existing communities
- Conservation increases sizably

Inputs Summary:

+ 93,430 new residents (0.1% annual growth rate)

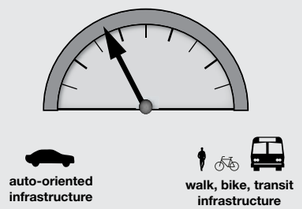
+ 108,100 new jobs (0.2% annual growth rate)

+ 121,500 new acres of parks and conservation land

POPULATION 2040: 3,914,600 RESIDENTS

EMPLOYMENT 2040: 1,839,800 JOBS

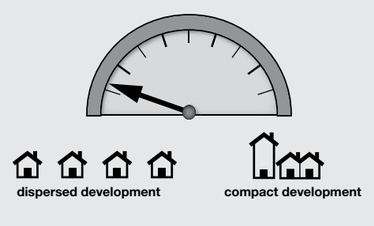
Transportation Investment



Investment in Communities

Land Development

Community Character



Outputs Summary:

+ 276,800 new homes built

+ 174,900 new abandoned homes

= no changes from current public transit system

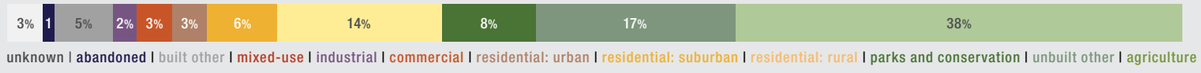
Abandonment doubles

More than 85% of new development is rural or suburban residential

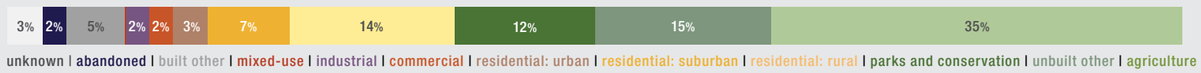
New development replaces agriculture and undeveloped land

Land Use (overall for region)

Current

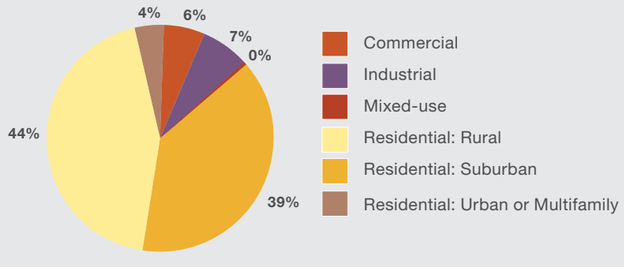


Trend

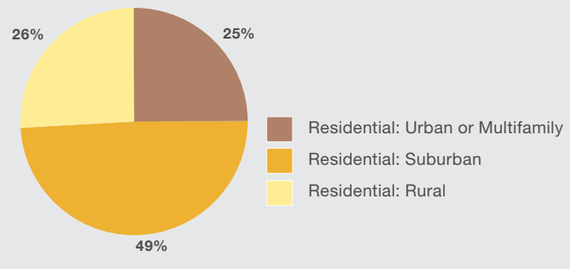


New Development Mix (acres)

91,900 acres developed total



New Housing Units



The “Trend” Scenario tests what the region might look like in 2040 if current development rates, patterns, and policies continue. On its current course, the region faces a future with intense outward migration away from its legacy cities, high rates of abandonment, and new development that is expensive for tax payers to build and maintain.

Neighborhoods and rural areas that have grown over the past two decades will continue to grow, while neighborhoods that have lost households over the past two decades will continue to see additional homes abandoned. The style of development in the scenario continues the current development trends in outlying areas. New development is predominately dispersed and auto-oriented: new homes are built on large, suburban lots; offices are located in separate office parks; and shopping is dispersed in strip mall style developments and big box stores. Because the new construction is not accompanied with matching regional population growth, it results in increased abandonment in legacy cities and some 1st ring suburbs and established towns. Public transit remains at current levels. Natural area conservation increases across the region.

3 THEMES

The Trend Scenario maps are more than a graphical sketch of the future. Each colored area includes data about the people, buildings, jobs, open space, tax revenues, infrastructure, transportation network, and other elements associated with it. With this data we can estimate resulting impacts on local budgets, environmental health, quality of life, and other factors. This section describes three major themes that emerge from the scenario analysis; a full list of scenario model outputs and calculation methodologies is available in the Technical Appendix.

THEME 1—OUTWARD MIGRATION

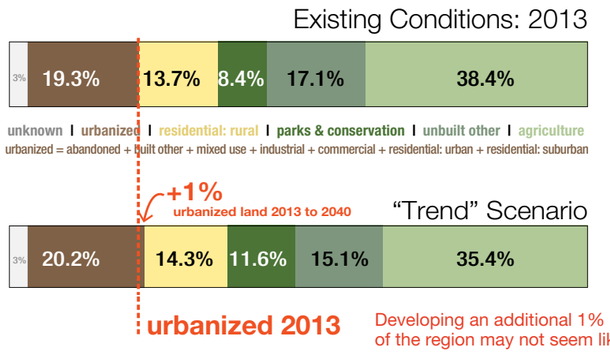
As we have seen, **"growth" in some parts of the region is largely a result of movement from elsewhere in the region.** The movement tends to be away from legacy cities and some 1st ring suburbs and towards developing communities on the fringes of existing urbanized areas. This trend of "outward migration" has significant impacts on the region.

New development outside of already-established communities requires new infrastructure, including roads, sewers, and other utilities. Building and maintaining this infrastructure creates significant additional costs for local and county governments, who must then maintain more infrastructure to support the same population.

In the Trend Scenario, getting around the region increasingly requires a car. Destinations are farther away from one another and from existing job centers, and new development densities are too low to make additional public transit viable. Residents are likely to spend more time in their cars in the future; commute times lengthen and household transportation costs increase.

New construction in the Trend Scenario typically occurs on land that is currently undeveloped or used for agriculture. This new development alters the natural and agricultural character of the region's rural landscapes. Outward migration also puts increased development pressures on agricultural land and environmentally sensitive areas, raising land prices and making land conservation more costly.

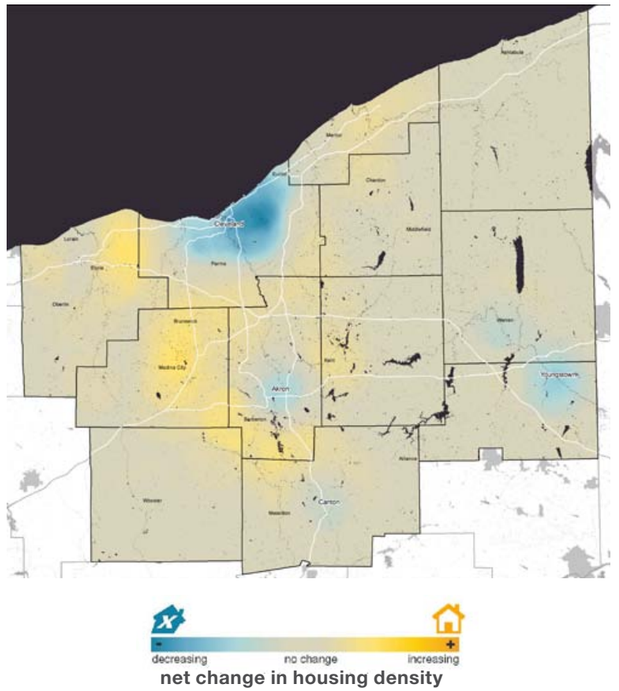
Urbanized Land Today vs. Trend



Developing an additional 1% of the region may not seem like a big deal, but in a 12 county region, 1% is a lot of land (38,400 acres). 1% is a little larger than Cuyahoga Valley National Park (33,000 acres).

The environmental impacts of dispersed development on formerly undeveloped sites are multifold. The conversion of pervious landscapes like meadows and forests (which absorb stormwater) to impervious surfaces like driveways and roads (which do not) increases stormwater runoff. Increased stormwater runoff can cause erosion, increase the risk of flooding, and lower water quality. An additional 28,300 acres of impervious surface is constructed in the Trend Scenario. Land development also reduces the amount of habitat available to local and migrating wildlife. Dispersed development tends to decrease the total acreage of wildlife habitat and increase its fragmentation (suitable areas are farther apart and smaller).

Outward Migration of Residents



THEME 2—ABANDONMENT

Abandonment is one of the most significant effects of outward migration. Outward migration coupled with low regional population and employment growth results in abandonment. If current residents and jobs move away from established communities to new homes, shopping centers, office buildings, hospitals, and churches, and if no one moves in to occupy the houses, stores, and businesses they leave behind, abandonment occurs. Abandonment tends to be highest in older neighborhoods[1] in legacy cities and some 1st ring suburbs and established towns. Small-lot single-family and multifamily structures are the most common types of housing abandoned.

Abandonment is an issue that many of the region's oldest communities have been facing for several decades. If current trends persist, abandonment will continue to be a major issue for these communities and increasingly will have measurable negative impacts on each of the region's 12 counties. Currently, there are approximately 86,000 abandoned housing units in the region;[2] the number of new abandoned units in the Trend Scenario is 175,000, slightly more than twice the current number. Abandonment in the Trend Scenario occurs at a rate equivalent to 18 units abandoned each day for the next 30 years.

The negative impacts of abandonment are well known and acutely felt by the region's legacy cities, 1st ring suburbs, established towns and, increasingly, by their home counties. Each abandoned structure creates a hole in the physical fabric of a neighborhood, a loss of homeowner equity and real estate tax revenue, visual blight, safety concerns, declining rent levels, and the eventual cost of demolition if disinvestment cannot be reversed. Once abandoned structures are demolished, additional costs are incurred to maintain the vacant land and prepare it for eventual reuse. Even if only 30% of the 175,000 abandoned homes are demolished, demolition costs alone could add up to $525 million dollars.[3]

1 Predominately pre-1960 housing stock

2 2007-2011 American Community Survey 5-Year Estimates; "Abandoned" units = "Other vacant" units (Table B25004: VACANCY STATUS—Universe: Vacant housing units)

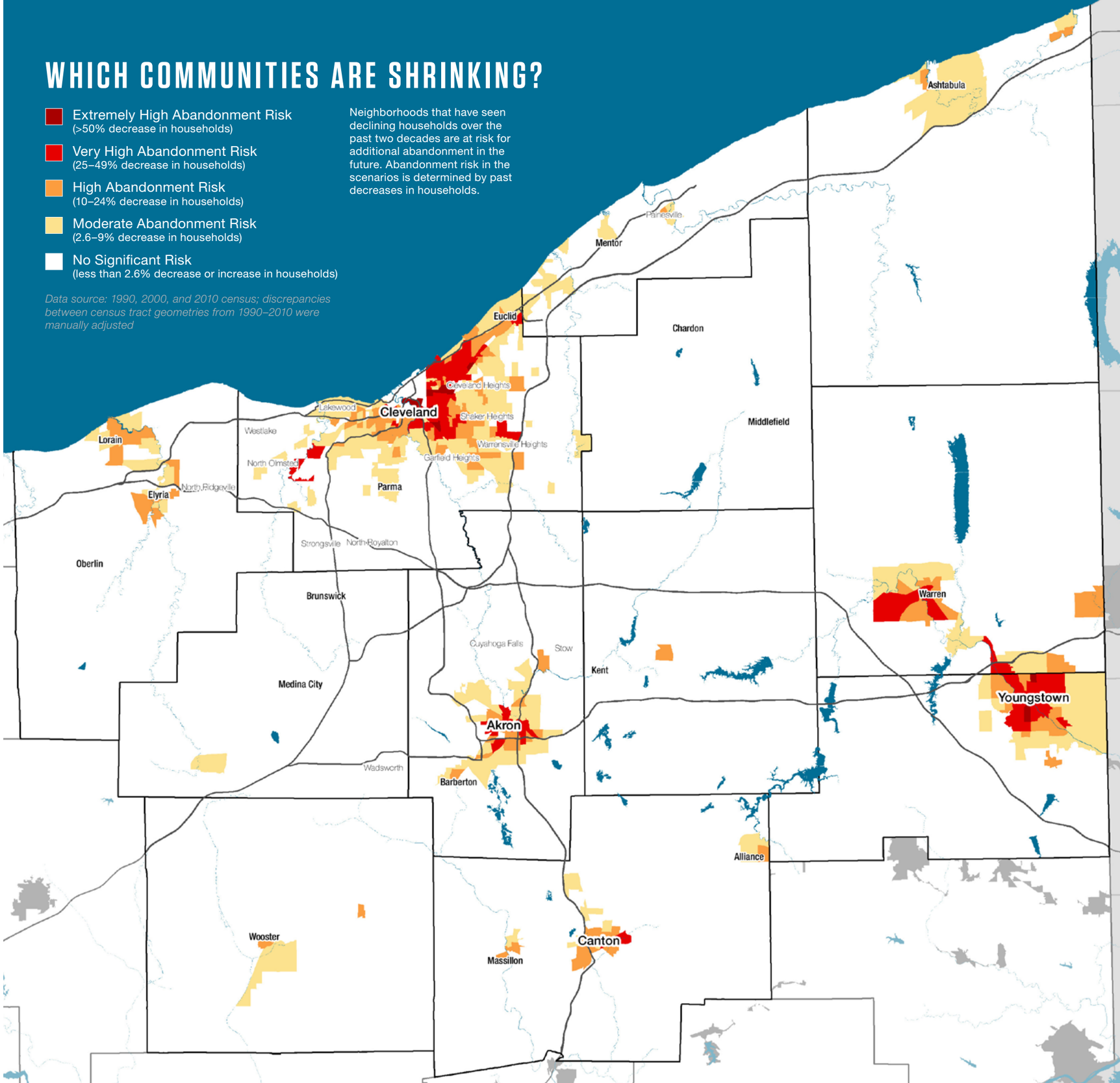
3 Assuming 30% of the 175,000 abandoned units are demolished at a cost of $10,000 per unit.

WHICH COMMUNITIES ARE SHRINKING?

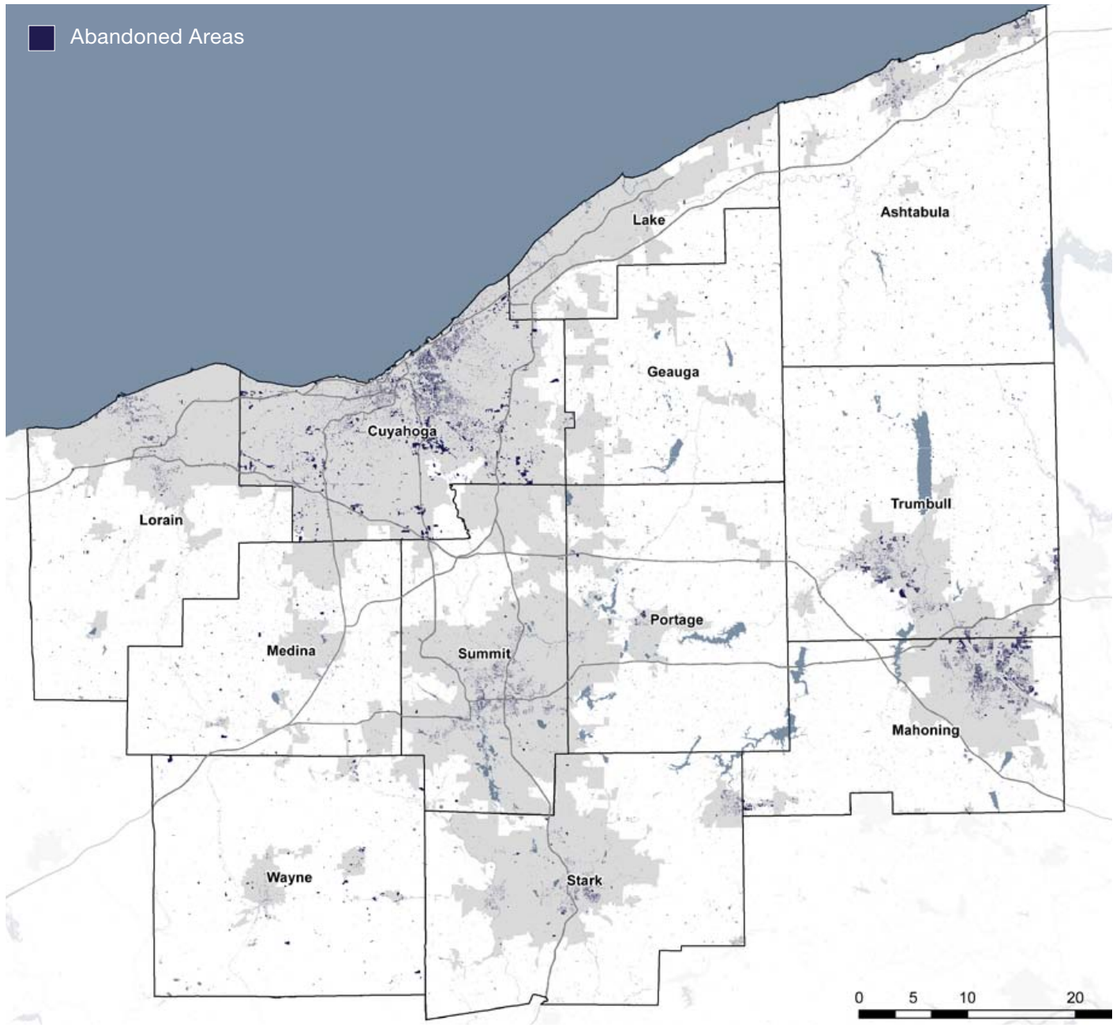
- Extremely High Abandonment Risk (>50% decrease in households)
- Very High Abandonment Risk (25–49% decrease in households)
- High Abandonment Risk (10–24% decrease in households)
- Moderate Abandonment Risk (2.6–9% decrease in households)
- No Significant Risk (less than 2.6% decrease or increase in households)

Neighborhoods that have seen declining households over the past two decades are at risk for additional abandonment in the future. Abandonment risk in the scenarios is determined by past decreases in households.

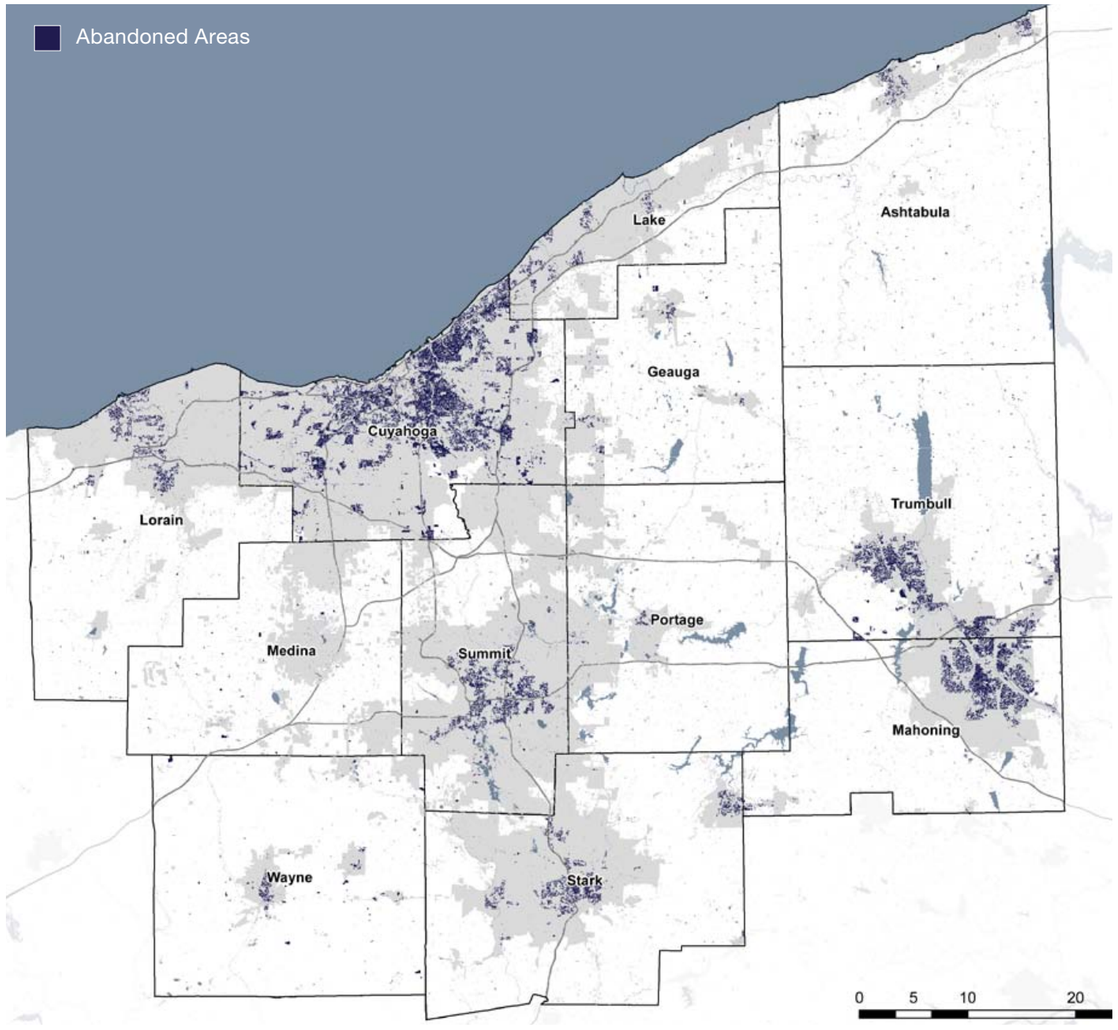
Data source: 1990, 2000, and 2010 census; discrepancies between census tract geometries from 1990–2010 were manually adjusted



Abandonment 2013



Abandonment 2040: Trend Scenario



Abandonment in the Trend Scenario occurs at a rate equivalent to 18 units abandoned each day for the next 30 years.

LOST OPPORTUNITIES

Abandonment is occurring in places with significant infrastructure investments. This leaves behind not only homes and other buildings but also roads, sewers, and utilities that could still provide valuable service and that tax payers must pay to maintain, whether or not they are being used to capacity.

City Architecture

ABANDONMENT AND INFRASTRUCTURE

Higher Infrastructure Density
Lower Infrastructure Density
Abandoned Areas

Lake
Ashtabula
Geauga
Cuyahoga
Lorain
Trumbull
Portage
Medina
Summit
Mahoning
Wayne
Stark

0 5 10 20

THEME 3—FISCAL IMPACTS

The Fiscal Impact Tool[4] measures the fiscal outcomes of the scenarios and helps us understand the impacts of today's development on the long-term fiscal health of our communities. Development affects local budgets by generating both new costs and new revenues. On the cost side, supporting development in communities requires constructing new infrastructure (roads, water and sewage pipes, and other utilities) if it does not already exist. In addition to these one-time capital outlays, communities must pay to maintain infrastructure and provide services. The on-going operating and maintenance costs tracked in the scenarios include education, hospitals, police, fire, parks, roads, sewerage, solid waste, and other utilities. On the revenue side, new development generates income from property, income, and sales taxes, as well as utility fees.

These local fiscal costs and revenues are gathered for each city, village, township, and special district in the 12-county region[5] and aggregated with county fiscal impacts to provide an overall fiscal snapshot at the county and region levels in 2040. Data for the model came from publicly available sources; see the Technical Appendix for a full list of data sources.

The revenue-to-spending ratio summarizes these trends into a single number:

- **Revenue-to-spending ratios greater than zero** mean that the government is bringing in more revenue than it is spending. These budget surpluses indicate more money is available to finance new infrastructure projects, fund school systems, and maintain existing infrastructure.
- **Revenue-to-spending ratios less than zero** mean that the government is spending more money than it is bringing in. These budget deficits could mean higher taxes or decreased levels of service.

Fiscal Costs and Revenue From New Construction

Fregonese Associates

FACTORS CONSIDERED:

- number of residents and housing units
- the mix of Building Types and uses
- the number and density of jobs per sector
- real estate value
- linear feet of roads, water, sewer, and utility lines
- tax rates
- construction costs
- cost-share between public and private entities
- regional levels of service and costs for education, hospitals, police, community facilities, and parks

4 The Vibrant NEO Fiscal Impact Tool is customized from the existing Federal Reserve Bank Fiscal Impact Tool. It provides a county-level analysis that aggregates all sub-county jurisdictions. It allows for a standardized method for conducting planning-based fiscal assessments. For more information about the Fiscal Impact Model, including data sources, see the Technical Appendix.

5 Special districts include, for example, school, airport, and sewer and water districts which have independent authority to tax in order to provide a specific service.

Currently, counties have revenue-to-spending ratios that range from -6.6% (budget deficit) to 6.1% (budget surplus). The net balance in the region is -0.3, reflecting that the region is not quite balancing spending and revenue.

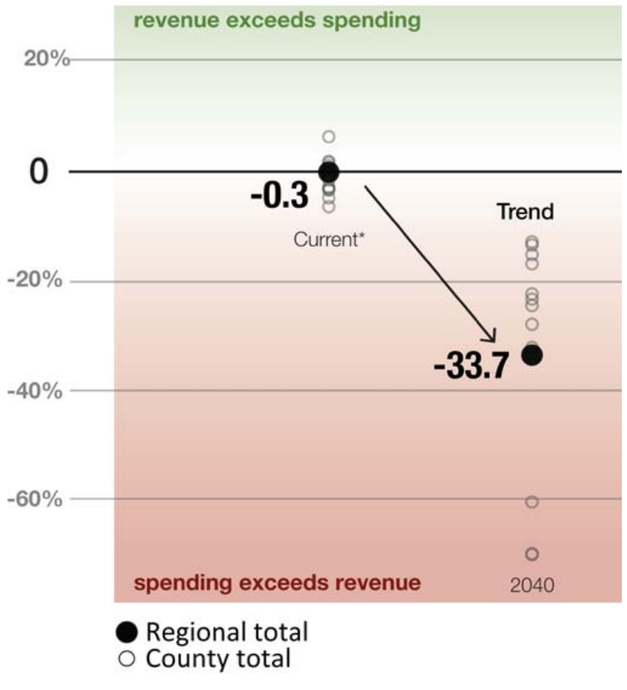
In the Trend Scenario, development exceeds regional demand; outlying communities grow, while legacy communities shrink. The fiscal impacts of this trend are significant. Region-wide, the revenue-to-cost ratio falls to -33.7% in 2040, reflecting high levels of spending with insufficient revenue to support it.[6] Furthermore, it's not just a few counties performing poorly over the next three decades that pull down the regional balance sheet; all counties experience declining revenues compared to costs. The weakest county from a fiscal perspective in 2010 is still performing better than the most fiscally strong county in 2040 in the Trend Scenario (fiscally weakest in 2010 = -6.6%; fiscally strongest in 2040 = -13.1%).

Multiple factors are driving this trend towards higher operating deficits. In communities with declining populations, abandonment is the driving factor that is weakening fiscal health. There are fewer residents contributing to the local tax base, while the costs associated with maintenance and demolition of abandoned properties increase. Infrastructure costs also have an impact. Communities must still pay to maintain current infrastructure networks, even though there are fewer people to support them. Furthermore, infrastructure systems in these established communities are likely to be nearing the end of their planned life-cycle, resulting in increasing maintenance, repair, and replacement costs.

Infrastructure costs are the driving factor in growing communities, too, but in a different way. Faster growing communities face significant capital, operating, and maintenance costs that are required to support their new growth. Development in these areas is typically beyond existing infrastructure, so most new development requires extending roads, water, sewer, and other utility connections. After construction, the public sector must pay for on-going maintenance.

Region-wide, a third factor negatively impacting budgets is virtually stagnant employment. Low employment growth means no significant new income tax revenues for municipalities. In Northeast Ohio, this issue is especially noteworthy because income taxes make up a significant portion of local budgets.

Local Government Revenue-to-Spending Ratio by County



6 This scenario model output is useful to compare between future scenarios, assuming nothing changes, but in reality, cities and townships would adjust their practices, so it is unlikely that actual budgets in 2040 would be either as high or as low as projected through the future scenarios. Compensatory action would be taken to stabilize budgets, like tax increases and/or service cuts. The challenges indicated by these numbers, however, are still very real and would be absorbed by taxpayers in one way or another.

TREND SUMMARY

Where will NEO be in 2040 if we stay "On Trend"?

1. We will have minimal growth in population and jobs.
2. We will continue to spread out, abandoning our established communities for new development.
3. We will experience widespread abandonment of homes in our legacy cities and some of our first ring suburbs and established towns; an estimated 175,000 homes will be abandoned by 2040.
4. We will continue to put our natural resources at risk through our land use choices.
5. Every county in the region will face significant financial risks because of the choices we make about how to use our land and allocate our resources: on average, our costs will be a third greater than our revenues.

PUBLIC FEEDBACK ON THE TREND SCENARIO

The first series of scenario planning public engagement sessions was a set of workshops framed around exploration of regional trends. Six Trend Scenario Workshops were held throughout the region, attended by 589 people. Workshops started with an introduction in which multiple choice questions were posed intermittently to gauge participants' opinions about topics like outward migration, abandonment, and desirable neighborhood amenities. The presentation showed that in the Trend Scenario:

- Abandonment continues to impact legacy cities and some 1st ring suburbs and existing towns
- The majority of new construction is happening away from existing communities
- Investment is higher in newly developed communities than in long-established ones

How did the participants react to the scenario findings?[7]

Abandonment was viewed as a significant concern, though some felt that it was unlikely to continue at current levels. Many expressed the opinion that outward migration is a negative trend and that reinvestment in existing communities is important.

Polling Questions *Fregonese Associates*

Following the presentation, the attendees worked in groups to create maps of their desired futures. Each table was provided with a set of game pieces representing new development that matched current trends, but were given the option of trading for alternative kinds of development and land uses. Attendees placed their desired mix of development on the maps and drew where open space or transportation connections or improvements were desired. Most groups also wrote down notes to explain the ideas behind their maps.

TREND WORKSHOP GAME PIECES

Dispersed Development: low density mix of single-family homes on larger lots, shopping centers, and office parks. Uses are typically separate from one another and require a car to travel between destinations.

Compact Development: development of moderate density including a mix of housing types and job locations.

Reinvestment: investing in areas with existing high vacancy rates; moderate density; the mix of housing types and jobs is similar to compact growth pieces.

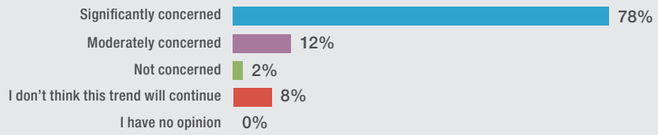
Reinforcement: investment in areas threatened with increasing vacancy; moderate density; the mix of housing types and jobs is similar to compact growth pieces.

7 A complete compilation of all polling question results at all workshop locations is available online at http://vibrantneo.org/.

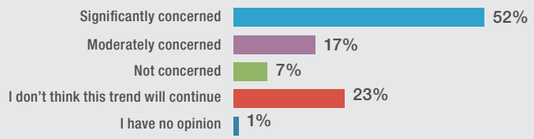
POLLING QUESTIONS[8]

How concerned are you about the level of abandonment seen in the Trend Scenario?

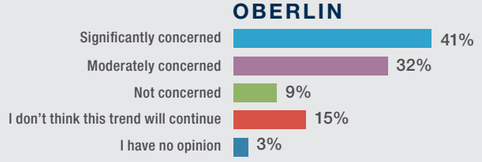
CLEVELAND EAST



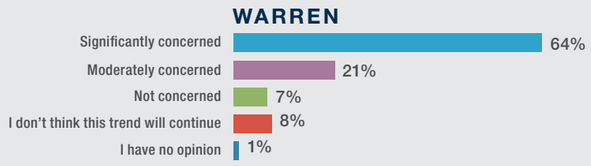
WARRENSVILLE HEIGHTS



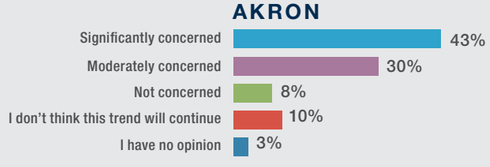
OBERLIN



WARREN



AKRON



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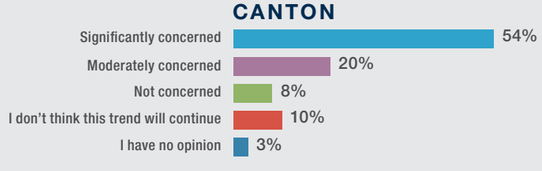
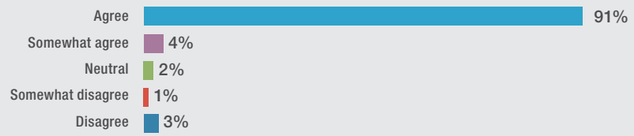
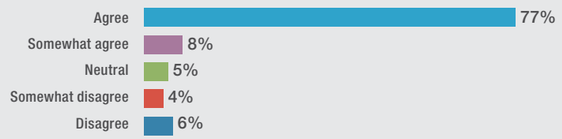


How much do you agree or disagree? We should reinvest in existing communities to create new jobs and housing.

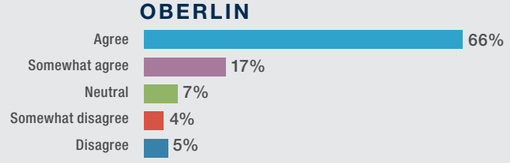
CLEVELAND EAST



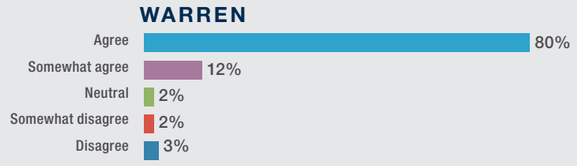
WARRENSVILLE HEIGHTS



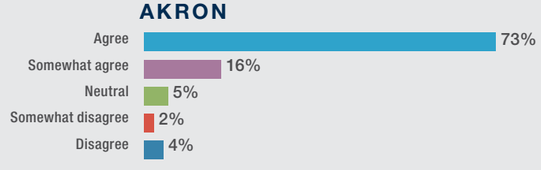
OBERLIN



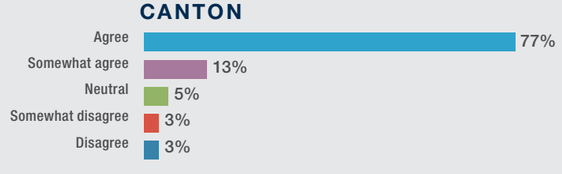
WARREN



AKRON

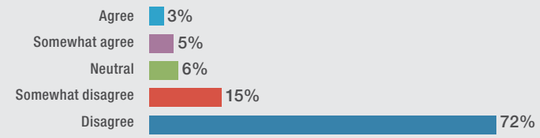


CANTON

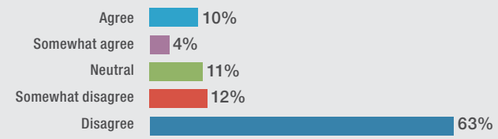


How much do you agree or disagree? We should continue to grow outward to create new jobs and housing.

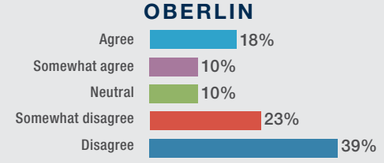
CLEVELAND EAST



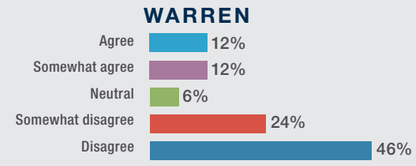
WARRENSVILLE HEIGHTS



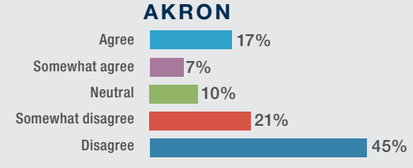
OBERLIN



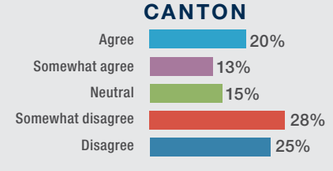
WARREN



AKRON



CANTON



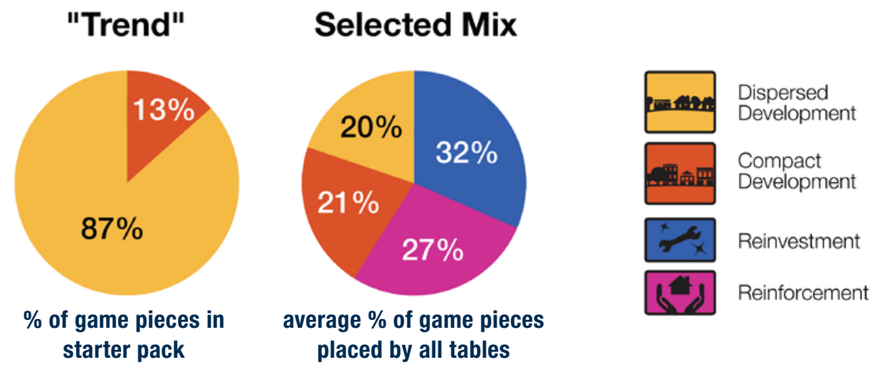
8 Cities listed were the locations of the Trend Scenario Workshops.

Map Activity *Fregonese Associates*

Map Activity *Fregonese Associates*

In total, participants at the six Trend Scenario Workshops created seventy-three maps.[9] Out of these, several common themes emerged. Many tables were unsatisfied with the increasing dispersed development in outlying areas and significant new abandonment in urban areas. Tables frequently chose to trade the dispersed development trend game pieces for additional compact development, reinvestment, and reinforcement pieces. These trades reflect dissatisfaction with the trend development mix and a desire for reinvestment in, and adjacent to, legacy communities. The majority of tables did not trade all their dispersed development pieces, however, reflecting the importance of a diverse range of housing options and balancing auto-oriented development with communities with densities that support walking, biking, and public transportation. Many tables sketched additional public transit and greenway connections between communities or to link communities with parks, natural resources, and Lake Erie. Protecting agriculture and natural resources was also important to the majority of tables. Most tables distinguished between areas that should be protected as farmland versus areas that should be protected for other conservation purposes.

Game Piece Selection: Trend Versus Average Selected Development Mix



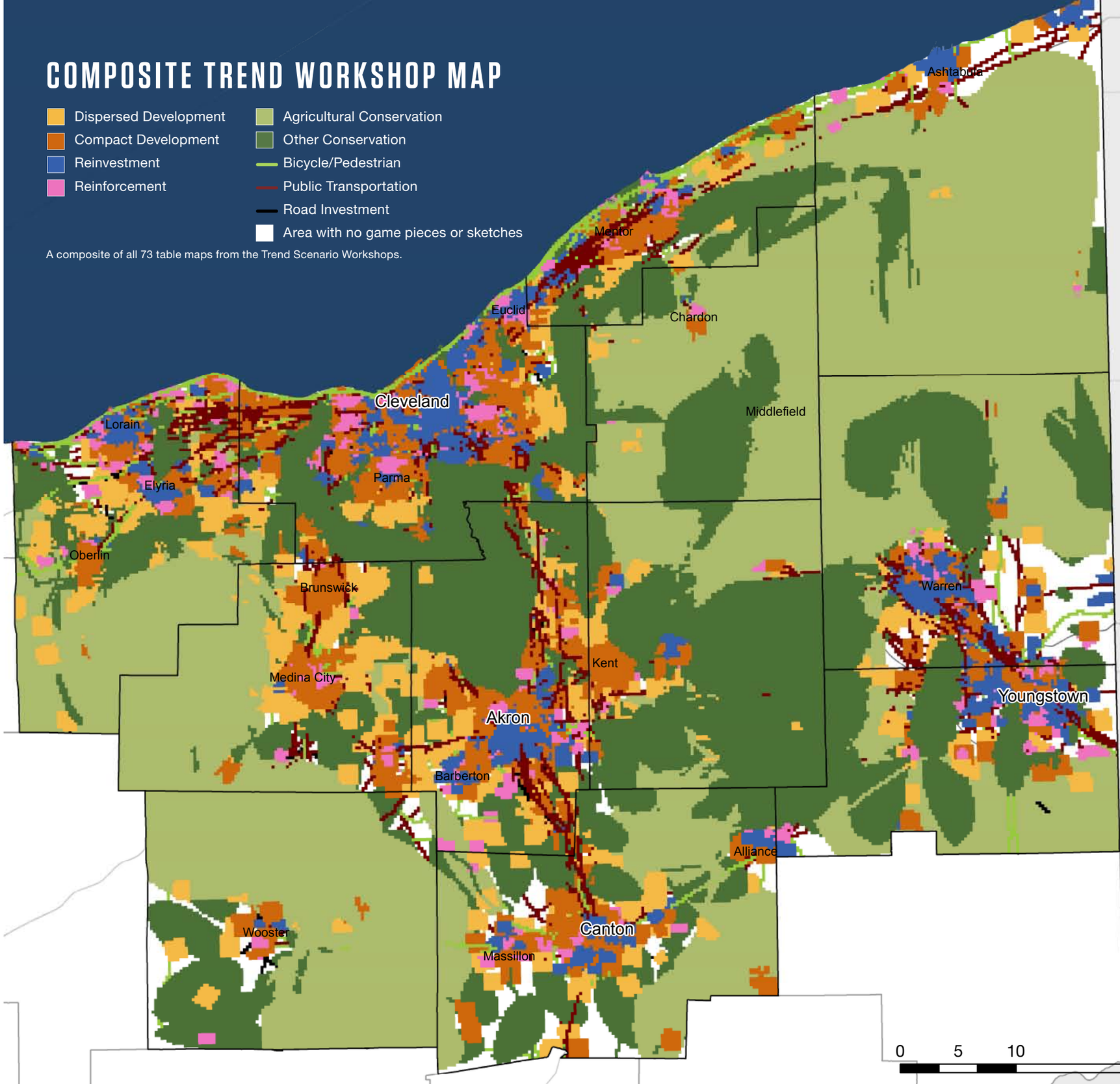
The majority of participants was unsatisfied with the default, trend-based game pieces and traded them in for more compact, reinvestment, and reinforcement pieces.

9 Map images are available online at http://vibrantneo.org/.

COMPOSITE TREND WORKSHOP MAP

- Dispersed Development
- Compact Development
- Reinvestment
- Reinforcement
- Agricultural Conservation
- Other Conservation
- Bicycle/Pedestrian
- Public Transportation
- Road Investment
- Area with no game pieces or sketches

A composite of all 73 table maps from the Trend Scenario Workshops.



ALTERNATIVE SCENARIOS

WHERE COULD OUR REGION GO? WHAT ARE OUR OPTIONS, CHOICES, AND KEY TRADEOFFS?

ALTERNATIVE SCENARIOS

What might the region be like if it changes course? The alternative scenarios provide a way to test multiple, plausible future scenarios that diverge from current trends.

The Four Scenarios

INTRODUCING THE ALTERNATIVE SCENARIOS

The scenarios show a range of plausible futures for the region, which helps us understand key choices, trade-offs, and outcomes. The purposes of the scenarios are to learn about the range of options and spark reflection and discussion. Feedback and lessons learned from the alternatives directly shaped the Regional Vision.

The Project Team modeled the following alternative scenarios:

GROW THE SAME: *How would NEO's future be different if population and jobs in NEO grew at the same rate as the rest of the country from 2013-2040?*

The Grow the Same Scenario tests the impacts of additional population and employment growth in the region without changes in policies or funding priorities. Since policies and funding priorities are the same as the Trend Scenario, the additional homes and businesses are predominately in the form of dispersed development in emerging communities.

DO THINGS DIFFERENTLY: *How would NEO's future be different if we pursued the different policies and funding priorities that Vibrant NEO 2040 participants identified at the Trend Scenario Workshops?*

The Do Things Differently Scenario tests the impacts of changing policies and priorities from the Trend Scenario. These include:

- Focusing on reinvestment in established communities
- Limiting development in environmentally sensitive areas
- Using existing infrastructure wherever possible
- Increasing the proportion of mixed-use, walkable development
- Expanding public transportation and bicycle/pedestrian trail networks
- Prioritizing growth near established communities

Regional population and employment growth remains virtually flat in this scenario (same as the Trend Scenario), but the emphasis on reinvestment significantly reduces abandonment relative to the Trend Scenario. Open space conservation is highest in this scenario.

GROW DIFFERENTLY: *How would NEO's future be different if population and jobs in NEO grew from 2013-2040 at the same rate as the rest of the country* and *we pursued the different policies and funding priorities that Vibrant NEO 2040 participants identified at the Trend Scenario Workshops?*

The Grow Differently Scenario tests the impacts of combining growth with different policy and funding priorities identified in the Trend Scenario Workshops. This scenario sees the same number of new residents and jobs as Grow the Same, but redevelopment, infill, and compact development are emphasized (as they are in Do Things Differently).

SCENARIO LOGIC

The Project Team structured the scenarios this way because it enables meaningful comparison between and among scenarios. It allows for testing the independent benefits of policy and priority change and different levels of growth. Some of the questions that these scenarios address include the following:

- Can the challenges raised by the Trend Scenario be solved simply by adding more jobs and households?
- If, on the other hand, job and household growth remains stagnant, how well could the region perform with good policies and governance alone?
- Do policies and priorities that are effective in a low growth scenario continue to perform well in a high growth scenario?

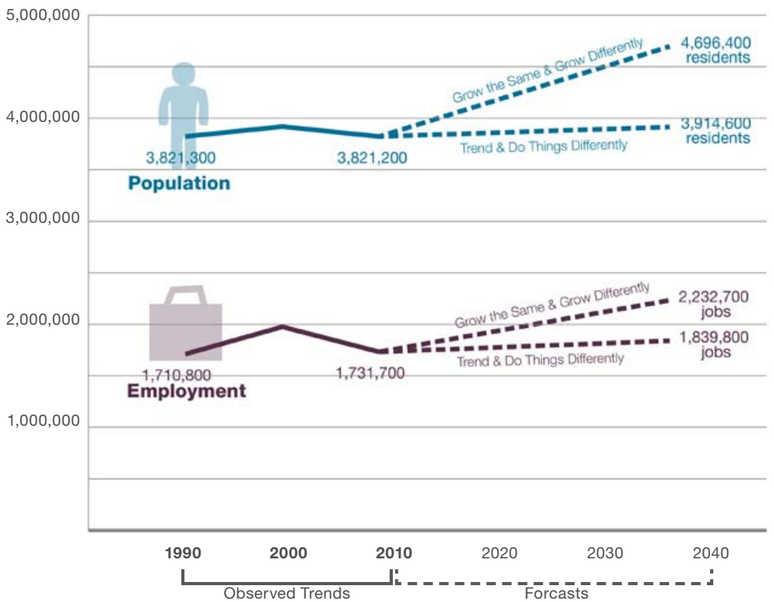
ALTERNATIVE GROWTH FORECAST: MAINTAINING A CONSTANT SHARE OF NATIONAL GROWTH

The Trend and Do Things Different Scenarios project current growth rates to 2040 to calculate future population and employment. Grow the Same and Grow Differently follow a different method to calculate 2040 population and employment. Rather than basing future growth on current trends, the two growth scenarios assume Northeast Ohio maintains its current share of national growth.

Northeast Ohio is currently home to 3.8 million residents, or 1.2% of the nation's population. The alternative growth forecast assumes that Northeast Ohio captures 1.2% of projected national growth through 2040. As a result, population increases by 875,000 new residents in the growth scenarios (compared with only 93,000 in the low growth scenarios). Average annual population growth measures 0.8% in the higher growth scenarios.

Employment follows the same logic, adding 501,000 jobs by 2040 in the higher growth scenarios (compared with 108,000 in the low growth scenarios).

Employment and Population Projections



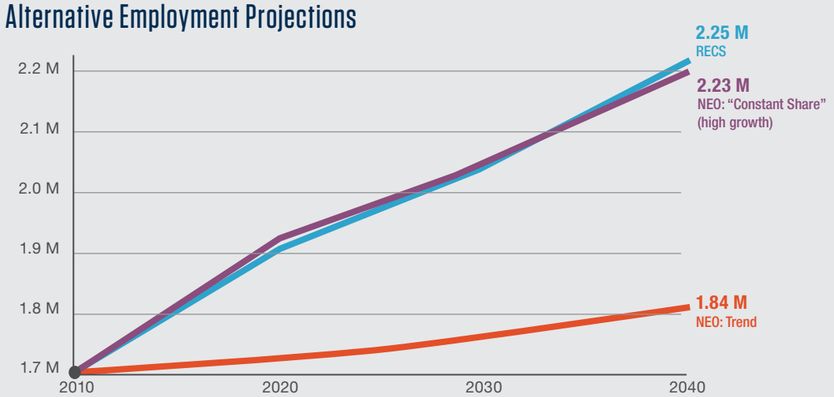
NEO's "Constant Share" Approach vs. RECS's Forecasts: Two Projection Methods, Similar Outcomes

Northeast Ohio's Regional Economic Competitiveness Strategy (RECS) is an ongoing economic development planning process for an 18 county area of Northeast Ohio that is led by Team NEO, a collaboration of the region's chambers of commerce and The Fund For Our Economic Future, a collaboration of the region's philanthropic organizations. The process was initiated in 2011 and involved over 150 private sector business leaders. The project began with a deep analysis of the region's existing competitive strengths and an assessment of the drivers of the region's economy.

Additionally, the region's cyclical performance over time was examined. As part of this assessment, two employment scenarios were generated. The first scenario was based on an extrapolation of the performance of the economy in terms of jobs, income, and gross product. The projections were expressed as a percentage difference from the nation's average growth rate. The second scenario was more robust and was based on a number of assumptions that would boost the region's rate of growth for these three variables up to the nation's average growth rates.

The employment projections for 2040 generated through the RECS's more robust scenario are very similar to the employment projections that the Project Team created with the "constant share" approach. In 2040, RECS saw 2.25 million jobs as an optimistic, yet achievable target; in comparison, the "constant share" approach yields 2.23 million jobs. The similarity of these numbers supports their use in the scenario planning process as an optimistic, yet feasible, outcome in the high-growth scenarios.

Alternative Employment Projections



RECS Aspirational: Midpoint of US and Northeast Ohio growth rates for the first 5 years, US growth rate for the second 5 years, and 10% above US growth rate 2022 and afterward

Constant Share: Assumes future employment growth will track with national employment growth

NEO 2040: GROW THE SAME SCENARIO

- Mixed-use
- Commercial
- Industrial
- Residential: Urban or Multifamily
- Residential: Suburban
- Residential: Rural
- Agriculture
- Parks and Conservation
- Abandoned Parcels
- Other Unbuilt
- Other Built
- Water

Lake
Ashtabula
Geauga
Cuyahoga
Lorain
Trumbull
Portage
Medina
Summit
Mahoning
Wayne
Stark

0 5 10 20

NEO 2040: DO THINGS DIFFERENTLY SCENARIO

- Mixed-use
- Commercial
- Industrial
- Residential: Urban or Multifamily
- Residential: Suburban
- Residential: Rural
- Agriculture
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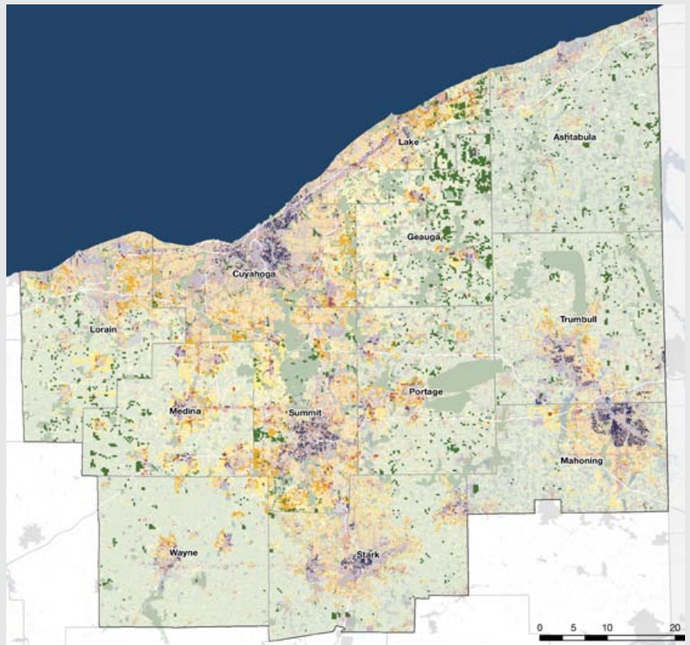
NEO 2040: GROW THE SAME SCENARIO

WHAT MIGHT THE REGION BE LIKE IN 2040 IF THERE ARE SIGNIFICANTLY MORE PEOPLE AND JOBS, BUT CURRENT DEVELOPMENT PATTERNS AND POLICIES CONTINUE?



- Mixed Use
- Commercial
- Industrial
- Residential: Urban or Multifamily
- Residential: Suburban
- Residential: Rural
- Agriculture
- Parks and Conservation
- Abandoned Parcels
- Other Unbuilt
- Other Built
- Water

NEO 2040: Grow the Same Scenario, Changes from Current Highlighted

Outcomes:

- Significantly more dispersed development than the Trend Scenario. New development is highest in growing communities, especially in Medina, Lake, Lorain, and southwestern Summit counties.
- Abandonment, while less than the Trend Scenario, is still increasing. The cities of Cleveland, Elyria, Lorain, and Warren see the greatest decreases in abandonment relative to the Trend Scenario.
- Even though one-quarter of new homes are urban or multi-family, the overall percentage of these units drops by about 19% from 2010 to 2040 due to abandonment (decreasing housing choice in region).

Inputs Summary:

+ 875,200 residents (0.8% annual growth rate)

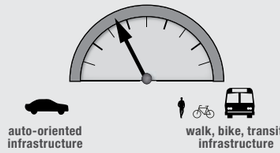
+ 501,000 jobs (1% annual growth rate)

+ 121,500 new acres of parks and conservation land

POPULATION 2040: 4,696,400 RESIDENTS

EMPLOYMENT 2040: 2,232,700 JOBS

Transportation Investment



Investment in Communities

Land Development

Community Character

Outputs Summary:

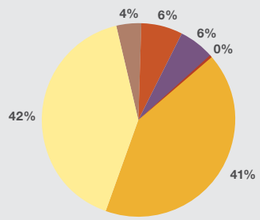
+ 546,000 new homes built

+ 93,100 new abandoned homes

= no changes from current public transit system

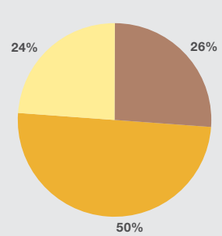
New Development Mix (acres)

174,700 acres developed total

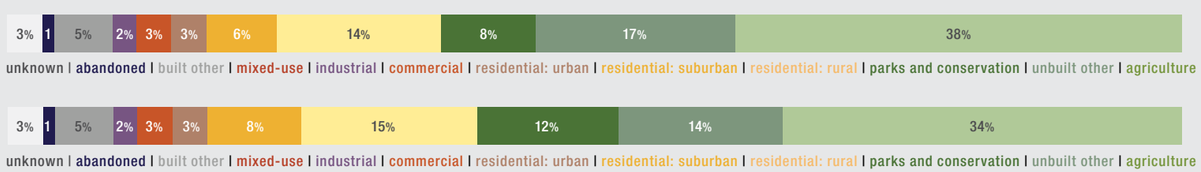


- Commercial
- Industrial
- Mixed Use
- Residential: Urban or Multifamily
- Residential: Suburban
- Residential: Rural

New Housing Units

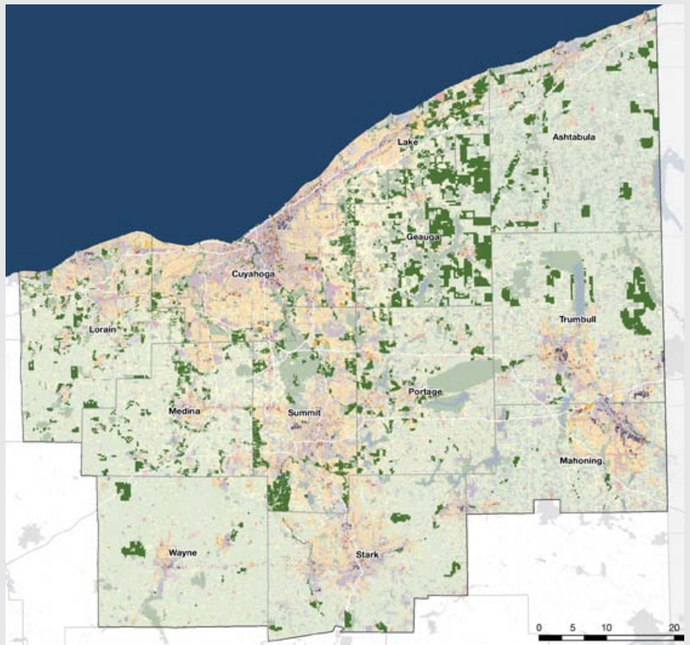


Land Use



NEO 2040: DO THINGS DIFFERENTLY SCENARIO

WHAT MIGHT THE REGION MIGHT LOOK LIKE IN 2040 IF GROWTH REMAINS FLAT BUT POLICIES AND DEVELOPMENT PATTERNS CHANGE?



- Mixed Use
- Commercial
- Industrial
- Residential: Urban or Multifamily
- Residential: Suburban
- Residential: Rural
- Agriculture
- Parks and Conservation
- Abandoned Parcels
- Other Unbuilt
- Other Built
- Water

NEO 2040: Do Things Differently Scenario, Changes from Current Highlighted

Outcomes:

- Different policies help reduce oversupply of housing and resulting regional churn (development without growth). There is a lower volume of new housing construction in Do Things Differently, even though it had the same number of people as Trend. As a result, abandonment is significantly less in this scenario.
- Highest amount of new open space conservation (doubled from 2010), a result of policies that reduce growth pressures in undeveloped areas.
- Compact-lot single-family and multi-family apartments account for majority of new housing units.
- Fewest new developed acres; more acres of farmland and forests remain.

Inputs Summary:

+ 93,430 residents (0.1% annual growth rate)

+ 108,100 jobs (0.2% annual growth rate)

+ 288,500 new acres of parks and conservation land

POPULATION 2040: 3,914,600 RESIDENTS

EMPLOYMENT 2040: 1,839,800 JOBS

Transportation Investment

Investment in Communities

Land Development

Community Character

Outputs Summary:

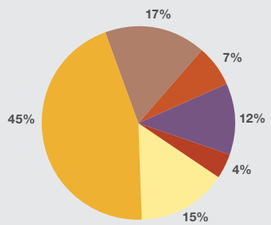
+ 120,700 new homes built

+ 19,800 new abandoned homes

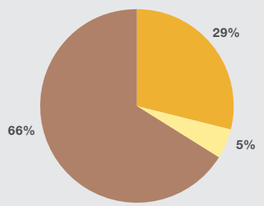
= Commuter Rail—157 new miles
Bus Rapid Transit—34 new miles
Express Bus—245 new miles

New Development Mix (acres)

20,500 acres developed total

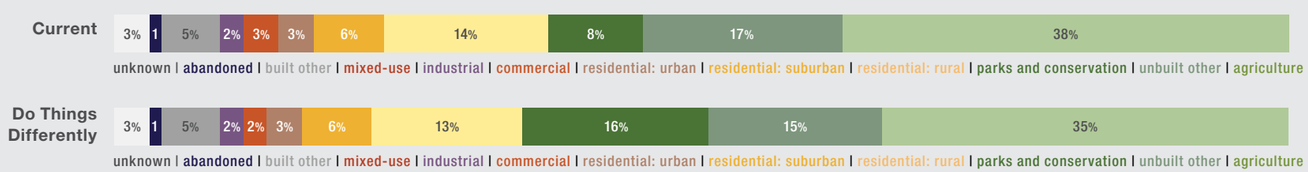


New Housing Units



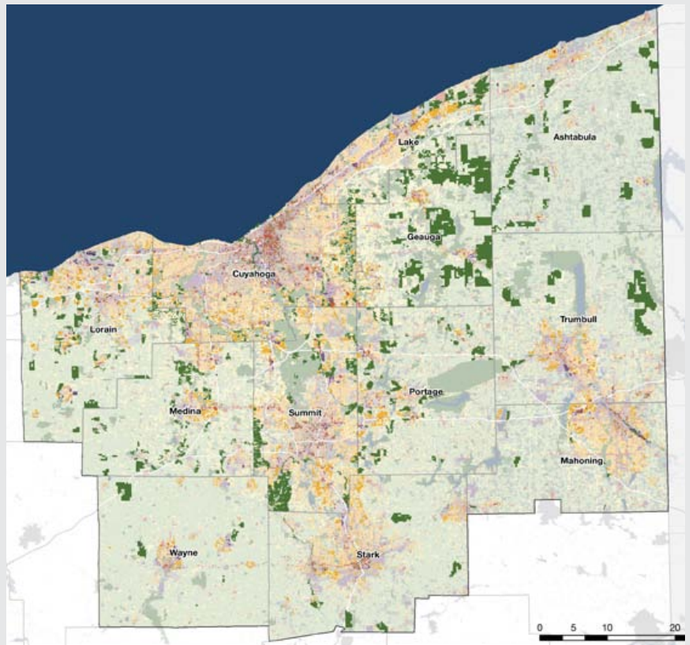
- Commercial
- Industrial
- Mixed Use
- Residential: Urban or Multifamily
- Residential: Suburban
- Residential: Rural

Land Use



NEO 2040: GROW DIFFERENTLY SCENARIO

WHAT MIGHT THE REGION BE LIKE IN 2040 IF THERE ARE SIGNIFICANTLY MORE PEOPLE AND JOBS AND IF CURRENT DEVELOPMENT PATTERNS AND POLICIES CHANGE?



Mixed Use
Commercial
Industrial
Residential: Urban or Multifamily
Residential: Suburban
Residential: Rural
Agriculture
Parks and Conservation
Abandoned Parcels
Other Unbuilt
Other Built
Water

NEO 2040: Grow Differently Scenario, Changes from Current Highlighted

Outcomes:

- Roughly same percentage of suburban housing as the other scenarios, but a smaller number of new rural homes.
- Natural areas conservation is less than Do Things Differently, but more than Trend and Grow the Same.
- Lowest abandonment of all scenarios.
- Roughly the same number of acres developed as Trend even though there are significantly more people and jobs.

Inputs Summary:

+ 875,200 residents (0.8% annual growth rate)

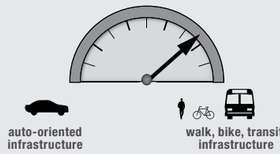
+ 501,000 jobs (1% annual growth rate)

+ 205,600 new acres of parks and conservation land

POPULATION 2040: 4,696,400 RESIDENTS

EMPLOYMENT 2040: 2,232,700 JOBS

Transportation Investment



Investment in Communities

Land Development

Community Character

Outputs Summary:

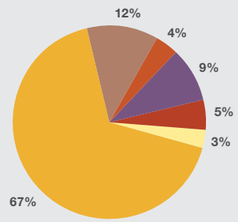
+ 459,000 new homes built

+ 2,400 new abandoned homes

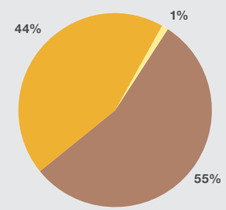
+ Commuter Rail—157 new miles
Bus Rapid Transit—34 new miles
Express Bus—245 new miles

New Development Mix (acres)

80,300 acres developed total

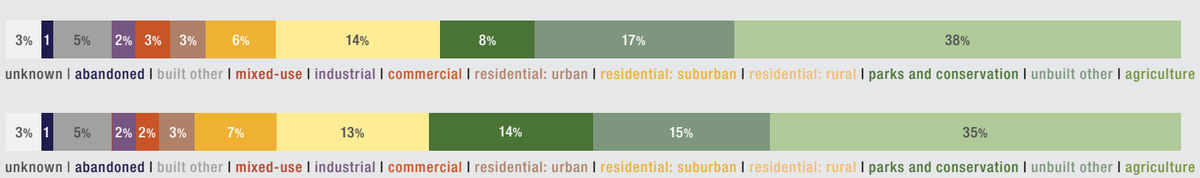


New Housing Units



Commercial
Industrial
Mixed Use
Residential: Urban or Multifamily
Residential: Suburban
Residential: Rural

Land Use



SCENARIO SUMMARY

	POPULATION 2040	EMPLOYMENT 2040	POPULATION GROWTH 2010–2040	EMPLOYMENT GROWTH 2010–2040	NEW PARKS AND CONSERVATION LAND	NEW HOMES (# AND TYPE)	NEW ABANDONED HOMES	ACRES OF OUTWARD MIGRATION	LANE MILES OF NEW ROADS
TREND	3,914,600 residents	1,839,800 jobs	93,430 new residents	108,100 new jobs	121,500 new acres of parks and conserved land	276,800 new housing units (26% / 25% / 49%)	174,900 new abandoned housing units	23,400 acres consumed by outward migration	3,100 lane miles of new roads
GROW THE SAME	4,696,400	2,232,700	875,000	501,000	121,500	546,000 (24% / 26% / 50%)	93,100	48,400	6,000
DO THINGS DIFFERENTLY	3,914,600	1,839,800	93,430	108,100	288,500	120,000 (5% / 29% / 66%)	19,800	4,100	700
GROW DIFFERENTLY	4,696,400	2,232,700	875,000	501,000	205,600	459,000 (1% / 44% / 55%)	2,400	29,800	2,400

Types of Housing
- Urban Home or Multifamily Apartment
- Suburban Home
- Rural Home

ACRES OF PRIME AGRICULTURAL LAND LOST	ACRES OF LAND OF HIGH ECOLOGICAL VALUE LOST	ACRES OF NEW IMPERVIOUS COVER	DAILY VEHICLE MILES TRAVELED PER HOUSEHOLD	% OF JOBS NEAR TRANSIT	% OF RESIDENTS NEAR TRANSIT	COST TO REVENUE RATIO
31,100 acres of prime farmland lost	6,300 acres of high ecological land lost	28,300 acres of new impervious surface	23.7 Vehicle miles traveled a day per household	41% of jobs near transit	25% of residents near transit	-33.7% region overall cost to revenue ratio
60,000	12,000	55,100	25.4	39%	25%	
4,700	500	8,100	22.5	50%	35%	+ 10.4%
18,800	3,300	30,600	22.0	53%	34%	+ 13.8%

SCENARIOS: LESSONS LEARNED

Small changes can have big impacts: The new development highlighted on the land use change maps may just look like small specks, but what looks small in terms of overall development has significant impacts on local communities, their budgets, the environment, and quality of life. The scenario model outputs show major differences between the scenarios.

Northeast Ohio cannot grow its way out of its challenges: The type of growth matters. More of the same kind of growth (Grow the Same Scenario) has significant negative impacts on many of the issues residents have told us they care about. Grow the Same results in negative environmental impacts, increased traffic and transportation costs, the disappearance of rural communities, loss of farmland, and increased local taxes to support the growing construction and maintenance costs of infrastructure. Furthermore, growth alone does not solve the abandonment problem (although it does cut abandonment in half relative to the Trend Scenario). Do Things Differently is more effective at reducing abandonment than Grow the Same, demonstrating the higher impact that changing policies and funding priorities have when compared with pure growth. Not only is growing our way out expensive, in some places it is not possible with current development trends. Cuyahoga County, for instance, does not have enough land capacity to accommodate growth in Grow the Same based on trend styles of development. This means that if growth continues to occur in the outer-ring suburbs of Cuyahoga County, it will eventually spill into the prime agricultural land of Geagua, Lake, Lorain, and Medina counties.

Rural and lightly developed areas may face difficult decisions in a high growth scenario: In terms of fiscal impacts, the counties that fared the worst in high growth scenarios are those that currently spend the least on local services. This suggests that some places across the region will soon face a major tipping point where they will have to decide whether they want to collect more taxes for the same level of service or actively manage growth to maintain their rural character.

Northeast Ohio can significantly improve performance, even without experiencing major growth: Several of the scenario model outputs summarized previously had better outcomes in Do Things Differently than in Grow the Same, particularly as related to the environment.

The region is over-retailed: Retail targets were easily accommodated in each scenario and it became apparent very quickly that the region has a surplus of land zoned for retail development. Outcomes of this surplus capacity include predatory development practices that move retail activity to even newer centers leaving behind vacant malls and retail grayfields.

SCENARIO THEMES AND PUBLIC FEEDBACK

The different scenarios show that Northeast Ohio has multiple choices to make about its future, and its decisions will significantly impact quality of life, fiscal health, neighborhood character, and environmental quality over the long-run.

A series of Open Houses held across the region gave participants the opportunity to express their feedback about these key choices. Boards organized around a series of themes presented major questions facing the region and explained potential outcomes of each option. The section presents the alternative scenarios through these themes:

- Theme 1: Outward Mitigation
- Theme 2: Place Types and Community Character
- Theme 3: Transportation
- Theme 4: Open Space—Environment and Agriculture
- Theme 5: Fiscal Health
- Overall Impressions

COMMUNICATING THE SCENARIOS

10 public Open Houses held across the region provided opportunities to gather public feedback on the scenarios and the trade-offs they represented. Maps, tables, and interpretive graphics summarizing the four alternative scenarios were printed on boards and arranged in a series of stations:[1]

1. Welcome and Check-in: greeted participants to the open house and provided feedback materials
2. Introduction Boards: gave an introduction to the process and the NEOSCC organization.
3. Video: recapped the Trend Scenario and presented the basic framework of the alternative scenarios
4. Scenario Overview: described the scenario inputs and outputs
5. Theme Stations: summarized natural areas, transportation, outward migration, community character, and fiscal impacts across the scenarios
6. Scenario Summary: summarized differences between the four scenarios
7. ImagineMyNEO Station: gave participants the opportunity to play ImagineMyNEO using iPads that were set up at a table

Open House Room Layout

1 To see all the boards presented at the Open Houses, please visit http://vibrantneo.org.

Feedback opportunities were distributed throughout the room, including a final overall survey at the end. Questions were designed to elicit reactions and preferences in light of the scenario findings. The goal was not to ask the public to vote for their favorite scenario, but rather to learn which aspects of each scenario were preferred or disliked. Attendees were asked about their desired balance between:

- Inward verses outward development
- Auto-oriented investment verses alternative transportation options
- Allowing development anywhere verses protecting environmentally sensitive areas
- A variety of different built neighborhood characteristics

Snapshots of the Open Houses

NEOSCC

NEOSCC

Fregonese Associates

Fregonese Associates

Fregonese Associates

THEME 1: OUTWARD MIGRATION

A significant difference between the scenarios is the location of new development. **Like the Trend Scenario, Grow the Same continues the region's current pattern of putting new development on previously undeveloped farmland or in natural areas at the edges of established communities. Grow Differently and Do Things Differently emphasize reinvestment and infill in established communities.** The overall magnitude of new development is greater in the growth scenarios (seen in the following maps as more yellows and oranges).

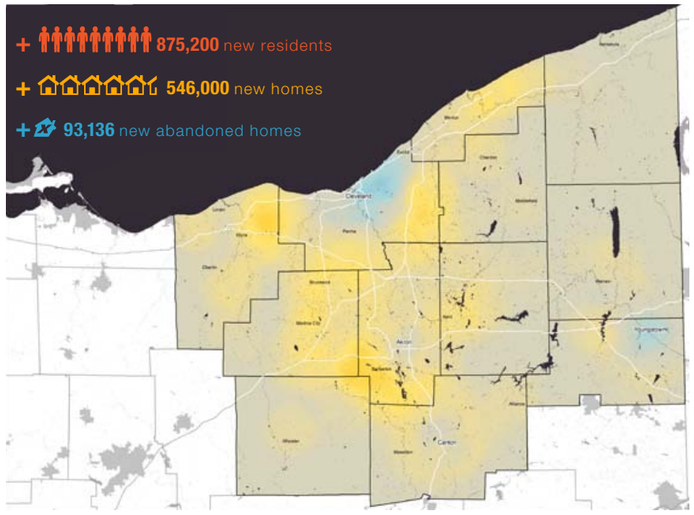
These differences lead to dramatically different outcomes. Abandonment varies significantly across the scenarios, from a high of 175,000 new abandoned units in Trend to a low of 2,400 abandoned homes in Grow Differently. **Higher growth alleviates abandonment, but a policy approach that emphasizes reinvestment reduces abandonment even more.**

POPULATION SHIFTS

Heat maps depict where people are moving to and from in the four scenarios. Blue areas are experiencing net abandonment; yellow and orange areas are growing with new households.

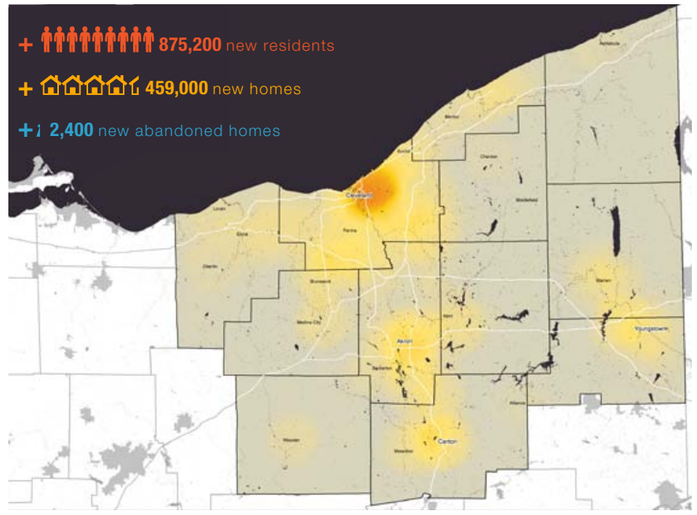
net change in housing density

Grow the Same



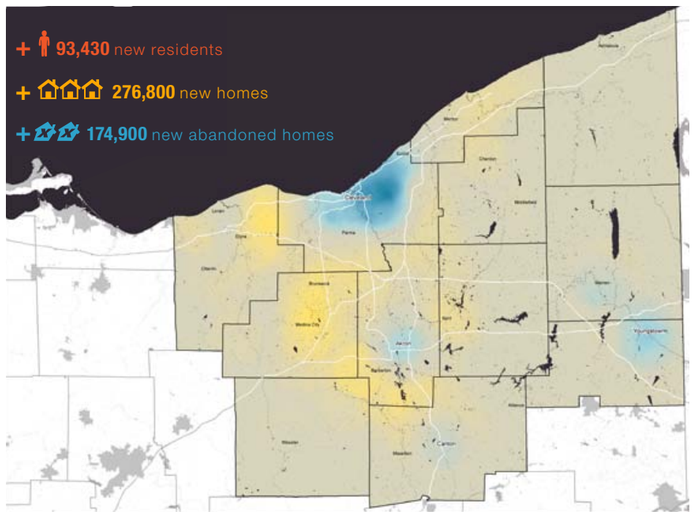
Grow the Same has the same emphasis on outward development as Trend, but higher growth in this scenario reduces the amount of abandonment in existing communities.

Grow Differently



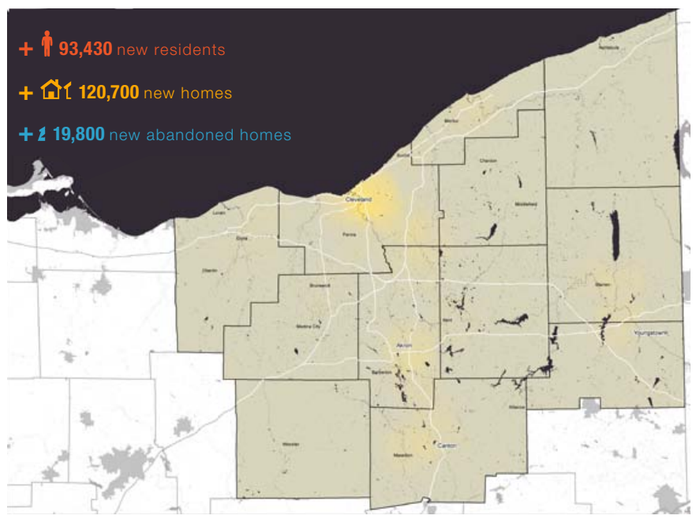
Grow Differently has the same increase in population and jobs as Grow the Same and the same focus on reinvestment as Do Things Differently. As a result, abandonment is the lowest.

Trend



Trend has a nearly stable population but sizable growth away from existing communities. As a result, abandonment is highest.

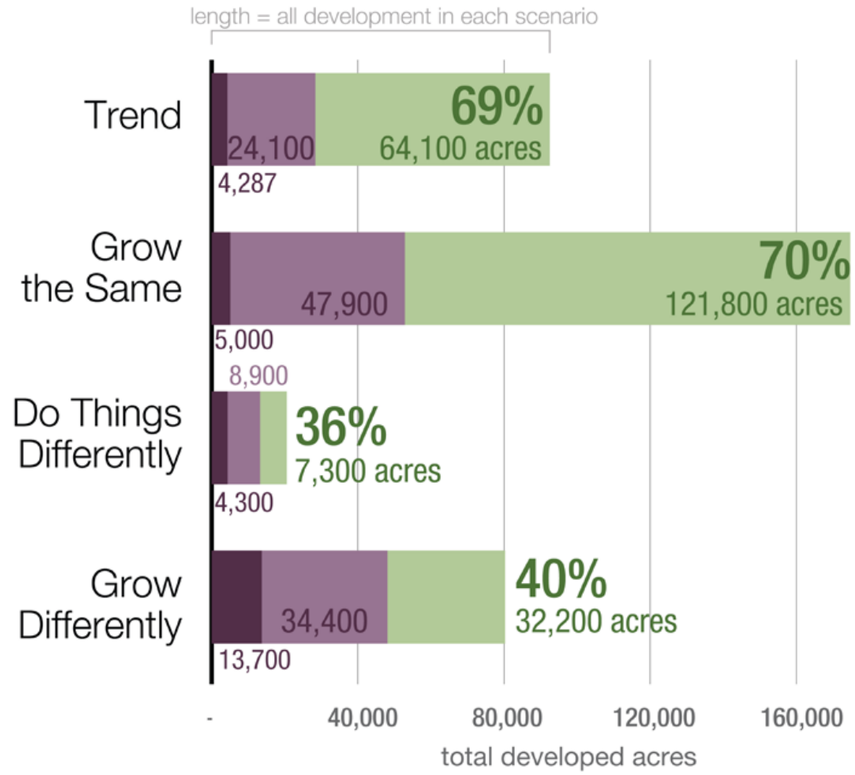
Do Things Differently



Do Things Differently focuses new development in and near existing areas. Abandonment is significantly lower than Trend even though there is no additional population growth because there are fewer "extra" housing units constructed.

A second key outcome is the fiscal impact of development. The Grow the Same Scenario includes significant new development outside of established communities and, as a result, has the greatest increase in infrastructure costs. The increases in capital, operating, and maintenance costs have the greatest impacts on counties experiencing the most growth. Do Things Differently and Grow Differently focus on reusing existing infrastructure, resulting in cost savings for communities. While new development does generate additional tax revenue, the dispersed development patterns found in the Trend and Grow the Same Scenarios generate less revenue on a per-acre basis than the mixed-use and compact development patterns found in the Do Things Differently and Grow Differently scenarios. Outward migration is also a key driver of the abandonment in legacy cities, 1st ring suburbs, and established cities and towns that creates significant financial hardships for these communities.

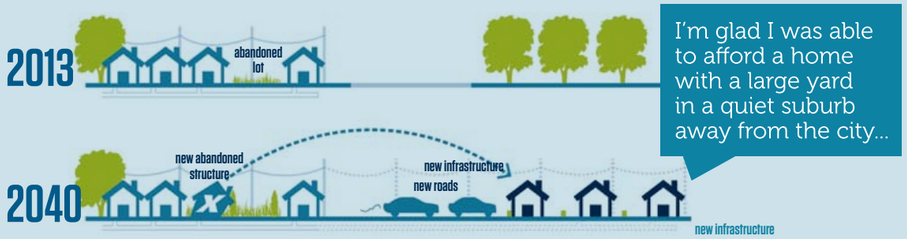
Infill, Redevelopment, and Leapfrog Development



The majority of new development in Trend/Grow the Same is more than 500' away from existing development. In contrast, the majority of new development in Do Things Differently/Grow Differently is redevelopment or adjacent to existing development.

what if we

BUILD OUTWARD?



Outward = New development away from already established communities

- **Creates homes with large lots**: Outward development creates a supply of suburban and rural houses with large lots
- **Provides opportunities for non-urban lifestyle**: The new communities created offer opportunities for a "fresh start" away from the denser urban areas
- **Requires investment in new infrastructure**: New construction outside of established communities requires building and maintaining new infrastructure—roads, sewers, and utilities
- **Presents abandonment risk**: As residents leave old communities for new ones, if no one moves in to take their place, vacancy and abandonment occur
- **Impacts rural character and agriculture land**: Outward migration puts increased development pressures on agricultural land and environmentally sensitive areas

what if we

BUILD INWARD?

Inward = New development in already established communities

- **Reuses existing infrastructure:** Inward growth can take advantage of existing utilities, sewers, and transportation networks to save tax payers money
- **Reverses abandonment:** New construction and rehabs within established communities reverses abandonment and stabilizes neighborhoods
- **Protects rural land:** Farms, open space, and small towns see less development pressure if development is focused in existing, more urban communities
- **Increases populations in urban areas:** Land values rise with inward growth, making it more expensive to afford large lots and yards. There would be more people living near each other.

Outward migration requires new infrastructure and results in abandonment.
Inward investment reuses existing infrastructure and reduces abandonment.

SHOULD WE DEVELOP INWARD OR OUTWARD? PUBLIC INPUT

At the Open Houses, participants were asked to what extent future development should be outward-focused versus inward-focused. The scenarios show some of the impacts and trade-offs of this decision. Another board presented the pros and cons of each viewpoint. Attendees were asked to sketch on a dial to show how they think the region should develop.

The results were overwhelmingly in favor of an approach that prioritizes inward development. The average response was that inward development should be slightly more of a priority than it had been in Do Things Differently and Grow Differently. Summaries of feedback are shown below. For more details about the feedback, visit http://vibrantneo.org/.

How to read the dials:

The dials represent a spectrum of positions on a certain topic. The ends of the dials represent the extremes. The dials on this page deal with the topic of building outward versus inward. An arrow on the left side means that all new construction happens on previously undeveloped land, while an arrow on the right side means that all new construction happens within areas that are currently developed. Dials on later pages focus on different topics.

The dashed lines on the dials show where the four scenarios fall along the spectrum of positions. Trend and Grow the Same share the same position, since they have the same policies, and likewise for Do Things Differently and Grow Differently. Open house attendees were asked to draw their own arrows on the cards to reflect their personal view about the topic. The heavy arrow shows the average regional response. In this case, the average attendee preferred building inward at a slightly higher level than Do Things Differently and Grow Differently, and at a much higher level than Trend and Grow the Same. The pie slice around the thick arrow shows the range of average responses by location.

Sample Comments

"Building outward and/or inward should be up to the free marketplace"

"I think we can grow differently and build outward"

"Both are needed, but rebuilding our core needs to be done first"

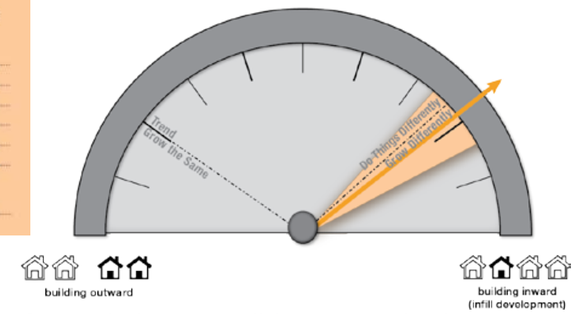
"People may think that a pro-urban perspective and pro-rural/agriculture perspective are different, but the same policies that are good for one are also good for the other and vice versa"

"Focus on what we have, don't spread outward"

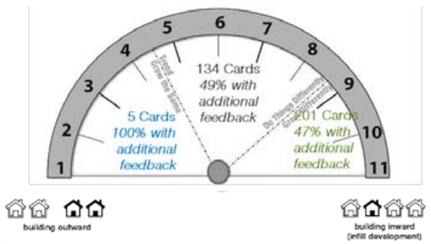
"Since Cleveland's infrastructure is built for over a million people, reusing existing infrastructure makes financial and environmental sense"

Open House Dials: Outward Versus Inward Community Investment[2]

Community investment feedback card



Community investment dial: average regional response



Community investment dial responses by segment

2 370 total cards were submitted

THEME 2: PLACE TYPES AND COMMUNITY CHARACTER

Development styles have shifted in the region away from smaller lot, compact, mixed-use urban neighborhoods to more dispersed, auto-oriented subdivisions, separated from office parks and shopping centers. The character of communities has a significant impact on quality of life for residents. The scenarios demonstrate a range of alternatives for how future development could look. Should the predominant style of development continue the dispersed pattern of recent decades (like Trend and Grow the Same)? Or should new development include a higher percentage of compact options and focus on reinvesting in established communities (like Do Things Differently and Grow Differently)?

Place types and community character vary across the four scenarios. **In the Trend and Grow the Same scenarios, dispersed development predominates. The Grow Differently and Do Things Differently scenarios have a higher proportion of compact development; the balance of Development Types shifts among the scenarios.**

The Community Character and Place Types station at the Open Houses featured two ways to provide input—one focused on Place Types, and the other focused on community descriptions.

Gathering feedback on these topics enabled the Project Team to understand questions like:

- If everyone lived in their ideal community, how much of the region would be compact versus dispersed? What percentages of neighborhoods are preferred to be walkable and bikeable?
- How does this compare with the region today or the alternative scenarios?
- What kinds of new development are needed to get the region to the Vision?

PLACE TYPE PREFERENCES: PUBLIC INPUT

The Project Team categorized the communities of Northeast Ohio according to six Place Types:[3]

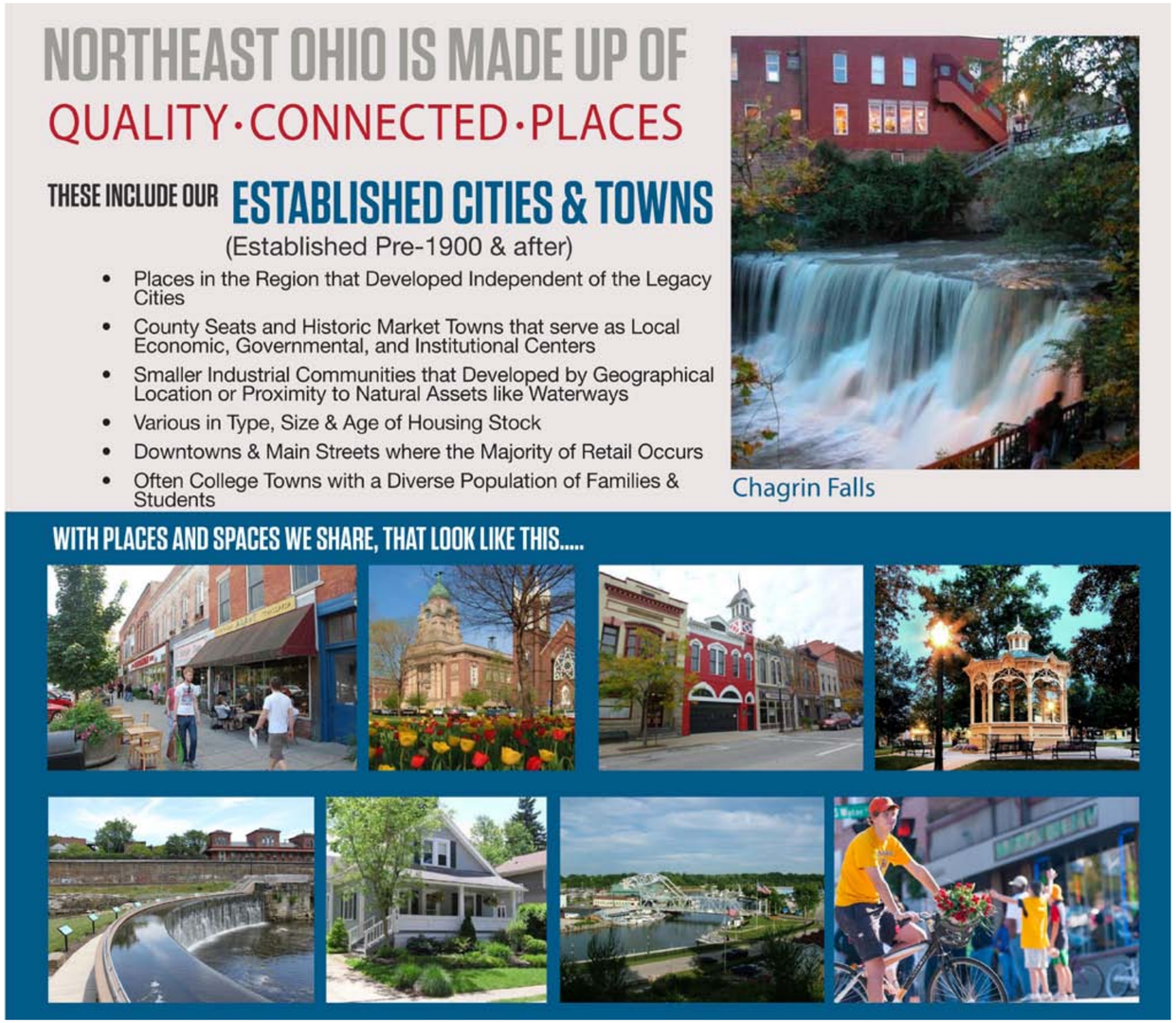
- Legacy Cities
- 1st Ring Suburbs
- 2nd Ring Suburbs
- Outer Ring Suburbs
- Established Cities and Towns
- Rural Townships

These Place Types let us see how similar communities face in the scenarios and provide a framework for implementation.

Boards presentated images of the six Place Types and asked participants to identify which Place Types they use, value, and enjoy, and which Place Types the region should invest in. **The top three Place Types in which the participating public felt the region should invest were legacy cities, 1st ring suburbs, and established cities and towns.** These preferences are consistent with desires for investing in established communities expressed by participants during the Trend Scenario Workshops.

3 For more information about these categories, see the Technical Appendix online.

Example of a Place Type Board[4]



4 A full set of the Place Type Boards (and all boards from the Open Houses) is available online at http://vibrantneo.org/.

Place Types with Highest Public Investment Priority[5]

Open House participants expressed a strong desire for investment in legacy cities, 1st ring suburbs, and established cities and towns.

Legacy Cities (Pre 1910) *City Architecture*

1st Ring Suburbs (1910–1959) *City Architecture*

2nd Ring Suburbs (1950–1969) *City Architecture*

Outer Ring Suburbs (1970–present)
City Architecture

Established Cities and Towns (varies)
Sasaki Associates

Rural Townships (varies)
http://www.flickr.com/photos/kenlund/7984528214/

5 There was a significant drop-off from the top 3 to the next highest selection, which was Rural Townships with 59%. A complete set of public feedback is available online at http://vibrantneo.org/

what if we develop in a

DISPERSED PATTERN?

- Homes tend to be single-family with large lots
- Destinations have ample parking
- Separation of land uses: retail, commercial, and housing are all located away from each other
- It is necessary to own a car to get around
- Homes are often far away from work and shopping, which sometimes causes long commutes
- A spreadout development pattern cannot support public transportation
- The separation of uses, larger lots, wider roads, and large parking lots of dispersed growth require a greater number of acres per household than compact development.
- From a public perspective, infrastructure costs are high and per-acre tax revenues are low.

what if we develop in a

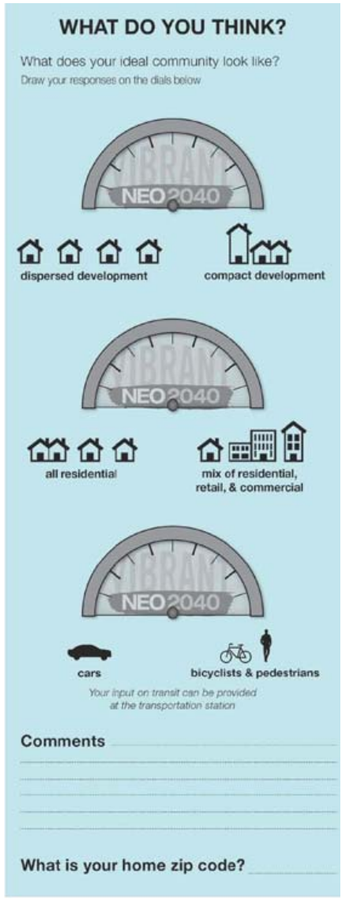
COMPACT PATTERN?

- Destinations are nearby, with shopping and work potentially within walking or biking distance
- Mix of land uses: retail, commercial, and residential within the same neighborhood
- Mix of housing: single family homes, townhouses, and apartment buildings
- Compact development patterns provides the density necessary to support public transportation
- From a public perspective, infrastructure costs are lower and per-acre tax revenues are higher.
- The same amount of money will buy less land in a compact vs dispersed community

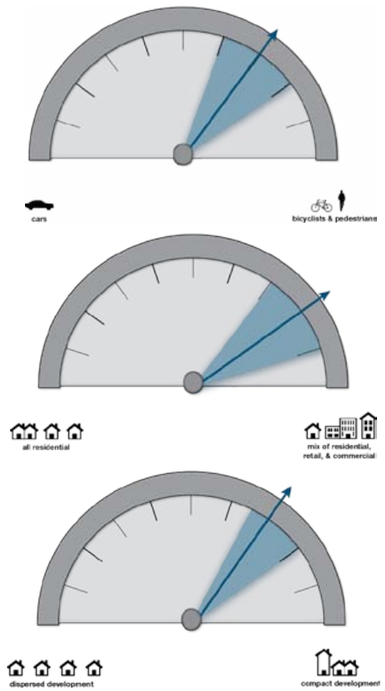
VIBRANT NEO 2040

Dispersed development offers more space, separates land uses, and focuses on the car; compact development is closer together, has a greater mix land uses and is more conducive to walking, biking, or taking public transportation.

Open House Dials: Community Preferences[6]



Community preferences feedback card



Community preferences dials: average regional responses

WHAT IS YOUR IDEAL COMMUNITY? PUBLIC INPUT:

Using another set of feedback dials, the Project Team asked attendees to describe three aspects of their ideal community along the following spectra:

- Separate uses versus mixed-use?
- Dispersed development versus compact development?
- Car-oriented versus walking and bicycling?

The results show overwhelming support for compact, mixed-use communities that are designed to encourage walking and bicycling. These results align with the place type results that showed strongest interest in investing in legacy cities, 1st ring suburbs, and established cities and towns. These kinds of places are most like the ideal compact communities described by participants in their sketches and comments.

Sample Comments

"My ideal community is where I live. If we all live where we want to then together we will have the NEO that we want."

"The reason I picked the middle road is that change comes slowly with people. Though I am for the different results we must change slowly!"

"Remake our idea of cities. 20th Century model does not work well."

"Intersperse the quiet, leafy communities with much improved mixed-use communities. Add lots more green infrastructure and open space into run-down commercial zones."

"It's all a balancing act."

"Vibrant urban. Livable, walkable, healthy community with naturalized green space, permaculture, urban food forests, artists!"

"Community, community, community. We need to bring people back together."

"City life is fun, but I will eventually want my own space/house. Walkability is critical."

"Think eco-friendly and density."

"Walkable communities are healthier."

"Is this a new community? Or are we looking to retrofit our current communities? The reality is that there are so many communities that were not designed for what we all think is ideal."

6 378 total cards were submitted

THEME 3: TRANSPORTATION

The scenarios test two different transportation approaches: one that emphasizes auto-oriented investment, and a second that emphasizes transportation choice, balancing cars with walkability and public transportation. These approaches affect more than just the ways that people move around: transportation is a major factor that influences and responds to the look and feel of a place, its land uses, and the kinds of development that take place.

The strategy behind the transportation network in the Trend and Grow the Same Scenarios is a continuation of current transit service and an investment in new roads, road expansions, and new interchanges to service the development at the edges of today's urbanized area. These investment priorities are consistent with the dispersed, auto-oriented development found in the Trend and Grow the Same scenarios. Prioritizing road infrastructure and dispersed development has the impact of increasing car reliance. Without density, transit service is not viable in new neighborhoods. Destinations generally become more spread apart. In these scenarios, residents spend more time in their cars getting between destinations.

The Do Things Differently and Grow Differently Scenarios represent significant additional investment in public transportation and pedestrian and bicycle infrastructure. Commuter rail connects communities along Lake Erie and south from Cleveland down to Canton. Express bus and bus rapid transit connect many of the smaller communities around the Cleveland, Akron, and Canton metro areas and a commuter bus line extends from Akron to Youngstown and Warren. These routes connect current job and population centers and serve as anchors for future compact, transit oriented development in the Do Things Differently and Grow Differently scenarios. In these scenarios, a greater percentage of homes and jobs are within a 5 or 10 minute walk of frequent public transit service.[7] This gives more residents the option to get around the region if they cannot or choose not to drive for some of their trips.

The emphasis on compact development in and near established communities and job centers means that destinations are generally closer together. In compact, mixed-use neighborhoods, residents can walk or bicycle to nearby restaurants and shops. In addition to the expanded public transit options, developing additional greenway links will create a connected regional greenway network (see the next section, Theme 4: Open Space, for a network map). These greenways provide trail access for bicyclists and pedestrians between neighborhoods, Lake Erie, and other parks, conservation areas, and public open spaces.

PUBLIC TRANSIT ACCESS

	CURRENT CONDITIONS	TREND	GROW THE SAME	DO THINGS DIFFERENTLY	GROW DIFFERENTLY
Percent Population with frequent transit access	32.5%	25.5%	25.2%	35.1%	34.3%
Percent Jobs with frequent transit access	49.6%	40.8%	39.4%	50.0%	52.9%

Data Source: Sasaki Associates, Fregonese Associates, Nelson\Nygaard; current data from ODOT and region MPOs

Bikes and walking aren't just recreational; they can also be viable means of commuting.

Public transit is not the only alternative to commuting with a car. Bicycling and walking offer active options for getting to work. Currently, less than 3% of NEO residents commute by bicycle or on foot.[8] This number could grow significantly as expanded trails, bicycle lanes, and sidewalks improve safety for bicyclists and pedestrians. Walking and bicycling offers health benefits, reduces air pollution, and costs significantly less than driving.

Grow Differently and Do Things Differently help expand opportunities for bicyclists and pedestrians by increasing compact, mixed-use development (putting more homes and destinations within convenient walking or bicycling distance) and expanding the walking and bicycling trail network.

7 Includes bus routes with 15 minutes or less between buses; express bus stops; BRT stations; and commuter rail stations

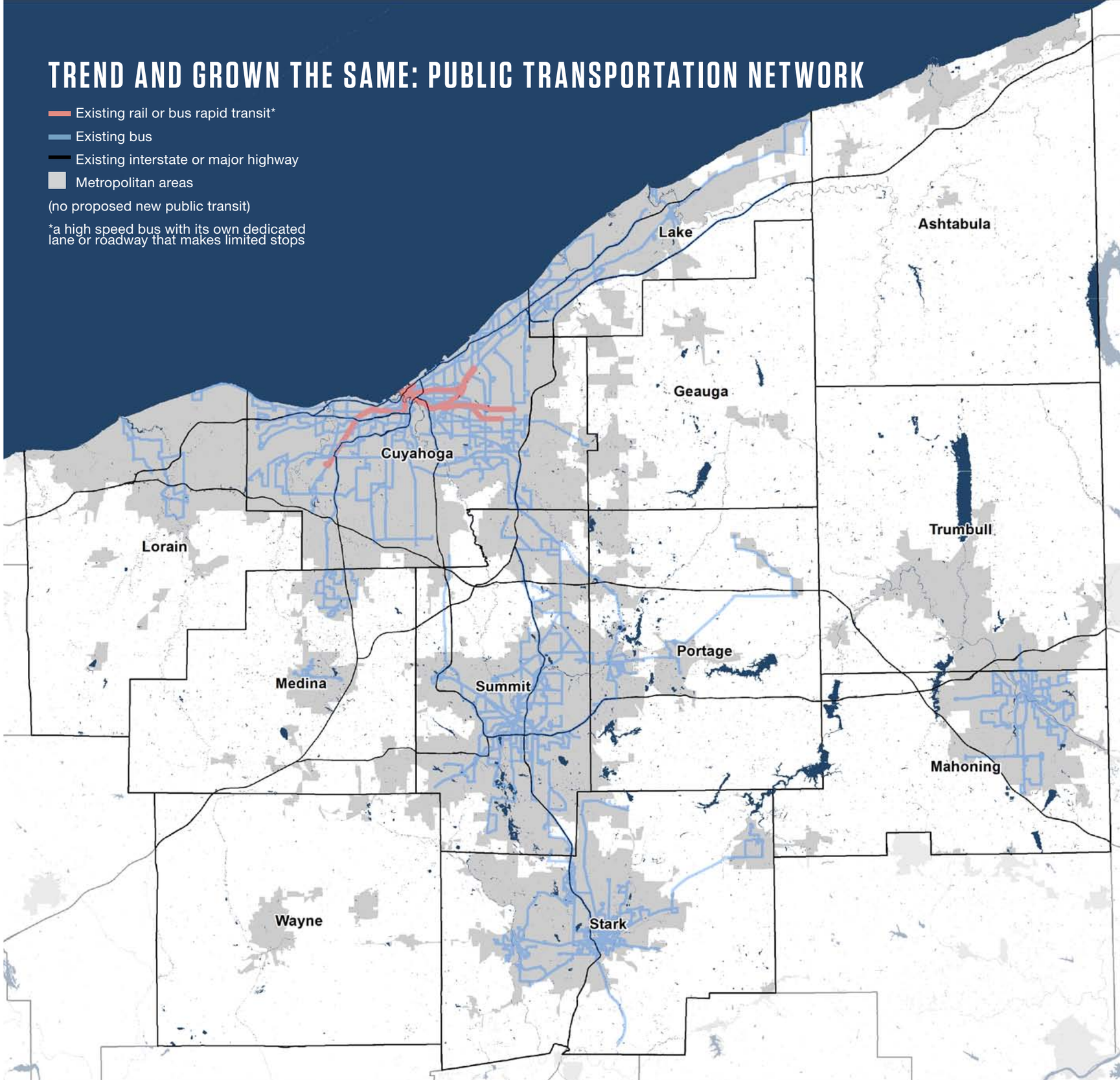
8 ACS 2011, 5 year estimates

TREND AND GROWN THE SAME: PUBLIC TRANSPORTATION NETWORK

- Existing rail or bus rapid transit*
- Existing bus
- Existing interstate or major highway
- Metropolitan areas

(no proposed new public transit)

*a high speed bus with its own dedicated lane or roadway that makes limited stops

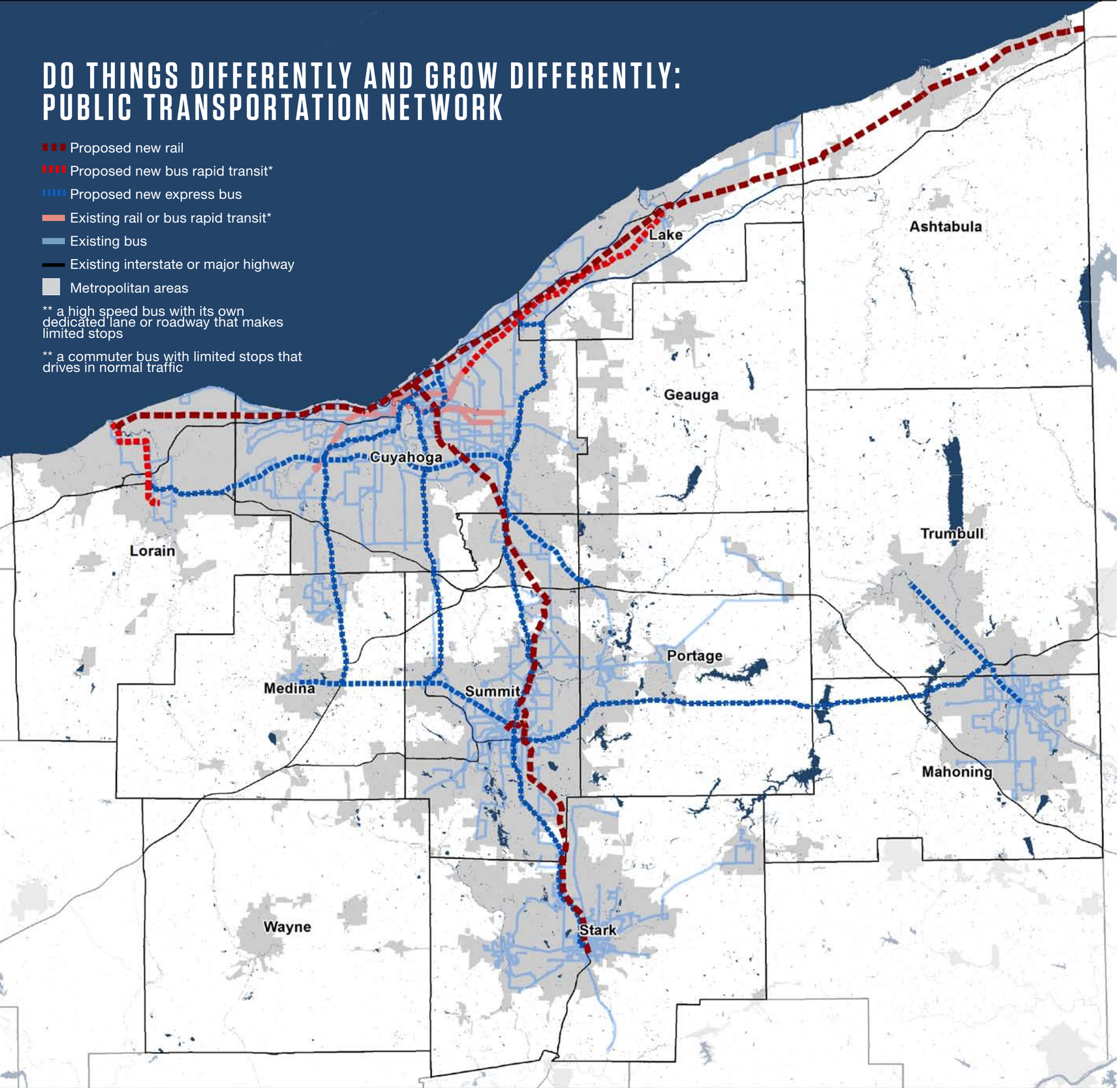


DO THINGS DIFFERENTLY AND GROW DIFFERENTLY: PUBLIC TRANSPORTATION NETWORK

- Proposed new rail
- Proposed new bus rapid transit*
- Proposed new express bus
- Existing rail or bus rapid transit*
- Existing bus
- Existing interstate or major highway
- Metropolitan areas

** a high speed bus with its own dedicated lane or roadway that makes limited stops

** a commuter bus with limited stops that drives in normal traffic



What are the outcomes of different development patterns and transportation networks from a household or regional perspective? While the differences in vehicle miles traveled (VMT) between the scenarios might seem minimal, in fact, to the average household it's actually quite substantial. The difference between Grow the Same (25.4) and Grow Differently (22.0) is 3.4 miles per household per day. Over a year, this translates to an additional 1,241 miles per household. According to USDOT, the average annual miles per vehicle is 12,334, so the way we grow translates into 10% of our annual driving. Reducing the amount of time in a car by 10% means that an individual has more spare time to do other things. Helping households save money, fewer miles each day on a car also can help extend the life of a car by reducing general wear and tear. Also, according to Consumer Reports, the average life expectancy of a new vehicle is around 8 years (96 months). For those whose new car fits this average, the difference in mileage would mean getting almost an extra year of use out of a new car.

From a regional perspective, these few extra miles by each household each day add up to a significant total across the region. More miles driven directly relates to the air emissions and quality of roads.

AVERAGE DAILY HOUSEHOLD VEHICLE MILES TRAVELED (VMT)

	TREND	GROW THE SAME	DO THINGS DIFFERENTLY	GROW DIFFERENTLY
Daily vehicle miles traveled per household	23.7	25.4	22.5	22.0
Total daily regional household vehicle miles traveled	39.1 mil	50.3 mil	37.1 mil	43.6 mil

Data source: Fregonese Associates

Public Transit Costs and Benefits: Cleveland HealthLine Case Study

Expanding public transit does require significant capital investment; however, the potential advantages of a well-planned project are often greater than the costs. Public transit benefits include:

- Connecting people and jobs
- Improving mobility for people of all ages
- Stimulating and focusing new development on sites near transit
- Creating and supporting jobs by providing a reliable alternative to driving
- Moving more people in the same amount of road space
- Improving air quality and reducing greenhouse gas emissions
- Reducing household transportation costs

Cleveland's HealthLine, a Bus Rapid Transit system between downtown Cleveland and University Circle, provides an example of capital costs compared with economic returns. The 9.38 miles long system includes 36 stations. Ridership has increased steadily since the system opened in 2008. 48.2 million passenger trips were taken in 2012, a 5% increase over 2011.

- Capital Costs: $200 million total ($168.4 million for the transit component and $31.6 million for non-transit improvements, including sidewalks, utilities, and public art)
- Economic Benefits: Since the HealthLine opened in 2008, the corridor has attracted $5.8 billion in investment ($3.3 billion for new construction and $2.5 billion for building rehabilitation), generated $62 million in local taxes, and created 13,000 jobs.

Cleveland HealthLine

Sasaki (background photo © Craig Kuhner, do not reuse without permission)

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RTA HealthLine Fact Sheet (http://www.rtahealthline.com/projectoverview.asp)

GCRTA

"Transit as Transformation: The Euclid Corridor in Cleveland" (http://ntl.bts.gov/lib/45000/45700/45740/Cleveland-euclidcorridor.pdf)

"Healthline Drives Growth in Cleveland" by Jason Hellendrung (http://urbanland.uli.org/Articles/2012/July/HellendrungHealthLine)

Sample Comments

"We already spend far too much on roads and far too little on transit. I would like a real choice when it comes to living without a car."

"Transit infrastructure is critical to economic development. Not everyone can afford a car. Most people have to work."

"We need all types of transportation."

"Our auto-oriented infrastructure is deeply engrained in NEO. That won't change quickly. Any growth we have requires upgrades to our abysmal roads/bridges - not necessarily new miles but "new" (revamped) miles."

"I like the idea of getting somewhere on my own."

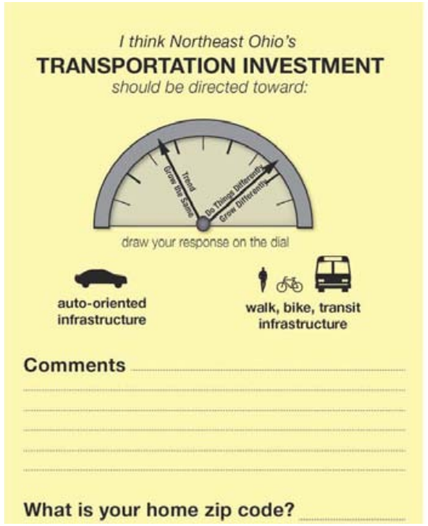
"Put the $ in - Urban: bus, Rural: Car"

HOW SHOULD THE REGION INVEST IN TRANSPORTATION IN THE FUTURE? PUBLIC INPUT:

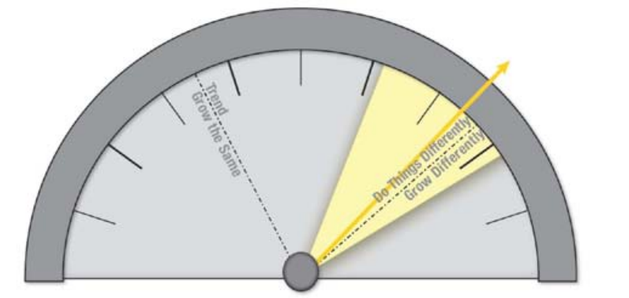
Should the region continue to prioritize auto-oriented infrastructure, or should it expand transportation options for multiple modes? We asked participants at the Open Houses these questions. Participants were asked to sketch on a dial to show their transportation investment preference: more auto-oriented focus versus multiple modes of transportation including walking, bicycling, and public transit. The results overall tended toward expanding transportation options to include alternative modes, but the comments were nuanced.

Some participants felt that public transit may not be appropriate everywhere in the region and noted that rural areas would be less likely to have frequent transit service. Many comments emphasized the importance of distinguishing between investments needed to maintain existing road infrastructure and those needed to add new road infrastructure. Comments showed strong support for maintaining existing roads (and bridges) and less support for roadway infrastructure expansion. **Comments reflected the participating public's desires for a balanced approach to transportation that expands options for public transit, walking, and bicycling while maintaining existing roadway infrastructure**.

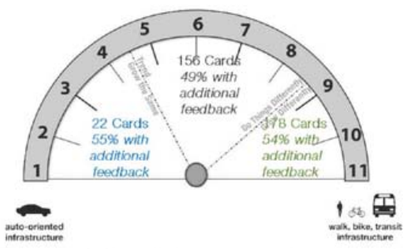
Open House Dials: Transportation Choice[9]



Transportation feedback card



Transportation dial: average regional response



Transportation dial responses by segment

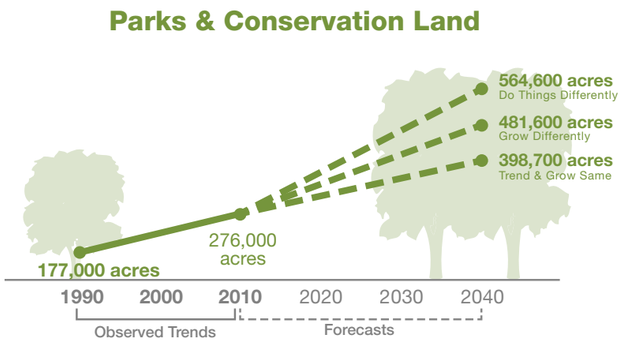
9 386 total cards were submitted

THEME 4: OPEN SPACE— ENVIRONMENT AND AGRICULTURE

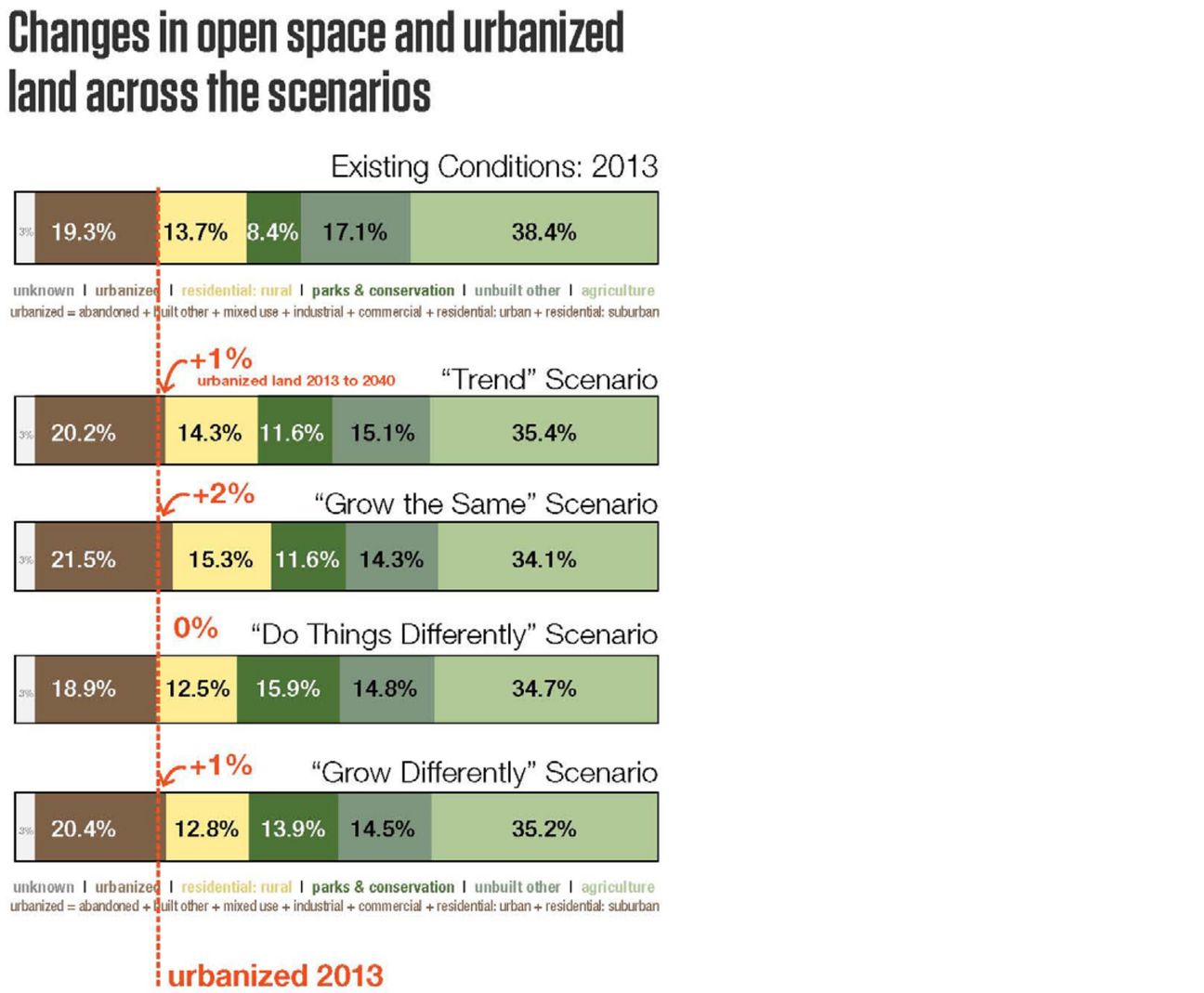
Scenarios resulted in land being conserved but also land being developed. As a result of the efforts of groups like Western Reserve Land Conservancy, Trust for Public Land, the American Farmland Trust and the Nature Conservancy, land conservation has been increasing in the region. At the same time, development continues to adversely impact rural and agricultural landscapes that are valued by Northeast Ohio residents. Natural areas conservation and environmental impacts from development are factors that vary across the scenarios.

All scenarios see significant increases in conservation relative to today. Currently 7–8% of the region is conserved; in the scenarios, by 2040, the amount of the region conserved varies from 10% (Trend and Grow the Same) to 15% (Do Things Differently).

The quantity of new urbanized land also varies across the scenarios. Grow the Same, with its focus on outward development, results in roughly twice as many new urbanized acres as the Trend Scenario. Do Things Differently's focus on infill and reinvestment results in essentially no additional outward spread of urbanization.[10] Grow Differently has the same population increase as Grow the Same, but it results in roughly half as many new urbanized acres as Grow the Same.



10 The slight dip in urbanized land of Do Things Differently relative to current conditions is a result of conservation that includes some abandoned land. This conservation results in a reclassification of previously urbanized land into "Parks and Conservation."



Developing an additional 1% of the region may not seem like a big deal, but in a 12 county region, 1% is a lot of land (38,400 acres). 1% is a little larger than Cuyahoga Valley National Park (33,000 acres).

EXPANDED CONSERVATION, PARKS, AND GREENWAY NETWORKS

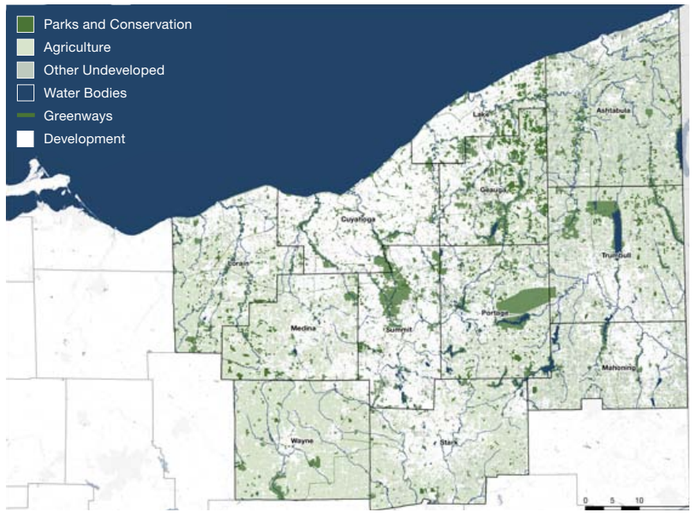
The additional funding and the political will assumed in Do Things Differently and Grow Differently enable a more holistic approach to conservation than Trend and Grow the Same. This approach prioritizes:

- River and stream corridors and other water bodies
- Large patches of land that are suitable for protecting wildlife
- Linkages between existing parks and protected areas, especially between Lake Erie and areas further south

Do Things Differently and Grow Differently also have a significantly expanded greenway network, which includes trails for walking and bicycling. The greenway network is based in part upon sketches from the mapping exercise made during Trend Scenario Workshops. This network builds upon national, state, and regional trails and joins them into a connected system.

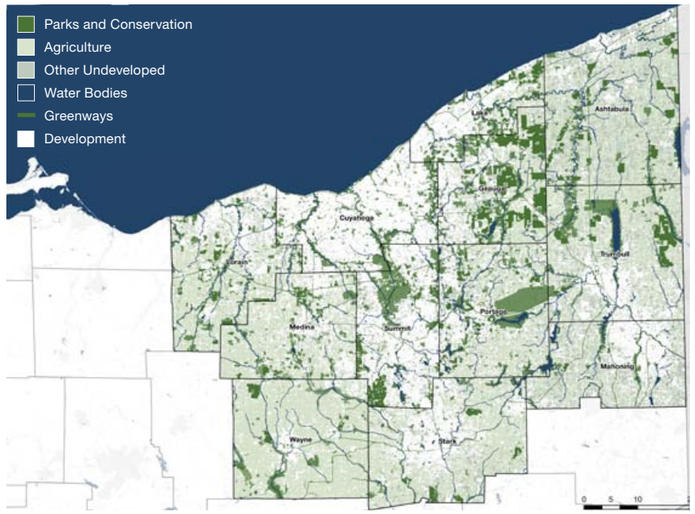
CONSERVATION, PARKS, AND GREENWAY NETWORKS IN THE SCENARIOS

Grow the Same



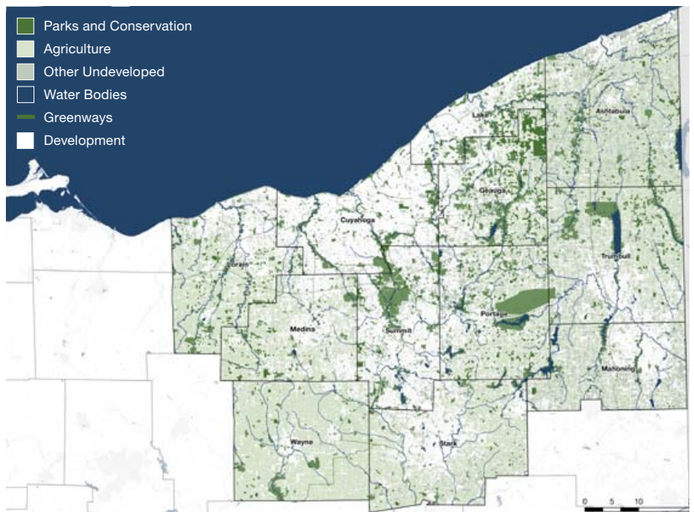
Grow the Same has the same emphasis on outward development as Trend, but higher growth in this scenario reduces the amount of abandonment in existing communities.

Grow Differently



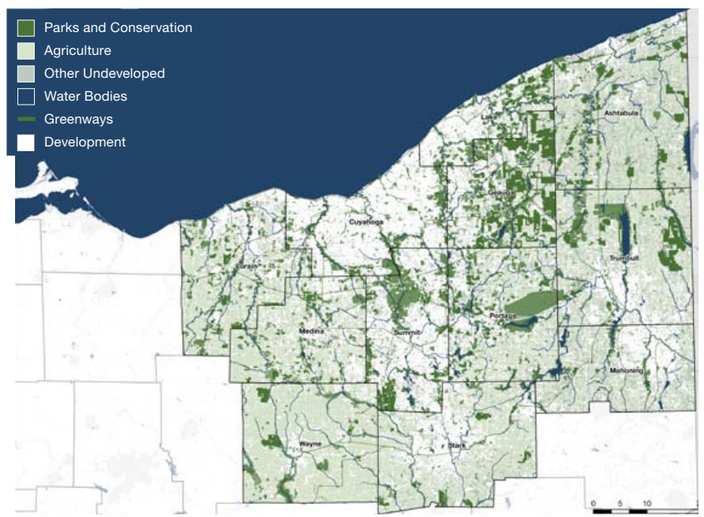
Grow Differently has the same increase in population and jobs as Grow the Same and the same focus on reinvestment as Do Things Differently. As a result, abandonment is the lowest.

Trend



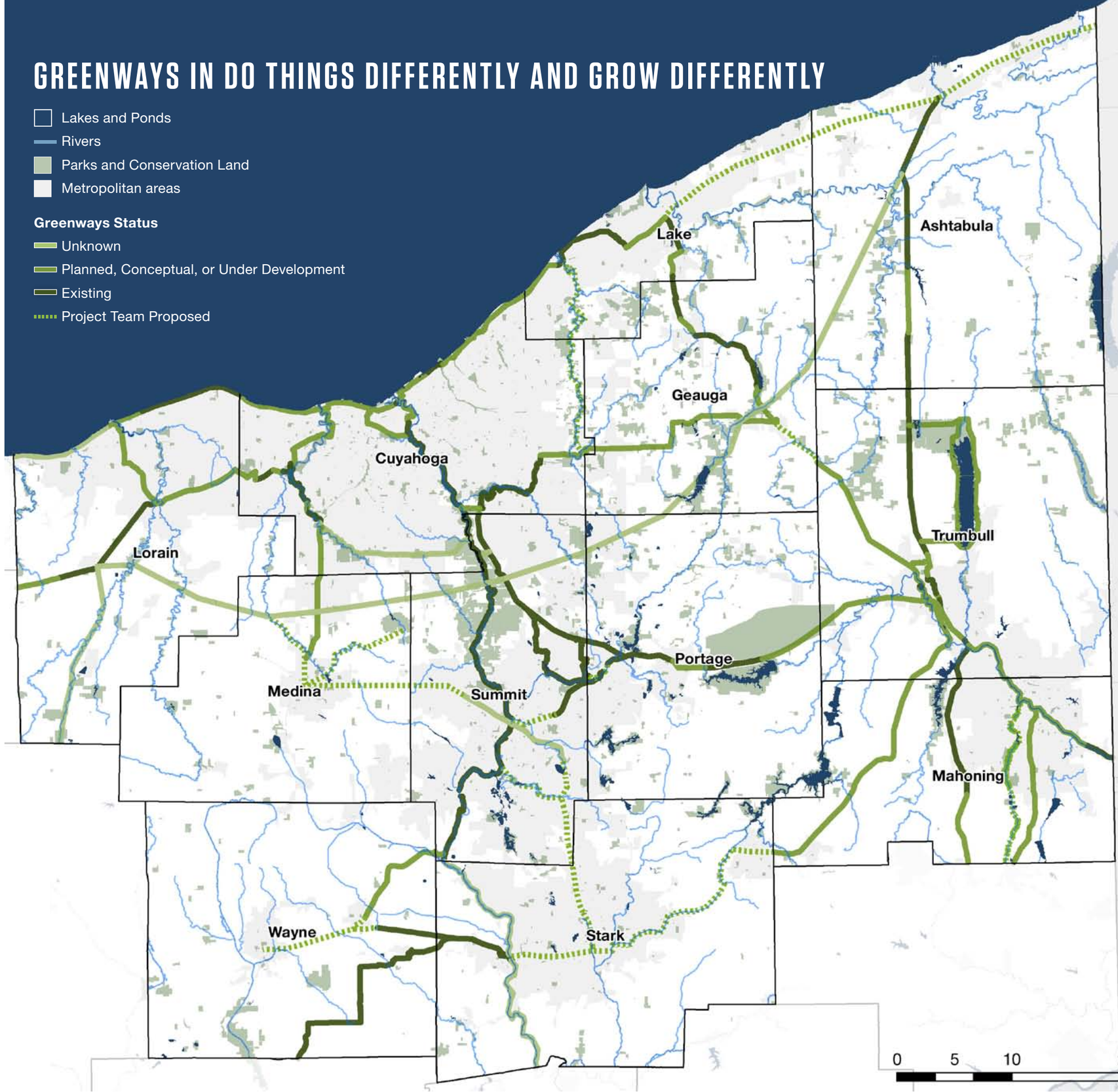
Trend has a nearly stable population but sizable growth away from existing communities. As a result, abandonment is highest.

Do Things Differently



Do Things Differently focuses new development in and near existing areas. Abandonment is significantly lower than "Trend" even though there is no additional population growth because there are fewer "extra" housing units constructed.

GREENWAYS IN DO THINGS DIFFERENTLY AND GROW DIFFERENTLY



ENVIRONMENTAL IMPACTS OF DEVELOPMENT

Each new house or other building constructed has some impact on the regional environment. Homes and their residents generate energy, produce greenhouse gases, and generate transportation trips. The quantity of these impacts depends on the type of construction. **On average, compact development has a lower environmental footprint per capita than dispersed development. The impact also increases as more homes, shops, restaurants, and office structures are built.**

The character and quantity of development varies across the four scenarios, and as a result, so does the environmental impact. The Grow the Same Scenario has the highest energy use and greenhouse gas emissions of the scenarios (highest amount of construction total and high percentage of dispersed development); the Do Things Differently Scenario has the least (lowest amount of new construction and high percentage of compact development).

The type and extent of development also affects water quality, wildlife, and farmland. When homes are built away from established communities, they typically replace farms or natural areas. This creates a shift in land cover, from a soft, absorptive landscape to one with a higher percentage of hard, impervious surfaces like roofs and driveways.[11] If the new house is built where a forest or meadow previously existed, the change also reduces the amount of habitat available for local wildlife and migrating species. As more development occurs in a somewhat scattered pattern, fragmentation and shrinking of habitat increase. These impacts are not just issues in rural areas. In developed areas as well, new construction changes land cover and can have some of these same impacts.

Beyond economic and environmental considerations, farmland and natural areas are valued by residents for their natural beauty and visual significance as part of the landscape. For this reason, development is also a cultural phenomenon. **Grow the Same, for instance, results in the loss of 60,000 acres of prime farmland in the region, nearly twice the size of Cuyahoga Valley National Park (33,000 acres).**

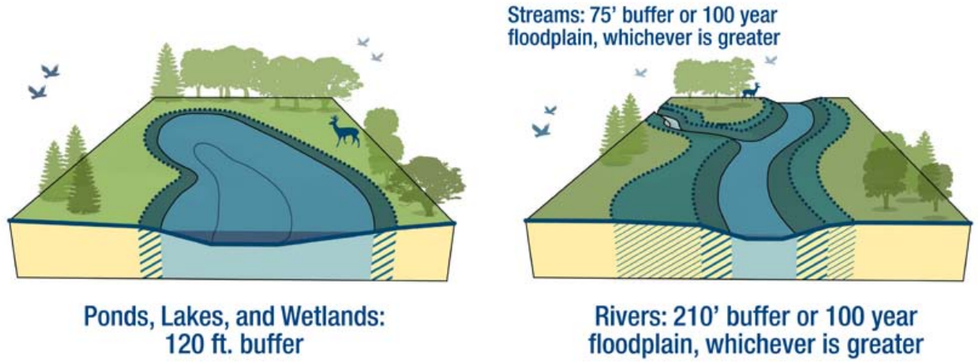
Scenario impacts on energy use and greenhouse gas emissions:

	"Trend"	"Grow the Same"	"Do Things Differently"	"Grow Differently"
Energy Use from new development (BTU / year)	29.3 billion (average 99,700 per housing unit and 16,000 per job annually)	62.8 bil (average 99,300 per housing unit and 17,200 per job annually)	11.0 bil (average 75,400 per housing unit and 17,700 per job annually)	46.8 bil (average 81,500 per housing unit and 18,700 per job annually)
Carbon Emissions from new development (Tons CO2 / year)	2.7 mil (average 9.3 per housing unit and 1.5 per job annually)	5.9 mil (average 9.3 per housing unit and 1.6 per job annually)	1.0 mil (average 7.0 per housing unit and 1.7 per job annually)	4.4 mil (average 7.6 per housing unit and 1.7 per job annually)

11 "Pervious" landscapes like meadows and forests act like sponges and absorb stormwater when it rains. In contrast, "impervious" surfaces like driveways and roads do not absorb stormwater. Increased stormwater runoff can cause erosion, increase the risk of flooding, and lower water quality.

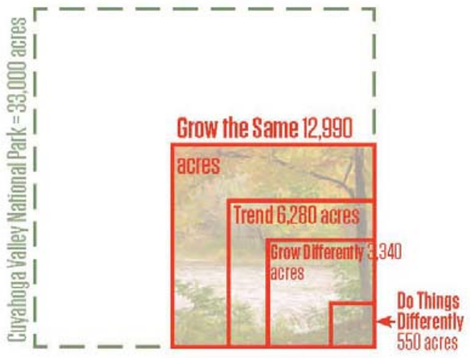
Waterbodies are impacted by new development. Waterfront development presents a competing set of tradeoffs. While sites adjacent to lakes, rivers, and streams are often favored for their scenic views, developing in them can expose structures and their occupants to flooding risk, impair water quality, and impact other ecological functions.[12] The scenarios provide alternative options for development in relation to the region's water bodies. Development regulations are unchanged from 2013 in the Trend and Grow the Same scenarios, but are tightened in sensitive areas immediately adjacent to water bodies in Do Things Differently and Grow Differently.

The Do Things Differently and Grow Differently scenarios do not allow development too close to waterbodies

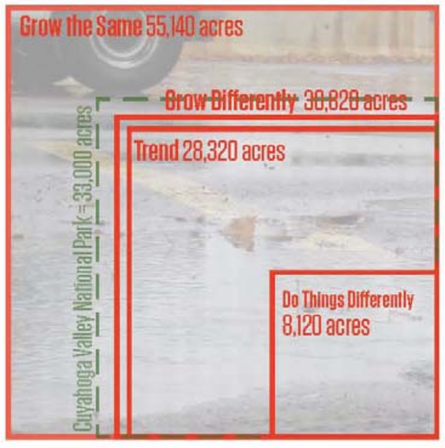


ENVIRONMENTAL AND LANDSCAPE IMPACTS IN THE SCENARIOS

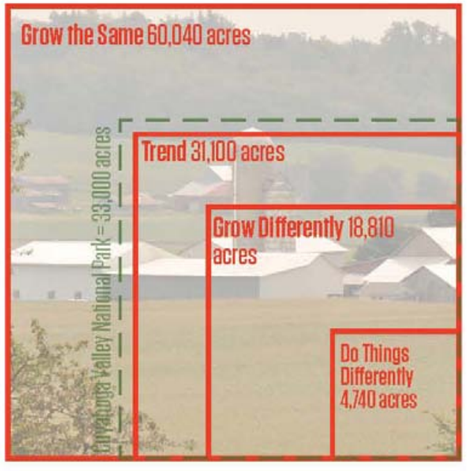
Loss of high ecological value land



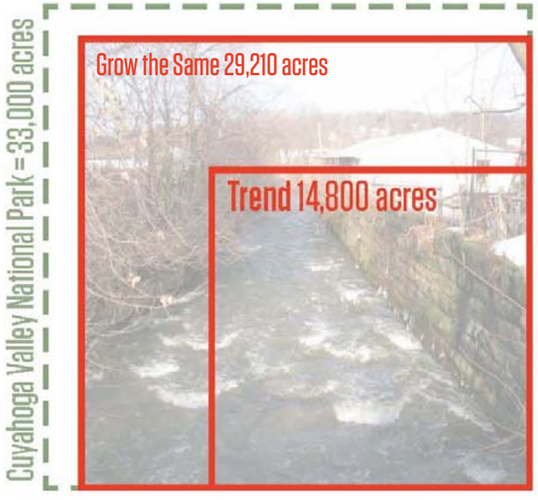
New impervious land cover



Loss of prime agricultural land



River corridors and water bodies impacted



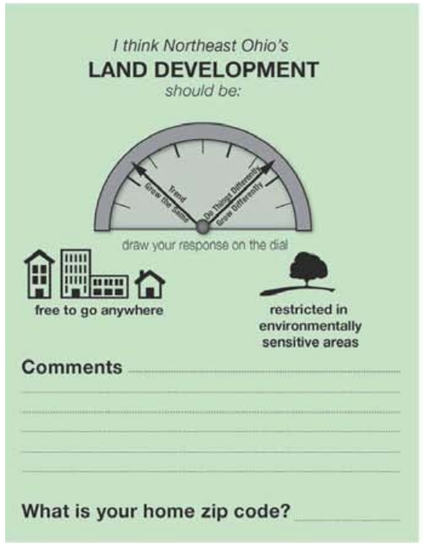
12 For example, the land and vegetation next to water bodies: 1) are an important part of the habitat (home area) for turtles and other animals; 2) filter excess nutrients like nitrogen and phosphorous from stormwater, which helps keeps water quality high and reduces algae; 3) trap erosion and keep sediment from reducing water clarity; and 4) shade waterbodies, which helps maintain water temperature.

SHOULD WE RELAX, STRENGTHEN, OR MAINTAIN CURRENT ENVIRONMENTAL REGULATIONS ON DEVELOPMENT? PUBLIC FEEDBACK

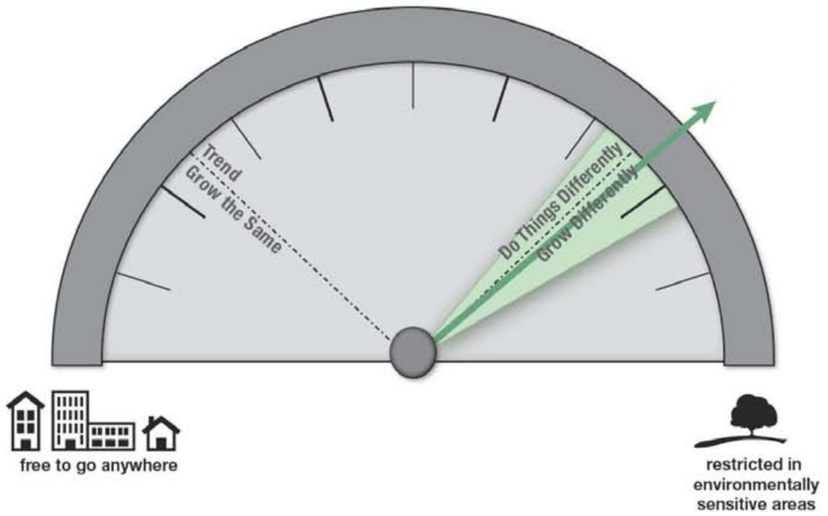
Discussions about development regulations are often contentious, so the Project Team sought public input to guide the eventual Recommendations in the Vision. Northeast Ohio has a sufficient supply of developable land that is already served by infrastructure to accommodate the regional growth anticipated in any of the four scenarios without impacting sensitive ecological land or high value farmland. We asked open house attendees how they felt about this question: "Should we relax or strengthen environmental regulations on development?" **The results at all Open Houses were overwhelmingly in favor of protecting sensitive environmental areas by limiting development in them.**

Comments by participants that voted in favor of no development regulations cited private property concerns and a view that regulation is not the best way to achieve environmental goals. Participants that voted in favor of a middle-approach felt that location is not the only factor that matters for environmental impacts and that there should be a balance. Participants who voted in favor of restricting development in environmentally sensitive areas gave a variety of reasons: to mitigate flooding and flood damage, improve environmental health, protect watersheds, and conserve open space and agricultural land. Citing the available land available in established communities, comments also touched on the link between inward/outward development and environmental resources.

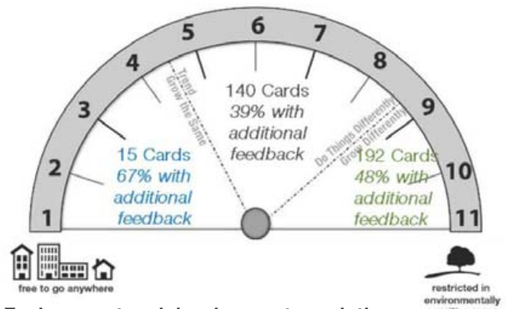
Open House Dials: Environmental Regulations[13]



Environment and development regulations feedback card



Environment and development regulations dial: average regional response



Environment and development regulations dial responses by segment

13 381 total cards were submitted

Sample Comments

"We have wasted prime agricultural lands. Ohio is blessed with fertile soils when compared to the rest of the world and they should be protected. We are also wasting our historic built environment which is an underused asset that can be leveraged for population growth."

"We have lots of land to use. We need to protect our environmentally sensitive areas!"

"I'm not a tree hugger but you have to take care of the environment and use good judgment."

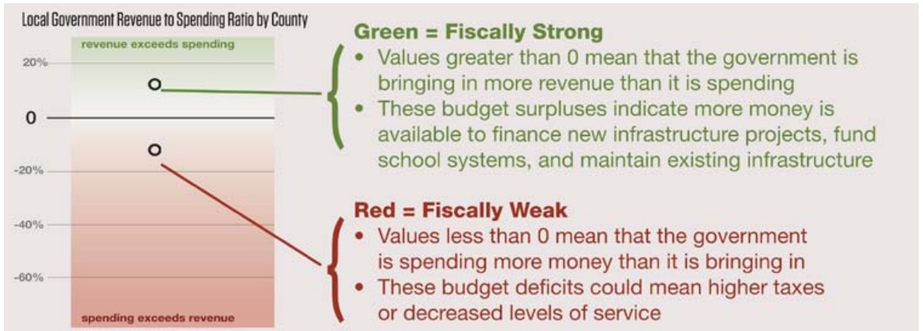
"Housing typology needs to change not necessarily where we build."

"Extreme government regulation is almost never the best way. Building first class educational, amenity, and infrastructure (and transit) in areas of desired growth is a better choice. Preserve liberty."

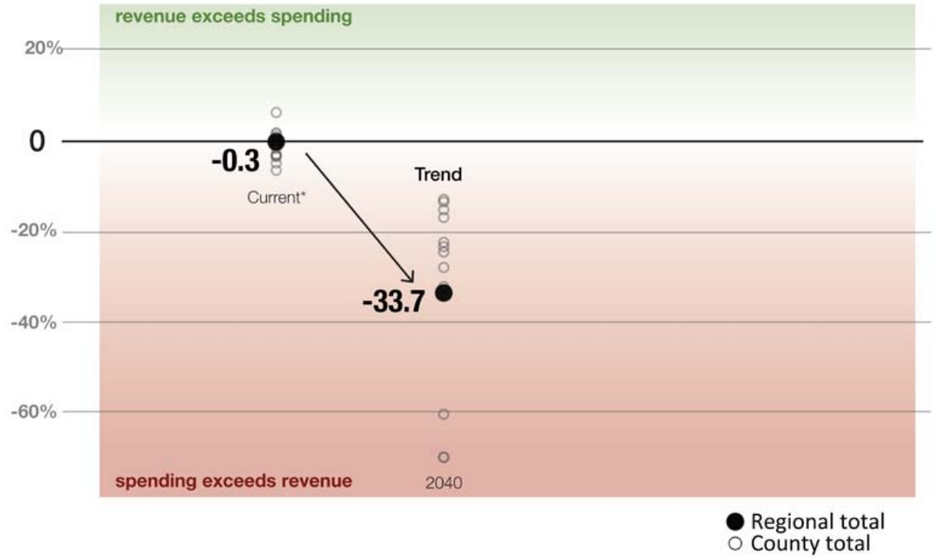
THEME 5: FISCAL HEALTH

The different development patterns and infrastructure investments shown in the four scenarios produce significantly different outcomes for public budgets and ultimately the taxpayers. Key driving factors for fiscal impacts are abandonment, infrastructure costs (capital expenditures and operations/maintenance spending), and tax revenue.

What do these graphs mean?



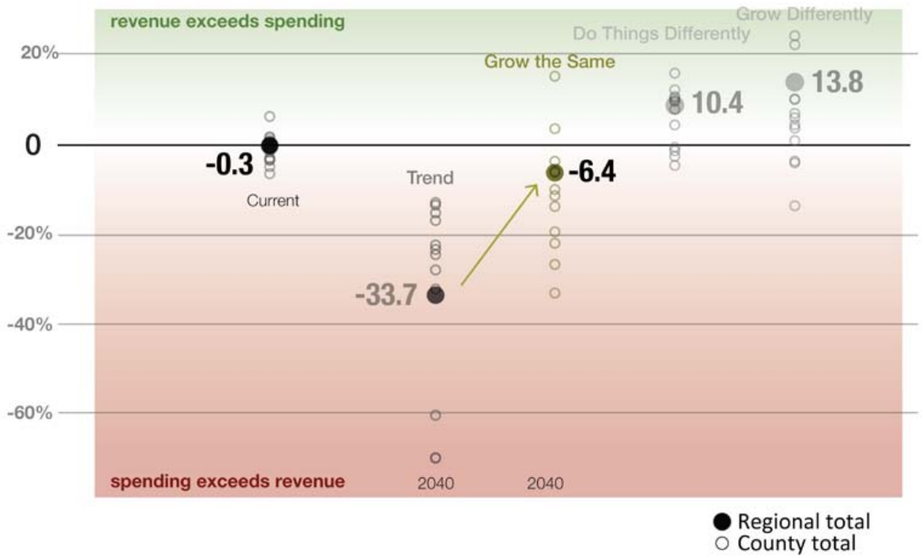
Trend: Local Government Revenue to Spending Ratio by County



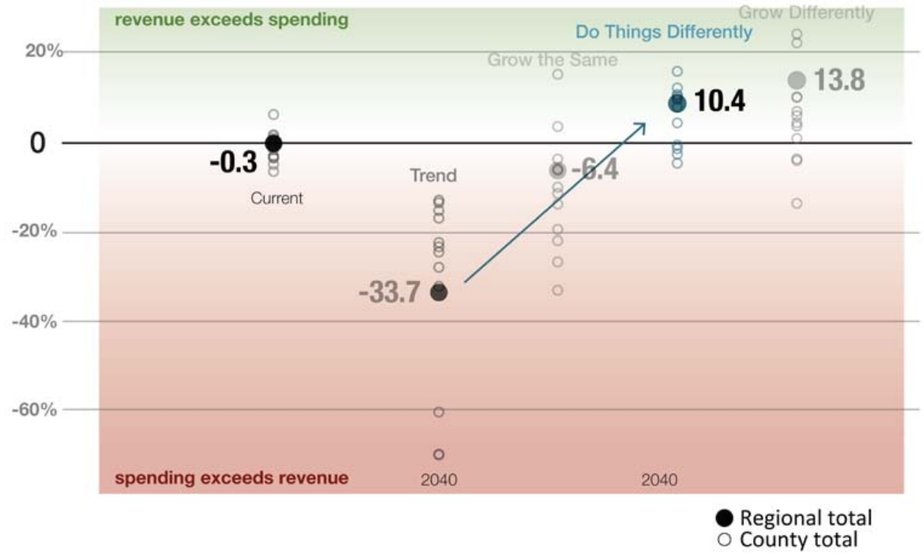
TREND (RECAP)

To review from the previous section, the Trend Scenario results in negative fiscal impacts across the region. All counties experience declining revenues compared with costs, and the most fiscally strong county in 2040 is weaker than the weakest county today. These changes are driven by a stagnant regional economy, high infrastructure costs, and high abandonment rates.

Grow the Same: Local Government Revenue to Spending Ratio by County



Do Things Differently: Local Government Revenue to Spending Ratio by County



GROW THE SAME

Grow the Same, with its increase in people and jobs, brings financial benefits when compared to the Trend Scenario. This change, however, does not solve all of the region's fiscal challenges: **most counties are still operating under higher deficits than they are today. There is still an increased disparity between fiscally strong and fiscally weak counties relative to today's distribution.** While some counties do very well, others do very poorly.

It might be surprising that the **counties that generally benefit from the growth scenario are the places that are not growing.** Counties that saw high levels of abandonment in the Trend Scenario perform better in the Grow the Same Scenario because abandonment is cut in half.

Growth, over the long-term, tends to challenge budgets most in counties that are growing. Some of the additional residential growth, particularly in the form of dispersed, auto-oriented development, creates long-term costs that outweigh the revenues generated. Many of the counties that are likely to be "in the red" tomorrow are relatively rural today. In the Grow the Same Scenario, they are projected to experience an influx of people by 2040. Building and maintaining infrastructure is expensive. In order to pay for the infrastructure and services required to support the new population, these counties face the challenge of either increasing their tax rates or changing their land use policies and development patterns.

DO THINGS DIFFERENTLY

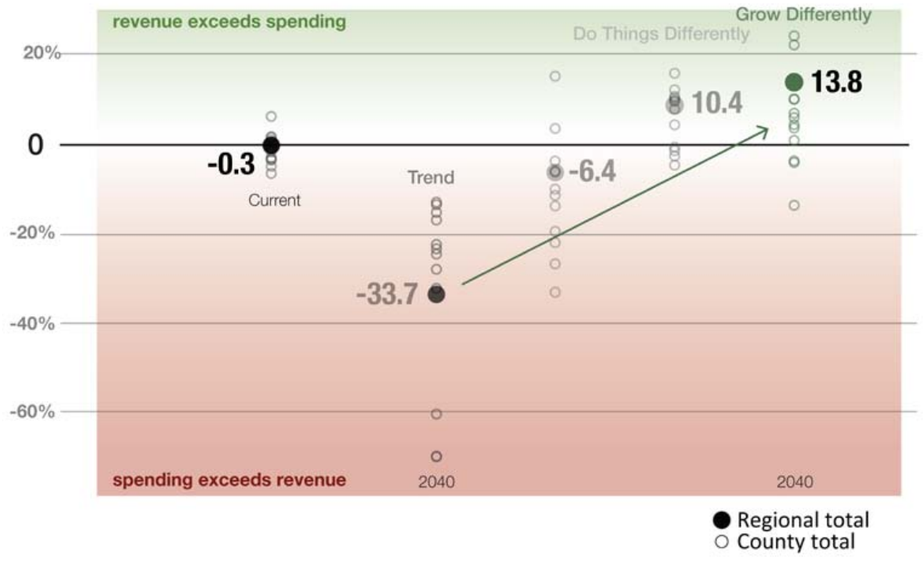
Do Things Differently shows how the region could improve fiscally, even if growth remains relatively flat (as it does in the Trend Scenario). **The focus on reinvestment in this scenario helps the region perform better overall financially than it does in either Trend or Grow the Same scenarios.** This scenario also has the least variation between the fiscally strongest and weakest counties. The improvements associated with the new policies and investments incorporated in the Do Things Differently Scenario have nearly twice the magnitude of those created simply by adding more people and jobs (as seen in the Grow the Same Scenario). **Almost every county improves compared to today as well.**[14]

This scenario performs well from a fiscal perspective because it:

- Takes advantage of infrastructure that has already been built and capitalizes on legacy industrial sites as unique assets for future industry job growth
- Expands compact development with improved transit access; for this kind of development, revenue typically exceeds costs
- Includes only a minimal increase in new abandonment and focuses on redeveloping current abandoned parcels

14 The two counties that do not improve relative to today only marginally decrease (no more than 1 percentage point change from today). Compared to the Trend Scenario, however, these counties improve significantly (at least 9 percentage point increase)

Grow Differently: Local Government Revenue to Spending Ratio by County



GROW DIFFERENTLY

Grow Differently combines the higher employment and population totals of Grow the Same with the different set of policy priorities of Do Things Differently. **This scenario results in the highest revenues relative to costs for the region overall, although the improvement over Do Things Differently is slight.** The distribution of outcomes at the county level is more uneven than Do Things Differently but less extreme than Grow the Same.

What is driving these changes? This scenario takes advantage of the same system efficiencies as Do Things Differently, but to a higher degree. After a certain point, the gains created from this approach level off, as seen in the small jump between Do Things Differently and Grow Differently. Even though this scenario has the best overall fiscal outcome, some counties remain “in the red” in 2040 (worse than they were in the Do Things Differently Scenario). These tend to be counties that are rural today but are growing rapidly relative to their existing population. For those communities, this scenario does not mean that a balanced budget is out of reach: it means that it will be difficult for them to add population and maintain the same tax structures, land use policies and development patterns as today, and still balance their budgets.

OVERALL PUBLIC FEEDBACK

The different theme-based stations at the Open Houses enabled the Project Team to gather independent public feedback on the separate inputs that influenced the scenarios. In reality, however, these inputs do not operate completely independently; instead, many aspects are linked. For instance, it would be very difficult to expand public transit if all new development were dispersed. For this reason, gauging overall reactions to the scenarios was critical. The idea was not to ask a people to "vote" on their favorite scenario, but to understand better which aspects of each scenario aligned well or poorly with an individual's vision for Northeast Ohio. **The Project Team sought to learn which aspects of the scenarios were most important to individuals, and how they decided among trade-offs.**

WHAT IS YOUR VISION?

1. On a scale of 1-5, how well does each scenario align with YOUR VISION for the future of Northeast Ohio?

"Grow the Same" Scenario

1 2 3 4 5

aligns poorly neutral aligns well

Why? _____

"Grow Differently" Scenario

1 2 3 4 5

aligns poorly neutral aligns well

Why? _____

"Trend" Scenario

1 2 3 4 5

aligns poorly neutral aligns well

Why? _____

"Do Things Differently" Scenario

1 2 3 4 5

aligns poorly neutral aligns well

Why? _____

2. In your evaluation of the scenarios, which element(s) matter the most?

mark all that apply

- ☐ Outward Migration
- ☐ Open Space & Environment
- ☐ Development & Community Character
- ☐ Transportation
- ☐ Jobs & Fiscal Health
- ☐ Other: _____

Overall Scenario Feedback Card[1]

WHICH THEMES MATTERED MOST TO PARTICIPANTS AS THEY FILLED OUT THEIR SURVEYS?

	% RESPONDENTS WHO SELECTED
Jobs and Fiscal Health	60%
Development and Community	54%
Transportation	47%
Open Space and Environment	41%
Outward Migration	18%
Other	14%

The results of this concluding survey revealed strong interest in a "different" course of action. Do Things Differently and Grow Differently aligned well with the majority of participants' vision for the region (82% and 62% gave these respective scenarios at least a 4 on the overall summary card). Attitudes about growth were more divided. Grow the Same aligned with the fewest percent of participants (only 7% gave this scenario a 4 or more). Some comments questioned whether the region really needed more people; others asked whether expecting growth was realistic. Other participants felt that growth was important to bring new people, jobs, and ideas to the region.

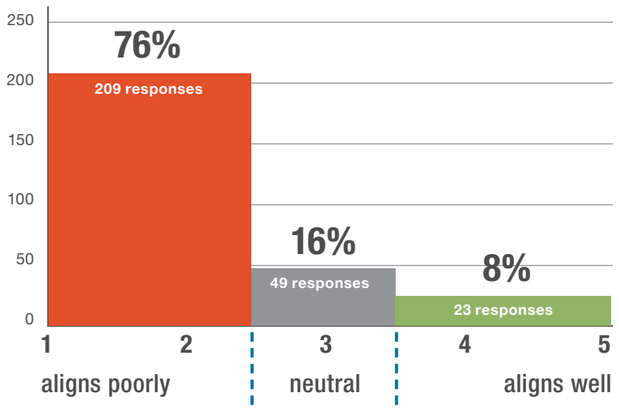
Overall open house feedback and comments indicate that the top priorities for participants were:

- Reinvesting and reusing existing land and infrastructure
- Creating opportunities for increased public transit, but still providing sufficient investment to maintain existing road infrastructure
- Preserving natural areas and farmland
- Creating a diversity of communities, with a special emphasis on ones that offer a mix of uses in a compact, walkable, and bikeable setting

1 379 total cards were submitted

ALIGNMENT BETWEEN THE SCENARIOS AND THE ATTENDEES' VISIONS FOR NORTHEAST OHIO

TREND



WHY DID ATTENDEES THINK THIS SCENARIO ALIGNED...

WELL

- "Freedom to move where we want to."
- "Not my preferred, but this will be what happens if we do not break the cycles of cynicism, apathy and insular non-cooperation."

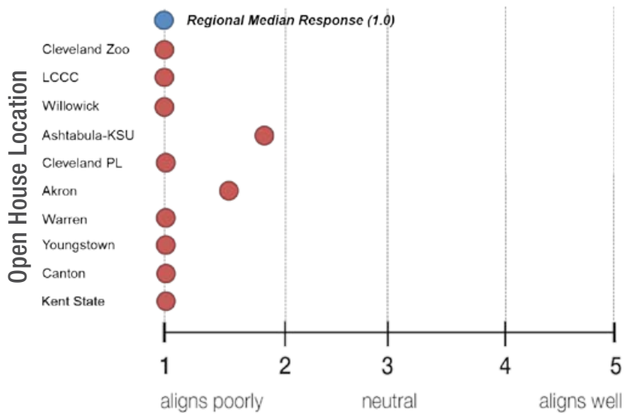
NEUTRAL

- "Reality if we do nothing."
- "Good things are happening, but I would like things to be more progressive."

POORLY

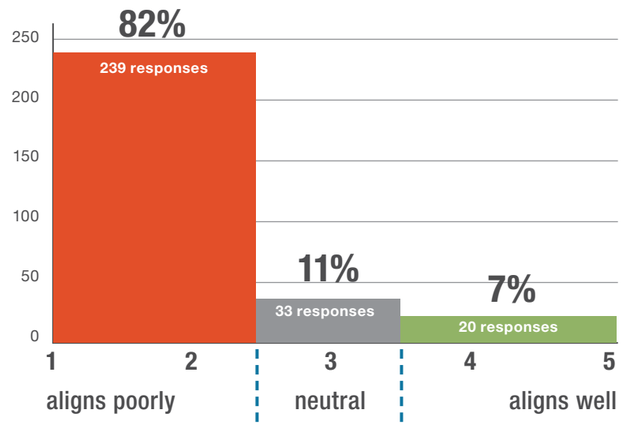
- "Enormous problems in all areas covered -- transportation, housing, environment, etc."
- "Destroys excellent assets we already have."
- "It does not appear though good things will come out of staying on the same path."
- "It's not working now. Why would it in 2040?"
- "Challenges remain unsolved, the burden that outward migration places on creating new, expanded infrastructure concerns me."
- "I don't want to live next to even more vacancy and blight."

SCENARIO REACTIONS BY LOCATION[15]



15 LCCC = Lorain County Community College; Ashtabula-KSU = Kent State Univeristy Ashtabula Campus; Cleveland PL = Cleveland Public Library; Portage KSU = Kent State University Main Campus in Kent, OH

GROW THE SAME



WHY DID ATTENDEES THINK THIS SCENARIO ALIGNED...

WELL

- "Not my preferred, but this will be what happens if we do not break the cycles of cynicism, apathy and insular non-cooperation."
- "Maximum freedom."
- "Free market is the American way."
- "That is what made this country great."

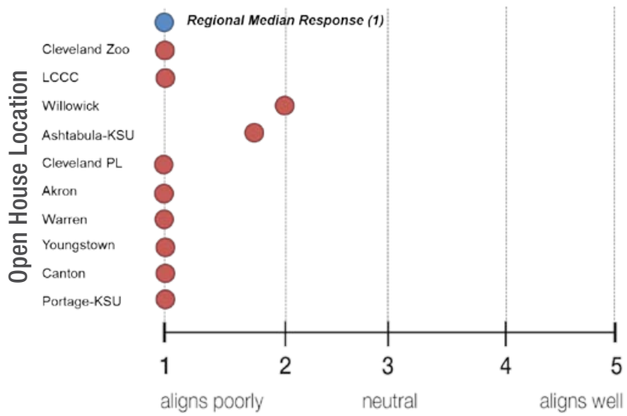
NEUTRAL

- "Better than trend. But not good enough."
- "Growth fixes/masks a lot of problems. Not ideal, but unplanned growth is better than planned decline."

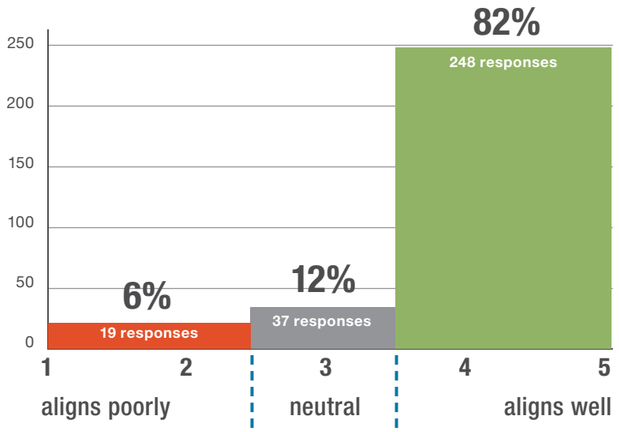
POORLY

- "Too much outdated infrastructure, agricultural and natural areas cost, too much driving miles and new roads. Challenges in NEO remain unsolved and perhaps intensify."
- "I can't see anything on the horizon that leads me to believe that we are going to experience significant growth."
- "It exacerbates income inequality—products of affluence verses pockets of non-affluence."
- "Extremely fiscally and environmentally irresponsible."
- "Continuing what we have done for much of the 20th century makes no sense. Look what "grow the same" has brought us."

SCENARIO REACTIONS BY LOCATION



DO THINGS DIFFERENTLY



WHY DID ATTENDEES THINK THIS SCENARIO ALIGNED...

WELL

- "Greater conservation and improved fiscal performance (cost to revenue)."
- "Best result—not perfect for jobs and home abandonment, but the most sustainable option."
- "Almost equal fiscal impacts with much less environmental/resource/land use impact."
- "Maximizes existing resources."
- "This is the best option. It minimizes sprawl more than any of the others."
- "I'd like to think that if we do the right thing we'll have greater population growth. Plus, we already have the infrastructure for a larger population."

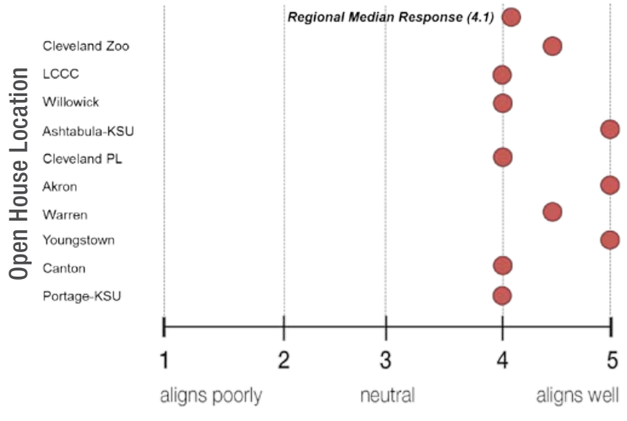
NEUTRAL

- "Growth brings innovative new ideas that would further help the region."
- "Improvement without growth is still an improvement."
- "Ho hum. We could be more intentional and visionary."
- "Doing things differently is great, but without the growth it won't mean as much."

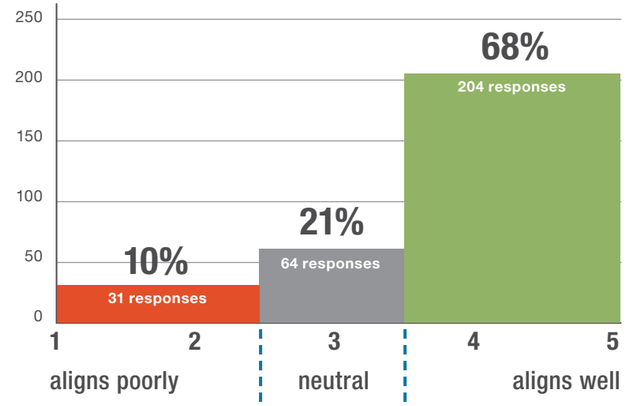
POORLY

- "Too environmental."
- "Bureaucratic."
- "This is the one I would love to see, but would be the hardest to achieve."

SCENARIO REACTIONS BY LOCATION



GROW DIFFERENTLY



WHY DID ATTENDEES THINK THIS SCENARIO ALIGNED...

WELL

- "I am interested in growing our urban centers and preserving open space."
- "I like the growth and doing it compactly. I don't know if we can expect or need to strive for national population and job growth."
- "Mostly good. Smart growth. Not sure I'd want us to grow as much as the predictions in this scenario, but the policies it envisions are good."
- "Not optimistic enough."
- "Improves transportation and saves green spaces while maintaining suburbs."
- "I feel this scenario makes the most out of what already exists."
- "Reinvestment in existing infrastructure. Job growth. Less abandonment."

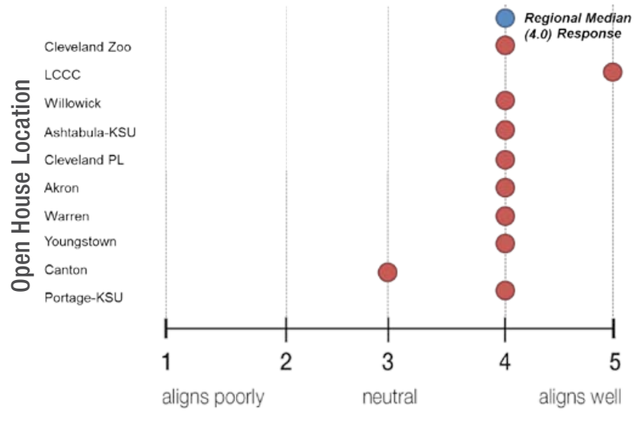
NEUTRAL

- "It would be nice if we experienced significant growth, but it seems unlikely."
- "We don't really need more people. I like mid-sized."
- "OK, but too much emphasis on growth alone."

POORLY

- "Adaptive re-use of what we have makes more sense."
- "I do not believe that more lands needs to go to parks."
- "Bureaucratic."
- No point in adding more space when we haven't managed what we have well.

SCENARIO REACTIONS BY LOCATION



CROWDSOURCED PRIORITIES: IMAGINEMYNEO

As another way to explore the topics and trade-offs discussed at the Open Houses, the Project Team created an online platform called ImagineMyNEO. The tool was designed to elicit priorities, communicate the impacts of policies and investments on those priorities, and to gather feedback about preferred future directions for the region. The tool debuted for public use in June 2013, and the Project Team presented the initial results at the Open Houses. These results included 1,458 unique respondents, 1,365 of which were Northeast Ohio residents at the time of completion.

HOW DOES IMAGINE MY NEO WORK? STEP 1: PRIORITIZATION OF VALUES

ImagineMyNEO first asked users to identify their priorities for the future. Priorities were described in the form of a list of present-tense statements describing attributes of a community. This enabled users to consider each statement from the perspective of either wishing to preserve a current attribute of the community/region, or to describe an ideal future condition of the community. Users gave anywhere from zero to five stars to the priorities they value most. A dynamic display of icons shifted with the user's scoring of each statement, yielding a composite, icon-based visualization of their individual priorities.

ImagineMyNEO Priorities Screen

PRIORITIES RESULTS

The results from the priorities section of ImagineMyNEO was consistent with the feedback received from other public engagement sessions, with a notable emphasis on environmental themes such as preserving and enhancing the quality of the Northeast Ohio's air, water, and land resources. This theme was the top priority for 10 of the 12 counties in the region. Economic prosperity was the second highest priority. Rounding out the top priorities were the following: community character, access to arts and entertainment, and quality public parks and infrastructure.

Regional Priorities

Color indicates how well budget and policy choices supported priorities

Ranked Priorities

	TOTAL STAR VOTES	COMPOSITE STARS
We have clean air, water, and land	5,105	★★★½☆
Residents can find good jobs and share in the region's financial success	4,812	★★★☆☆
There are recreational opportunities and parks nearby	4,442	★★★☆☆
We have well-maintained infrastructure	4,361	★★★☆☆
I can experience great arts, culture, sports, and entertainment	4,358	★★★☆☆
We preserve our open spaces and natural resources	4,271	★★★☆☆
Children can safely walk or bike to neighborhood schools	4,092	★★★☆☆
I can get to places without a car	3,706	★★½☆☆
We preserve and invest in our central cities	3,534	★★½☆☆
My community has an urban character	2,487	★★☆☆☆
My taxes are low	2,584	★★☆☆☆
I can easily stay in my community after I retire	2,305	★½☆☆☆
My community has a rural character	1,270	★☆☆☆☆
My community has a suburban character	1,266	★☆☆☆☆
There are fewer local development and zoning regulations	1,131	½☆☆☆☆

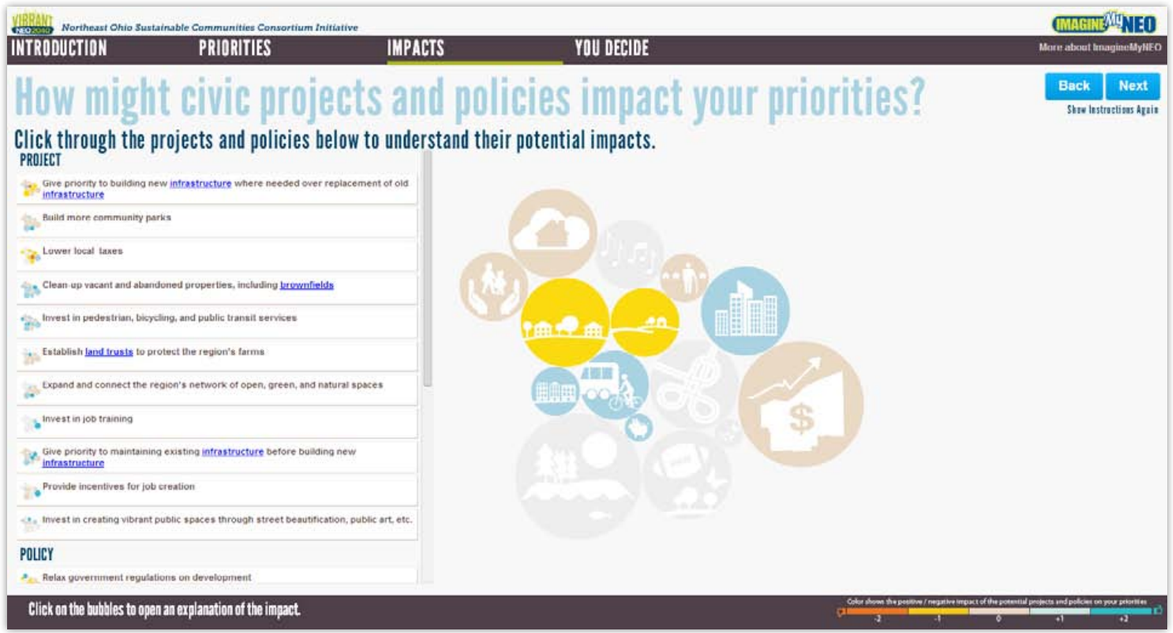
Priorities by County

- 1 Ashtabula
- 1 Cuyahoga
- 1 Geauga
- 1 Lake
- 1 Mahoning
- 1 Medina
- 1 Portage
- 1 Summit
- 1 Trumbull
- 1 Wayne
- 2 Lorain
- 2 Stark
- 1 Lorain
- 1 Stark
- 2 Ashtabula
- 2 Cuyahoga
- 2 Mahoning
- 2 Portage
- 2 Summit
- 2 Trumbull
- 3 Geauga
- 3 Lake
- 3 Medina
- 2 Lake
- 3 Mahoning
- 3 Stark
- 3 Summit
- 3 Ashtabula
- 3 Lorain
- 3 Trumbull
- 2 Geauga
- 2 Medina
- 2 Portage
- 3 Cuyahoga
- 2 Wayne
- 3 Wayne

HOW DOES IMAGINE MY NEO WORK? STEP 2: EXPLORING IMPACTS

After staring priorities, users could then learn how different planning policies and projects impact each of their priorities. “Policies” were actions taken by local governments to shape outcomes in the built environment, whereas “projects” were direct actions with a specific, material outcome. The color of icons shifted as users clicked on policies, with the intensity of color indicating a positive, neutral, or negative impact of a project or policy on the full set of “priorities.” Clicking on the priority icon revealed a written explanation of how the project or policy impacts that specific priority, providing an opportunity for the user to learn about the consequence of a choice to “invest” in a particular policy or project.

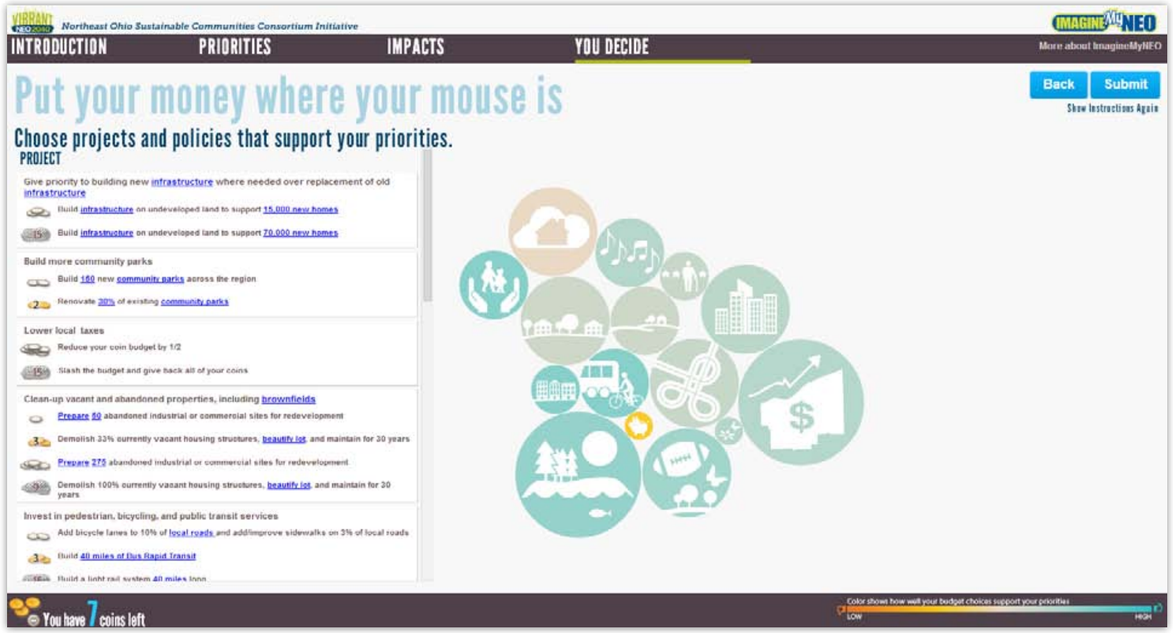
Impacts Screen



STEP 3: PUT YOUR MONEY WHERE YOUR MOUSE IS

In the final stage of the tool, users chose specific projects and policies in a budget-constrained environment. Similar to the second screen, the color of the priority icons changed to reflect their relationships with the selected project or policy. Once complete, users could share their selections via social media and compare their answers with other residents of the region using a map viewer.

Projects and Policies Screen

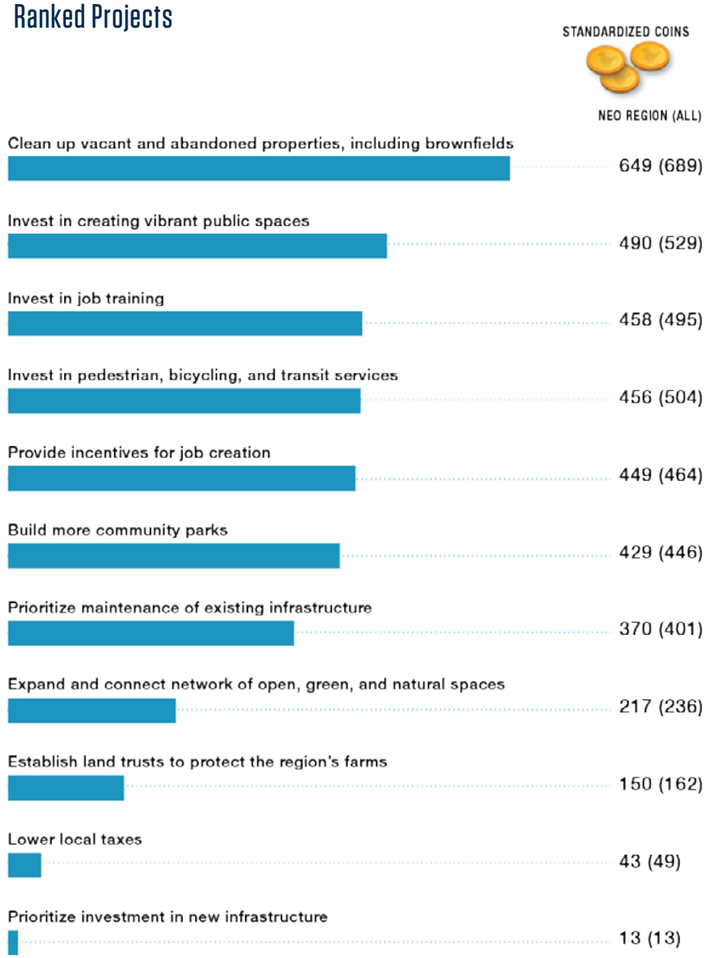


PROJECTS AND POLICIES RESULTS

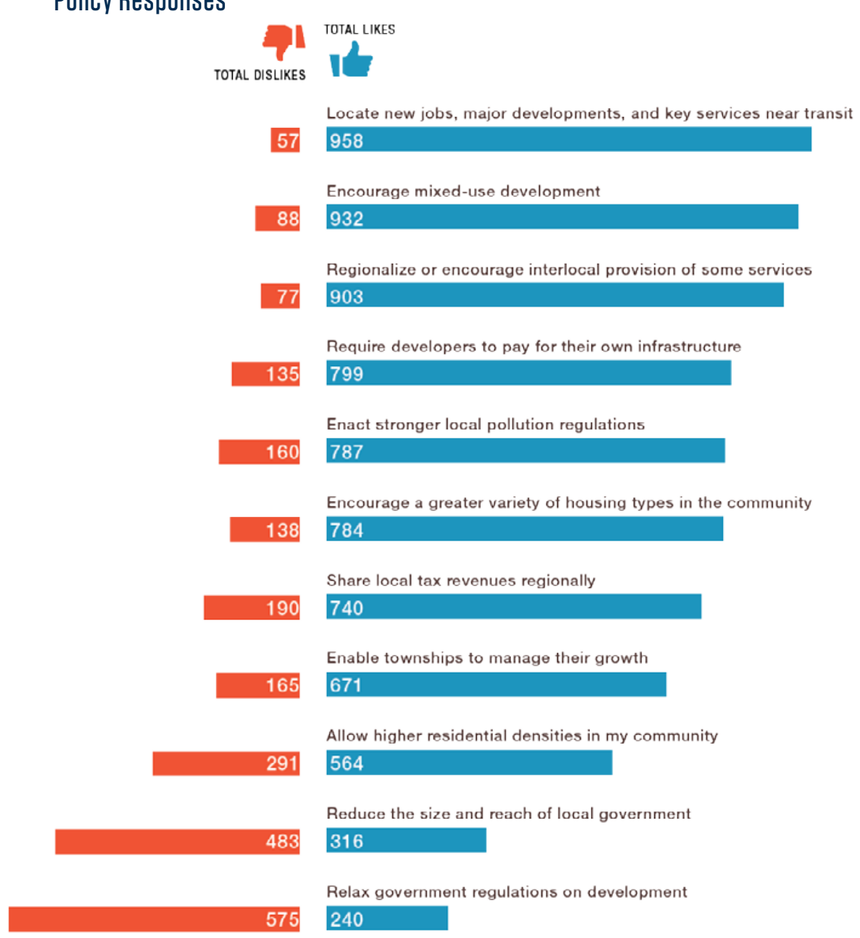
The top project choice was cleaning up vacant and abandoned properties, which mirrored the region's prioritization of clean air, water, and land. Investment in public spaces, job training, alternative transportation, and job creation rounded out the top five project choices, echoing the region's overall priorities with respect to equitable distribution of access to resources and opportunities, as well as maintaining and enhancing community character.

The top policy choices reflected a strong desire to see more balanced growth and mixed-use development, creating districts and neighborhoods that are served well by transit. Notably, regionalization or intergovernmental provision of public services also ranked highly, reinforcing a trend already seen in Northeast Ohio toward sharing services and capital assets to maximize efficiency and reduce taxpayer liability.

Ranked Projects



Policy Responses



HOW DID THE PROJECT TEAM USE THIS FEEDBACK?

Feedback from the Open Houses and ImagineMyNEO was used as the basis for creating the Vision, beginning with the overall scenario evaluations. If the thematic dials and online responses had averaged somewhere between Trend/Grow the Same and Do Things Different/Grow Differently, the Vision would have represented a hybrid between the two different priorities embodied by those scenario pairs. Instead, since preferences converged on the “differently” scenarios—Do Things Differently and Grow Differently—the Vision became an elaboration on the policies and priorities they represented.

Beyond providing big-picture definition, the Open House and ImagineMyNEO feedback also shaped many fine grained elements of the Vision. These include:

- Locations of strategic investment nodes and corridors
- Pathways to implementation
- Indicator targets
- Transit connections
- Local land use priorities

REGIONAL VISION

WHERE SHOULD WE GO TOGETHER?

VISION OVERVIEW

WHAT IS THE REGIONAL VISION?

The Regional Vision is an aspirational future for Northeast Ohio, built upon public engagement, and accompanied by Recommendations and tools to help make it a reality. It is both a vision for the future and a roadmap for how to get there.

The Vision Includes:

- OBJECTIVES
- THEMES
- INDICATORS AND TARGETS
- RECOMMENDATIONS AND INITIATIVES
- DEVELOPMENT STRATEGIES
- EVERYDAY ACTIONS

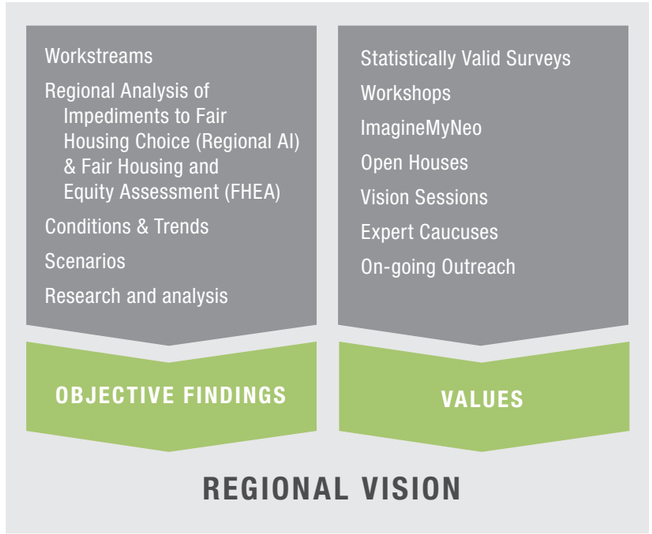
HOW WAS THE REGIONAL VISION CREATED?

All of the learning that took place during the Vibrant NEO 2040 process ultimately fed into the Regional Vision. The Vision creation process used two kinds of inputs: objective findings and community values. Much of the three years of Vibrant NEO 2040 was spent collecting and analyzing data, modeling trends and alternatives, and interviewing experts across the region. This information provided the factual basis for the Vision.

In addition to facts and data, the Vision also requires a normative direction. Compared to the scenarios, which were based on data and assumptions, the Vision is aspirational. It is a statement of where we would like to go in the future. In order to understand the region's values and aspirations, the Project Team invested significant resources into outreach and engagement. We conducted surveys, mapping workshops, digital outreach, Open Houses, and on-going, small group engagement. We also released a draft of the Vision months prior to the project's conclusion and received feedback on it through a series of public Vision Sessions, expert review caucuses, and comments from NEOSCC's many partners.

This review process resulted in several refinements to the draft Regional Vision. These changes notwithstanding, a critical outcome of the Vision Sessions was learning that, on the whole, the majority of the attendees supported the Vision.

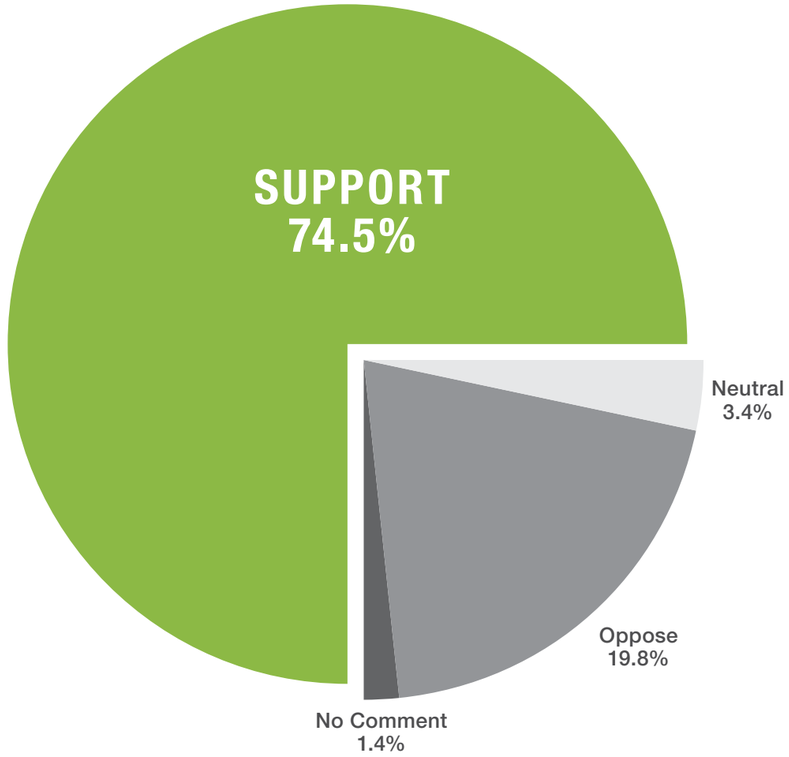
INPUTS TO THE REGIONAL VISION



VISION COMPONENTS

SECTION	SCALE	CONTENT	INTENDED AUDIENCE
Objectives	Regional	The outcomes that the Vision aims to achieve	All readers
Themes	Regional	Four key Vision topic areas	All readers
Indicators	Regional	Performance metrics that will tell us whether we are on track to attain the Vision	Policy makers and technical specialists
Recommendations and Initiatives	Regional, County, and Local	Framework, steps, and tools for Vision realization	Regional leadership, policy makers, and technical specialists
Development Strategies	Local	Resources for creating great places consistent with the Vision objectives	Local planners and developers
Everyday Actions	Local	Ways for local citizens to get involved	All readers

THE MAJORITY OF VISION SESSION ATTENDEES SUPPORTED THE VISION



354 responses were obtained live via keypad polling at 11 public meetings. The original response options were “strongly support,” “support,” “somewhat support,” “neutral,” “somewhat oppose,” “oppose,” “strongly oppose,” and “no comment.” The first three “support” options were combined into a single category above, as were the three “oppose” options.

Public Input was Central to the Vision

Vibrant NEO 2040 is a Vision of, by, and for the people of Northeast Ohio. NEOSCC engaged thousands of Northeast Ohioans in developing this Vision for our region’s future, including those who we sought out and those who responded to our invitation to participate. Through the Trend Scenario Workshops, Alternative Scenarios Open Houses and Vision sessions, and ImagineMyNEO we were able to gather subjective, non-statistical input from participants about their values and priorities. The overall participation in the scenario planning events closely mirrored the population of each of the 12 counties.

	% OF SCENARIO PLANNING AND IMAGINEMYNEO PARTICIPANTS	% REGION'S POPULATION
Ashtabula	5%	3%
Cuyahoga	39%	33%
Geauga	2%	2%
Lake	6%	6%
Lorain	9%	8%
Mahoning	8%	6%
Medina	3%	5%
Portage	3%	4%
Stark	6%	10%
Summit	13%	14%
Trumbull	6%	6%
Wayne	1%	3%

To ensure what NEOSCC learned was representative of the public as a whole, we also conducted two statistically valid public-opinion surveys (April 2012 and June 2013) of the priorities and aspirations Northeast Ohioans have for their region. These surveys used representative samples of the region as a whole and had margins of error of +/- 3.5% and +/-4.0%.

VISION OBJECTIVES

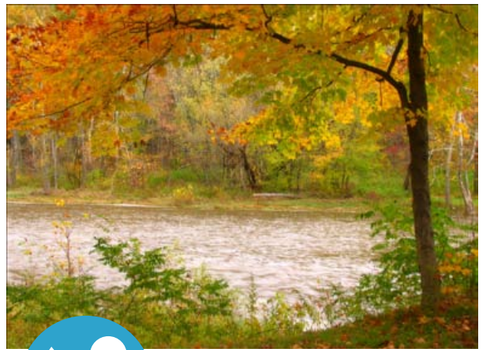
The objectives are the outcomes the Vision aims to achieve.

VISION OBJECTIVES

OVERARCHING OBJECTIVE

Stark County Regional Planning

PROMOTE INVESTMENT IN OUR ESTABLISHED COMMUNITIES

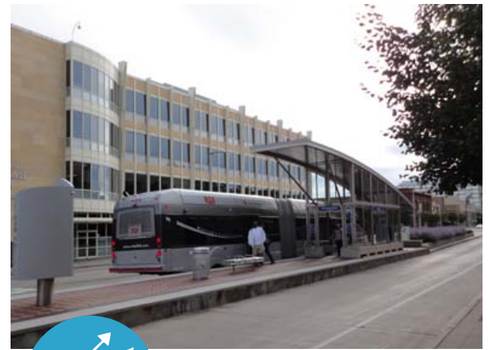


Mark K. http://www.flickr.com/photos/17708700@N07/6475233743/

PROTECT OUR SOIL, WATER, AIR, AND ECOLOGICALLY SENSITIVE AREAS

Doug Kerr www.flickr.com

IMPROVE OUR REGIONAL FISCAL HEALTH



City Architecture

DEVELOP OUR REGIONAL ECONOMY WITH ACCESSIBLE EMPLOYMENT OPPORTUNITIES

Akron Metropolitan Area Transportation Study

ENHANCE OUR REGIONAL TRANSPORTATION NETWORK

Greater Medina Chamber of Commerce

CULTIVATE AND CELEBRATE OUR LOCAL ASSETS AND PLACES OF PUBLIC VALUE

Ashtabula County Chamber of Commerce

EXPAND OUR PARKS AND OPEN SPACE NETWORK

Photo by Scott Bauer, USDA Natural Resources Conservation Service

PRESERVE AND VALUE OUR PRIME FARMLAND AS A REGIONAL ECONOMIC ASSET

VISION THEMES

The Vision themes are the nexus between the Objectives, on the one hand, and the Recommendations, Initiatives, and Development Strategies, on the other hand. They organize these latter elements and tell the story of the Vision in narrative form.

THEMES

STRENGTHEN ESTABLISHED COMMUNITIES

INCREASE TRANSPORTATION CHOICE

PRESERVE AND PROTECT NATURAL RESOURCES

PROMOTE COLLABORATION AND EFFICIENCY

STRENGTHEN ESTABLISHED COMMUNITIES

The overarching objective of the Vision is to "promote investment in our established communities," and likewise, its primary theme is to "strengthen established communities." What is an "established community"? They are cities, towns, townships, or neighborhoods that have matured over time into places with defining characteristics such as local traditions, major commercial activity, valued institutions, prized architecture, and great public places like parks, public squares, or main streets. They could be urban, suburban, or rural. They have an identity of place that their residents understand and value.

Northeast Ohio is endowed with a diverse array of quality places, from legacy cities to established towns and villages to suburban communities to rural townships. The Vision advocates shifting investment back into these places, rather than continuing the outward migration of new construction, which has been the trend.

REGIONAL MOSAIC OF COMMUNITIES

Investment means many different things depending on the place in question. The following map depicts a regional mosaic of communities categorized by current trajectories, each of which requires a different Vision investment strategy:

- **Strategic Investment Areas**: places that have a stable or growing population and a high density of community assets and existing infrastructure that supports current and likely future development. This makes them ideal candidates for investment.
- **Asset Risk Areas**: places that face declining population and employment, yet they also have a high density of community assets and existing infrastructure that would support reinvestment and future population growth.
- **Cost Risk Areas**: places that have experienced rapid population growth but lack existing infrastructure to support that growth. As a result, additional development in these communities requires investment in new infrastructure and community facilities. Any new development must be carefully planned to ensure long-term financial stability.

These categories reference current trajectories relative to the Regional Vision, but they are not seen to be static. In the same way that Place Types can change—a rural township can become a small town, which can later become a city—a community's investment categorization can also change. For example, through good policy and citizen initiative, Asset Risk Areas and Cost Risk Areas can become Strategic Investment Areas.

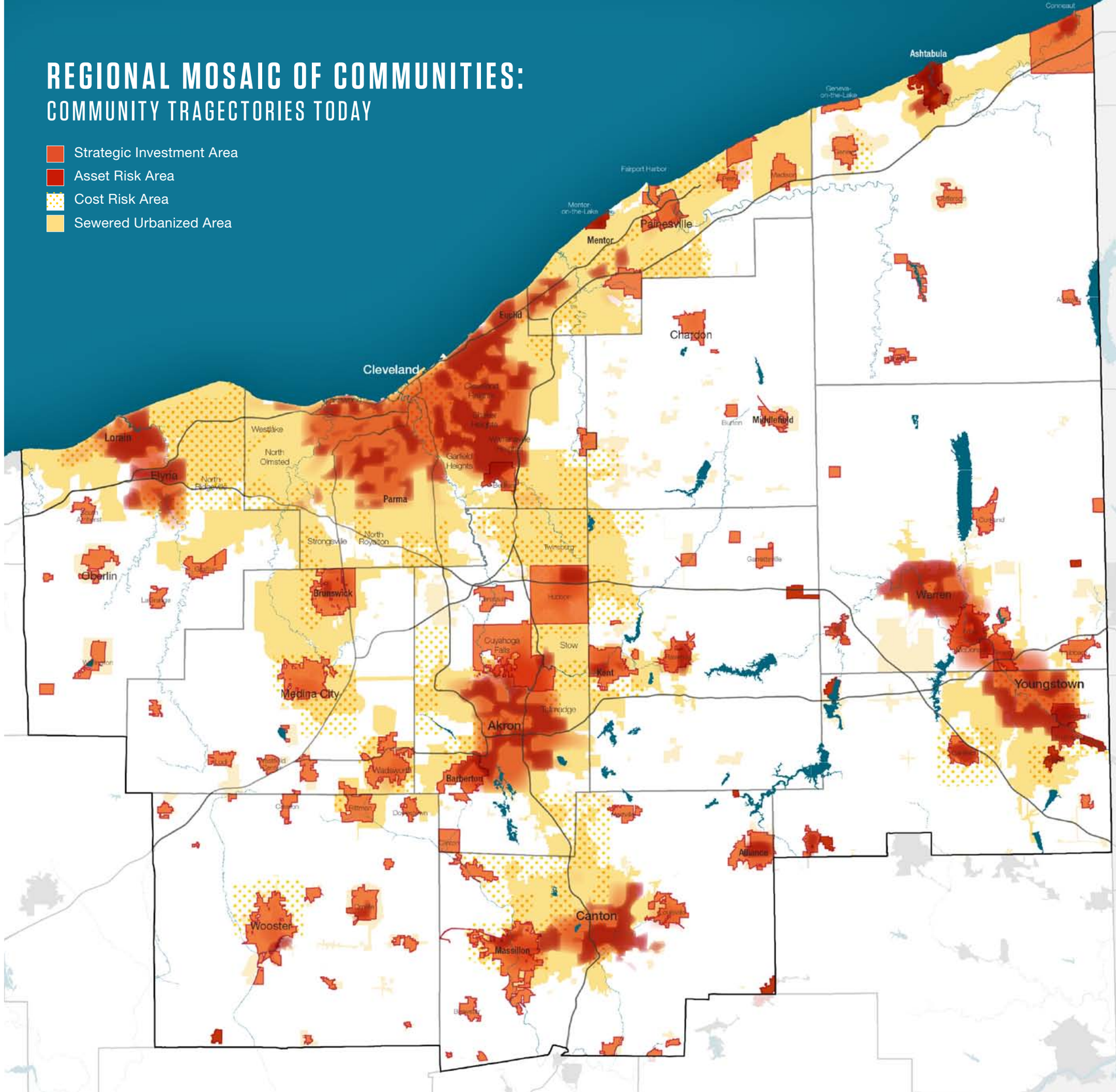
Each of the communities on the map is valued and has a role to play within the region. The goal for each community within the Vision is the same: stability, prosperity, and a high quality of life for all of its residents. However, achieving these outcomes will require different strategies and look different in different places. This is why we have structured the Recommendations according to the diversity of community types and investment conditions found across the region.

While it is important to acknowledge Northeast Ohio's diversity of community types, it is equally important to understand the ties that connect the region together. Cities benefit from healthy suburbs and townships, and the reverse is also true. Each place depends on the others, in some way. The region's cities are economic engines, provide significant tax revenue, serve as transportation hubs, are home to a large number of the region's residents, and host a number of globally significant institutions. The suburbs and townships likewise provide important centers of economic activity, places to live that have broad appeal, a well-developed highway system, and valued community assets and landscapes. Residents of one community will frequently work, shop, or visit other communities throughout the region, and the marketability and long-term success of Northeast Ohio depends on a healthy, symbiotic relationship among all of its communities.

On the flip side, if a city or suburb declines, many of its residents will move outward to the surrounding suburbs and townships. Accommodating these residents often means more traffic, a loss of natural areas and farmland, and higher tax payer costs to support expansions in services and infrastructure. These places will be more likely to retain their current way of life if the region's central cities and suburbs are viable and attractive.

REGIONAL MOSAIC OF COMMUNITIES:
COMMUNITY TRAGECTORIES TODAY

- Strategic Investment Area
- Asset Risk Area
- Cost Risk Area
- Sewered Urbanized Area

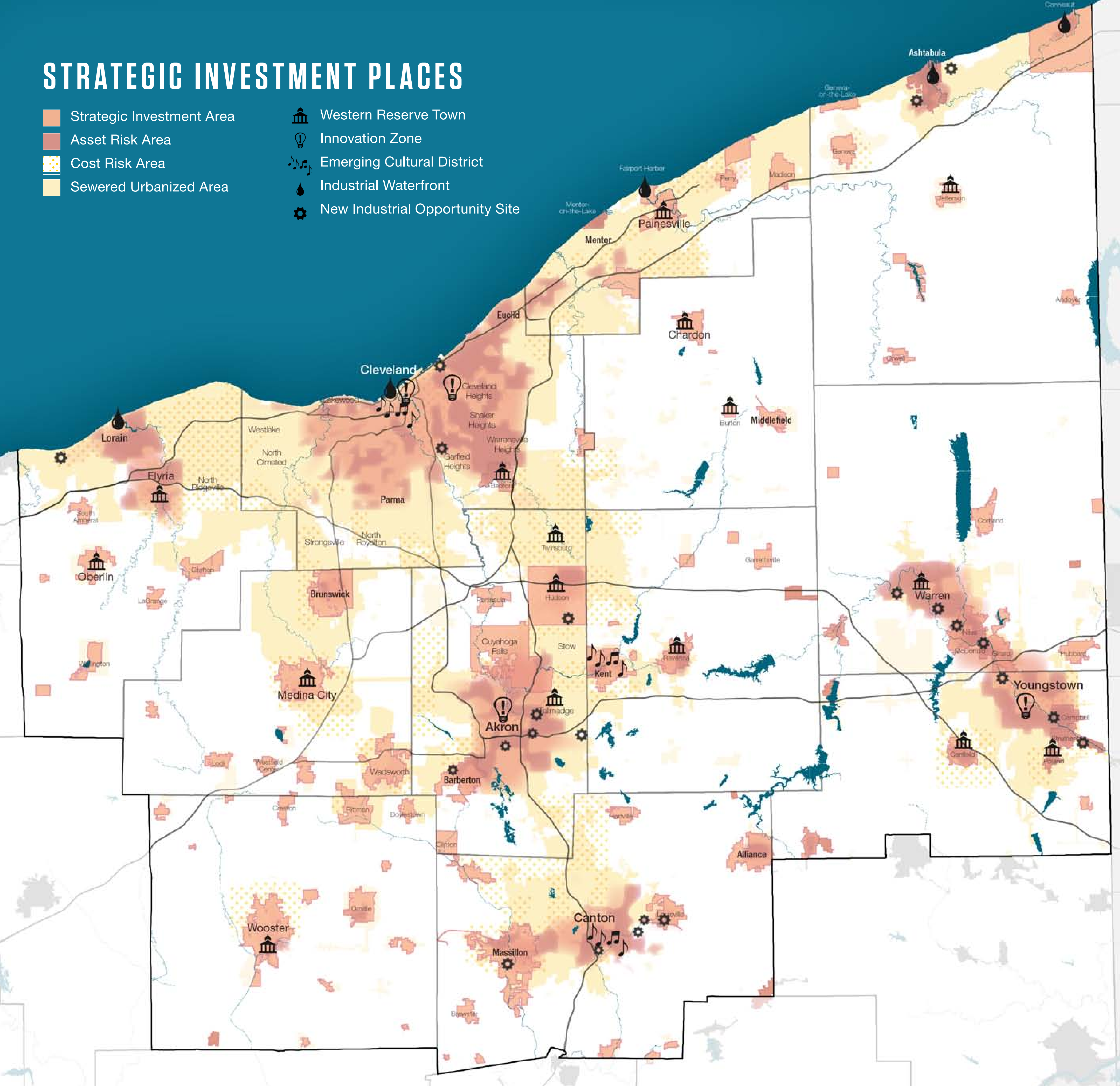


What does Sewered Urbanized Area mean?

The yellow region on the map is labeled as the “Sewered Urbanized Area.” It is “sewered” because the area within this boundary is served by sewer lines. It is “urban” because it is defined as such by the US Census. The Census definition does not mean that places within the boundary are urban in the sense that they have tall buildings, feels like a city, or even that they are heavily developed; it is a technical definition meaning places with a minimum of 2,500 residents and their surrounding territories.[1]

1 The full definition can be found at http://www.census.gov/geo/reference/usa/urban-rural-2010.html

STRATEGIC INVESTMENT PLACES



STRATEGIC INVESTMENT PLACES

In addition to investment strategies articulated at the community level, the Vision also includes an inventory of several strategic regional sites. The following map shows an overview of these sites:

- **Western Reserve Town**: historical town centers that can provide an anchor for new mixed-use development
- **Innovation Zones**: universities and adjacent mixed-use commercial districts that have the potential to catalyze new business investment in the innovation economy
- **Emerging Cultural District**: districts that have a high density of cultural assets that represent tourism opportunities and can serve as the nuclei for redevelopment
- **Industrial Waterfront**: deep water, industrial ports along the Lake Erie waterfront that also have regional recreational opportunities
- **New Industrial Opportunity Site**: large abandoned or partially vacant industrial parcels that are suitable for reuse given their proximity to transportation infrastructure and the presence of pre-existing high capacity utility connections

These sites offer strategic opportunities for future investment. They each represent, to varying degrees, unique assets that would be difficult or impossible to replicate elsewhere and should be recognized and leveraged to the greatest extent possible. These sites also provide a starting point for matching the Vision Recommendations to specific locations. For example, the New Industrial Opportunity Sites provides an initial list of locations for Recommendations dealing with industrial site remediation, inventory, marketing, and reuse.

This theme is about investing and reinvesting in our communities to strengthen them. The investment comes from all sources: government, private sector, non-profit organizations, and individual citizens. All parties will need to forge partnerships together to produce the best outcome. We have provided many examples and suggested strategies in the Recommendations section. There are also many dimensions to this theme: though Vibrant NEO 2040 has focused primarily on land use, infrastructure, conservation, transportation, urban design, and public finance, the Vision also acknowledges the importance of many other factors such as education, health, and job availability that affect the decisions of families to move and invest. Simply adding infrastructure without addressing these other issues may not change the trajectory of a particular place. The Vision requires a comprehensive approach to all of these issues and provides a nexus between Vibrant NEO's core focus areas and these additional topics.

One central aspect of the Vision and Vibrant NEO 2040 that relates to all other topics is public finance and tax policy: efficiencies achieved in these areas can increase funding for education, health, and economic development. Regarding education, the core focus areas of land use, urban design, and transportation provide direct guidance for facility siting and establishing safe routes to-and-from school. Also, the multi-sector collaborations advocated by the Vision could provide opportunities to expand classroom instruction and activities by engaging the local food community, civic non-profits, and others.

Likewise, health is profoundly connected with the core themes of Vibrant NEO 2040, particularly land use, environmental policy, and transportation. As discussed in the Indicators section, vehicle emissions are one of the leading contributors to air pollution and the health impacts associated with it. The design of a neighborhood affects physical fitness by determining whether or not it is viable to walk or ride a bicycle. Land use policy can protect the region's water supply by preventing runoff and erosion into streams, rivers, lakes, and critical areas of groundwater recharge.

Job growth also features prominently in the Vision, both directly and indirectly. The strategic nodes and community types speak to place-based opportunities and conditions that can be leveraged for job creation. Development location, design, and transportation determine whether employees can get to work. See theme four: "Promote Collaboration and Efficiency" for further discussion of economic development and its connection with the Vision.

INCREASE TRANSPORTATION CHOICE

A central aspect of the Vision is improving the way that we move around the region and provide access to support development through transportation infrastructure. Choice means increasing both the number of destinations that are easily accessible as well as the variety of means to get to them.

The major and secondary regional linkages envisioned are represented in the previous diagram.

The following map shows a detailed picture of the same network, with the Vision's proposed public transportation network identified by mode:

This system would create a T shaped network along Lake Erie and from Cleveland down to Canton, as well as a link between Akron and Youngstown. Within each of the major metro areas, express and local bus would expand coverage and make connections between some of the smaller towns and cities within the region.

At the neighborhood scale, the Vision aims to make it easier to get around with non-motorized methods of transportation. This involves investments in infrastructure like sidewalks, crosswalks, trails, and bicycle lanes. These forms of mobility are not just meant for leisure: with good planning, walking and bicycling can serve as primary commuting options.

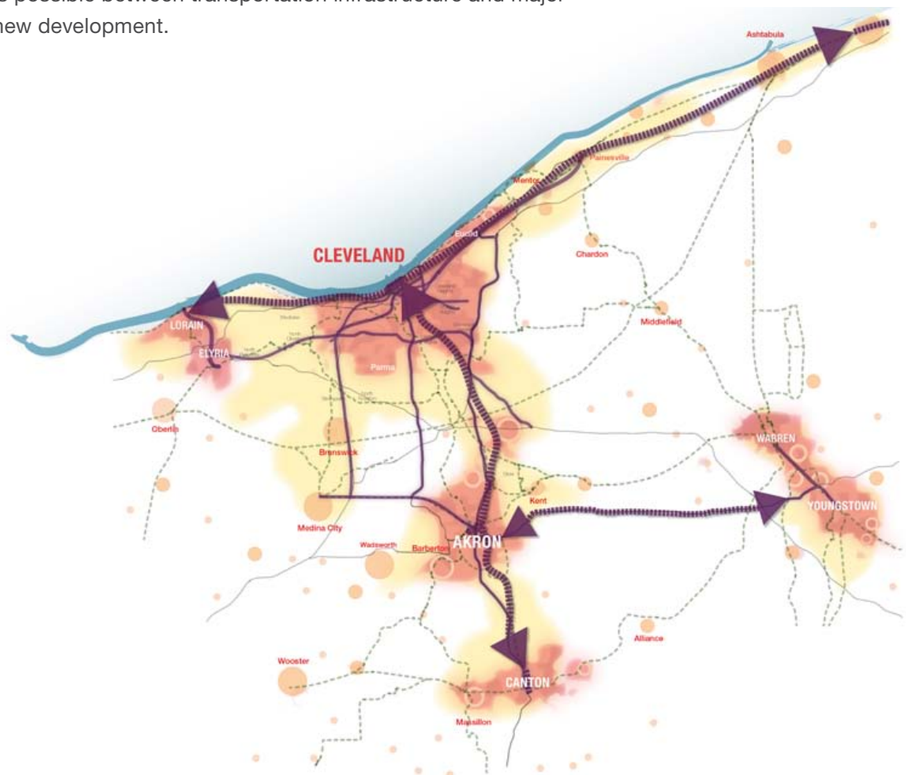
Cars and trucks will continue to be primary modes of transportation for a significant number of Northeast Ohioans, and ensuring that the road system is maintained in a state of good repair is central to the Vision. As a top-level priority, this means fixing existing roads before building new ones.

Enhancements to the transportation system need not involve major new additions to the network. In many cases, a linkage between existing routes or a change in route management procedures can be the most strategic option. This can mean adding physical connections, changes in transit routes, schedule adjustments, or making it easier for riders to use the system.

Finally, it is important that transportation planning be integrated with other kinds of planning. **Land use and transportation decisions should be closely coordinated.** Major new developments are significantly enhanced through co-location with transportation infrastructure; likewise, new transit routes achieve their highest value when linking nodes of high activity density (jobs, residents, or both). See the case study on the Cleveland Healthline in the "Alternative Scenarios" section for a great example of the kind of mutual synergy that is possible between transportation infrastructure and major new development.

VISION TRANSPORTATION LINKAGES

- Strategic Investment Area
- Asset Risk Area
- Sewered Urbanized Area
- Town or Village
- Transit Connection—Major
- Transit Connection—Other
- Greenway
- Major Road

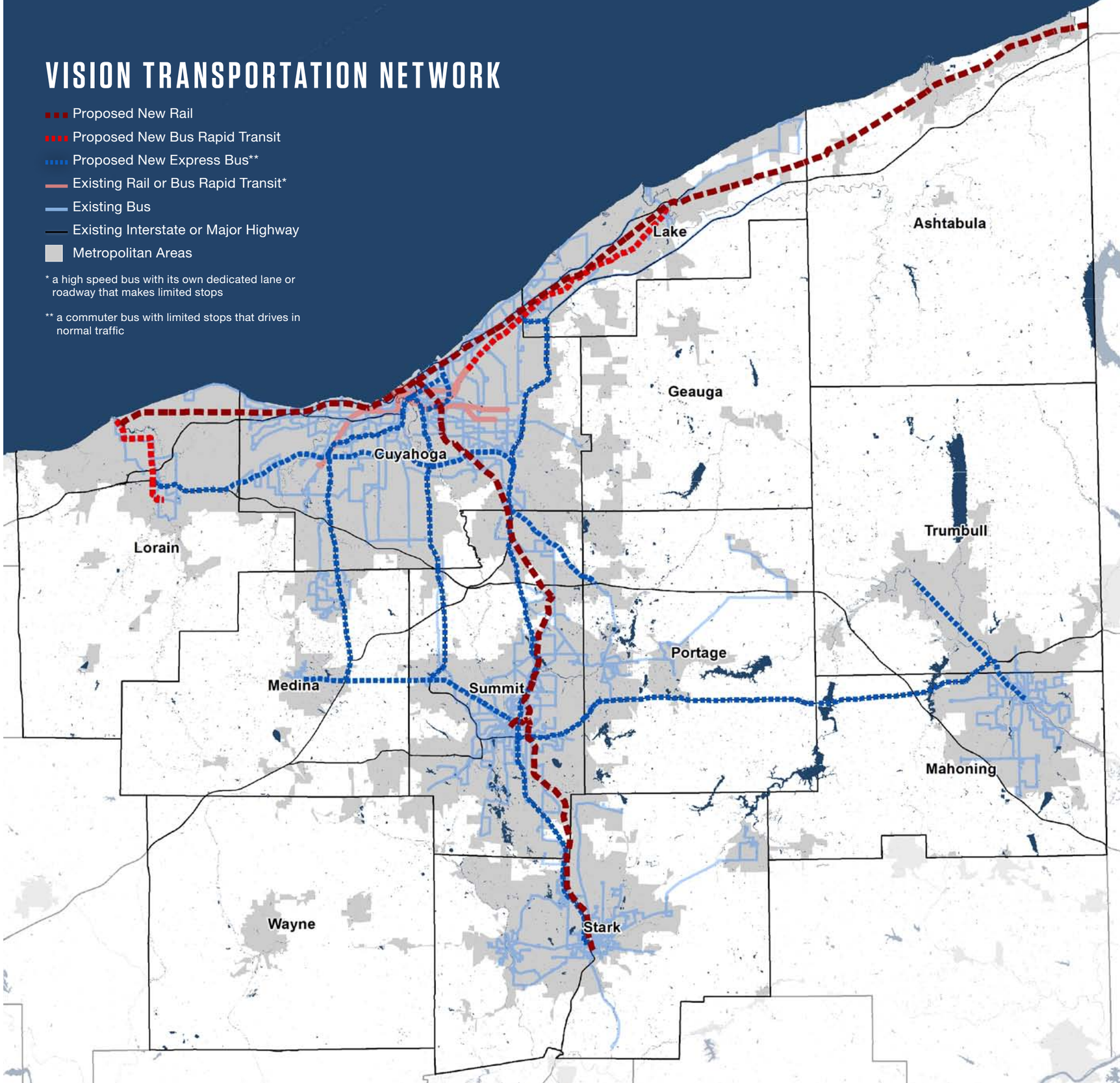


VISION TRANSPORTATION NETWORK

- Proposed New Rail
- Proposed New Bus Rapid Transit
- Proposed New Express Bus**
- Existing Rail or Bus Rapid Transit*
- Existing Bus
- Existing Interstate or Major Highway
- Metropolitan Areas

* a high speed bus with its own dedicated lane or roadway that makes limited stops

** a commuter bus with limited stops that drives in normal traffic



Bus Rapid Transit (BRT): the buses in a BRT system spend the majority of their trips in their own dedicated lanes or roadways, make fewer stops than a local bus, sometimes have traffic signal priority at intersections, and let people pay before they board to shorten the time buses are not moving. BRT functions like a streetcar or light rail.

Express Bus: express bus make even fewer stops than a local bus or a BRT, since its primary function is to carry passengers over long distances, often using highways rather than local streets. It provides an alternative to rail-based commuting between major towns and cities.

PRESERVE AND PROTECT NATURAL RESOURCES

Protecting the region's air, water, and soil was frequently cited as the number one priority elicited through public engagement, and consequently, it is one of the primary themes of the Vision. This theme covers parks, public gardens, trails, rivers, streams, lakes, natural areas, and farmland.

One key aspect of the Vision is a significantly expanded natural areas network. The map below shows this network in detail.

This network includes many parts:

Greenways: trails, paths, or natural areas that provide connections throughout the open space system

River corridors: the land immediately adjacent to rivers and streams. It is important to protect this land because it keeps water clean, provides critical habitat, and prevents erosion and sedimentation

Parks and conservation opportunity network: areas that present opportunities for medium-and-large scale natural area protection. These areas could become parks, hunting areas, or wildlife refuges.

Scattered conservation: smaller areas that provide local community recreation. These could be picnic sites, ball fields, playgrounds, etc.

Rural and agriculture landscapes: farmland and other undeveloped parts of the region. The Vision sets a target for conserving these important elements of the natural areas network.

The Vision aims to achieve an increase in protected natural areas from 7% to 15% by 2040. See the "Vision Indicators and Targets" section for more details.

This theme goes beyond direct conservation: it also calls for changes in the region's development patterns, which will improve the way in which human and natural systems interact. The Vision advocates for a reversal of outward migration, which would reduce development pressure on farms and other open space. Even within developed areas, nature persists, in the form of parks, rivers, lakes, and wildlife. When these systems clash, events like flooding occur. An integrated approach that enables human and natural systems to mutually co-exist in the same spaces is not only practical—it is ideal. This also means recognizing and planning in accordance with natural, as opposed to political boundaries. Watersheds, for example, have their own edges that do not align with jurisdictional boundaries. Watersheds, for example, have their own boundaries that do not align with jurisdictional boundaries. The actions of upstream communities directly impact the fate of downstream communities, so it is necessary that they cooperate. In fact, **the inter-jurisdictional qualities of natural systems provide one of the strongest arguments in support of regional planning.**

The benefits of good natural area stewardship are multifold. From an ecological perspective, it ensures that the region has clean air, water, soil, and viable habitat for its plants and animals. It also provides valuable recreation opportunities for residents to get outdoors and enjoy nature. Culturally, the images of farmland, forests, and other open space landscapes are just as much defining features of the mental image of Northeast Ohio as the skylines of its major cities, Western Reserve town centers, and other regional symbols. Farms provide obvious economic contributions to the region as well as the basis of local food security. Protecting prime soil and supporting local food networks are in the region's best interest.

Like transportation, preserving and protecting natural areas has just as much to do with making connections as it does with creating new parks or conservation areas. The region has a robust trail network. In many cases, an extension or a linkage would yield greater benefit than an entirely new addition. Lake Erie and the region's smaller inland lakes and reservoirs are incredible assets for those communities adjacent to them: the Vision advocates making these assets accessible to a greater number of people with strategic open space linkages.

How does conservation work?

For land that is currently owned by private individuals, the decision to conserve is entirely voluntary. The land owner may outright sell the property to the public sector or a non-profit organization, or they may sell only the option to develop the land, ensuring that it remains undeveloped in perpetuity while staying in private hands. Some land already belongs to non-profits or the public sector but is not being used for conservation today, in which case those entities can choose to switch the use of the land in the future.

VISION NATURAL AREAS NETWORK

- Sewered Urbanized Area
- Greenway
- Parks and Conservation land
- Rural and Agriculture Landscapes

PROMOTE COLLABORATION AND EFFICIENCY

Many communities and regions in post-recession America are required to **do more with less** and to become increasingly resourceful in the face of shrinking federal and state support. Northeast Ohio is no exception. Vibrant NEO 2040 has dedicated substantial resources to understanding the real operating constraints facing the region's communities today. These constraints can be overcome, but it will require collaboration and efficiency.

Strategic efficiencies involve getting the highest return for the investment of limited resources. Time is an important element for understanding pay-off versus cost. One of the rare opportunities afforded by a project like Vibrant NEO 2040 is to be able to step back from the usual time-frames in which decisions are made—at most a few years into the future—and consider the long-term impacts of choices we can make today. The fiscal impact analysis demonstrated that while some initiatives may be attractive in the short-term, these same investments may end up being financial liabilities over the long-term. The empty shopping malls of today are a reminder of the dangers of investing too heavily in a rigid style of development whose appeal is based on a moment in time. The Recommendations and Development Strategies offer numerous ways to create **resilient communities that can accommodate changing demographics and generational preferences.**

Efficiency can also be regional in scale. A tug of war between communities for a fixed number of jobs is not an efficient regional economic development strategy. Instead of cannibalizing its own resources, the Vision proposes that Northeast Ohio grow new jobs and attract others from outside the region or the country. The strategy is to grow the pie, not fight over the pieces.

An important step for achieving efficiency, both locally and regionally, is collaboration. Time and again, the Project Team has discovered an initiative in one part of the region that is unknown everywhere else. This means each community must "reinvent the wheel" rather than learn from the experience of its neighbors. The Vision encourages communities to identify common ground and to connect with existing regional initiatives. Many times, the solution is not to create a new organization or an initiative—it is to connect two or more existing organizations or initiatives. The Vision presents a number of ways that communities can self-identify and find counterparts: the 2nd ring suburbs of Cleveland can learn from the 2nd ring suburbs of Youngstown, the asset risk areas of Lorain can learn from the asset risk areas in Akron, and so on. Just like all the other Vision themes, efficiency and better governance is largely about making connections.

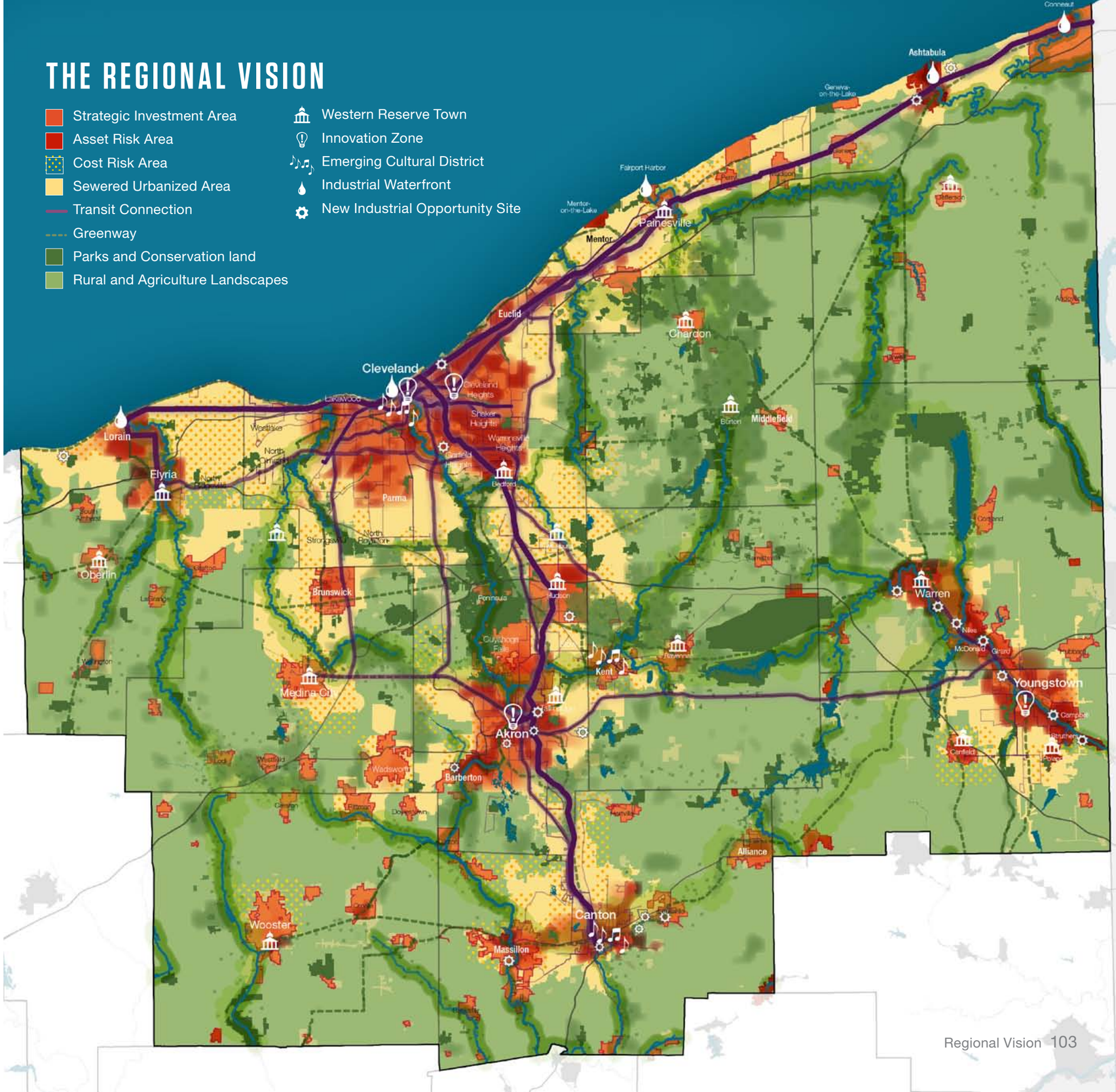
In addition to its many other roles, NEOSCC was intended to provide a platform precisely for this kind of collaboration and networking. Beyond Vibrant NEO 2040, it will greatly benefit the region to continue the momentum established by NEOSCC. This continuation could be formal or informal, centralized or distributed, but the main priority is that it connects the themes, issues, opportunities, topics, and actors that are necessary for achieving the Vision.

PUTTING THE PIECES TOGETHER: COMPOSITE VISION MAP

The following map combines all of the major Vision themes into a single image.

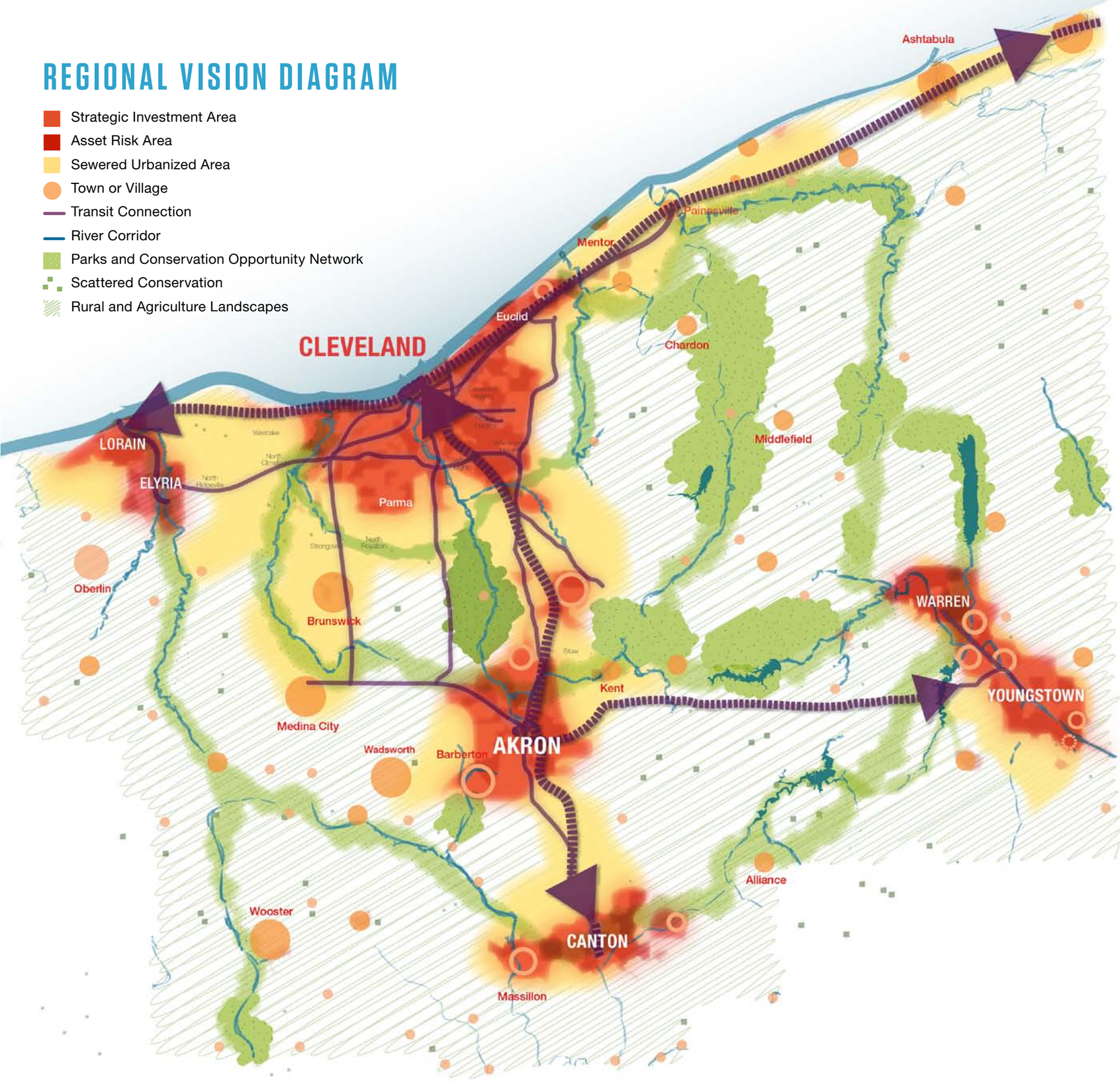
Major spatial features of the Vision include:

- Communities grouped by investment strategy
- Location-based assets
- The envisioned edge of regional development
- Major transportation connections
- Greenways and large open space
- Key waterways



REGIONAL VISION DIAGRAM

- Strategic Investment Area
- Asset Risk Area
- Sewered Urbanized Area
- Town or Village
- Transit Connection
- River Corridor
- Parks and Conservation Opportunity Network
- Scattered Conservation
- Rural and Agriculture Landscapes



This image highlights major proposed connections, an envisioned community mosaic, and a necklace-like system of concentric green rings. It is not an invention without precedent: it is a strengthening of a system that already exists. The centers are reinforced, the gaps are filled, the connections are made, and the human and natural systems are in balance.

VISION INDICATORS AND TARGETS

The Vision Indicators provide a way to track progress toward achieving the Regional Vision. Each indicator includes:

- Description and discussion
- Present-day values
- Relevant scenario results
- Data sources and guidance on measurement
- 2040 aspirational target(s)

INDICATORS

- Development Location: Percent of Development In Urbanized and Urbanizing Area
- Urban and Multi-Family Housing
- Housing Vacancy Rate
- Housing + Transportation Costs
- Existing Road Infrastructure Maintenance
- Roadway Investment Balance
- Commute Mode Share
- Vehicle Miles Traveled (VMT) Per Capita
- Transit Proximity: Jobs And Residents
- Open Space Conservation: Acres Of Parks And Protected Land
- Riparian Corridor Protection
- Clean Water
- Clean Air

All targets are regional in nature: they provide goals for the region as a whole. While calculation methods may involve adding values from separate counties, targets are not intended to be tracked at the county level. They are also provided for a single time frame: 2040. In some cases, intermediate goals are provided, but unless otherwise stated, targets are for the year 2040. Annual tracking is recommended where data sources allow.[1] Data collection and analysis could be conducted by NEOSCC, individual Consortium members, partners, or a combination of these groups. Targets are intended to be ambitious yet feasible.

Tracking these indicators depends on current data availability. Existing data sources that are updated regularly are referenced wherever possible. Generally, data referenced are either from outside sources like the American Community Survey (ACS)[2] or were generated as part of Vibrant NEO 2040 and will be made available from the NEOSCC website.

The selection of indicators and targets draws heavily on the results of the scenario planning process. The Trend Scenario showed us the likely future value of an indicator in 2040 if current development trends and patterns continue. The alternative scenarios showed outcomes that might result from different spatial patterns and growth trajectories. Linking the targets to scenario outputs also enables public feedback to influence target selection in a direct manner. Feedback gathered at the Open Houses shows a significant preference for the two “Differently” scenarios, as opposed to continuing with current policies, so the Vision Indicator targets have been set to match this preference.

Although scenario results are used wherever possible, in some instances it was important to include additional indicators. The scenario process was a learning tool to test policies, identify desirable outcomes, and understand regional sensitivities to large, structural changes. The scenarios unfolded in an artificially constructed environment; in real life, we can measure a wider variety of phenomena that are important to the regional objectives but may not have been present in the modeled world of the scenarios. Drawing from both, this list attempts to provide a concise list of key Regional Vision indicators.

Vibrant NEO 2040 Dashboard

One of the outcomes of the Vibrant NEO 2040 process was the creation of design specifications for a potential Regional Dashboard. It includes both the Vision Indicators as well as a second set of indicators called Context Indicators. This second set is meant to track topics outside of the core thematic focal areas of Vibrant NEO 2040, including macroeconomics, education, health, and demographics. Unlike the Vision Indicators, the Context Indicators do not uniformly provide present-day values, targets, policies, strategies, best practices, or pilots, which is why they are not included in the Vision. Further research will be necessary to expand on the Context Indicators.

1 For most of the indicators, data can be compiled annually, but in a few cases, new data may only be released periodically. For these indicators, tracking is recommended as frequently as new data permits.

2 American Community Survey: The United States Census Bureau conducts the ACS as an ongoing statistical survey that samples a small percentage of the population every year.

MASTER LIST OF INDICATORS

Each indicator tracks progress towards achieving one or more of the Vibrant NEO 2040 objectives:

Direct link between objective and indicator

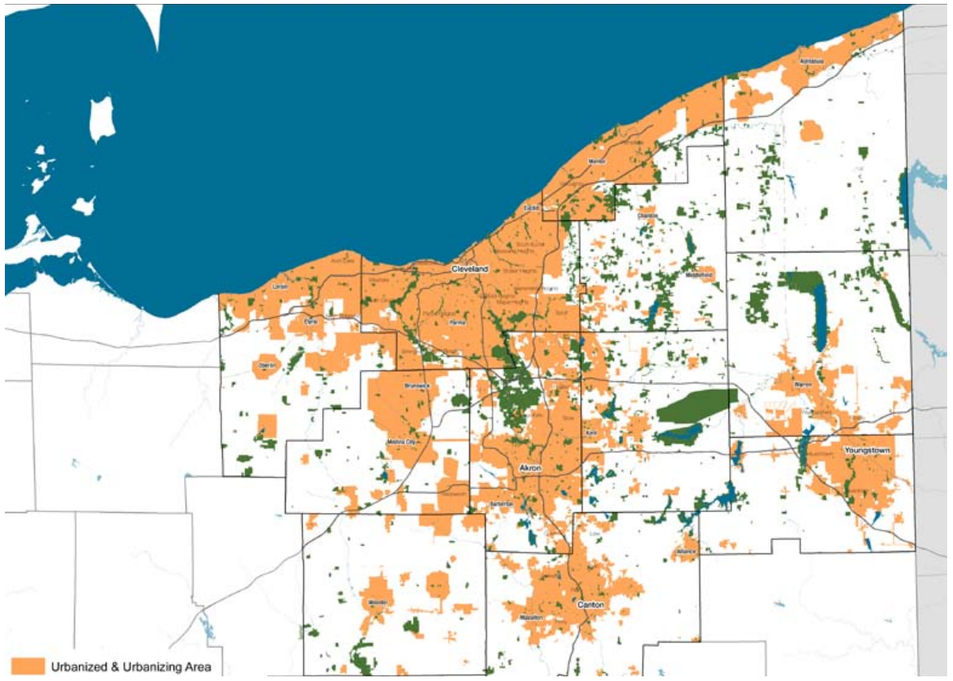
Indirect link between objective and indicator

	Overarching objective: promote investment in our established communities	Protect our soil, air, water, and ecologically sensitive areas	Improve our regional fiscal health	Develop our regional economy with accessible employment opportunities	Enhance our regional transportation network	Cultivate and celebrate our local assets and places of public value	Expand our parks and open space network	Preserve and value our prime farmland as a regional economic asset
STRENGTHEN ESTABLISHED COMMUNITIES								
Development Location: Percent of Development In Urbanized and Urbanizing Area	■	■	■	■	▪			■
Urban and Multi-Family Housing	■	▪			▪	▪		▪
Housing Vacancy Rate	■		■		▪	■		
Housing + Transportation Costs	■			■	▪	▪		
Existing Road Infrastructure Maintenance	■		▪	■	■	▪		
INCREASE TRANSPORTATION CHOICE								
Roadway Investment Balance	■	▪		▪	■	■	▪	
Commute Mode Share	▪	▪		■	■	▪		
Vehicle Miles Traveled (VMT) Per Capita	▪	■		■	■			
PRESERVE AND PROTECT NATURAL RESOURCE								
Transit Proximity: Jobs And Residents	■		▪	■	■	▪		
Open Space Conservation: Acres Of Parks And Protected Land	▪	■				▪	■	■
Riparian Corridor Protection		■	▪			▪	■	
Clean Water	■	■				■	■	
Clean Air		■					▪	

DEVELOPMENT LOCATION: PERCENT OF DEVELOPMENT IN URBANIZED AND URBANIZING AREA

Over the last several decades, new development in the region has occurred predominantly on undeveloped sites away from established communities. This development pattern:

- Requires investments in new infrastructure, which have significant impacts on local budgets, particularly when paying for operations and maintenance over a long period of time
- Increases abandonment risk in older areas
- Impacts rural areas and agricultural land
- Generally increases distances between homes, jobs, and other destinations and decreases opportunities for convenient public transit access. As a result, getting between destinations requires more time and usually a personal vehicle



Urbanized and Urbanizing Area

On the other hand, focusing development within and adjacent to established communities has important fiscal, social, and environmental benefits for the region. Infill, redevelopment, and development adjacent to existing communities helps create the kinds of mixed-use, walkable neighborhoods that we have been told are desirable by those members of the public that participated in the surveys, Trend Scenario Workshops, Open Houses, and ImagineMyNEO. Development within the existing urbanized area leverages already-built infrastructure investments, which helps save tax payer dollars. It also helps preserve natural areas and valuable farmland. Public feedback indicates a strong desire for prioritizing investment in established communities.

The urbanized and urbanizing area is not a policy boundary, but rather, a measuring device that delineates the edge of existing infrastructure.

The urbanized and urbanizing area includes:

- Census-defined urbanized areas[3]
- A half-mile buffer around the Census-defined urbanized areas
- Areas where local governments have adopted a plan to extend sewer service

The urbanized and urbanizing area excludes:

- Areas within the Census urbanized area that do not currently have sewer service and are not slated to receive it according to current plans

Currently, nearly 90% of the jobs and more than 80% of the homes in the region are within the urbanized and urbanizing area. This area is large enough to accommodate all projected future growth out to 2040.

Possible data sources:

- Urbanized and Urbanizing Area: available online from NEOSCC
- Jobs: Longitudinal Employer-Household Dynamics
- Housing: American Community Survey or building permit GIS data

Targets: At least 91% of new jobs and 81% of new housing development should be located within the urbanized and urbanizing area

DEVELOPMENT IN URBANIZED AND URBANIZING AREA		
	% OF JOBS IN URBANIZED AND URBANIZING AREA	% OF HOMES IN URBANIZED AND URBANIZING AREA
Current Conditions	89.9	83.3
Trend	74.2	62.1
Grow the Same	73.2	55.7
Do Things Differently	92.6	87.6
Grow Differently	91.4	81.1

Data source: NEOSCC, Sasaki Associates, and Fregonese Associates

3 Census definition of "urbanized area." This is a distinction between rural areas and places that are more densely settled. It includes more than just the dense downtowns that most people would think of as "urban." See the Census Bureau's website for more information: http://www.census.gov/geo/reference/ua/urban-rural-2010.html. See also a similar discussion at the beginning of the "Vision Themes" section.

URBAN AND MULTI-FAMILY HOUSING

This indicator measures the percentage of all housing units that are "urban or multi-family," including:

- single-family homes on lots smaller than 7,000 square feet
- two or three-family dwellings
- multi-family apartments

Urban or multi-family includes not only downtown apartment buildings, but also a range of other compact housing types. For instance, neighborhoods like Cleveland Heights and Highland Square in the City of Akron have small-lot, single-family homes that fit within this category.

Urban and multi-family housing styles use land more efficiently than larger-lot, detached single-family homes, reducing many environmental impacts of development and reducing the linear extent of infrastructure needed to service it. Higher residential densities make frequent and convenient public transit service possible and increase the number of destinations within walking or bicycling distance. In addition to this, there is a strong central tendency in the feedback we received from public outreach events suggesting that the demand for this kind of housing is not being met by current supply.

Despite their advantages, the current trend is a decrease in both absolute and relative terms in these kinds of homes. Currently, urban and multi-family units comprise 44% of the region's housing supply. In the Trend Scenario, these housing units fall to 39% in 2040 (absolute loss of about 60,000 units). Factors driving this trend include a loss of urban and multi-family units due to abandonment in urban areas and an increase in single-family homes on larger lots in new suburban construction.

"Grow Differently" and "Do Things Differently," conversely, result in an increased percentage of overall housing in urban and multi-family units. These two scenarios were heavily favored by workshop participants, consistent with feedback that expressed a strong preference for compact, mixed-use neighborhoods. The Vision's aspiration is not that all housing becomes urban or multi-family—housing diversity is important because different people have different housing needs. Rather, consistent with public feedback, the Vision advocates that a higher percentage of the region's new housing be urban or multi-family.

This target is slightly above the current percentage and reflects a more balanced approach to housing.[4] This is a 5.2 percentage point increase from today's housing composition. Increasing urban and multi-family homes to 50% by 2040 is the equivalent of increasing by 0.2 percentage points each year.

Possible data sources:

- Parcels with land use information
- Building permits
- American Community Survey

URBAN AND MULTIFAMILY HOUSING

	% OF ALL HOUSING UNITS THAT ARE URBAN OR MULTIFAMILY
Current Conditions	44.8
Trend	39.0
Grow the Same	38.7
Do Things Differently	46.1
Grow Differently	46.8

Data source: ACS (block group), Sasaki Associates, and Fregonese Associates

Target: 50% of the region's homes should be urban or multi-family

Examples of "urban or multi-family" housing *City Architecture*

Examples of "urban or multi-family" housing *City Architecture*

4 50% is higher than any of the four scenarios, but despite this, the Project Team believes that it is an achievable number. None of the scenarios were designed to maximize urban and multi-family housing, so they should not be interpreted as the outer limits of what is possible. Based on the public feedback on this topic (very high desire for compact, mixed-use neighborhoods), the Project Team revisited the GIS data and examined what would be the possible outer limit, which it concluded is about 50%.

HOUSING VACANCY RATE

Currently, 10.7% of Northeast Ohio's housing stock is vacant.[5] A healthy range for Northeast Ohio would be of 5-7%.[6] High residential vacancy negatively impacts local budgets by reducing the amount of tax revenue collected and affects quality of life for residents by creating gaps in a neighborhood.

Unhealthy vacancy rates in Northeast Ohio are largely a result of building more residential units in outer-ring suburban areas without having population growth to fill existing homes, leading to significant abandonment. This regional "churn" without population growth results in significant increases in government spending as communities must build more infrastructure to serve an increasingly dispersed population.

This indicator provides a view of how well the region utilizes its existing housing stock. Abandonment and over-building both impact this measure. The vacancy rate is the number of vacant housing units divided by the total number of housing units.

Possible data source:

- American Community Survey

Vacant structures impact quality of life in neighborhoods. *Sasaki Associates*

NEW HOUSING AND ABANDONMENT		
	HOUSING UNITS BUILT	HOUSING UNITS ABANDONED
Trend	276,800	174,900
Grow the Same	546,000	93,100
Do Things Differently	120,700	19,800
Grow Differently	459,000	2,400

Data source: NEOSCC, Sasaki Associates, and Fregonese Associates

Target: No more than 7% of housing units should be vacant

5 American Community Survey (2007-2011)

6 Sasaki Associates, 2013

HOUSING + TRANSPORTATION COSTS

Combining housing and transportation costs is a useful way of measuring affordability since these costs make up a significant portion of the average household's budget. This indicator is emerging nationally as a critical test of overall cost of living. Keeping housing and transportation costs low means that families can afford decent housing and the mobility necessary to get to work and maintain a high quality of life.

Combined spending on housing and transportation that accounts for less than 45% of income is considered affordable.[7] Today, 82% of Northeast Ohio residents spend more than 45% of their income on housing and transportation costs.[8] This percentage is higher than many other places in the country. The table below shows how Northeast Ohio, and its major metro areas, compares to 16 other regions in the country.

Northeast Ohio should aim to reduce the percentage of families and residents burdened by combined housing and transportation costs. The median percentage of comparison cities is about 67%.

In Northeast Ohio, high transportation costs are the primary factor burdening household budgets from an H+T perspective. Generally, housing is considered affordable if it requires no more than 25-30% of a household's income. Most housing in Northeast Ohio is affordable by this standard. 76% of Northeast Ohio residents spend less than 30% of their income on housing.[9] Meeting the H+T target will require taking steps to reduce transportation costs.

Data about housing and transportation costs are available from the Center for Neighborhood Technology's Housing and Transportation (H+T®) Affordability Index.[10] Housing costs are based on Median Selected Monthly Owner Costs and Median Gross Rent data from the American Community Survey.[11] Transportation costs are based on multi-dimensional regression analysis to estimate costs of auto ownership, auto usage, and public transit usage.[12]

Possible data source:

- Center for Neighborhood Technology's Housing and Transportation (H+T®) Affordability Index
- Department of Housing and Urban Development and Department of Transportation's *Location Afforability Index* and *My Transportation Cost Calculator*

HOUSING AND TRANSPORTATION (H+T) COSTS BY REGION (CURRENT)

REGION	% OF POPULATION THAT SPENDS >45% OF INCOME ON HOUSING + TRANSPORTATION COSTS
Full NEO Region (12 Counties)	82
Cleveland-Elyria-Mentor	**77.8**
Akron	**82.1**
Canton-Massillon	**88.3**
Youngstown-Warren-Boardman	**94.3**
Atlanta	79.9
Cincinnati	79.2
Columbus	75.3
Detroit	72.2
Pittsburgh	71.7
Indianapolis	70.7
Buffalo	69.2
Milwaukee	67.4
St. Louis	67.1
Chicago	64.6
Minneapolis-St. Paul	61.3
Hartford	60.2
Philadelphia	59.3
Boston	58.6
Baltimore	55.5
Washington, D.C.	43.8
Median for peer regions	67

Data source: H+T Affordability Index - http://htaindex.cnt.org/map/

Target: No more than 65% of the region's households should spend beyond 45% of their total household income on housing and transportation combined

7 Center for Neighborhood Technology's Housing and Transportation (H+T®) Affordability Index; http://htaindex.cnt.org/about.php

8 H+T Affordability Index: http://htaindex.cnt.org/map. Northeast Ohio regional total calculated with weighted average of county values. Northeast Ohio includes 4 "regions" in The H+T Index's standard geographies. Values for these four regions are shown in the table to allow for a better comparison to other regions.

9 Housing and income data from ACS 2007-2011

10 http://htaindex.cnt.org/map

11 2009 5-year estimates

12 For more information about the methodology, see http://htaindex.cnt.org/about.php

EXISTING ROAD INFRASTRUCTURE MAINTENANCE

Public feedback indicated a broad desire to improve the condition of existing roads. Many comments at the Open Houses suggested that road infrastructure should remain high, but that the focus should be on maintaining existing roads, not building new ones.

Across Ohio, there are 2,900 miles of roads are in poor condition and 2,750 bridges that are structurally deficient. To repair these roads and bridges, approximately $2.3 billion is needed each year for the next 20 years.[13]

The Ohio Department of Public Works (DPW) evaluates roads on a five–item scale (Critical, Poor, Fair, Good, Excellent).[14] As of 2006, approximately 17-20% of major roads in the region were in less than good condition.[15]

Possible data sources:

- ODOT [16]

Target: All major[17] roads should achieve at least a 'Good' on the Ohio DPW evaluation standard

13 http://www.smartgrowthamerica.org/documents/smart-transportation-ohio.pdf

14 http://www.pwc.state.oh.us/Documents/CIRManual.pdf

15 GIS analysis by Sasaki Associates, based on 2006 ODOT GIS Files (values less than or equal to 3 in "Condition" field)

16 Data updates are only available periodically, so this indicator can only be updated when new data is released (not annually like most of the other indicators).

17 Ideally, this target would include all roads in the region, but currently road condition data is not available for many non-major roads. If additional data were to become available in the future, the condition of non-major roads could be tracked as well.

ROADWAY INVESTMENT BALANCE

The region already has a significant road network with capacity to accommodate virtually all forecasted growth out to 2040. Public feedback has communicated a strong desire to expand bicycling and walking opportunities and improve existing road infrastructure, rather than building new roads. By tying new road creation to new investments in bicycle and pedestrian infrastructure, this indicator helps ensure that if road networks are expanded, similar investments are made in alternative transportation methods.

The scenarios show that new development can be accommodated without significant new road construction, if a "different" approach is adopted. The four scenarios result in between 700 and 6,000 additional lane miles of roads. Grow Differently results in 2,400 lane miles to accommodate 875,000 new residents, or 2.75 lane miles per 1,000 new residents. Some new road construction is likely to be needed, but it can be kept to a minimum. Minimizing road construction helps reduce the amount of money governments must spend building and maintain more roads.

The rationale behind this indicator is that the region has a sufficient supply of roads but a shortage of sidewalks and bicycle lanes. Driving between places is generally easy; walking or bicycling is not possible in many places even for short trips. For instance, Mahoning and Trumbull counties have, respectively, 71% and 86% fewer miles of sidewalks than roads.[18] The region has about 660 miles of bicycle paths, trails, or on-road lanes.[19] This indicator seeks to emphasize the importance of "catching-up" in bicycling and walking investments so people have greater choice about how they get from place to place.

Bicycle and pedestrian infrastructure in this indicator includes on-street bicycle lane miles and linear miles of sidewalks built or repaired (5-foot minimum width). On-road bicycle lanes are distinguished from off-road trails because the existing trail network in the region serves primarily recreation functions—it does not really connect between existing job centers. On-road investments can play greater roles in expanding opportunities for bicycling to work or other destinations.

Bicycle lane infrastructure should prioritize filling missing links in the network, connecting to the transit network and key destinations such as schools, commercial nodes, and public facilities.

In addition, each lane mile of new road should be accompanied by the following investments in bicycle and pedestrian infrastructure (both of the following; not either/or):[20]

- At least the 2 miles of on-road bicycle lane miles (5-foot minimum width)
- At least 4 miles of sidewalks (5-foot minimum width), new or repaired

Possible data sources:

- Bicycle and sidewalk infrastructure: MPOs (for projects funded completely or in part by state funds) and local government (for projects funded without state funds)
- New road infrastructure: ODOT or MPOs

NEW ROAD CONSTRUCTION

	NEW LANE MILES
Trend	3,100
Grow the Same	6,000
Do Things Differently	700
Grow Differently	2,400

Data source: Sasaki Associates and Fregonese Associates

Targets: New road infrastructure should be capped at 2.75 lane miles per projected 1,000 additional persons for a maximum additional 2,400 lane miles throughout the region

18 Mahoning County: 919 miles of sidewalk; 3167 linear miles of roads; Trumbull County: 527 miles of sidewalk, 3831 linear miles of roads. Calculations by project using GIS analysis. Calculation notes: Roads are measured in linear miles, not lane miles due to data limitations. Sidewalks are also measured in total linear miles (sidewalks on both sides of 1 mile road = 2 miles of sidewalk). These two counties were selected because they were the only counties for which the Project Team had complete sidewalk data.

19 GIS analysis by Project Team based on bicycle and trail data provided by NOACA, Ashtabula County, Wayne County Auditor's Office, Eastgate, AMATS, Western Reserve Land Conservancy, and Youngstown State University.

20 The Project Team, with lead guidance provided by Nelson/Nygaard, arrived at these ratios after careful consideration of Northeast Ohio's bicycle and pedestrian network compared with peer regions. If the target were 1 mile of bicycle lane for every 1 mile of road, the region would increase its bicycle infrastructure by 3.6 times (2,400/665 = 3.6). This would be a good start, but the Vision is meant to be as aspirational as possible, while still being feasible. With bicycle lane miles at no less than twice the amount of new road lanes, the region would top a 7x increase. Furthermore, based on public feedback and an examination of the region's pedestrian network, the Project Team concluded that improvements in sidewalks are even more urgent than the bicycle network. The goal of 4:1 reflects this urgency, yet is still within a comparable scale to the bicycle network's 2:1.

Target: By 2040, reduce region-wide drive-alone commute trips to less than 67% (by 2020, reduce drive-alone commute trips to 79%)

COMMUTE MODE SHARE

This indicator provides the primary measure of transportation choice, which is one of the four central themes of the Vision. Mode share is the percentage of all trips made using a certain mode of transportation. A standard approach to setting mode share goals is to focus on commute travel, which has the most consistent data sets available, and where peak trips can most frequently be shifted through policies and programs.

The American Community Survey (ACS) includes data titled 'means of transportation to work', which is effectively commute mode share. ACS can therefore be used to measure the region's commute mode share. The region's current drive alone commute share is 84%.[21]

The target of 67% represents an ambitious, yet achievable objective. Many regions around the country are on track to hit similar or more aggressive goals by implementing a similar suite of policies recommended by the Vision.

An interim target for a 5 percentage point reduction by 2020 is given to provide incentive to start now. Five percentage points represents a significant shift, and can be achieved by improving just 1% per year. It can be achieved through policies and actions that are not capital intensive. For instance, express bus service could be implemented immediately at low cost. These networks could have a significant impact on the range of available commute choices.

Possible data source:

- American Community Survey

21 ACS 2007-2011

What are the targets being pursued by other cities and regions?

Denver, Colorado

Twice a year, the Denver Regional Council of Governments (DRCOG) updates Metro Vision and related regional plans. The current version of the plan, Metro Vision 2035, was updated in February 2011 to include goals for mode share. As part of the goal to promote development patterns and community design that accommodates people of all ages, incomes, and abilities, the plan seeks to:[22]

- Reduce the percent of trips to work by single-occupant vehicle to 65 percent of work trips by 2035
- Reduce regional per capita vehicle miles traveled (VMT) 10 percent by 2035

DRCOG intends to accomplish these goals through travel demand management and the development of a multimodal transportation system that incorporates regional and local road networks, regional rapid transit, bus rapid transit, and fixed route service, as well as bicycle and pedestrian facilities. The main objective of the travel demand management (TDM) strategies is to reduce demand for single-occupant vehicle travel by eliminating trips, shortening trips, or changing travel mode or travel time of day. TDM activities include promotion and availability of alternative travel modes, transit-supportive development principles, travel pooling, and telecommuting.[23]

The Denver Bicycle Program established the goal of increasing bicycling commuting to achieve a 10 percent bicycle mode share by 2018.[24]

22 "Metro Vision 2035 Plan." Denver Regional Council of Governments. http://www.drcog.org/documents/2011%20MV%202035%20Plan%20for%20Web5-12-11.pdf (accessed January 24, 2012). 22.

23 "Metro Vision 2035 Plan." 30.

24 "Denver Bicycle Program." City and County of Denver. http://www.denvergov.org/bikeprogram/BicyclinginDenver/AboutUs/tabid/438237/Default.aspx (accessed January 24, 2012).

Rochester, Minnesota

The Rochester Downtown Master Plan, published in 2010, establishes mode share goals intended to reduce congestion and support the future growth of the city. The plan seeks to:

- Reduce the mode share of single-occupancy vehicle travel to 60 percent by 2020 and 50 percent by 2030.
- Increase the mode share of transit to 17 percent by 2020 and 23 percent by 2030.
- Increase the mode share of bicycling and walking to 10 percent by 2020 and 13 percent by 2030.
- Increase the mode share of carpooling to 13 percent by 2020 and 14 percent by 2030.

In 2008, the mode split for downtown commuters was 71 percent single-occupancy vehicle, 12 percent carpool, 10 percent transit, and 7 percent bicycling and walking.[25]

Omaha, Nebraska

The Metropolitan Area Planning Agency (MAPA) adopted the Long Range Transportation Plan 2035 for the Omaha-Council Bluffs metropolitan area in 2010. The plan includes the goal of increasing mode share for public transit, bicycling and walking to 10 percent by 2035. According to 2006-2008 Census ACS Data, approximately 94 percent of work trips are made using single-occupancy vehicles or carpools.[26]

25 "Downtown Master Plan." City of Rochester, Minnesota. www.rochestermn.gov/departments/planning_zoning/pdf/RDMP_Report_Final-8-2010_web.pdf (accessed January 24, 2012). 88.

26 "Long Range Transportation Plan 2035." Metropolitan Area Planning Agency. http://www.mapacog.org/images/stories/SSH_LRTP/LRTP_2035_OrderRef.pdf (accessed January 24, 2012).

VEHICLE MILES TRAVELED (VMT) PER CAPITA

Even though the population in Northeast Ohio has been nearly stable for the past two decades, total vehicle miles traveled (VMT) has increased 21%.

While growth is an outcome sought by many in Northeast Ohio, additional time, distance, and cost of travelling each day is not. VMT per capita has broad impacts on the environment and quality of life for residents. Spending more time in a car can increase blood pressure, reduce physical activity, and have other health impacts.[27] In addition, transportation-related emissions contribute significantly to overall air quality in the region; air pollution contributes to asthma and other health problems for residents, especially children and older adults.

Reversing the current trend and reducing VMT per capita would reduce transportation costs for households, improve air quality, reduce related health impacts, and reduce greenhouse gas emissions.

Establishing a target to lower regional VMT involves focusing on the relationship between land use and transportation demands. Low density development is one of the principal contributors to VMT. Infilling development (commercial and residential) increases density and mixes compatible land uses so that residents and employees are close enough to walk, bike, or ride transit for certain trips, allowing more people to accomplish more activities while driving fewer miles.

Possible data sources:

- VMT: ODOT
- Population: American Community Survey
- Employment: Bureau of Labor Statistics or County Business Patterns

VMT is measured as total daily vehicle miles traveled per capita.[28] This is a measurement of all driving in the region, not just trips by Northeast Ohio residents. It is based on ODOT's on-going data collection and can follow the same methodology.[29]

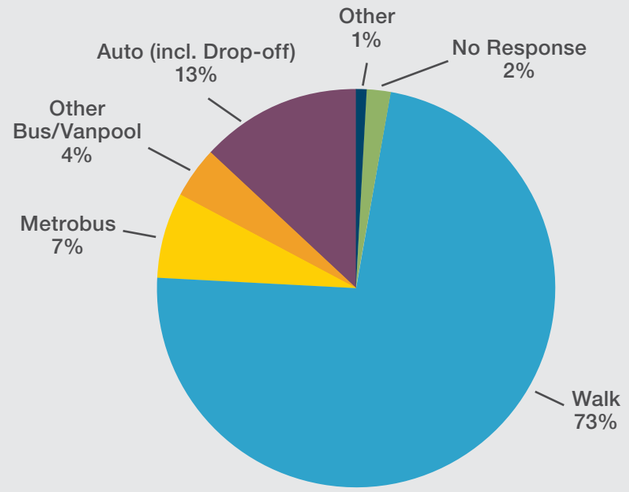
PEOPLE ARE DRIVING MORE IN THE REGION

	TOTAL DAILY VMT	POPULATION	DAILY VMT PER CAPITA
1990	79,256,000	3,821,000	20.7
2000	91,415,000	3,918,000	23.3
2010	96,232,000	3,821,000	25.2

Target: VMT per capita should decrease, even if population and employment increase

Rosslyn-Ballston Corridor, Arlington, VA

The Rosslyn-Ballston Corridor in Arlington County, Virginia is a leading example of a region that has been able to grow rapidly without requiring everyone to drive. Planning decisions made in the 1960s channeling most development along the proposed Metro transit line helped the community grow without a relative increase in local car trips. Development has generated only modest levels of additional traffic on local streets; while the population has increased, traffic congestion has not. Arlington also implemented an extensive transportation demand management program to help residents, workers, and businesses find alternatives to driving. Only 13% of passengers boarding the five Rosslyn-Ballston stations use a car to reach the station and nearly three-quarters of Metro riders walk to reach rail stations.



Metrorail Access at five Rosslyn-Ballston Corridor Stations—39,500 Daily Boardings

WMATA May 2002 weekday Metrorail ridership and access data

Concentrating new commercial and residential development and channelizing it along a transit corridor can lead to a reduction in auto-oriented dependence. In addition, it helps preserve the character of older residential neighborhoods by focusing on active land uses and limiting the use of valuable land for surface parking

27 For example, see Christine M. Hoehner, Carolyn E. Barlow, Peg Allen, and Mario Schootman, "Commuting Distance, Cardiorespiratory Fitness, and Metabolic Risk," American Journal of Preventive Medicine 42, no 6 (2012), 571-578. http://www.ajpmonline.org/article/S0749-3797(12)00167-5/abstract

28 Note: VMT values calculated in the scenarios and presented at the Open Houses included only household trips (trips taken by NEO households); this indicator includes all trips in the region.

29 For a description of the VMT methodology ODOT has used in the past see http://www.dot.state.oh.us/Divisions/Planning/TechServ/traffic/Pages/DVMT.aspx

30 Ohio DOT, Division of Planning, Office of Technical Services. (1990-2011). Daily vehicle miles traveled reports (retrieved 7.3.2013 from http://www.dot.state.oh.us/Divisions/Planning/TechServ/TIM/Pages/DVMT.aspx).

TRANSIT PROXIMITY: JOBS AND RESIDENTS

The region's transit systems have historically provided a high level of service to its legacy cities and 1st ring suburbs. In fact, these communities often were developed around streetcar and rapid transit routes and have the compact development pattern and pedestrian amenities, such as sidewalks and street lights, which continue to support high-quality transit service.

The current trend of lower density, dispersed development moves people and jobs away from existing transit systems and leaves many areas inaccessible for residents without cars. Vibrant NEO 2040 public feedback has indicated a desire for a greater range of transportation options, including public transportation. Ensuring that future development and transit service are considered together will help increase access.

Increasing transit access is possible by expanding transportation service or increasing jobs and homes near transit.

Transit proximity is measured as the percentage of total jobs or residents that are within:

- ¼ Mile (5-minute walk) of frequent local bus service (at least 1 hour frequency, all day[31]), or
- ½ Mile (10-minute walk) of BRT stops, commuter rail stops, or express bus stops

The scenario values show a slight improvement in transit proximity in the Do Things Differently and Grow Differently scenarios.

Possible data sources:

- Population: American Community Survey
- Jobs: Longitudinal Employer-Household Dynamics (LEHD)
- Transit Data: current data at the time of publication is available from the NEOSCC website. Contact ODOT or individual transit provides for more up-to-date GIS files in the future

31 Major cities should aim for much higher frequencies. Nationally, this figure would be 15 minutes or less

Targets: At least 65% of jobs should be near frequent transit service (aim for 55% by 2020 and 60% by 2030) and at least 50% of residents should be near frequent transit service (aim for 38% by 2020 and 44% by 2030).[32]

PUBLIC TRANSIT ACCESSIBILITY IN NORTHEAST OHIO

	% OF JOBS NEAR TRANSIT	% OF RESIDENTS NEAR TRANSIT
Current Conditions	49.6	32.5
Trend	40.8	25.5
Grow the Same	39.4	25.2
Do Things Differently	50.0	35.1
Grow Differently	52.9	34.3

Data source: ACS (block group), existing transit data gathered by NEOSCC, Fregonese and Sasaki Associates

32 While these numbers are higher than the scenario outcomes, the Project Team believes they are attainable. Like urban and multi-family housing, none of the scenarios sought to maximize transit proximity specifically. After revisiting the data, these targets, based on the team's professional experience, are aggressive yet feasible. Part of the rationale for using higher numbers is that the scenarios could not take into account the full set of policies that are now included in the Recommendations. For instance, reducing required parking minimums in urban centers could help reduce housing costs, attracting even more residents to homes near transportation. The scenarios also did not model changes to local bus routes, which, aggregated across the region, could significantly expand transportation service by 2040.

OPEN SPACE CONSERVATION: ACRES OF PARKS AND PROTECTED LAND

Open space conservation is measured as the number of new acres of protected natural areas or farmland per year. Approximately 7% of Northeast Ohio is currently conserved, and the trend has been to conserve an additional 1% each decade. *Common Ground: the Land Protection Report for Northern Ohio* included results of a survey of local conservation partners, reporting "92% of the respondents said the minimum goal for preservation should be 10%; more than two-thirds believed the standard should be 15%" by 2040.[33]

Ten percent conservation will be achieved by 2040 at the current pace of 1% conserved per decade. The scenarios show that more is possible if urbanization occurs "differently." Public feedback gathered at the Trend Scenario Workshops and Alternative Scenarios Open Houses supports higher rates of conservation, showing a preference for more compact urbanization that preserves rural landscapes in the region.

Conservation should be prioritized on land of high cultural or recreational value, critical ecological areas, or valuable farmland.

"Critical ecological areas" are areas that are especially important for protecting natural resources and wildlife. They includes steep slopes,[34] patches of old-growth forests, and areas that otherwise offer special ecosystems for wildlife (unique geology, plants, hydrology, soil, or other factors). These areas are considered "critical" because they are especially at risk from new development. The same house built in one of these areas would have significantly more negative impacts on the environment than one built in a different location.

Protecting farmland helps the region preserve the rural landscapes that workshop attendees have said they desire. Currently, less than 5% of farmland in the region is protected.[35] Reducing development pressures in rural areas can help preserve agricultural land. In addition, agricultural easements and other voluntary tools can help secure productive farmlands in perpetual agricultural use.

33 Western Reserve Land Conservancy, Dec. 2012

34 If developed would likely result in erosion

35 Common Ground: The land protection report for northern Ohio" (Dec 2012)

Possible data sources:

- Parks, conservation land, and open space: current data at the time of publication is available from the NEOSCC website
- Open space data future updates: Western Reserve Land Conservancy and Youngstown State University Center for Urban and Regional Studies

PARKS AND OPEN SPACE CONSERVATION

	% OF REGION CONSERVED	NEW ACRES CONSERVED	NEW ACRES PER YEAR
Current Conditions	8%	n/a	n/a
Trend	10%	121,500 new acres	4,500
Grow the Same	10%	121,500 new acres	4,500
Do Things Differently	15%	288,500 new acres	10,700
Grow Differently	12.5%	205,600 new acres	7,600

Data source: NEOSCC, Sasaki Associates, and Fregonese Associates

Target: Conserve at least 10,700 new acres each year, for a total of 15% of the 12-county region conserved by 2040

RIPARIAN CORRIDOR PROTECTION

Protecting the region's water and water bodies was consistently identified through public feedback as a high priority. Workshop data also reflects a desire to limit development in sensitive areas of Northeast Ohio's watersheds.

Riparian corridor protection is a key aspect of improving and protecting water quality. The land and vegetation adjacent to water bodies:

- Provide important habitat
- Filter excess nutrients like nitrogen and phosphorous from stormwater, which helps keeps water quality high and reduces surplus algae
- Trap erosion and keep sediment from reducing water clarity
- Shade water bodies, which helps maintain water temperature

Riparian corridor protection is measured as the number of acres protected along river and stream corridors. Corridor widths are:

- Rivers: 210 feet from river edge or 100-year floodplain, whichever is greater
- Streams: 75 feet from river edge or 100-year floodplain, whichever is greater[36]

Currently, 94,636 acres of these corridors are protected. This riparian corridor conservation accounts for approximately 25% of all protected open space in the region. The scenarios show that additional protection is possible and favored by workshop participants.

Possible data sources:

- Parks, conservation land, and open space: current data at the time of publication is available from the NEOSCC website
- Future updates to open space data: Western Reserve Land Conservancy and Youngstown State University Center for Urban and Regional Studies
- Ohio DNR Land Use / Land Cover data: available at http://www.dnr.state.oh.us/website/ocm_gis/mapviewer_app/
- Land conservation along waterways: the Watershed Partnerships

RIPARIAN CORRIDOR PROTECTION IN THE SCENARIOS

	ACRES PROTECTED	NEW ACRES CONSERVED	ANNUAL RATE OF PROTECTION (ACRES/YEAR)
Current Conditions*	94,636	n/a	n/a
Trend	112,730	18,094	670
Grow the Same	112,760	18,124	671
Do Things Differently	124,979	30,343	1,124
Grow Differently	115,776	21,140	783

**Data source for current conditions: Sasaki Associates, Fregonese Associates, Mather, Bralich, NEOSCC, Ohio Department of Transportation, and US Census Bureau*

Target: Conserve at least 1,100 new acres of riparian corridors each year, for a total of 30,300 new acres by 2040

36 Dimensions are adapted from model ordinances from Chagrin River Watershed Partners (http://www.crwp.org/index.php/member-services/model-regulations).

CLEAN WATER

Protecting the region's water was consistently identified through public feedback as a high priority. In fact, "clean air, water, and soil" was the top priority selected in ImagineMyNEO.

Ohio EPA is currently working towards goals to improve the quality of state water bodies by 2020. Goals are to improve quality in four beneficial uses of water bodies: aquatic life, human health, public drinking supply, and recreation.[37]

Targets:

Aquatic Life Use

- 100% full aquatic life use attainment on all Ohio large rivers by 2020
- 80% full aquatic life use attainment on Ohio's principal streams and small rivers by 2020
- Identify more high quality waters
- Maintain adequate monitoring coverage on Ohio's principal and small rivers

Human Health Use

- More fish from Ohio's waters will be safe to eat by 2020

Public drinking water supply use

- All drinking water sources will obtain water quality standards by 2020
- All drinking water sources will be assessed (nitrate and atrazine) by 2020

Recreation Use

- Ohio beaches and canoeing streams will be safe for swimming (meet WQS) by 2020
- Maintain adequate monitoring coverage on Ohio's watersheds, large rivers and beaches

37 For more information, including statics to be tracked and baseline values, see http://www.epa.state.oh.us/dsw/bioassess/BeneficialUseGoals.aspx

CLEAN AIR

The Clean Air Act regulates maximum permissible levels of carbon monoxide, lead, nitrogen dioxide, sulfur dioxide, large fine particulates, ground-level ozone, and small fine particulates in the air. The following counties are designated nonattainment areas as of December 5, 2013:[38]

- 8-Hour Ozone (2008 standard)—Marginal: Ashtabula County, Cuyahoga County, Geauga County, Lake County, Lorain County, Medina County, Portage County, Summit County
- Lead (2008 standard)—Nonattainment (not entire county): Cuyahoga County
- Sulfur Dioxide (SO2) (2010 standard)—Nonattainment: Lake County

The impacts of air pollution are significant. Air pollution costs billions of dollars annually due to lost worker productivity and public health costs. Children who live in communities with high levels of pollution tend to have higher instances of asthma, often resulting in higher hospitalization rates and missed school, thereby lowering overall opportunity. Pollution related illnesses also drive up health insurance premiums for individuals and employers.

Air pollution comes from a variety of sources. Exhaust from cars, trucks, and other vehicles carries these pollutants into the air. Emissions from industrial facilities, power plants, and other infrastructure also compromise air quality. Reducing overall vehicle travel in the region can make a big difference in cleaner air. In this way, the vehicle miles traveled Indicator above relates directly to this indicator.

Possible data sources:

- Information about National Ambient Air Quality Standards (NAAQS) attainment status for Northeast Ohio counties is available from:
  USEPA: http://www.epa.gov/oaqps001/greenbk/
  Ohio EPA: http://www.epa.state.oh.us/dapc/general/naaqs.aspx

38 United States Environmental Protection Agency Green Book (retrieved 12.15.2013 from http://www.epa.gov/oar/oaqps/greenbk/ancl.html).

Clean Air and Health

Emissions from vehicles do more than contribute greenhouse gases into the atmosphere; they also negatively impact health. A recent study by MIT's Laboratory for Aviation and the Environment finds that air pollution contributes to 200,000 early deaths annually in the US, with roughly 53,000 of these related to road emissions. Road emissions were related to more early deaths than pollution from power plants or industry.[39]

Target: By 2040, every county should achieve full attainment of National Ambient Air Quality Standards (NAAQS) for all pollutants.

39 Bibliography: http://web.mit.edu/newsoffice/2013/study-air-pollution-causes-200000-early-deaths-each-year-in-the-us-0829.html

For more information see: Fabio Caiazzo, Akshay Ashok, Ian A. Waitz, Steve H.L. Yim, Steven R.H. Barrett. Air pollution and early deaths in the United States. Part I: Quantifying the impact of major sectors in 2005. Atmospheric Environment, Volume 79, November 2013, Pages 198–208.

FUTURE ENVIRONMENTAL INDICATORS, IF DATA BECOMES AVAILABLE:

- Greenhouse Gas Emissions
- Impervious Surfaces

These indicators were measurable incrementally within the scenarios, lend themselves to regional target setting, and are directly relevant to the Vision themes and the scope of Vibrant NEO 2040, but the Project Team was not able to retrieve current conditions data for them that covered the 12-county area. These indicators should be monitored if reliable regional data becomes available.

SAMPLE LOCAL INDICATORS

Not all factors that are important to the region can be measured meaningfully at a regional scale. Some indicators will have different targets for different places, and others may only be relevant for certain areas. Goals for mixed-use development and walkable communities, for instance, are not appropriate for rural areas. For this reason, the Vision includes the following sample list of Local Indicators that are relevant sub-regionally. With a region as diverse as Northeast Ohio, there are many more local indicators that could be measured. Ultimately, deciding on an approach for any particular place is the responsibility of the residents that live there and know their community best.

Access to Food: percentage of population with affordable access to a full-service grocery store (access should include consideration of multiple transportation modes);[40] Food Security could be an alternative measure[41]

Access to Cultural Facilities: percentage of population with affordable access to cultural amenities (access should include consideration of multiple transportation modes)

Access to Open Space: percentage of population living within a 1/4—1/2 mile of a park

Mixed-use (Interaction measurement):[42] degree of intermixing of land uses

Walk Score®:[43] percentage of population that lives in a neighborhood with Walk Score® of at least 70 (70-80 = Very Walkable, most errands can be accomplished on foot.)

Jobs-Housing Balance: Ratio of jobs to households

Walk to School: Percentage of school age children within walking distance of public schools

Commute Time: The average commute time on public transit should be comparable[44] to the average commute time by personal vehicle so that job access is more equitable for people regardless of commute mode.

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40 USDA's food desert atlas could provide a starting point for data analysis: http://www.ers.usda.gov/data-products/food-access-research-atlas/go-to-the-atlas.aspx#.UjusFtJhZs4

41 One source for data about food security is Feeding America (http://feedingamerica.org/hunger-in-america/hunger-studies/map-the-meal-gap.aspx)

42 https://www.jtlu.org/index.php/jtlu/article/view/291/305

43 http://www.walkscore.com/

44 Ideally, no more than 10% longer by public transit

VISION RECOMMENDATIONS

HOW WILL WE ACHIEVE THE REGIONAL VISION?

The Recommendations provide the framework, steps, and tools for making the Vision a reality. There are nine Recommendations total, each of which match up with several of the Vision Objectives and Indicators.

1. Focus new residential and commercial development on sites within established communities
2. Develop a robust network of regional job centers connected by multimodal transportation corridors between and within counties
3. Pursue the remediation, assembly, marketing, and redevelopment of abandoned properties at both the local and regional levels
4. Encourage a higher frequency of mixed-use development and a range of diverse, affordable housing options
5. Enhance and coordinate the region's rail and bus services
6. Enhance walking and cycling as transportation options to increase regional mobility and improve public health
7. Preserve our natural areas for future generations, provide outdoor recreation opportunities, and develop a regional approach to protecting air, water, and soil quality
8. Support sustainable agriculture and the local food system in Northeast Ohio
9. Increase collaboration among the region's government agencies to expand information sharing and find more cost-effective means of providing essential services

These Recommendations, initiatives, and products are not one-size-fits all, and some aspects of the initiatives won't be applicable everywhere in the 12-county region. *Vibrant NEO 2040: A Vision, Framework, and Action Products for Our Future* is intended inspire and guide decision-making at the Metropolitan Planning Organization (MPO), Council of Government, and local levels to ensure that land use, transportation, and environmental considerations are simultaneously addressed by their processes.

Ultimately, the implementation of Vibrant NEO 2040 is up to Northeast Ohio's communities and residents. But regardless of the applicability of each initiative to any particular part of the region, the goal for each community within the Vision is the same: stability, prosperity, and a high quality of life for all of its residents.

RECOMMENDATIONS MATRIX

OBJECTIVES

INDICATORS

RECOMMENDATIONS	Promote investment in our established communities	Protect our soil, water, air, and ecologically sensitive areas	Improve our regional fiscal health	Develop our regional economy with accessible employment opportunities	Enhance our regional transportation network	Cultivate and celebrate our local assets and places of public value	Expand our parks and open space network	Preserve and value our prime farmland as a regional economic asset	Development Location: Percent of Development in Urbanized and Urbanizing Area	Urban and Multi-Family Housing	Housing Vacancy Rate	Housing + Transportation Costs	Existing Road Infrastructure Maintenance	Roadway Investment Balance	Commute Mode Share	Vehicle Miles Traveled Per Capita	Transit Proximity: Jobs and Residents	Open Space Conservation: Acres of Parks and Protected Land	Riparian Corridor Protection	Clean Water	Clean Air
1. Focus new residential and commercial development on sites within established communities							--		x	x	x	--	x	--	x	x	x	x	--	x	x
2. Develop a robust network of regional job centers connected by multimodal transportation corridors between and within counties		--				--	--	--	x	x	x	x	x	--	x	x	x	--	--	--	x
3. Pursue the remediation, assembly, marketing, and redevelopment of abandoned properties at both the local and regional levels					--				x	--	x	x	x	--	--	x	x	x	x	x	x
4 .Encourage a higher frequency of mixed-use development and a range of diverse, affordable housing options		--	--		--	--	--	--	--	x	--	x	--	x	--	x	--	--	--	--	x
5. Enhance and coordinate the region's rail and bus services						--	--	--	x	x	x	x	x	x	x	x	x	--	--	--	x
6. Enhance walking and cycling as transportation options to increase regional mobility and improve public health								--	--	--	--	x	x	x	x	x	--	x	x	x	x
7. Preserve our natural areas for future generations, provide outdoor recreation opportunities, and develop a regional approach to protecting air, water, and soil quality			--	--	--				x	--	--	--	--	--	--	--	--	x	x	x	x
8. Support sustainable agriculture and the local food system in Northeast Ohio					--		--		x	--	--	--	--	--	--	--	--	x	--	x	x
9. Increase collaboration among the region's government agencies to expand information sharing and find more cost-effective means of providing essential services									x	x	x	x	x	x	x	x	x	x	x	x	x

Direct Impact

Indirect Impact

Direct Impact

Indirect Impact

REGIONAL VISION RECOMMENDATIONS + IMPLEMENTATION CONTEXT MATRIX

RECOMMENDATIONS AND INITIATIVES	TARGET COMMUNITY			SCALE OF ACTION			IMPLEMENTATION COMPLEXITY			POTENTIAL LEADS
	STRATEGIC	ASSET RISK	COST RISK	REGIONAL	COUNTY	LOCAL JURISDICTION	HIGH	MODERATE	LOW	
1 Focus new residential and commercial development on sites within established communities										
1.1 Encourage infill and redevelopment through the use of tax credits and other direct and indirect public incentives.	x	x	x			x			x	Municipalities
1.2 Fix it first: continue to privilege projects that maintain the existing road network in a state of good repair, rather than building additional capacity.	x	x	x	x	x	x			x	Metropolitan Planning Organizations
1.3 Improve the ability of municipalities and townships to analyze the long-term impacts of new development and better manage their own development.	x	x	x			x			x	Nonprofit Organizations; Councils of Government; Universities
1.4 Continue development throughout the region in accordance with local zoning requirements and preferences, but prioritize public subsidies to projects within the region's established communities.	x	x	x	x	x	x		x		Municipalities, Townships, Counties; Metropolitan Planning Organizations, Councils of Government
1.5 Require the users of new sewer extensions that serve previously unsewered areas to pay the full cost of service.			x		x	x		x		Sanitary Sewer Districts; Municipalities, Townships, Counties
1.6 Consider instituting a land value tax to replace existing improvement-based property assessment and taxation methods.	x	x	x		x	x	x			Municipalities, Townships, Counties
2 Develop a robust network of regional job centers connected by multimodal transportation corridors within and between counties										
2.1 Strengthen regional job centers—and the corridors that connect them—by diversifying and intensifying land uses and investing in strategic local economic development within them.	x	x	X	x	x	x		x		Municipalities, Townships, Counties; Metropolitan Planning Organizations, Councils of Government
2.2 Use transit oriented development (TOD) to create stronger, more accessible, regional job centers.	x			x		x		x		Municipalities; Metropolitan Planning Organizations, Councils of Government
2.3 Implement a tiered approach to local parking requirements.	x	x	x	x		x		x		Municipalities, Townships; Metropolitan Planning Organizations
3 Pursue the remediation, assembly, marketing, and redevelopment of abandoned properties at both the local and regional levels										
3.1 Develop and maintain a regional vacant industrial and commercial properties database and criteria for determining the most appropriate successive use, whether for redevelopment, green infrastructure, food production, parks, or natural areas.	x	x		x	x	x			x	Chambers of Commerce/Economic Development Organizations; Universities; Nonprofit Organizations; Councils of Government

RECOMMENDATIONS AND INITIATIVES	TARGET COMMUNITY			SCALE OF ACTION			IMPLEMENTATION COMPLEXITY			POTENTIAL LEADS
	STRATEGIC	ASSET RISK	COST RISK	REGIONAL	COUNTY	LOCAL JURISDICTION	HIGH	MODERATE	LOW	
3.2 Expedite permitting and remove barriers for adaptive reuse of abandoned buildings and empty lots.	X	X				X			X	Municipalities
3.3 Expand and coordinate existing land bank efforts to acquire, assemble, manage, and dispose of vacant properties throughout the region.	X	X		X	X	X		X		Nonprofit Organizations; Land Banks; Municipalities, Counties
3.4 Identify, evaluate, and-where appropriate-pursue the reuse of vacant and abandoned industrial sites endowed with significant preexisting infrastructure that could provide unique opportunities for regional economic development. Advocate for a brownfield redevelopment fund and promote these sites through a marketing campaign.	X	X		X	X	X		X		Nonprofit Organizations; Chambers of Commerce/ Economic Development Organizations
4 Encourage a higher frequency of mixed-use development and a range of diverse, affordable housing options										
4.1 Include mixed-use designations and/or planned unit overlay districts in zoning codes throughout the region.	X	X	X	X		X			X	Municipalities, Townships; Metropolitan Planning Organizations, Councils of Government
4.2 Include traditional small-lot, compact single-family and townhouse residential designations in zoning codes throughout the region.	X	X	X	X	X	X			X	Municipalities, Townships, Counties; Councils of Government
4.3 Offer financial incentives to developers that incorporate affordable housing units into their projects and implement inclusionary zoning in markets with widespread affordability gaps.	X	X	X	X	X	X		X		Public Housing Authorities; Municipalities, Townships, Counties; Metropolitan Planning Organizations
4.4 Offer financial literacy and housing education programs for tenants and homeowners. Focus on areas in established communities where investments in housing are underway.	X	X		X		X			X	Public Housing Authorities; Municipalities; Universities; Nonprofit Organizations
5 Enhance and coordinate the region's rail and bus services										
5.1 Invest in a regional network of bi-directional public transit connections between Northeast Ohio's major job centers.	X	X		X			X			Transit Operators; Metropolitan Planning Organizations
5.2 Create a network of high-frequency express and local transit routes connecting the region's job centers. Prioritize infill development in the corridors served by these routes. In the short and medium terms, upgrade high-performing existing bus routes and create new bus routes in designated corridors. In the long term, upgrade the highest-demand routes into commuter rail service or Bus Rapid Transit (BRT).	X	X		X	X	X		X		Transit Operators; Metropolitan Planning Organizations; Municipalities, Counties
5.3 Coordinate the region's transit systems for joint marketing, information technology, and fare media, including information regarding private transit resources such as university/health system shuttles, private bus services, airport transportation, etc.	X	X	X	X	X	X		X		Transit Operators; Metropolitan Planning Organizations; Municipalities, Counties; Universities

RECOMMENDATIONS AND INITIATIVES	TARGET COMMUNITY			SCALE OF ACTION			IMPLEMENTATION COMPLEXITY			POTENTIAL LEADS
	STRATEGIC	ASSET RISK	COST RISK	REGIONAL	COUNTY	LOCAL JURISDICTION	HIGH	MODERATE	LOW	
5.4 Evaluate the condition of all existing rail trackage and rail crossings to determine what investments would be necessary to bring substandard infrastructure up to standard for freight and passenger service.	x	x	x	x				x		Ohio Rail Development Commission; Metropolitan Planning Organizations
6 Enhance walking and cycling as transportation options to increase regional mobility and improve public health										
6.1 Expand the existing bicycle lane and trail system and connect it to regional transit hubs via on-and-off street facilities.	x	x	x	x	x	x			x	Nonprofit Organizations; Metropolitan Planning Organizations; Metroparks Authorities; Municipalities, Counties
6.2 Repair existing sidewalks and crosswalks and add new ones as needed wherever a fixed-route bus service is in operation.	x	x		x		x		x		Municipalities; Metropolitan Planning Organizations
6.3 Promote “Complete Streets” through regional policy and the identification of local champions.	x	x	x	x	x	x		x		Municipalities, Townships, Counties; Metropolitan Planning Organizations
6.4 Collaborate with school districts and local communities to further develop safe routes to school, encouraging walking and biking, and site new schools in walkable locations.	x	x	x	x	x	x		x		Metropolitan Planning Organizations; School Districts; Municipalities, Townships
7 Preserve our natural areas for future generations, provide outdoor recreation opportunities, and develop a regional approach to protecting air, water, and soil quality										
7.1 Expand and connect the existing network of parks, trails, rivers, lakes, and natural areas through continued partnerships with private land owners, land conservancies, land trusts, community members, and local governments.	x	x	x	x	x	x		x		Metroparks Authorities; Land Conservancies and Trusts; Municipalities, Townships, Counties; Councils of Government
7.2 Support and expand green infrastructure options for flood control and general water management, both at the local level with projects like green alleys and bioswales, and at the regional level with a network of large, upstream water retention areas.	x	x	x	x	x	x		x		Metroparks Authorities; Land Conservancies and Trusts; Municipalities, Townships, Counties; Soil and Water Conservation Districts
7.3 Improve regional quality of life and health by focusing on the interface between natural and human systems in the areas of flood mitigation, stormwater run-off, and clean beaches and the water quality of our lakes, rivers, and streams.	x	x	x	x	x	x		x		Metroparks Authorities; Land Conservancies and Trusts; Municipalities, Townships, Counties; Councils of Government
7.4 Strengthen and expand watershed partnerships that foster communication and collaboration between upstream and downstream communities across all Northeast Ohio watershed geographies.	x	x	x	x	x	x		x		Watershed Partnerships; Soil and Water Conservation Districts; Metropolitan Planning Organizations, Councils of Government; Municipalities, Townships, Counties
7.5 Expand collaboration between existing natural resource districts and consider the creation of new districts where appropriate.	x	x	x	x	x	x	x			Municipalities, Townships, Counties; Soil and Water Conservation Districts
7.6 Develop and maintain a natural resources inventory of the region.	x	x	x	x				x		Metropolitan Planning Organizations, Councils of Government; Universities; Nonprofit Organziations

RECOMMENDATIONS AND INITIATIVES	TARGET COMMUNITY: STRATEGIC	TARGET COMMUNITY: ASSET RISK	TARGET COMMUNITY: COST RISK	SCALE OF ACTION: REGIONAL	SCALE OF ACTION: COUNTY	SCALE OF ACTION: LOCAL JURISDICTION	IMPLEMENTATION COMPLEXITY: HIGH	IMPLEMENTATION COMPLEXITY: MODERATE	IMPLEMENTATION COMPLEXITY: LOW	POTENTIAL LEADS
8 Support sustainable agriculture and the local food system in Northeast Ohio										
8.1 Support the expansion of community supported agriculture (CSAs), farmer cooperatives, farm-to-school programs, and other existing mechanisms that support sustainable agriculture and enhance food access.	x	x	x		x	x			x	Municipalities, Townships, Counties; Land Banks; Nonprofit Organizations; School Districts
8.2 Partner with local landowners, the food processing industry, and local organizations to protect agriculturally valuable land for future generations.			x	x	x	x		x		Land Conservancies; Nonprofit Organizations; Ohio State University Extension, Local Universities; Soil and Water Conservation Districts
8.3 Review and amend local ordinances to allow for small- and moderate-scale urban farming on occupied and vacant parcels that are environmentally safe for growing food	x	x	x	x		x			x	Municipalities, Townships, Counties; Councils of Government, Food Policy Councils
8.4 Support the work of local food initiatives to share best practices and identify policies of regional significance	x	x	x	x	x	x		x		Food Policy Councils; Ohio State University Extension, Local Universities; Municipalities, Townships, Counties
9 Increase collaboration among the region's government agencies to expand information sharing and find more cost-effective means of providing essential services										
9.1 Study privatization and public-private partnerships as means to fund critical infrastructure projects that cannot be funded solely through public dollars.	x	x	x	x	x	x		x		Ohio Department of Transportation; Municipalities, Townships, Counties
9.2 Utilize joint procurement strategies and the sharing of facilities, staff, and other resources wherever possible to save money on the provision of public services.	x	x	x	x	x	x			x	Municipalities, Townships, Counties; Metropolitan Planning Organizations, Councils of Government; Ohio Department of Development Services
9.3 Identify one or more organizations that will host and maintain the technical resources created by NEOSCC so that they will remain current, accurate, and available for future regional visioning and planning.	x	x	x	x	x	x		x		Metropolitan Planning Organizations,Councils of Government; Nonprofit Organizations; Municipalities, Townships, Counties
9.4 Align MPO/COG/ODOT transportation model inputs and continue to collaborate, share information, and align policy objectives across the multiple regional planning agencies of Northeast Ohio.	x	x	x	x				x		Metropolitan Planning Organizations, Councils of Government
9.5 Foster greater engagement between MPOs/COGs and organizations/initiatives that address natural resources, parks, sewer, public health, housing, education, private business investment, and economic development.	x	x	x	x	x	x	x			Metropolitan Planning Organizations, Councils of Government; Universities; Nonprofit Organizations; Special Purpose Districts or Agencies; Municipalities, Townships, Counties
9.6 Sustain the momentum of NEOSCC by continuing to convene stakeholders to identify and address regional issues and to advance the region's collaborative capacity.	x	x	x	x	x	x		x		Metropolitan Planning Organizations, Councils of Government; Universities; Nonprofit Organizations; Special Purpose Districts or Agencies; Municipalities, Townships, Counties

RECOMMENDATION 1: FOCUS NEW RESIDENTIAL AND COMMERCIAL DEVELOPMENT ON SITES WITHIN ESTABLISHED COMMUNITIES

Healthy cities and towns anchor a region's economy and civic identity by providing places for economic and social interaction. This is true of any urban region, at any time in history. And yet for the past 50 years, the notion of what constitutes the space of economic and social interaction has shifted substantially, caused by changing preferences enabled by technology and policy. In Northeast Ohio, as elsewhere, this shift manifested itself in a "hollowing out" of the region's center cities and towns, with the pace of growth in new outlying communities outstripping the ability of established places to grow.

The housing crisis and recession of 2007-2012 illustrated the vulnerability of regional economies where human, physical, and financial forms of capital are too dispersed. With evidence from a host of sources now pointing to a generational shift in preferences toward more urban living, municipalities in Northeast Ohio should move to develop partnerships, revise laws, and offer incentives that redress the imbalance in the location of development and rebuild established cities and towns. Specifically, Northeast Ohio should consider the following initiatives:

INITIATIVE 1.1: ENCOURAGE INFILL AND REDEVELOPMENT THROUGH THE USE OF TAX CREDITS AND OTHER DIRECT AND INDIRECT PUBLIC INCENTIVES.

WHAT THIS MEANS. Municipalities have a number of tools at their disposal to incentivize redevelopment and infill. Federally-funded tools include Community Development Block Grants, New Market Tax Credits, Low Income Housing Tax Credits, and Historic Tax Credits. State incentives exist through JobsOhio grants, tax credits, and the Brownfields fund. Local incentives can take the form of tax abatements, designation of tax-increment financing (TIF) districts, and capital investment in new infrastructure or infrastructure improvements.

WHY THIS IS IMPORTANT. Application of incentives is a critical element of redevelopment and infill development project finance. These projects, generally more fiscally sound for municipalities, are often difficult propositions for developers given the higher up-front costs of building on existing urban land. Factors driving this include presence of contamination and the possibility of opposition of projects by current neighbors, both of which municipalities are obligated to address, thus lengthening the development negotiation process. Other factors can include land assembly costs and reluctance of lending institutions to extend financing to project proponents. Availability of financial and tax incentives are thus crucial to offsetting the costs imposed by the greater friction developers encounter in delivering infill or redevelopment projects.

GETTING IT DONE. Municipalities must prioritize the incentives they make available to projects that intelligently reuse and "upcycle" urban land. When this is not enough, municipalities should consider organizational solutions, encouraging the formation of community development corporations, business improvement districts, and other intermediary entities that can organize the interests of property owners and facilitate the project delivery process. MidTown Cleveland, Inc., a community development corporation in Cleveland, is an example of this. MidTown Cleveland has worked closely with the City of Cleveland to deliver many successful redevelopment projects, employing innovative financing methods and assuming some predevelopment costs to complement traditional subsidies.

Municipalities must also explore policies and financing structures and, where applicable, pursue changes to policy that can extend redevelopment and infill development benefits once thresholds are reached. These thresholds can include exhaustion of candidate structures for adaptive reuse or exceeding specific income limits, both of which are important benchmarks for leveraging state and federal tax credits.

One potential tool is the Special Improvement District (SID). Enabled by the State of Ohio in 1994, SIDs are mechanisms that permit stakeholders in an area to provide funding for that area's development. Property owners pay assessments on their property value, which provide the resources needed to create enhanced services for the district. SID-supported services do not replace existing city services, but augment them in ways that strengthen the area's economic viability through incentives, programs and working with local government. SIDs are in use throughout the country in over 1,200 cities, including communities in Northeast Ohio such as Akron and Cleveland.[45]

POTENTIAL LEAD Municipalities
TARGET COMMUNITY Strategic investment areas, asset risk areas, cost risk areas
IMPLEMENTATION COMPLEXITY Low

45 Downtown Cleveland Alliance (http://www.downtowncleveland.com/about-us/special-improvement-district.aspx)

Downtown Akron Partnership (http://www.downtownakron.com/about/special-improvement-district)

Ohio Revised Code, Chapter 1710: Special Improvement Districts (http://codes.ohio.gov/orc/1710)

LOCAL EXAMPLES:

University Lofts: Located on the Euclid Corridor—a Bus Rapid Transit Route—University Lofts is a v residential development within Cleveland State University's Campus. An infill vacant lot and restored National Historic Registered properties were redeveloped as apartments and ground floor retail with State and Federal Historic Tax Credits and New Market Tax Credits.

Tremont Pointe: Revitalized Tremont Pointe is an anchor site in a burgeoning mixed-use neighborhood that was developed through the use of Low Income Housing Tax Credits and the federal HUD Hope VI program. The redevelopment replaced 241 aging public housing units that were cut off from the surrounding neighborhood with a mixed-income village, tied into the historic emerging neighborhood. The 189 units that were constructed complement the surrounding city fabric and connect residents to their community.

Before and After View of University Lofts along Euclid Avenue *City Architecture*

Before and After View of Tremont Pointe *City Architecture*

CASE STUDY: Maryland Smart Growth Legislation

Operating and maintenance costs for infrastructure are fairly consistent across the Northeast Ohio region. The more people who can utilize the same infrastructure (roads, sewer lines, etc.), the more cost effective that infrastructure becomes and the lower the cost to the municipality. While municipalities frequently offer financial incentives to developers to construct projects within their borders, focusing the financial incentives to where more people live and work will result in long-term infrastructure investment that can serve more people and reduce the costs borne per person across the community.

Maryland's original Smart Growth bill, the 1997 Priority Funding Areas Act, attempted to discourage unmanaged growth and its potential negative impacts by eliminating state financing for projects outside of "priority funding areas" that are likely to encourage sprawling development. While the legislation does not restrict new development from being built outside of these priority funding areas, the law prohibits the State from subsidizing these projects. It also directs state funding for growth-related infrastructure to municipalities where local governments want to encourage economic development and community revitalization through public infrastructure improvements, such as parking structures that allow for less surface area to be used for parking and less overall parking to be built as the supply is shared between many uses. The 1997 Priority Funding Act was supplemented by additional laws passed in 2006, 2010, and 2012, which taken together added a regulatory "stick" to the 1997 law's package of "carrots." This was necessary after the growth pressures on counties in the Washington, DC commute shed overwhelmed the attractiveness of state incentives, and the State's Department of Transportation was unable to deliver the volume of necessary improvement projects within the priority development areas.

Maryland's track record on smart growth is mixed and the character of growth pressures facing that state are different from those in Ohio, so pursuit of similar policies in the region should be subjected to careful appraisal and debate. The principle of using the power of the purse and targeted development incentives to buttress the market for infill and redevelopment is entirely valid, however, and could arguably have greater impact in Northeast Ohio given its prevailing economic and demographic conditions. Unlike Maryland, Northeast Ohio has already made extensive investments in infrastructure and has a high volume of vacant land. The spatial intersection of the two should be considered a prime criterion in delineating priority growth areas. Incentivizing reuse of such places spares taxpayers from shouldering yet more financial responsibility for long-term operations and maintenance costs associated with overbuilt stocks of infrastructure.

INITIATIVE 1.2: FIX IT FIRST: CONTINUE TO PRIVILEGE PROJECTS THAT MAINTAIN THE EXISTING ROAD NETWORK IN A STATE OF GOOD REPAIR, RATHER THAN BUILDING ADDITIONAL CAPACITY.

WHAT THIS MEANS. Metropolitan Planning Organizations (MPOs) are required to develop fiscally-constrained plans identifying a series of projects and programs that enhance a region's transportation system and can be funded through projected revenue for transportation. To accomplish their growing list of desired transportation improvements within their jurisdiction with the available funding defined by their forecast revenues, MPOs must screen proposed projects for need and responsiveness to the priorities of the metro areas they represent. Project selection criteria are created to aid this process.

Notwithstanding the pressure to meet the growing need to maintain existing infrastructure, project selection criteria may still emphasize expansion of infrastructure capacity as the best response to transportation needs. Capacity enhancement investments can reduce congestion and improve regional travel times by adding lanes to existing roads, reduce vehicle miles traveled by adding entirely new roads to the system, and promote economic development by increasing mobility in key areas and corridors. These are incontrovertible objectives and have continued to drive transportation decision-making because of the strength of their message: economic vibrancy and prosperity in a region depends on having a reliable transportation system that moves people and goods efficiently. Simply put, this approach assumes that continued investment in new system capacity is critical to regional growth.

Often overlooked in this approach is the fact that the growing legacy of infrastructure must be maintained to be functional, safe, and useful. Focusing transportation resources on adding to the infrastructure network means that the ever-greater need for maintenance may not be met with constrained levels of funding. Historically, many state transportation agency budgets reflect a preference for new construction and transportation system expansion, not assigning as high a priority to system maintenance. Until the current federal transportation bill, Moving Ahead for Progress in the 21st Century Act (MAP-21), was enacted, states were able to transfer as much as half of the funding dedicated to highway and bridge maintenance to other uses (including highway capacity). MAP-21 has streamlined maintenance programs and required states to set targets for bringing their transportation systems into a state of good repair. Even then, many states have outstanding maintenance obligations beyond what they can afford.

WHY THIS IS IMPORTANT. States and regions throughout the United States face a growing challenge of insufficient funding for transportation needs and, more pointedly, insufficient funding to maintain existing transportation infrastructure. Amending project selection criteria to better recognize the importance of maintenance and a state of good repair in public infrastructure is a fundamental way to change how transportation funding is applied. Taking this step at the MPO level gives the maintenance of key transportation facilities a place in regional investment discussions and recognizes that many of a region's existing centers of economic activity already depend on this infrastructure. Furthermore, these needs will not be met if existing infrastructure falls into disrepair.

The Boston Region MPO, representing a large area of nearly 3 million inhabitants—similar in population to Northeast Ohio—uses a set of project selection criteria that emphasize a state of good repair (referred to as 'System Preservation, Modernization, and Efficiency') as the single greatest evaluation category.[46] These criteria are together given more weight in the score-based evaluation system than mobility factors. Specific criteria include how a project improves substandard pavement, improves traffic signal equipment condition, improves intermodal connections (including to transit), and implements intelligent transportation systems (ITS) strategies.

GETTING IT DONE. MPOs must lead this initiative in their role as the designated urban and regional transportation planning entities and principal conduits of federal funding for system improvements. The most direct lever for MPOs in this regard is contained in the selection criteria they employ to prioritize projects for their metropolitan area's Transportation Improvement Program. Northeast Ohio's MPOs have varying degrees of specificity in and attention to their project selection criteria; all MPOs should revisit their criteria and consider modifying language to support system maintenance and preservation.

TOOL: The Stark County Area Transportation Study (SCATS):[47] develops a Transportation Improvement Program (TIP) as part of a schedule of transportation improvements recommended for implementation within the next four years. The State of Ohio requires that TIPs be adopted every 2 years to coincide with the Ohio biennium budget. The SCATS Policy Committee has developed a project selection process which includes system preservation (i.e. projects that maintain rather than expand the existing system).

POTENTIAL LEAD Metropolitan Planning Organizations
TARGET COMMUNITY Strategic investment areas, asset risk areas, cost risk areas
IMPLEMENTATION COMPLEXITY Low

46 Boston Region MPO selection criteria, http://www.ctps.org/Drupal/data/html/plans/TIP/TIP_Evaluation_Scoring.html

47 http://www.co.stark.oh.us/internet/HOME.DisplayPage?v_page=rpc

INITIATIVE 1.3: IMPROVE THE ABILITY OF MUNICIPALITIES AND TOWNSHIPS TO ANALYZE THE LONG-TERM IMPACTS OF NEW DEVELOPMENT AND BETTER MANAGE THEIR OWN DEVELOPMENT.

WHAT THIS MEANS. Making better decisions about what, where, and how to build next requires informed and realistic appraisals of the impact of development at a variety of timescales. Such appraisals are often difficult for local governments because of staffing shortages, gaps in expertise, legal constraints, or political pressures. While a municipality or township is experiencing growth, taking the time to appraise proposed developments can even be viewed as a liability, slowing down the pace of investment. Local governments have an obligation, however, to ensure that development does not compromise a community's financial or environmental integrity for present and future residents.

Development impact analyses typically focus on the pure costs and benefits of a proposed development. A better approach would integrate the traditional cost-benefit analysis with, at minimum, an understanding and analysis of risk to municipal finances in the short and long term. A strong example of the factors that go into a thorough impact analysis was performed by Smart Growth America and Strategic Economics for three development scenarios in Nashville/Davidson County, Tennessee.[48] The analysis was conducted entirely in financial terms, but it weighed and monetized factors embodying long-term risk.

An even more thorough impact review process weighs impacts of development on quality-of-life factors such as housing choice and affordability, mobility and accessibility, watershed health and flood risk, and design. Such analyses often inform the levying of impact offset fees on development, a practice which is not generally available to Ohio communities due to the lack of authorizing state legislation.

WHY THIS IS IMPORTANT. The return on investment timeline of a municipality or township is both immediate and long-term, whereas the developer's is typically immediate. By relying solely on the reporting of pure costs and benefits of a proposed development, not only is a local government relying on a potentially compromised source of information (as cost-benefit analyses are typically generated by the proponent of a project), but it is discounting a host of other considerations that bear directly on the investment it is making in permitting a particular use on its land, not to mention whatever incentives it is providing to the developer. The first principal of investing is due diligence, which requires having the capacity and will to acquire good information and perform a balanced analysis of the economics of the investment proposition.

Local governments in Northeast Ohio have been hit hard by the region's long process of economic restructuring. With the economic identity of the region still undergoing transformation, municipalities and townships must be very shrewd investors in their future. This imperative holds true for today's growing communities and centers just as for the region's established cities and towns, which were the growing communities and centers of yesteryear.

GETTING IT DONE. Ultimate responsibility for applying a better development impact analysis process rests with local governments; yet substantial gaps exist in the capacity of local governments in Northeast Ohio to do this. Many regional planning entities, notably the Metropolitan Council in Minneapolis and St. Paul, offer trainings and technical assistance to members on development review and impact analysis. Such support is sometimes mandated by state law regarding holistic analysis of development impacts, though this fact does not diminish the importance of prudent analysis. Without such directives from the State of Ohio and considering the scarcity of funding, NEOSCC and the region's MPOs and Councils of Governments (COGs) should pool their resources and time to develop a "model development impact analysis" process tool that local government can start with should they be interested in implementing this initiative. Those partners should also offer trainings and conferences to encourage skill-building and development of a community of practice around this subject.

TOOL: Envision Tomorrow:[49] This ArcGIS editing environment is linked to spreadsheets to create spatial alternative scenarios and assess the impacts of the resulting development patterns according to a variety of indicators. The tool incorporates Building Types aggregated up to Development Types as its basis. This software was used during the NEOSCC scenario planning process in 2013.

TOOL: The Northeast Ohio Fiscal Impact Tool (FIT), which was developed by the Vibrant NEO 2040 consulting team to aid in scenario development and evaluation, is one potential starting point for this initiative. The Fiscal Impact Tool is a spreadsheet-based tool that utilizes outputs from the Envision Tomorrow GIS modeling software to estimate the balance of revenues and costs at the county level. While producing estimates at the county level of geographic resolution suited the needs of the regional visioning process, future application to project evaluation and decision-making in local jurisdictions will require further development and refining of the tool's parameters. Extensive documentation of the tool is provided in the Technical Appendix. This initiative might be best led by area universities or Councils of Government.

POTENTIAL LEAD Nonprofit Organizations; Councils of Governments; Universities
TARGET COMMUNITY Strategic investment areas, asset risk areas, cost risk areas
IMPLEMENTATION COMPLEXITY Low

48 Smart Growth America, http://www.smartgrowthamerica.org/documents/fiscal-analysis-of-nashville-development.pdf

49 http://www.frego.com/services/envision-tomorrow/

INITIATIVE 1.4: CONTINUE DEVELOPMENT THROUGHOUT THE REGION IN ACCORDANCE WITH LOCAL ZONING REQUIREMENTS AND PREFERENCES, BUT PRIORITIZE PUBLIC SUBSIDIES TO PROJECTS WITHIN THE REGION'S ESTABLISHED COMMUNITIES.

WHAT THIS MEANS. A host of public subsidies exist for communities to incentivize development within their boundaries, some of which are documented in detail in initiative 1.1. Direct subsidies are often necessary for redevelopment and infill projects to offset the higher transactional friction that developers encounter. This friction, which manifests in complicated financing, difficult interactions with regulatory authorities, conflicts with neighbors and neighboring uses, environmental remediation, and so forth, drives up costs and dampens market activity in the city. Such factors are not prevalent in greenfield development contexts, where transaction costs are lower and capital more readily obtainable. Subsidies are intended to correct inherent imbalances between these location choices; when used without sensitivity to location, subsidies fail to achieve their purpose and can actually facilitate the reverse.

WHY THIS IS IMPORTANT. The research and analysis conducted in support of the Vibrant NEO 2040 visioning process indicates that continued patterns of outward development and migration bodes ill for the future fiscal health of the region as a whole. Even so, the general public and stakeholders expressed early in the process a distaste for "hard" development controls such as urban growth boundaries, a tool that some regions have used to direct development inward. Rather, the same objective of achieving development intensification in established communities can be facilitated by truly prioritizing public subsidies to those types of projects.

GETTING IT DONE: This initiative will absolutely require collective action from local governments, though it will ultimately be applied in local practice. A pledge or compact would be a useful instrument for structuring the collaborative action component of the initiative. Summit County's Intergovernmental Agreement on Job Creation and Tax-Sharing is a good conceptual precedent for this initiative. The agreement is entirely voluntary, with signatories agreeing to share tax revenues if they attract a business to their community from another community within the county. While the substance of the Summit County agreement might not be replicable at the regional scale, counties and local governments could sign onto a compact that pledges to use public subsidies only in the region's established communities. This initiative could be led by NEOSCC and consortium partners such as MPOs, COGs, and economic development authorities. It may also be possible to make accession to such a compact a qualification for bonus points to communities' application for various state and federal incentives. By recognizing Summit County's IGA, the State of Ohio has already upheld in principle the enforceability of such compacts.

POLICY: Support redevelopment of vacant and abandoned properties where infrastructure and services are already in place: local and county governments should prioritize redevelopment of vacant and abandoned properties over development of greenfields. Local governments should also incentivize development of vacant land-or rehabilitation of existing structures-in areas where infrastructure and services are already in place. The incentives should focus on substantial rehabilitation/improvement of abandoned properties. Prime locations for infill development include downtowns, transit corridors and locations near employment, shopping, and recreational and cultural amenities.

BEST PRACTICE: Re-Imagining Cleveland:[50] Alternative land use strategies used in this initiative to return vacant land to productive use in ways that complement the City of Cleveland's long-term development objectives and empowers residents to reclaim their neighborhood.

BEST PRACTICE: Regenerating Youngstown and Mahoning County through Vacant Property Reclamation:[51] Reforming Systems and Right-Sizing Markets—In partnership with the Youngstown-Mahoning County Vacant Properties Initiative, the National Vacant Properties Campaign designed a work plan and proposal for a regional assessment of vacant properties in the City of Youngstown and Mahoning County in Ohio.

POTENTIAL LEAD

Municipalities, Townships, Counties; Metropolitan Planning Organizations, Councils of Governments

50 http://www.npi-cle.org/places/urban-greening/about-reimagining-cleveland/

51 http://www.smartgrowthamerica.org/research/policy-analysis-vacant-properties/

TARGET COMMUNITY

Strategic investment areas, asset risk areas, cost risk areas

IMPLEMENTATION COMPLEXITY

Moderate

INITIATIVE 1.5: REQUIRE THE USERS OF NEW SEWER EXTENSIONS THAT SERVE PREVIOUSLY UNSEWERED AREAS TO PAY

THE FULL COST OF SERVICE.

WHAT THIS MEANS. Sanitary sewer and wastewater service is a major determinant of regional development patterns. Sanitary sewer is unique as it is a major infrastructural expense that is borne mostly, even entirely, by local governments: capacity enhancements to roads are partially financed by federal funds passed through Metropolitan Planning Organizations; and electric power, natural gas, and water are mostly covered by separate public and investor-owned utilities. Depending on whether the local government unit is a member of a regional sewer district, municipal liabilities could range from installation and maintenance of local sewer and stormwater pipes to construction and maintenance of an interceptor (trunk) line and wastewater treatment facilities.

Development of new wastewater infrastructure capacity is typically financed through issuance of bonds by the responsible jurisdiction, and paid back through the fees collected from users. A large body of case law has taken shape around the question of how the cost burden of new wastewater infrastructure can be passed on to users. At issue is whether extensions to capacity constitute a good enjoyed by all users of the system, regardless of location, or whether that extension provides a disproportionate benefit to the new users. Ohio state law is clear on the subject: local governments and sewer districts are empowered to collect special assessments related to the capital costs of new improvements to water and sewer infrastructure for new users.

Sanitary districts in Ohio generally collect use fees on a graduated schedule that is based on the underlying land use. A similar approach could be built into the capital cost fee structure to more fairly capture the impact of the addition of a particular land use (and in the case of residential uses, density of housing units) to the sanitation network. Research supports the validity of such fee schedules, particularly on residential density: studies show, on average, that housing development with greater than six gross housing units per acre is 20% to 30% less costly to serve with wastewater and stormwater than lower density developments.[52] Establishing capital cost fee schedules based on use type and density would fall within criteria established by the Ohio Revised Code, which provides for districts to assess properties based on proportional benefit.

WHY THIS IS IMPORTANT. Capitalizing the cost of wastewater infrastructure capacity expansion into the fees assessed to new users represents a fair distribution of the economic burden associated with growth, especially since the jurisdiction as a whole assumes the long-term liability of maintaining the infrastructure. This would not only help with maintaining the fiscal solvency of the system, but also send a clear signal to the market that the type and intensity of use matters in terms of real cost to the jurisdiction.

GETTING IT DONE. Entities that own and operate local sanitation and wastewater treatment districts must ultimately implement this initiative through legislative or administrative actions specified by their governing statutes. While of moderate legal and administrative difficulty, implementing this initiative will require a shift in perspective from one regarding extensions of sewer lines as a strategy for “growing” the fee base supporting the system, to one acknowledging that growing the system for its own sake may only hurt its solvency in the long run depending on the type and intensity of land use. Regional planning partners such as the Northeast Ohio Areawide Water Quality Management Agencies and the Councils of Government can play an important catalyzing role by leveraging their state-mandated regional wastewater planning functions, perhaps using the next occasion of such planning to survey the region’s sanitation districts to better understand the range and distribution of practice, and engage them on the necessity of policy change.[53]

POTENTIAL LEAD Sanitary Sewer Districts; Municipalities, Townships, Counties
TARGET COMMUNITY Cost risk areas
IMPLEMENTATION COMPLEXITY Moderate

52 Nelson, Arthur C. et al, *A guide to impact fees and housing affordability*, Washington: Island Press, 2008, p. 119)

53 http://www.epa.ohio.gov/dsw/mgmtplans/208FacilityPlanningGuidelines.aspx

INITIATIVE 1.6: CONSIDER INSTITUTING A LAND VALUE TAX TO REPLACE EXISTING IMPROVEMENT-BASED PROPERTY ASSESSMENT AND TAXATION METHODS.

WHAT THIS MEANS. Land value tax is a method of property taxation that is gaining traction in policy circles, though relatively few places have implemented it to date. Most counties and municipalities in the United States in fact employ a method that assesses the improvement value of land, which has the unintended effect of "punishing" more valuable buildings with higher rates of tax. Moving to a land value tax could reverse this, assessing land based on its value within local and regional markets, and thus making less productive uses and practices more expensive to maintain from a tax perspective.

The case of a downtown surface parking lot is a good example with which to illustrate the proposition. In such an instance, the owner invests minimally in improvements to a property—merely paving it (which has its own external costs through burdens placed on the stormwater management system, contribution to the urban heat island effect, and so forth) and perhaps constructing a small structure at the point of ingress and egress. The owner earns impressive revenues from the use, owing to the high demand for parking near clusters of employment and leisure destinations, but the only tax he pays is on what the jurisdiction assesses for the paving and the control structure. This incentivizes more entrants into the market for parking, which consumes valuable land and returns ever-lower tax revenues for the jurisdiction. The same principle applies to land speculators, who hold on to land in anticipation of a future appreciation in value, and have no disincentive to prevent a property from falling into disuse and disrepair. For such reasons, even Milton Friedman, the free-market economist who was otherwise deeply skeptical of taxation, once acknowledged that a tax based on the unimproved value of land was the "least bad" to a local economy.[54]

WHY THIS IS IMPORTANT. Land value taxes align incentives in a manner that encourages better market outcomes and thus benefits municipalities financially in the long run. The case of Pittsburgh stands as the best example of this practice in a major metropolitan area. From 1913 until the city-county consolidation of the property assessment function in 2001, Pittsburgh employed a two-tiered property tax system. Land was assessed at a higher rate than the improvement (by nearly five times), which incentivized more intensive development in higher-value quarters of the city and kept at bay the speculative financial practices that led to foreclosure crises and perpetually vacant land in many other American cities. This, more than any other public policy factor, is responsible for the stabilization and modernization of the Pittsburgh region's core, especially in the critical decades spanning the transition to a postindustrial economy.[55]

Northeast Ohio communities would do well to consider a land value-based tax, particularly to encourage developers to deliver projects that make the highest and best use of urban land, and to set up the stage to capture back some of the value appreciation due to investments in transit infrastructure and public realm improvements.

GETTING IT DONE. This initiative relies on taxing entities understanding and coming to agreement on the fact that a tax on land value constitutes a suitable and beneficial basis for property assessment and taxation, seeking clarification from and advocating for change if necessary in state law; and having the will to retrain or retool assessment departments as needed. Municipalities, townships, and counties will ultimately need to lead this process. Taxing power ultimately rests with them and they have the most to gain in encouraging better development outcomes. NEOSCC and regional planning partners could help to catalyze the process by studying the proposition further and convening a regional discussion roundtable of local government partners to deliberate on the feasibility of its implementation. Local universities with public policy and economic development research institutes may also be a technical and organizational resource on this initiative.

TARGET COMMUNITY
Strategic investment areas, asset risk areas, cost risk areas

IMPLEMENTATION COMPLEXITY
High

POTENTIAL LEAD
Municipalities, Townships, Counties

54 Lincoln Land Institute, "Assessing the Theory and Practice of Land Value Taxation," https://www.lincolninst.edu/pubs/dl/1760_983_Assessing%20the%20Theory%20and%20Practice%20of%20Land%20Value%20Taxation.pdf)

55 Oates, Wallace E. and Schwab, Robert M. "The impact of urban land taxation: the Pittsburgh experience." 50 National Tax Journal 1-21 (March 1997)

SPECIAL SECTION:

DRIVERS OF OUTWARD MIGRATION AND BARRIERS TO REDEVELOPMENT IN NORTHEAST OHIO

SUMMARY

The principal theme emerging from the Vibrant NEO 2040 visioning process is the need to reinvest in Northeast Ohio's established communities. Since the 1960s, these places have experienced significant population loss and disinvestment, while progressively larger and lower-density rings of suburban development have pushed the footprint of urbanization outward. The resulting conditions in the traditional cores—deteriorated physical fabric, stressed budgets, and socioeconomic dislocation—are impeding the region's ability to compete nationally and internationally for businesses and workers, who are increasingly seeking out vibrant urban places in which to settle and work.

In recent years, an emerging community of developers has taken on substantial risks to invest in the region's legacy communities. From Cleveland to Akron, Youngstown to Kent, Lorain to Canton, these developers are creating value in place, and attracting exactly the kinds of businesses and economic activity that the region must continue to cultivate to succeed in the 21st century. Yet the scale and pace of this investment has still not reached a critical mass regionally. As a corollary to the research and scenario planning work of Vibrant NEO 2040, the Project Team has pursued an investigation into the barriers to achieving more substantial urban redevelopment and infill development. Interviews were conducted with a range of actors in the development ecosystem, including developers, brokers, financers, lawyers, community organizers, and public officials.

These interviews, coupled with research into secondary sources and literature, revealed nine significant barriers to urban redevelopment in Northeast Ohio:

- High costs relative to market prices
- Complicated financing structures
- Coverage and direction of publicly-funded incentives
- Uncertainty in interactions with regulations and regulatory entities
- Perceptions of municipal service quality
- Unaccounted subsidies in public infrastructure
- Misallocation of authority to levy impact fees on development
- Asymmetries in taxing powers and practices between political subdivision types
- Differences in sophistication and rigor of zoning and development review processes

This section elaborates upon the above barriers and analyzes their causes and consequences for the region's development patterns. It concludes with a discussion of two organizational forms—publicly-formed (Joint Economic Development Districts and Cooperative Economic Development Agreements) and privately-formed (Special Improvement Districts and Community Development Corporations)—that crystallize the ways in which law and fiscal politics affect development outcomes.

ENDOGENOUS VS EXOGENOUS BARRIERS

In the course of secondary research and interviews with developers, it became clear that some barriers have an internal cause or origin and are endogenous in nature and others are the result of external factors and are exogenous in nature. Endogenous barriers arise from the particularities of working in the urban environment on redevelopment projects, whereas exogenous barriers arise from asymmetries between development environments. Both forms of barriers have different implications for development behavior. The exogenous barriers tend to distort development behavior through perverse incentives for new development on greenfield land, preventing more developers from entering the redevelopment market. The endogenous barriers tend to be more process-oriented, influencing developers' willingness to scale operations after an initial project experience as well as the external perceptions of developers considering commitment to a project.

ENDOGENOUS BARRIERS

1. High costs relative to market prices

Every interviewee cited cost as a leading barrier to redevelopment and urban infill. Redevelopment project costs are generally 2 to 3 times greater than in greenfield contexts for commercial office products: most projects require rents of $35-$40 per square foot in order to produce positive cash flow, whereas the upper end of the regional market for commercial office projects is closer to $20-$25 per square foot.

The higher costs of redevelopment are driven by several realities that are distinct from other development locations such as suburban greenfields. Principal among them is the need for complex parcel assembly, a process which can take years and involve considerable expense, as well as environmental remediation. Many established communities in Northeast Ohio bear the toxic legacies of their industrial past, present in both land and buildings, which require often extensive and thus costly cleanup activities. Also a considerable driver of higher costs is the expense associated with bringing buildings up to code, especially if the project involves adaptive reuse. The construction materials used for the reuse of older buildings may be more expensive per unit cost than new construction, especially if historic preservation ordinances are in effect (which several communities in Northeast Ohio have). Building structured parking to accommodate higher densities also drives costs up and requires high parking charges that few consumers in Northeast Ohio are willing to pay.

While potentially adding value to a development and the community at large in the long run, another factor associated with higher costs are the special improvements required in development agreements with municipalities. These often appear as a result of a district-level plan, master plan, or overlay ordinance, and sometimes at the behest of surrounding property owners. Such special improvements, whether streetscape improvements or site-specific enhancements, usually add both hard capital costs (through constructions or direct payments to a city or designee) and soft costs (attorney and architecture/engineering consulting fees) to the project and are more difficult to project and account for in a pro forma than other cost drivers.

2. Complicated Financing Structures

The costs and risks associated with redevelopment and infill projects often make it difficult to secure financing from traditional sources of debt capital, even for the most experienced developers. This is especially true in the aftermath of the financial crisis of 2008, with many financing deals for projects entering development pipelines prior to the crisis, falling apart and forcing developers to seek capital elsewhere or walk away from projects.

The financial crisis notwithstanding, urban developers need many layers of capital to finance project costs and make products economically viable, much of which come from public sources such as tax credits and tax increment financing. Federal New Market Tax Credits (NMTC) and federal and state historic tax credits provide highly valuable financial subsidies to redevelopment and infill projects. Discretionary grants from federal and state programs like EPA Brownfields Funds can also be important sources of financing, though these are less reliable.

Layered financing is cumbersome to track and manage, especially when public and private capital are in the equation. Public funding typically requires detailed reporting and documentation of work and decisions. Many developers have neither the experience nor the desire to undertake publically underwritten development. The Flats East Bank project in downtown Cleveland, for example, required 34 layers of private and public capital, and took eight years to assemble. Few developers in markets like Northeast Ohio's will have the time, financial resources and persistence to devote to a single project like the Flats East Bank.

3. Coverage and Direction of Publicly-Funded Incentives

Most public subsidies and tax credits are statutorily directed to meet a politically defined need, such as rehabilitating historic buildings or bringing development into low-income neighborhoods. This is not an issue when a development is among the first in an economically depressed area, but it quickly becomes an issue as activity intensifies. Sometimes an area loses its eligibility for low-income tax credits as higher-income residents move in. In other cases, the supply of buildings eligible for historic tax credits runs out. In many cases, several developers noted, the crucial gap financing offered by public subsidies disappears before the market justifies private financing, squelching development prospects. This was characterized by one developer as "incentives that punish success."

As a corollary, several developers indicated concern with how public subsidies were directing development activities on urban land. These centered in particular on the historic tax credits, which sometimes induce rehabilitations of "historic" buildings on plots that would otherwise be better suited for higher floor-to-area

ratios or more intensive uses than what they end up hosting. Such effects distort the urban land market and can frustrate other policy goals of a municipality. Even more concerning to one interviewee was the prospect of a future collapse in market activity once the exhaustion point was reached for sensible historic retrofits. This interviewee, a major player in development of housing in the Midtown area of Cleveland, noted the need for thought and action on creating new incentives that would encourage redevelopment of vacant land as opposed to just historic buildings.

4. Uncertainty in Interactions with Regulations and Regulatory Entities

An interesting pattern that emerged from interviews was the sharp divergence in perspectives on navigating local regulatory processes and managing relationships with public officials. While comfort and ease with regulatory process tends to grow with completion of successive projects, a poor experience for a newcomer to a particular jurisdiction will undoubtedly discourage them from pursuing future development opportunities.

Though frustrations with more complex zoning, permitting, and inspections are typical and even to be expected, the most important driver of uncertainty, as characterized by interviewees, is the prospect of NIMBYism, or the tendency of some neighbors to object to projects in their community, declaring “Not in my backyard.” NIMBYs have a curious effect on the process, as they can force the municipality to assume a potentially more adversarial regulatory posture vis-à-vis a proposed development. One experienced homebuilder likened it to siblings vying for the attention of a parent who clearly favors one over the other. Once neighbors decide to oppose a project, on whatever grounds, the process becomes politicized and schedules can become delayed by weeks and months.

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5. Perceptions of Service Quality within a Particular Municipality.

While not directly cited by most interviewees, one developer concluded his remarks with a thought that the condition of poorly-performing inner-city school systems was the number one barrier to scaling redevelopment in the region. Though it may not be appropriate to classify education alongside other municipal services (generally, school districts are their own jurisdiction) such as trash collection, police and fire, 911 services, etc., perceptions of service quality are influential in both developers’ decision to enter a market as well as their read of potential customer’s interest in purchasing a product in that market.

EXOGENOUS BARRIERS

1. Unaccounted Subsidies in Public Infrastructure.

Significant subsidies are granted to develop infrastructure that facilitates the spreading outward of population and, in some cases, the poaching of jobs and employment from one area of Northeast Ohio to another. This is driven, in part, by planning processes that emphasize traditional capacity expansion in an effort to mitigate traffic congestion, thus channeling federal transportation dollars into road widening projects, which sets the stage for local jurisdictions to permit housing and commercial growth on greenfields. It also occurs through programs that, under the aegis of rural development, favor counties and townships over cities, such as a program that subsidizes construction of wastewater treatment and conveyance infrastructure that can spur greenfield development. The existence of such programs contrasts sharply with the lack of similar programs for established cities, such as a fund to help cities meet U.S. EPA MS-4 obligations to separate sanitary and storm sewers.

2. Misallocation of Authority to Levy Impact Fees on Development.

Among the most interesting and salient of the exogenous barriers to redevelopment is the question of impact fees. Impact fees are one-time charges assessed to new developments that offset the additional costs of providing public services. Ohio is one of 22 states that, as of 2013, does not have enabling legislation authorizing political subdivisions to levy impact fees. In the vacuum of a legislative definition of impact fees and the acceptable methodology for their calculation, courts have had to step in with their interpretation. A case brought before the Ohio Supreme Court in 2000, Homebuilder’s Association of Dayton and the Miami Valley, et. al. v. City of Beavercreek, resulted in a divided court ruling that local jurisdictions did have the authority under their constitutionally defined police power to levy impact fees that passed a rational nexus test. In the wake of the ruling, several municipalities and townships (though none in Northeast Ohio) adopted impact fee ordinances.

The Ohio Supreme Court partially reversed its earlier decision on impact fees in Drees Company, et. al. v. Hamilton Township, in 2012. In Hamilton, the Court ruled that townships, which have only limited home rule powers, could not levy impact fees, as they are an unconstitutional tax with respect to the powers of the state. Though incorporated municipalities, which have home rule powers, are still permitted to levy impact fees under their police powers, impact fees do the

most good in terms of allowing for planned, fiscally sound growth where growth actually occurs. In Northeast Ohio, a considerable and increasing percentage of new housing growth occurs in townships. The decision highlights the vacuum of state law governing impact fees. The practical consequence of the absence of a region-wide approach to levying impact fees for new development is a virtual subsidy to greenfield development, further sapping the market for urban infill and redevelopment.

3. Asymmetries in Taxing Powers and Practices between Political Subdivision Types

Closely related to the unequal allocation of the ability to levy impact fees is an asymmetry in how state law distinguishes the taxing powers and practices of municipalities, which are incorporated, and townships, which are not. Though Ohio is a home rule state that reserves substantial powers to local jurisdictions, full home rule powers are apportioned only to municipalities, which enjoy a more comprehensive control over questions of taxation.

There are a several critical distinctions between municipalities and townships on taxation. First, townships tend to have a much lower property tax mill than municipalities, owing to the less developed extent of services they provide. This makes township land attractive for commercial developers, provided sufficient infrastructure already exists or can be provided. Households looking to minimize tax liabilities in exchange for the prospect of providing more services for themselves are also incentivized to locate on township land.

The most salient distinction between the two entities centers on income tax. Municipalities are empowered to collect income tax from residents under home rule, whereas townships are not. The presence or absence of income tax is often a consideration both for employers and households. One interviewee spoke about the powerful effects of income taxation on the decisions of entrepreneurs faced with the prospect of double taxation if both their home and business is located in a city with a municipal income tax. The interviewee hypothesized that this could be a deterrent for new companies looking to establish or expand operations in Northeast Ohio's cities.

4. Differences in Sophistication and Rigor of Zoning and Development Review Processes

Significant differences exist between local jurisdictions with respect to their development planning and review capabilities. Some of these differences can be attributed to state statute: Municipalities in Ohio are required to have and maintain a master plan and accompanying zoning, whereas townships are enabled but not required to maintain zoning. Most Wayne County townships as well as townships found in Ashtabula, Trumbull, Mahoning, Geauga, Portage and Stark counties have choose not to adopt zoning. Some of the differences between municipalities and townships can be attributed to differences in administrative capacity and available resources: Whereas municipalities have planning and zoning departments often with full-time staff or contract consultants, townships rarely have comparable resources and, if they have adopted zoning codes, must rely on the services of a part-time zoning inspector, a volunteer zoning commission and, in some counties, the staff of their county planning department to administer them. Without the statutory obligation or the administrative capacity to engage in land use planning or update their zoning codes and maps, townships may find themselves unable to keep pace with shifts in the region's real estate market.

While many developers find the low-oversight environment of townships to be appealing, others have found it frustrating, particularly when seeking to build more compact forms of housing or mixed-use commercial development. One interviewee, an experienced builder in both urban and rural communities in Northeast Ohio related his frustration in trying to introduce small-lot traditional neighborhood development in communities which lack both the code language to permit this style of development and the administrative capacity to either interpret or amend their code to meet contemporary market demand. Another developer experienced in both urban redevelopment and suburban greenfield building described the relationship between the regulatory posture of a municipality and its development maturity as an artificial "S-curve," as communities experiencing development pressure accumulate staff and regulatory obligations which remain in place long after development pressure has moved elsewhere in the region. This pattern can dampen developer interest in pursuing projects in established communities.

ZONED FOR COOPERATION: ORGANIZATIONAL TOOLS FOR DEVELOPMENT PROMOTION

Many of the barriers discussed earlier have their origins in restrictions on, or special powers granted to, various political subdivisions by State law. The effects of these barriers are potentially magnified by the unintended consequences of an organizational tool that was established by State law for the purpose of fostering collaboration between municipalities and adjacent townships: Joint Economic Development Districts (JEDD) and the Cooperative Economic Development Agreements (CEDA). The official, legal formalism of these entities contrasts sharply with the informal, more privately-driven models of the Special Improvement District (SID) and the Community Development Corporations (CDC) which are the principal organizational tools for championing infill and redevelopment. These mechanisms are described in detail below.

Joint Economic Development Districts and Cooperative Economic Development Agreements

Joint Economic Development Districts (JEDD) are authorized under Section 715 of the Ohio Revised Code which enables municipalities and adjacent townships to cooperate to foster economic development activities without modification of jurisdictional boundaries. A JEDD is a quasi-jurisdictional entity formed by cooperative agreement between a municipality and a township upon petition of 51% of the landowners comprising the proposed district. A JEDD provides an arrangement whereby municipal services—typically water and sewer—can be extended into one or more non-residential areas within a township. Municipalities can collect income tax from the township, in exchange for remitting a percentage of the tax revenues to the township and promising not to annex the township land on which the JEDD is formed for a minimum of three years.

The Cooperative Economic Development Agreement (CEDA) is authorized under Section 701.07 of the Ohio Revised Code and provides another mechanism by which municipalities and townships can avoid conflicts regarding annexation. CEDAs are less stringent than JEDDS: CEDAs enable communities to collaborate in the provision of infrastructure and public services and can include residential as well as non-residential properties. Unlike JEDDS, CEDAs do not permit the imposition of an income tax on the township.

JEDDs and CEDAs resolve several of the exogenous development barriers identified above. The appeal of this mechanism to both city and township is multifold. The municipal partner is able to shape and share in the benefits of development in an adjacent township and realize additional revenues by providing municipal water and sewer services while avoiding a protracted and costly annexation fight with that community. The hosting township is able to realize an intensity of new development which would otherwise exceed its capacity to support. JEDDs, in addition, allow townships to receive a portion of the of income tax revenue generated within the JEDD. These new revenues can enable the township to invest in higher-quality services or additional infrastructure to entice further retail or residential development. The JEDD also resolves concerns with limited township zoning and development review by vesting that power in an appointed board comprised of members designated by landowners, workers, and official representatives of the parties to the JEDD. This board typically undertakes a master plan study, which designates land use and zoning within the JEDD, clearly communicating intent to prospective developers.

JEDDs and CEDAs have proliferated in Northeast Ohio over the past decade as townships seek to expand and intensify development within their boundaries and adjacent municipalities seek to moderate the fiscal impacts of outward migration by shaping that development and sharing in its proceeds. Pioneered by Akron and Summit County (JEDD enabling legislation was championed by Don Plusquellic, Mayor of Akron and enacted in 1993) these inter-community cooperative agreements have reduced conflict between municipalities and adjacent townships and have fostered a measure of regional collaboration.

At the same time, by extending the region's infrastructure footprint principally through the expansion of existing water and sewer networks, these agreements unintentionally—but undeniably—drive further outward migration of jobs and investment and add to the region's long-term infrastructure maintenance burden.

An interesting case illustrating these dynamics unfolded fairly recently. The Eaton Corporation, long a resident of downtown Cleveland, decided in 2008 that it needed to move to a suburban campus to accommodate planned expansions and consolidations of corporate functions. The company identified a site in Beachwood, Ohio, on the eastern fringe of Cleveland in the Chagrin Highlands Corporate Park, with ready access to I-271 and close to a major new health care facility, the University Hospitals Ahuja Health Center. The Chagrin Highlands Corporate Park is located in a JEDD administered by the City of Beachwood in cooperation with Highland Hills, called the Beachwood East JEDD. The JEDD negotiated an agreement with the City of Cleveland whereby a percentage of income tax collected by the City of Beachwood would go to the City of Cleveland; in exchange for Cleveland selling land it owned to complete the site for the corporate campus. Highland Hills collects property tax. The parties reached an agreement and Eaton proceeded to build its new headquarters, completed in April 2013.

The Eaton headquarters case illustrates the potential for JEDDs, CEDAs and similar inter-community cooperative agreements to shift jobs and investment between communities, sometimes from the very same city that is a party to the agreement. In addition, by extending the region's infrastructure networks, these agreements have the potential to inflate the supply of greenfields commercial property in the region's market and further disadvantage infill redevelopment sites in the region's established communities As the scenario planning alternatives illustrate, the absence of robust tools to analyze the long-term fiscal impacts of expanding the region's infrastructure networks and polices that speak to mitigating these impacts exposes the region and its communities to the risk of incurring costs in excess of revenues over an extended period of time.

Special Improvement Districts and Community Development Corporations

Municipalities do not have nearly as expansive a set of tools for encouraging the development of their more established neighborhoods as they do for areas at their edge. Most of the fiscal tools available to municipalities discussed have profound limitations in their application and tend to compound administrative complexity. The dominant organization tool available to inner-city commercial districts, the Special Improvement District (SID), is not so much intended to function as a development instrument as a source of supplemental income to fund public services and special programs that the municipal government may not be able to otherwise provide.

SIDs were enabled by the State of Ohio in 1994 and permit area property owners to pay a dedicated property tax assessment to provide enhanced services to their district. These services are intended to strengthen the districts attractiveness and economic vitality by providing incentive programs and supplemental services that enhance and support—but do not replace—those normally provided by the city.

In the absence of a publicly-backed development district akin to a JEDD, non-profit community development corporations (CDCs) have emerged in many established Northeast Ohio communities to redress some of the endogenous redevelopment barriers and act as an intermediary between overburdened city governments, existing landowner interests, and prospective developers. Some of these organizations, like the Downtown Cleveland Alliance, have created a SID to assess themselves for physical investments in their public realm as well as supplementary services such as security, cleaning, and staff support for festivals and events. Others, like Midtown Cleveland, Inc., have remained entirely private voluntary organizations funded by their members. Yet others, such as Northeast Ohio's many neighborhood-based development corporations focus on affordable housing and small business development and fund their activities through a variety of public private partnerships.

A common thread in the experience of all community development corporations, and improvement districts, is the commitment to making "place" the distinguishing value proposition that attracts and retains people and jobs. The importance of place-making came up in multiple interviews: Interviewees felt that quality of place is increasingly important to the market. This response strongly suggests that policies emphasizing place-making will be of essential importance to the region's prospects for growth in jobs and residents.

CONCLUSION

There are formidable, structural drivers of outward migration and barriers to redevelopment, embedded in market characteristics, physical realities, the law, policy choices past and present, and industrial and political organization. Many recent strategies have been tested to overcome some of these barriers, including JEDDs, CEDAs, SIDs, and CDCs. JEDDs, in particular, have provided an effective means of generating new investment and development and fostering intra-regional collaboration. At the same time, this new investment and development, by definition, takes the form of outward migration and shifts economic activity away from legacy communities. Improvement districts and CDCs have made important contributions to making redevelopment more attractive, but critical market and policy barriers remain. Real estate trends indicate changing conditions that may make it easier to reverse the outward migration pattern, especially as consumer preferences shift to an attention to quality of place, but capitalizing on such trends will require thoughtful revision of public policy and openness to collaboration between governments, developers, and community partners.

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RECOMMENDATION 2: DEVELOP A ROBUST NETWORK OF REGIONAL JOB CENTERS CONNECTED BY MULTIMODAL TRANSPORTATION CORRIDORS WITHIN AND BETWEEN COUNTIES

Northeast Ohio features multiple traditional employment centers and an extensive transportation network connecting them. This helped to build the industrial economy of the region in the 20th century and provided a strong foundation for years of dynamic growth.

To continue to support the region's economy, the transportation system must continue to evolve—this time into one featuring greater modal choice. Similarly, the region must build quality places that integrate employment, access to amenities, and housing into an urban lifestyle increasingly sought after by both millennials and retiring baby boomers. This involves being sensitive to what the market is demanding and redesigning land use and zoning regulations to better accommodate developer's ability to deliver these products. Northeast Ohio should consider the following initiatives to catalyze this evolution:

INITIATIVE 2.1: STRENGTHEN REGIONAL JOB CENTERS—AND THE CORRIDORS THAT CONNECT THEM—BY DIVERSIFYING AND INTENSIFYING LAND USES AND INVESTING IN STRATEGIC LOCAL ECONOMIC DEVELOPMENT WITHIN THEM.

WHAT THIS MEANS. Jobs are key to securing Northeast Ohio's future health and prosperity, and quality places are key to securing jobs. With the generational preferences about what constitutes a "quality place" shifting toward values such as walkability, accessibility, and mixing of uses, communities and employers alike are scrambling to create contexts where people can and want to work. Northeast Ohio must recognize this and act decisively if it is to remain competitive with other regions.

One component in strengthening regional job centers and corridors is to address and remove provisions in land use plans and zoning codes that discourage dense, mixed-use projects, or make them difficult to deliver. This can involve a host of strategies discussed elsewhere in these Recommendations, from creating mixed-use or planned unit development overlays to reducing or eliminating parking minimums. By developing more flexible and streamlined zoning and administrative review processes, municipalities make an important contribution to reducing the high transaction costs facing developers and employers and ease their ability to deliver the kind of dense, diversified places where people increasingly want to work and live.

Some Northeast Ohio communities will want to be even more deliberate, targeting development in the regional centers identified in the Vibrant NEO 2040 Vision map. Municipalities can encourage such development by making targeted investment in the physical infrastructure, social services, and marketing of the place—or by identifying and cultivating local stakeholders. Cleveland's HealthLine bus rapid transit (BRT) investment is the strongest local example of such as deliberate development strategy.

The City of Cleveland's decade's long partnership with the Greater Cleveland Regional Transit Authority (GCRTA) and four stakeholder-led local development corporations and improvement districts —University Circle, MidTown Cleveland, the Campus District, and the Downtown Cleveland Alliance—along the 5-mile Euclid Corridor between Downtown Cleveland and University Circle, the city's major cultural district. The city and GCRTA collaborated to undertake a complete upgrade of the transit service on this heavily travelled corridor, replacing curb-running local bus service with articulated busses running in an exclusive center median right-of-way. The development corporations partnered with the city and each other to coordinate significant reinvestment in the properties along the corridor. These public-private partnerships have resulted in a transit oriented corridor with an impressive cluster of educational, medical and cultural institutions, private businesses, and business incubators focused on health care and health innovation, a major growth field in the 21st century.

WHY THIS IS IMPORTANT. An economically strong Northeast Ohio requires jobs located on sites that are both accessible to the region's population and well-served by the region's freight networks. Concentrating employment so complementary businesses can be near each other helps to create relationships and linkages that drive value creation. Concentrating businesses also allows transit to serve multiple employers and their employees with efficient routes. Providing for freight connections to these concentrated areas also reduces shipping time and cost, increasing the economic viability throughout the centers.

The Cleveland Opportunity Corridor is an example of a center- and corridor-based redevelopment strategy currently under development through a partnership of the City of Cleveland and the State of Ohio. The Opportunity Corridor envisions constructing a boulevard to connect the rapidly expanding University Circle neighborhood into the region's freeway network.[56] While the project proposal envisions both substantial adaptive reuse of existing properties and the intensification of existing land uses, (highlighted in 3.4), the major public investment proposed is limited to the development of a new roadway. An infrastructure planning strategy that incorporates the full range of transportation modes will be the appropriate approach for most urban employment corridors and centers.

56 Ohio Department of Transportation, Cleveland Opportunity Corridor, http://www.dot.state.oh.us/projects/clevelandurbancoreprojects/opportunitycorridor/Pages/default.aspx

KEY CONCEPT: Transit Oriented Development (TOD)

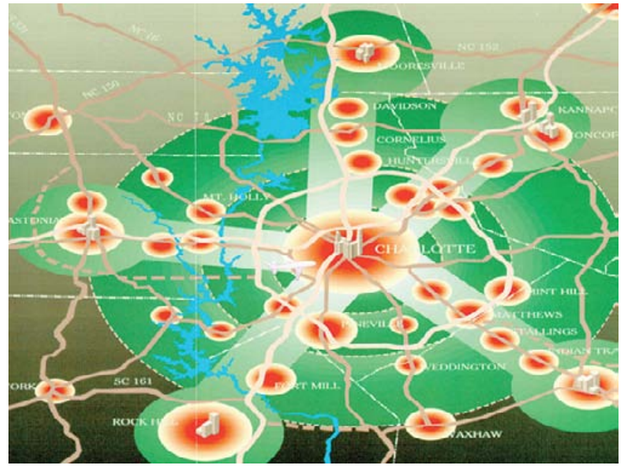
Transit oriented development (TOD) is a land use planning practice that uses proximity to mass transit as the main criterion for determining the level of development intensity. The assumption is that the higher throughput of people on mass transit allows more land to be used for productive uses within a certain radius of a transit station. People residing, working, or shopping within that radius can access and leave the site without using a car. TOD is a cornerstone of New Urbanist planning and design, though the principle of intensifying land uses with proximity to high-capacity transit is a general one.

Site plan for transit oriented development at Mayfield Road and East 119th Transit Station, Cleveland *City Architecture*

GETTING IT DONE. The region already has a strong framework of centers and connective corridors, but action will need to happen on several levels in order to capitalize on the potential of the framework. Local governments will need to lead the way on getting land use right, reviewing and revising zoning codes and plans as necessary, and engaging local stakeholders to target investments in the job centers and corridors of the future. Transportation investments will occur through the Ohio Department of Transportation and local transit agencies, which should be coordinated with local government's efforts via MPOs and COGs. In addition to coordinating public sector stakeholders, MPOs and COGs should play a key role in collecting and disseminating best practices.

POLICY: Nurture the region's Industry Clusters: Organizing the region strategically around clusters of regional specialization can help target investment decisions and reduce duplication of effort. These efforts should focus on how to make the region's successful clusters grow and prosper and enable the region to be proactive in terms of funding and other opportunities.

PILOT PROJECT: The Austen BioInnovation Institute in Akron:[57] An exceptional collaboration of Akron Children's Hospital, Akron General Health System, Northeast Ohio Medical University, Summa Health System, The University of Akron and The John S. and James L. Knight Foundation—is focused on patient-centered innovation and commercialization at the intersection of biomaterials and medicine. The strategic alignment of institutional, state, federal and philanthropic support, accompanied with Akron's rich legacy in industrial and materials science, is working to pioneer the next generation of life-enhancing and life-saving innovation that will transform Akron and the surrounding region into a model for biomedical discovery and enterprise.



Charlotte, North Carolina: Nodes, Corridors, and Wedges Growth Strategy *Originally used in Centers and Corridors growth framework document written and adopted in 1994, Diagram created by Charlotte-Mecklenburg Planning Department*

POTENTIAL LEAD	Municipalities, Townships, Counties; Metropolitan Planning Organizations, Councils of Governments
TARGET COMMUNITY	Strategic investment areas, asset risk areas, cost risk areas
IMPLEMENTATION COMPLEXITY	Moderate

57 http://www.abiakron.org/

INITIATIVE 2.2: USE TRANSIT ORIENTED DEVELOPMENT (TOD) TO CREATE STRONGER, MORE ACCESSIBLE, REGIONAL JOB CENTERS.

WHAT THIS MEANS. Coordinating land use and transportation sets the stage for residents and employers to be well-served by public investment in high capacity transit. This initiative involves focusing local land use policies throughout the Northeast Ohio region to respond to regional high-capacity transit service. This not only looks to shape urban form in a way that promotes walking and transit access, but also to encourage and foster population and employment densities that are necessary for transit service to be feasible.

Urban regions beginning to invest in transit understand that the major commitment of public and private funds to build and operate transit systems requires securing a successful public service that offers community benefit and a foundation for economic growth. Charlotte, North Carolina, is a leading example of a region that has oriented its growth policies to infrastructure corridors served by high-capacity transit, with a series of 'wedges' consisting of lower-density housing and parks and preservation lands making up the spaces in between and continuing to offer housing choices to the region. Working hand-in-hand with this growth framework is a series of station area plans that reshaped local land use policy and development regulations to promote the critical densities of population and employment needed to support this high-capacity transit service.

WHY THIS IS IMPORTANT. Land use policy is not always immediately understood in planning for transit, but coordinating it in transportation planning efforts is crucial in ensuring transit's effectiveness. Transit needs to have adequate ridership for service to be successful, but it also needs land uses to be balanced and configured in a way that takes full advantage of the service's capacity and allows riders to reach transit vehicles. This initiative is focused on land use because it is essential to ensuring that public investment in transit infrastructure and service yields benefits to Northeast Ohio.

When coordinated well, this kind of land use and development planning offers community benefits by creating desirable places that offer choices in transportation, but it also benefits transit service providers in adding ridership, building a long-term demand for transit service, and extending the utility of transit service by allowing reverse-peak use of transit service and potentially offering more 'even' ridership activity throughout the day.

GETTING IT DONE. Recommendation 5 calls for regional action and coordination on transit development, but local government policy will ultimately lead the implementation of this initiative. This is often expressed in broader terms in long-range and comprehensive development plans, but it needs to be codified in zoning ordinances so that restrictions to individual development choice are removed and property owners may build transit oriented development as of right. To support transit, especially around high-capacity stations, there needs to be a minimum level of population or employment density and a favorable mix of land uses that can be easily accommodated without requiring a car. Generally speaking, this focuses on residential, employment, and, to a lesser degree, retail and commercial land uses. The specific type of use matters, though, in that transit is more effective in serving land uses that lead to a high concentration of households and jobs. Land uses that offer employment at lower intensities, such as warehousing and distribution, and similar services are not as likely to support transit and should not be the focus of transit-supportive area plans.

TOOL: Connecting Jobs and Workforce Development to Transit[58]

POTENTIAL LEAD Municipalities; Metropolitan Planning Organizations
TARGET COMMUNITY Strategic investment areas
IMPLEMENTATION COMPLEXITY Moderate

58 http://origin.library.constantcontact.com/download/get/file/1101453267843-205/20130924_Jobs_Transit_Issue_Brief.pdf

LOCAL EXAMPLES: Greater University Circle and Market Square District

Greater University Circle is a cultural, medical and institutional center that is strengthening its economic base through transit oriented development that connects residents, employees, and visitors through quality connected places, with multimodal transit options and supported by mixed-use buildings. (Note: for a full case study of University Circle, see Medical / Institutional Centers in the “Development Strategies” Section.)

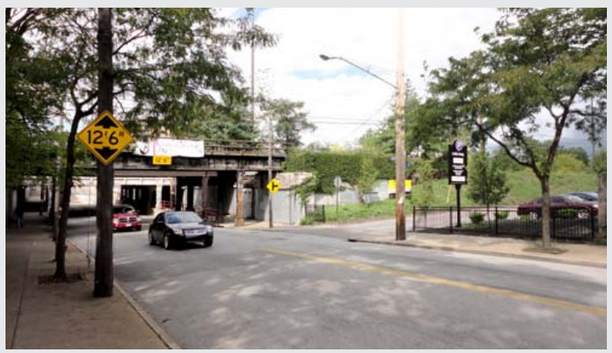
Market Square District, Ohio City: This diverse historic district is experiencing extensive revitalization and reinvestment through its heavily utilized transit service. The West Side Market has been revitalized, new restaurants have filled existing storefronts, new housing options are being developed on various sites, and the Lorain Carnegie Bridge has added a dedicated bike and pedestrian path that strengthens the multimodal connection to Downtown. In addition, Ohio City undertook a Transportation for Livable Cities Initiative (TLCI) Study in 2011 that looked at further transportation connections between the existing neighborhood, the W 25th Street Rapid Station, Bike and Pedestrian Amenities and New Development

New Mixed-Use Housing in Uptown along the Euclid Corridor BRT *City Architecture*

West Side Market and Market Square Park *City Architecture*

Uptown / University Circle Pre-Investment Conditions and Planned Ongoing Redevelopment *City Architecture*

Ohio City TLCI Master Plan *NOACA*



Mayfield Road / Gateway to Little Italy Neighborhood / University Circle (Existing Conditions) New Little Italy / University Circle RTA Rapid Station (Under Construction) *City Architecture*

Ohio City Rapid Station *City Architecture*

INITIATIVE 2.3: IMPLEMENT A TIERED APPROACH TO LOCAL PARKING REQUIREMENTS.

WHAT THIS MEANS. Parking is a fundamental need in modern urban areas, but when oversupplied, it can easily overwhelm the special qualities of a place and even have adverse economic impacts. The provision and management of parking play an enormous role in the look and feel of streets, travel choice, and congestion levels. Parking spaces are a valuable commodity; like any commodity, they are subject to the laws of supply and demand. Typically, however, parking has been supplied without much thought to actual travel demand—or demand for any form of parking other than free parking—resulting in swaths of real estate being reduced to asphalt that sits largely empty for much of the day.

Typical parking requirements in the United States today are a result of a virtuous circle of good intentions gone wrong. At its center is a series of zoning code practices that have had unintended negative impacts on city centers. Conventional zoning codes, emerging in the early 20th century, quickly evolved beyond an idea with unquestionable merit—keeping noxious land uses away from residences—to so strictly isolate residential, industrial, and commercial land uses that it made motorized travel a near-necessity for most trips. Parking requirements were then added to address the spike in driving that these new standards created and ensure that parking demand for retail businesses, places of employment and other major destinations did not 'spill over' into residential neighborhoods and exhaust much-needed on-street parking supply. The minimum parking requirements in many zoning codes are based on the maximum demand observed on any day, so that the actual parking supply provided is never filled and most days provides much more than is needed.

WHY THIS IS IMPORTANT. Parking management strategies that focus on reducing the minimum required parking introduce a greater range of choice in communities—both to development markets that may be able to realize lower costs by providing less parking in places where it is not in heavy demand, and also to businesses and residents interested in finding the lower-cost space and housing that could result.

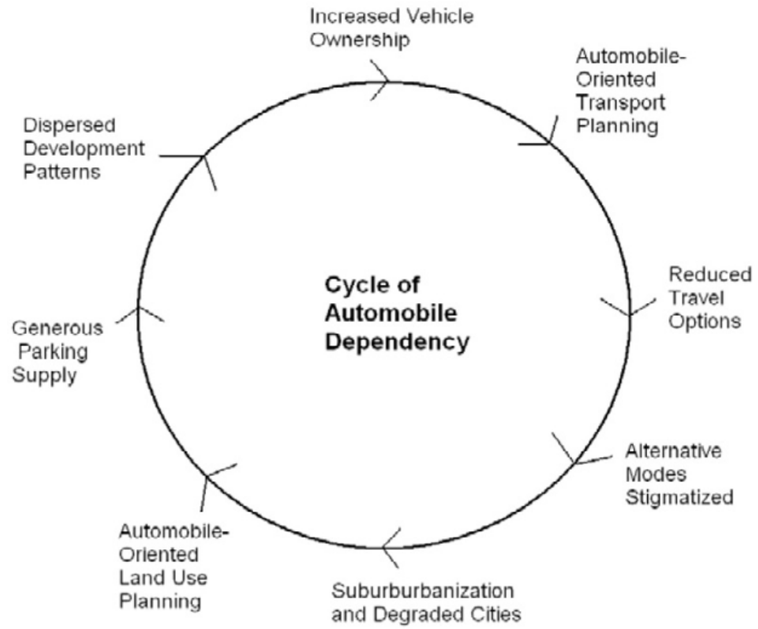
Reducing or eliminating minimum parking requirements selectively would also allow development to better respond to true market demand and, in places where less parking is actually needed than what zoning-based parking minimums specify, to provide that amount and thus reduce development costs.

GETTING IT DONE. As a form of land use regulation, parking policies are a powerful regulatory tool that local jurisdictions hold in influencing development. Northeast Ohio municipalities should consider adopting a tiered approach to parking regulation that is more responsive to the complete picture of mobility options and their accessibility. This would suggest:

- Implementing parking maximums in walkable districts with high-frequency transit running throughout the day, i.e. districts that have 10-minute or better frequencies of bus and/or rail service
- Removing all reference to maximums or minimums in walkable districts with significant transit service
- Relaxing parking minimums in areas with some transit service
- Retaining existing parking minimum requirements in areas without transit service, or modestly adjusting parking minimum requirements based on observed demand

TOOL: The City of Cleveland passed a zoning overlay district created to preserve the pedestrian-oriented character of their unique shopping districts, accomplished through regulatory tools addressing building placement, use, reduced parking requirements, etc.[59]

POTENTIAL LEAD Municipalities, Townships; Metropolitan Planning Organizations
TARGET COMMUNITY Strategic investment areas, asset risk areas, cost risk areas
IMPLEMENTATION COMPLEXITY Moderate



Conceptual Diagram: Cycle of automobile dependency *from Todd Litman, Parking Requirement Impacts on Housing Affordability, 2009*

59 (see Chapter 343.33). http://planning.city.cleveland.oh.us/cpc.html http://www.amlegal.com/library/oh/cleveland.shtml (Cleveland Ohio, Code of Ordinances; see Chapter 343.23

RECOMMENDATION 3: PURSUE THE REMEDIATION, ASSEMBLY, MARKETING, AND REDEVELOPMENT OF ABANDONED PROPERTIES AT BOTH THE LOCAL AND REGIONAL LEVELS

Northeast Ohio's regional economy has long been defined by industry, and thus was especially susceptible to the economic restructuring of American manufacturing. Vacant and contaminated industrial sites dot Northeast Ohio's legacy cities. The question of these sites' remediation and reuse is intimately related to how the region will strengthen its core cities and towns, a central objective of the Vibrant NEO 2040 Regional Vision. Similarly pressing is the volume of vacant commercial and residential land, or "grayfields," a byproduct of the region's economic transition and a direct consequence of outward migration.

Fortunately, the region has several sources of inspiration on which to draw, both from within and from peer regions. Some areas have enjoyed success in reinvigorating their manufacturing base with a 21st century, high-tech edge. Others have focused on rehabilitating salvageable buildings as residential and commercial space. A smaller, but still significant number have opted to reposition abandoned and polluted industrial land as a landscape of ecological tourism.

Northeast Ohio must develop a multi-stakeholder, regional approach to dealing with vacant and abandoned properties to position its communities for success in the future. It can incorporate many of the strategies developed and refined already in various pockets of the region and throughout the country, but it will require cooperation and trust, good and constantly maintained information, and investment. The region should consider the following initiatives related to reusing vacant former industrial land:

INITIATIVE 3.1: DEVELOP AND MAINTAIN A REGIONAL VACANT INDUSTRIAL AND COMMERCIAL PROPERTIES DATABASE AND CRITERIA FOR DETERMINING THE MOST APPROPRIATE SUCCESSIVE USE, WHETHER FOR REDEVELOPMENT, GREEN INFRASTRUCTURE, FOOD PRODUCTION, PARKS, OR NATURAL AREAS.

WHAT THIS MEANS. Northeast Ohio possesses significant data assets related to vacant and contaminated land. These data are generated and maintained by a wide range of organizations, some using geographic information systems (GIS) and some not. County auditors and municipal departments maintain records of ownership, use, and value and tax history. Land banks and economic development entities track demolitions and occasionally contamination, sometimes assigning qualitative attributes to parcels that can be useful to understanding on-the-ground conditions. County engineers and municipal public works departments might maintain information on easements and presence and conditions of publicly-maintained infrastructure. These sources of information are highly useful to all parties involved in the development process, but remain siloed. The regional parcel-based land use and land value database compiled by NEOSCC could be a useful starting point, but to remain a useful tool for policy and development recruitment, the database needs constant updating by contributing partners.

The City of Indianapolis, Indiana implemented a successful site locator service based on information management systems it developed within City government and in partnership with local foundations, community development corporations, and business development entities. The site locator tracks retail, office, and industrial sites that are vacant or on the market, along with purely vacant land zoned for any of those uses. Search parameters include size of property (in square feet and acres), location within particular community development areas, and whether the property is available for lease or sale.[60]

WHY THIS IS IMPORTANT. Good and standardized information is critical for planners, public officials, developers, and employers alike. It is essential with complex, multi-stakeholder problems such as the reuse of vacant urban land. The process of constructing a vacant land database would provide impetus for data stakeholders to communicate, share, and begin to standardize collection methodologies and classification schemes. By establishing a common platform of knowledge on which dialogue and consensus-building can take place between stakeholders, a vacant land database would contribute enormously to the region's economic prosperity by sending a valuable signal to the market regarding the region's capacity to collaborate with private-sector stakeholders.

GETTING IT DONE. A regional vacant and industrial properties database should integrate data from municipalities and counties, land banks and possibly land conservancies, parks authorities, and state agencies. Data could rest on a common web-based platform with other data products and be used to inform decision-making on everything from vacant land reuse, land bank property sales, and urban agriculture, and include a public-face version used to aid in marketing sites and districts to developers and prospective large employers. Given the jurisdictional complexity of this initiative, an economic development partnership such as the Fund for Our Economic Future or Team NEO should lead the effort, coordinating with NEOSCC and consortium members, particularly COGs, to convene the appropriate stakeholders. Data and information support could come from universities in the region.

POLICY: Develop and promote innovative clean up strategies: Developing and promoting innovative cleanup strategies that restore contaminated sites to productive use, promote environmental stewardship, and reduce associated costs while minimizing ancillary environmental impacts from these cleanups. Consider cleanups in the context of the larger environment and consistently and pro-actively apply more sustainable methods to remediate the site while still protecting public health and the environment and striving to achieve the established cleanup goals.

POTENTIAL LEAD Chambers of Commerce/Economic Development Organizations; Universities; Nonprofit Organizations; Councils of Governments
TARGET COMMUNITY Strategic investment areas, asset risk areas
IMPLEMENTATION COMPLEXITY Low

60 Indy SiteFinder, City of Indianapolis, http://imaps.indygov.org/ed/ed.asp?bhiw=1920&bhih=1108

INITIATIVE 3.2: EXPEDITE PERMITTING AND REMOVE BARRIERS FOR ADAPTIVE REUSE OF ABANDONED BUILDINGS AND EMPTY LOTS.

WHAT THIS MEANS. The recycling of urban land and buildings is the principal development challenge facing built-out communities. Barriers to redevelopment arise through such issues as toxic contamination, property age and code conformance, and opposition from other landowners. Communities in Ohio and elsewhere have found various strategies for reducing or removing these barriers, including internalizing certain pre-development costs like site remediation (or working with an allied entity to do so), and taking an active role in mediating between developers, landowners, and the community. One of the most effective and immediate actions that municipalities can take is exploring ways to consolidate and expedite the permitting and development review process. Los Angeles took such steps to facilitate redevelopment in the historic central business district in 2005. The dramatic success of the program led to its expansion citywide.[61]

WHY THIS IS IMPORTANT. The challenge becomes a problem when natural churn in a property market decays into long-term, structural vacancy. Invariably, municipalities are saddled with the responsibility for maintaining chronically vacant property. This saps municipalities of needed revenue, results in substandard care for a property, and dims the prospects of a productive successive use.

Over the last two decades, local governments around the country have created land banks, which are entities established to acquire and hold chronically vacant property for eventual sale to a private entity for redevelopment. While land banks are valuable policy and organization tools, they are not the full answer to addressing the challenge of widespread structural vacancy. Policies reducing the uncertainties associated with bureaucracy and the development review process should follow, as these factors are frequently cited by developers as reasons—direct or indirect—for withdrawing from or forgoing projects in established cities or towns.

61 LA citywide adaptive reuse available here: http://ladbs.org/LADBSWeb/LADBS_Forms/PlanCheck/Ord175588_zaapproval.pdf; LA adaptive reuse process overview document: http://ladbs.org/LADBSWeb/LADBS_Forms/Permits/Permitting_Guidelines.pdf)

GETTING IT DONE. Local governments, particularly in the region's legacy cities and 1st ring suburbs, must take responsibility for implementation of this initiative. Leadership could come from members of planning commissions or zoning boards, or administrative staff from a planning or development department. The effort could start with the following relatively easy explorations:

- Expedited re-platting review and approval for vacant commercial and industrial properties—When building in a greenfield context, a developer can plat a property to suit his or her needs, a condition that is very difficult to replicate in an established urban context. To compensate, municipalities should consider designating areas with a high volume of vacant or abandoned commercial or industrial property for which replat applications will be fast-tracked through approval process. This can be accomplished by creating special overlay districts and adding commercial/industrial planned unit development zoning classes to municipal zoning codes; and
- Consolidated permitting process—Municipalities interested in promoting adaptive reuse should consider forming dedicated working groups or task forces comprised of the principal divisions of government responsible for issuing permits. These working groups review adaptive reuse projects in their totality, reducing or eliminating the back-and-forth that typifies standard permitting process and enabling the developer to address multiple code issues in an efficient, coordinated fashion.

TOOL: Vacant Land Reuse Resource Guide:[62] The Youngstown Neighborhood Development Corporation developed this guide that contains detailed instructions for choosing a site, acquiring vacant property, preparing a site, assessing soil conditions, accessing water, and obtaining plants, fencing, and permits. The guide also outlines a number of vacant land reuse strategies, offers ideas, inspirations, and resources, and includes a project idea workbook.

BEST PRACTICE: Green Jobs Training Program:[63] A nine-month Green Jobs Training Program for at-risk youth adds deconstruction curriculum in Youngstown: Students learn the basics of building deconstruction and building material salvage. Youngstown Neighborhood Development Corporation partners with the Youngstown Metropolitan Housing Authority, Reuse Consulting, Landscapers, Mahoning County One Stop, Western Reserve Building Trade Council, churches and others.

62 http://www.yndc.org/

63 http://www.yndc.org/news-media/green-jobs-training-program-continues-deconstruction-training

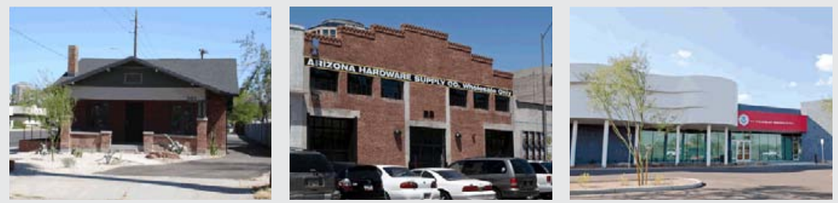
PILOT PROJECT: Collinwood Rising:[64] This is a community plan for establishing a strategy for transforming vacant parcels and houses into community-based assets. Funding was awarded by an ArtPlace America grant.

POTENTIAL LEAD Municipalities
TARGET COMMUNITY Strategic investment areas, asset risk areas
IMPLEMENTATION COMPLEXITY Low

64 http://www.artplaceamerica.org/articles/collinwood-rising-7/

CASE STUDY: Adaptive Reuse Program in Phoenix, Arizona

Phoenix, Arizona has been recognized as a national practice leader in retooling city processes and resources to facilitate adaptive reuse. The program began as a pilot in 2008, and its success led to a quick expansion. The Adaptive Reuse Program, as it is formally known, offers re-developers several key benefits: development guidance, streamlined City review process, reduced time frames, and tangible cost savings through permitting fee waivers. Eligibility for participation in the program is tiered by building size class, and notably includes big-box stores as an eligible reuse.



Phoenix, Arizona: Images of buildings rehabilitated under Adaptive Reuse program
City of Phoenix, Office of Customer Advocacy (Adaptive Reuse Program), http://www.phoenix.gov/pdd/services/permitservices/arp.html

LOCAL EXAMPLES: Adaptive Reuse in Downtown Youngstown and Cleveland's Collinwood Neighborhood

A growing initiative in Downtown Youngstown is catalyzing the recycling of abandoned office buildings in the city's core into revitalized mixed-use apartments that meet the needs of the growing tech-job base and encourage nearby university students to live downtown. These large-scale investments are stimulating further redevelopment in adjacent properties with supporting uses.

Realty Building and Wick Building *City Architecture*

An additional example can be found in Cleveland's Collinwood neighborhood, where vacant strip highway retail is finding new life. The City of Cleveland's Collinwood Recreation Center is a prime example of adaptive re-use. A long abandoned Big Lots department store was stripped down and reutilized to provide a LEED Gold recreation center for the City's residents. In addition, the project will help support redevelopment in this artist neighborhood while reducing the environmental impact with bio-swales and on-site filtration.

From Big Lots to LEED certified recreation center: Reuse in the Collinwood neighborhood, Cleveland *City Architecture*

INITIATIVE 3.3: EXPAND AND COORDINATE EXISTING LAND BANK EFFORTS TO ACQUIRE, ASSEMBLE, MANAGE, AND DISPOSE OF VACANT PROPERTIES THROUGHOUT THE REGION.

WHAT THIS MEANS. Land banks are mechanisms for acquiring and holding chronically vacant land or buildings to prepare for resale to a private entity. The public identity of land banks has historically been as information clearinghouses, expanding in some cases to maintenance and marketing of properties under their stewardship. In recent years, land banks have offered expanded programming and support, in some cases taking on the role of developer and lender. Northeast Ohio is home to several land banks, including the Cuyahoga Land Bank (CLB), which is a practice leader among regional land banks. The distinguishing elements of the CLB's approach to land banking include:

- Strategic land assembly – rather than acquiring parcels in a scattershot manner, CLB intentionally seeks contiguous parcels to internalize some of the costs that developers or conservationists would face in acquiring and remediating parcels one at a time
- Deconstruction—CLB partners with experienced builders and recyclers to sell and reuse material salvaged from properties it demolishes
- Property rehabilitation—in addition to rehabilitating property through its own development arm, the land bank operates a "deed-in-escrow" program and offers low interest loans targeted to small-scale home rehabilitators or homeowners without an extensive background in rehabilitation
- Conservation and urban agriculture—CLB plays an active role in Cleveland's robust urban gardening and agriculture movement, advising and making available parcels that are suitable for food cultivation

WHY THIS IS IMPORTANT. The first county land bank, the Genesee County Land Bank in Flint, Michigan, was formed in response to the County Assessor's awareness of the tremendous fiscal liability that chronically vacant land places on local governments' balance sheet. In that case and others, land banks play an important function in the management of urban land when the market fails to deliver development outcomes, or when municipalities themselves do not have the capacity to manage or dispose of vacant properties. This intermediary role is valuable in preparing parcels for successive uses and absorbing some of the pre-development expenses that often deter developers. In Northeast Ohio's legacy cities, removing unsound and unusable structures, measuring and possibly remediating contamination, and assisting with land assembly are all critical factors in encouraging redevelopment of vacant properties.

GETTING IT DONE. As land banks are typically creatures of county and municipal legislative action, these local governmental units must lead the way in evaluating and establishing land banks for their jurisdictions. Land banks should then be encouraged and empowered to coordinate across jurisdictional borders—particularly for areas identified as strategic investment areas and regional job centers—and to collaborate with regional economic development organizations such as Team NEO and the Fund for Our Economic Future to foster a more collaborative, regional approach to managing and repositioning vacant urban land.

TOOL: Thriving Communities Institute:[65] The Institute is lending its hand to transform vacant and unproductive properties into new opportunities to attract economic growth, to bring green space to our cities, and to support safe, beautiful neighborhoods. In working with community leaders in our region, they have learned that urban revitalization is a process, one with many steps supported by great partnerships. Thriving Communities is helping secure our cities' vacant, unhealthy properties by establishing and supporting county land banks throughout our region.

65 http://www.thrivingcommunitiesinstitute.org/#

County land banks, technically called county land reutilization corporations, provide counties with much-needed ability to quickly acquire foreclosed and vacant property. These land banks can safely hold a distressed property, clean its title, and prepare it for a better day. The goal is to secure vacant properties—that would otherwise attract crime, lower neighboring home values, and incur public services costs—so that they can be put to better use in the future.

Homeownership Zone: This neighborhood-wide initiative has facilitated the assembly of single-family and multi-family lots that were vacant, abandoned, blighted or too small, in partnership between the local development corporation and the city land bank. The creation of a comprehensive neighborhood master plan re-envisioned the residential fabric by consolidating, re-subdividing and in-filling lots with new single-family homes and townhomes. Today the neighborhood is continuing to emerge as a diverse, mixed-income, compact residential community with access to transit, commercial amenities, institutions and green space.

POTENTIAL LEAD
Nonprofit Organizations; Land Banks; Municipalities, Counties

TARGET COMMUNITY
Strategic investment areas, asset risk areas

IMPLEMENTATION COMPLEXITY
Moderate

Homeownership Zone, Central Neighborhood, Cleveland *City Architecture*

INITIATIVE 3.4: IDENTIFY, EVALUATE, AND—WHERE APPROPRIATE—PURSUE THE REUSE OF VACANT AND ABANDONED INDUSTRIAL SITES ENDOWED WITH SIGNIFICANT PREEXISTING INFRASTRUCTURE THAT COULD PROVIDE UNIQUE OPPORTUNITIES FOR REGIONAL ECONOMIC DEVELOPMENT. ADVOCATE FOR A BROWNFIELD REDEVELOPMENT FUND AND PROMOTE THESE SITES THROUGH A LARGE-SCALE MARKETING CAMPAIGN.

WHAT THIS MEANS. Northeast Ohio needs to develop a comprehensive regional strategy for reuse of vacant industrial sites. A strong first step would be to conduct an inventory and evaluation of such sites to identify where the highest-impact economic development opportunities exist. A resource already exists through NEOSCC's effort to develop a seamless region-wide map and system for representing parcel-level land use and occupancy status. In developing an Industrial Resource Inventory and evaluating site conditions, the following attributes of each site and its surrounding context should be considered:

- Size of underlying parcel(s)
- Regularity of underlying parcel(s) shape
- Prior industrial use(s) of the site
- Contamination or probable contamination
- Proximity to streams and wetlands
- Proximity to major road and rail infrastructure
- Proximity to existing transit lines and bus routes
- Availability of existing utilities (water, sewer, electric power, natural gas and fiber)
- Type of community in which the site is located (strategic investment area, asset risk area, cost risk area)
- Contiguity with other vacant industrial or commercial land
- Structures or landscapes of historic significance
- Degree of agglomeration

In addition to identifying and evaluating sites, this initiative would require investigation and action into reuse strategies, ranging from appropriate organizational models for acquiring and holding vacant industrial land, funding and/or financing for brownfield redevelopment, and marketing of development-ready sites.

WHY THIS IS IMPORTANT. The reuse of vacant and abandoned industrial sites is an especially vexing and important issue for Northeast Ohio communities. A large share of the region's industrially-zoned land is structurally vacant. This places extraordinary stress on communities, as it represents absence of potential employment, loss of income tax revenue for municipalities school and libraries, and continued liabilities for infrastructure service and maintenance. Compounding the problem is the question of how to remediate contaminated sites, a process that adds years and untold expense onto redevelopment efforts.

Organizing to address the problem of vacant and abandoned industrial sites at a regional scale would relieve some of the considerable financial and administrative burden on individual municipalities as well as potentially accelerate the pace with which such properties are redeveloped.

GETTING IT DONE. This initiative should be led by an economic development organization such as Team NEO or the Fund for Our Economic Future. It should, however, be coordinated with several other initiatives proposed herein, particularly 3.1, and potentially 2.1, 2.2., 5.1, and 5.2. It is essential that government, industry, and academia are invited to the table as partners, in order to incorporate understanding of contemporary needs of industry, community priorities, and data collection and evaluation methodologies. In addition to spearheading the inventory, the initiative lead should facilitate a conversation among stakeholders on action steps, covering the following vehicles for continued action in industrial land redevelopment:

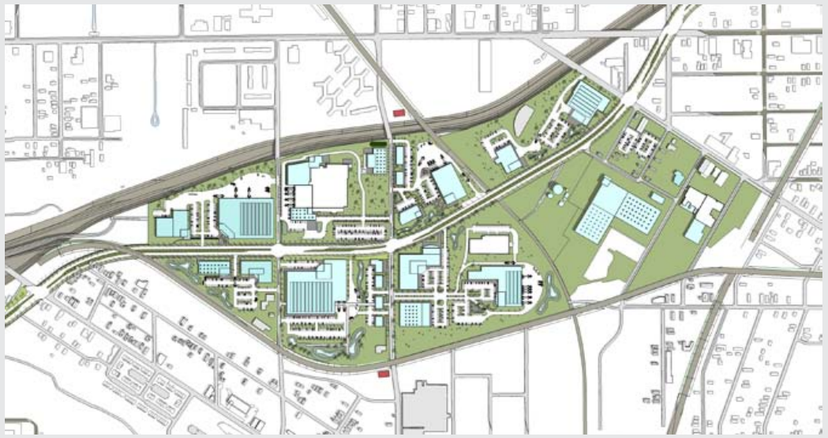
- Land acquisition and assembly. This could take the form of a dedicated regional industrial land bank that identifies and markets the highest-value properties to emerge from the inventory and evaluation process. This entity could acquire and accept transfers of industrial land for remediation, assembly, and eventual sale to a developer. Organizational options could include a quasi-public authority, non-profit foundation/land conservancy, or an entity attached to the economic development organization leading the inventory and evaluation activities. Operations could be funded with seed capital from charitable foundation and public sources, with continued operations supported by land sales.
- Funding and finance. The region's community has an existing resource for funding brownfields redevelopment and reclamation projects through Clean Ohio's Brownfield Redevelopment Fund.[66] The fund is administered by JobsOhio, and is undergoing conversion to a revolving loan program. The region's communities should consider advocating for expanded funding for the brownfields redevelopment of large, marketable "Industrial Opportunity Sites," either through an expansion of the existing program or through partnerships with philanthropic foundations.
- Development. In addition to parcel acquisition, aggregation/assembly, and remediation functions, a land bank entity could be empowered to engage in redevelopment activities, though these powers would need to be carefully scoped to ensure non-competition with private industrial development interests.

66 Clean Ohio Redevelopment Fund, http://development.ohio.gov/cleanohio/BrownfieldRevitalization/

BEST PRACTICE: Innovative and aggressive practices over the years have revitalized many of Youngstown's 1,500+ acres of former steel mill sites into productive businesses with thousands of direct and spin-off jobs.[67]

TOOL: The Industrial-Commercial Land Bank:[68] Established in 2005 by the City of Cleveland as a proactive approach to reusing properties with serious real estate obstacles, such as environmental contamination and/or economic hardships. This land bank provides the opportunity for the City to strategically assemble properties to attract businesses and create long-term economic and community investments.

POTENTIAL LEAD Nonprofit Organizations; Chambers of Commerce/Economic Development Organizations
TARGET COMMUNITY Strategic investment areas, asset risk areas
IMPLEMENTATION COMPLEXITY Moderate

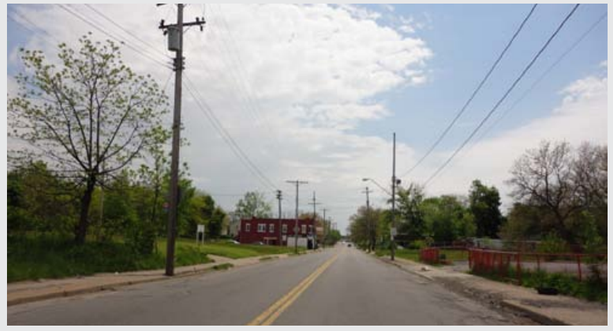


Potential Impact Redevelopment Study—Opportunity Corridor *City Architecture*

LOCAL EXAMPLE: Opportunity Corridor

The Opportunity Corridor is one of the region's most ambitious redevelopment and adaptive reuse projects. Transportation aspects of the Opportunity Corridor were discussed in initiative 2.1. Over 225 acres of blighted and substantially abandoned property has been designated a Brownfield Redevelopment Area. This area is plagued by abandoned industrial buildings, vacant housing on compact urban lots, and crumbling public infrastructure. With the introduction of a new commercial roadway connecting into the existing smaller scale city grid, this neighborhood will be more accessible and reconnected enabling it to be redeveloped as a job-producing district with light industrial and research and development facilities.

Division Avenue, a local street, Today, Proposed Redeveloped Opportunity Corridor *City Architecture*



E 105th Street Existing Conditions, Proposed Redevelopment of New Economy Neighborhood along E105th Street *City Architecture*

67 http://www.cityofyoungstownoh.com/city_hall/departments/economic/index.aspx

68 http://portal.cleveland-oh.gov/portal/page/portal/CityofCleveland/Home/Government/CityAgencies/EconomicDevelopment/Brownfield/Industrial-Commercial-Landbank

RECOMMENDATION 4: ENCOURAGE A HIGHER FREQUENCY OF MIXED-USE DEVELOPMENT AND A RANGE OF DIVERSE, AFFORDABLE HOUSING OPTIONS

It is ironic that the Euclidian form of zoning should claim Northeast Ohio as its birthplace. The landmark Supreme Court case emerged from a landowner's challenge of an effort by the city of Euclid, Ohio, to enact a municipal land use ordinance. In those days, the principal concern was with keeping noxious industries contained and separated from residential neighborhoods. But it had the long-term effect of embedding a horizontal separation of land use and rigid management of density as cornerstones of planning practice and regulation nationwide.

With shifting lifestyle preferences and stressed municipal budgets, municipalities are now finding benefit in turning Euclidian zoning on its head—encouraging intensification of land use through small-lot residential development and mixing of uses in single developments. This equates to more revenue for cities and towns, and thus a more favorable fiscal balance with the demands imposed by infrastructure investment and maintenance and the ever-shrinking transfer payments from federal and state governments. It also helps to diversify the range of housing choices as well as improve a community's affordability to individuals and families at different income levels.

TOOL: Greater Circle Living:[69] Greater Circle Living is a housing assistance program that operates through forgivable loans. The program aims to improve access to affordable housing, assist individuals in wealth building, reduce commute times and costs, and enhance quality of life by offering employees of eligible non-profit institutions an opportunity to live and work close to world-class cultural institutions and services in the University Circle area in Cleveland. It also seeks to increase awareness of the incredible housing opportunities available in the area. The program is a partnership between Cleveland Clinic, Case Western Reserve University, University Hospitals, Judson Services, Cleveland Museum of Art, the Cleveland Foundation and the City of Cleveland.

TOOL: Toolbox for Regional Transit and Land Use Impacts:[70] This toolbox report contains analytical methods for testing the regional impacts of transportation and land use policies. It has a wealth of information on analytical framework, evaluation methods, case studies and bibliographic references. The toolbox is designed for use by metropolitan planning organizations (MPOs), state departments of transportation (DOTs), and other analysts who wish to assess a range of impacts in regional transportation and/or land use planning.

TOOL: The Location Affordability Portal (LAP)[71] is a cost calculation tool that allows users to estimate housing and transportation costs for neighborhoods across the country. The LAP hosts two cutting-edge data tools: the Location Affordability Index (LAI) and My Transportation Cost Calculator (MTCC). The LAP will help consumers and communities better understand the combined costs of housing and transportation associated with living in a specific region, street, or neighborhood and make better-informed decisions about where to live, work, and invest.

Municipalities in Northeast Ohio should consider the following initiatives related to encouraging mixed-use and affordable housing development:

INITIATIVE 4.1: INCLUDE MIXED-USE DESIGNATIONS AND/OR PLANNED UNIT OVERLAY DISTRICTS IN ZONING CODES THROUGHOUT THE REGION.

WHAT THIS MEANS. Data from leading real estate research entities such as the National Association of Home builders, the Urban Land Institute, and the International Council of Shopping Centers point to a durable shift in market preferences toward walkable forms of urbanism where people can live, work, and play without having to drive for every trip purpose. The practical implication of this trend is an explosion in interest in, and development of, mixed-use real estate products.

"Mixed-use" refers, broadly speaking, to a development typology wherein residential and commercial land uses are integrated. This mixing of uses can take place in the envelope of a single building or at the scale of an entire community, with streets and other forms of public realm integrating the various uses. Civic, natural, and occasionally light industrial uses also find themselves in the mix. Municipalities throughout the country have adopted mixed-use zoning, including many in Northeast Ohio.

Planned unit overlay districts are also a popular zoning and development tool employed in both urban and rural contexts. Planned unit developments enable developers to build master-planned communities without the stricter density and lot size controls of traditional Euclidian zoning categories. Planned unit developments can be mixed-use, but the two are not mutually dependent land use constructs.

WHY THIS IS IMPORTANT. Changing zoning codes to allow mixed-use developments by right is an important step in creating a regulatory environment in which developers can build what the market increasingly demands—dynamic places accommodating living, working, and entertainment activities. These developments provide municipalities and counties with more diverse revenue streams from sales, income, and property taxes, and tend to hold value better than traditional single-use retail products. Mixing of uses is also a major characteristic of transit oriented development (see initiative

69 http://fairfaxrenaissance.org/gcl/index.html

70 http://www.fhwa.dot.gov/planning/processes/tools/toolbox/index.cfm

71 http://portal.hud.gov/hudportal/HUD?src=/program_offices/sustainable_housing_communities/location_affordability

2.2), which tends to feature higher densities of housing and commercial programs to support investment in transit service. The value of the planned unit development overlay district is less about the quality of the space created, and more about the process and fiscal efficiencies created for developers and municipalities alike.

GETTING IT DONE. This initiative must ultimately be led by local jurisdictions, as it concerns their land use regulatory power. Furthermore, the meaning and form of "mixed-use" in Oberlin or Medina County is different than it is in Cleveland or Akron. Municipalities should make sure their codes and regulations are friendly to a mixing of uses, but take care that those regulations respect the character of place and market realities. NEOSCC and its consortium partners at MPOs and COGs can play an important catalyzing role by surveying and facilitating dialogue between municipalities and counties on different approaches to regulating mixed-use development.

TOOL: Planned Development Overlay (PDO):[72] Planned Development Overlay zoning districts are areas with one or more lots, tracts, or parcels of land to be developed as a single entity, the plan for which may propose density or intensity transfers, density or intensity increases, mixing of land uses, or any combination thereof, and which may not correspond in lot size, bulk, or type of dwelling or building, use, density, intensity, lot coverage, parking, required common open space, or other standards to zoning use district requirements that are otherwise applicable to the area in which it is located.

TOOL: The City of Youngstown recently updated their zoning code and a section is dedicated to overlay zoning districts (i.e. Chapter 1102.03).

POTENTIAL LEAD
Municipalities, Townships; Metropolitan Planning Organizations, Councils of Governments
TARGET COMMUNITY
Strategic investment areas, asset risk areas, cost risk areas
IMPLEMENTATION COMPLEXITY
Low

72 American Planning Association's Growing Smart Legislative Guidebook: Model Statutes for Planning and the Management of Change (Chapter 8.3)

CASE STUDY: Mixed-Use Development Guidelines

A good example of regional planning leadership on mixed-use development can be found in Atlanta. Atlanta's MPO and COG, the Atlanta Regional Commission, published a compendium of mixed-use development guidelines for its member governments as part of its "Livable Centers Initiative." The compendium includes an exposition of generally accepted first principles of mixed-use development and a matrix comparing different approaches to managing mixed-use developments within the region and in peer areas.[73]

ATLANTA, GA: LIVABLE CENTERS, MIXED-USE, HIGH-DENSITY ZONING CODE ELEMENTS

ATLANTA, GA	
Neighborhood Commercial District	Non-residential Floor Area Ratio (FAR) limited to 1.5, residential limited to 1.49 Bonus for mixed-use: total FAR up to 2.99 No detached single-family houses permitted
Live/Work District (LW)	Non-residential FAR limited to 0.5, residential limited to 0.696 Bonus for mixed-use: total FAR up to 1.196. Bonuses for open space, affordable housing, ground floor commercial, civic uses
Mixed Residential/Commercial (MRC)	Non-residential FAR limits from 1.0 (MRC-1) to 4.0 (MRC-3) Residential FAR limits from 0.696 (MRC-1) to 3.2 (MRC-3) Bonus for mixed-use: total FAR up to 1.696 (MRC-1) to 7.2 (MRC-3) Bonuses for residential balconies, new public streets, connectivity, on-street parking
Multifamily Residential (MR)	Non-residential limited to 5% of total floor area on ground floor only Residential FAR limits from 0.162 (MR-1) to 6.4 (MR-6) Bonuses for new public streets, connectivity, on-street parking
DEKALB COUNTY, GA	
Traditional Neighborhood Development (TND)	Permits "neighborhood shopping" as accessory uses, up to 25% of residential floor space No bonuses
Office-Commercial-Residential (OCR)	Office, commercial and residential allowed up to a combined FAR of 1.50. No bonuses
Stonecrest Overlay District	Bonus of additional 0.25 FAR for office + commercial mix Bonus of additional 0.50 FAR for adding residential component
ROSWELL, GA	
Parkway Village District	Allows flexible bonuses for mixed-use (especially residential), including increased density, reduced setback, reduced parking
NEWTON COUNTY, GA	
Mixed-Use Business Park District	Allows office, light manufacturing and commercial Project density limited to 20,000 square feet/acre
Residential Neighborhood Development Overlay	Residential density limited to 3 du/acre, single-family housing must By at least 80% of total residential buildout
Town Center Overlay	Single family dwellings cannot comprise more than 50% of district Non-residential limited to ground floor Residential density limited to 20 du/acre per project

Atlanta Regional Commission, Guideline Table http://www.atlantaregional.com/File%20Library/Local%20Gov%20Services/gs_cct_mixedusetool_1109.pdf

73 http://www.atlantaregional.com/File%20Library/Local%20Gov%20Services/gs_cct_mixedusetool_1109.pdf

INITIATIVE 4.2: INCLUDE TRADITIONAL SMALL-LOT, COMPACT SINGLE-FAMILY AND TOWNHOUSE RESIDENTIAL DESIGNATIONS IN ZONING CODES THROUGHOUT THE REGION.

WHAT THIS MEANS. Declining family sizes are a steady, multi-generational trend in both regional and national demographics. Young people are choosing to delay marriage and childbearing, having smaller families as a result; baby boomers are looking to downsize. These realities are likely driving the shifts in preferences toward more compact housing options such as townhomes and small-lot, single-family homes. In a recently released quarterly survey, the National Association of Realtors showed a greater than 30% potential market demand for such housing types.[74]

Contrasting sharply with the increase in demand for more compact housing options is the decline in attainability of homeownership, in particular for younger demographics. These conditions have increased calls for filling the "missing middle" in America's housing stock, defined to be townhomes, duplexes, bungalow courts, and small-lot, single-family residential houses.[75] Some of the blame for the undersupply of such housing can be attributed to municipal land use policy and zoning codes, which can frustrate developers' ability to deliver the kind of medium-density projects that offer entry-level homeownership options to young buyers and facilitate downsizing for baby boomer households.

WHY THIS IS IMPORTANT. Small lot and compact housing development meets the needs of a confluence of demographic factors that are already reshaping life in cities around the country. Municipalities and townships in Northeast Ohio should make their zoning codes and subdivision regulations friendlier to more compact housing typologies. This can manifest as townhouses or duplexes in more urban settings, or cluster/conservation developments in more rural settings. Such a move increases property tax revenue and thus enhances the fiscal sustainability of service provision and infrastructure maintenance. The recently published Stark County Sustainable Planning and Zoning Handbook acknowledge these facts while laying out a practical framework for different municipalities in the county to consider in land use and zoning regulation.[76]

POLICY: Adopt expedited permitting and review policies for compact development and location-efficient homes and businesses: While permitting and review processes play an important role in ensuring newly built or renovated homes and apartments meet health, safety, environmental, and other standards, a lengthy or complex approvals process also can lead to unnecessary delays and increased expenses. Policies that expedite the permitting and review process reduce the time, cost, and risk of development. These policies can streamline the overall development approvals process for all homes.

TOOL: An amendment to Cleveland's subdivision regulations allows the City Planning Commission to approve the creation of "substandard" lots (i.e., lots that are smaller than otherwise required) where such lot sizes are characteristic of the neighborhood. Whereas the city's zoning code requires new residential lots to be at least 40 feet wide and 4,800 square feet in area, the Planning Commission has used the new provision to permit the creation of lots that are as narrow as 25 feet and as small as approximately 2,000 square feet in order to allow development of single-family and two-family houses that fit the scale of older, urban-density neighborhoods.[77]

GETTING IT DONE. As in 4.1, this initiative must be led by local jurisdictions, including municipalities, townships, and counties. Regional planning entities such as NEOSCC and the consortium partners such as the region's MPOs and COGS can play an important catalyzing role by surveying member jurisdictions, facilitating dialogue between municipalities on different approaches to regulating compact housing development, and creating and encouraging local governments to adopt model code language.

POTENTIAL LEAD Municipalities, Townships, Counties; Councils of Governments
TARGET COMMUNITY Strategic investment areas, asset risk areas, cost risk areas
IMPLEMENTATION COMPLEXITY Low

74 National Association of Realtors, National Community Preference Survey, October 2013

75 Dan Parolek, http://bettercities.net/news-opinion/blogs/dan-parolek/17698/missing-middle-housing-responding-demand-urban-living

76 http://www.co.stark.oh.us/internet/docs/rpc/Sustainable%20Planning%20and%20Zoning%20Handbook.pdf

77 http://planning.city.cleveland.oh.us/cpc.html http://www.amlegal.com/library/oh/cleveland.shtml (Cleveland Ohio, Code of Ordinances; see Chapter 349.14)

LOCAL EXAMPLE: Mill Creek Rehabilitation Center Redevelopment

The former state rehabilitation center along Cleveland's Mill Creek was demolished in 1998, leaving a large vacant site along Mill Creek in an existing compact residential neighborhood. The site was re-imagined as a mix of small-lot affordable housing options centered on a town square and gathering space that also connects to the adjacent residential community.

Former State Rehabilitation Center *City Architecture*

New Housing in the Mill Creek Neighborhood
City Architecture

Town Square and Single Family Home *City Architecture*

INITIATIVE 4.3: OFFER FINANCIAL INCENTIVES TO DEVELOPERS THAT INCORPORATE AFFORDABLE HOUSING UNITS INTO THEIR PROJECTS AND IMPLEMENT INCLUSIONARY ZONING IN MARKETS WITH WIDESPREAD AFFORDABILITY GAPS.

WHAT THIS MEANS. Housing affordability is an issue that every community faces regardless of its location in a region. Age and value of homes, distribution of housing by tenure (e.g. apartments), employment, and income levels are factors in determining affordability. All of these factors are present in the housing issues facing Northeast Ohio communities. In legacy cities, the affordable housing problem centers on an oversupply of older single-family housing relative to new construction, which tends to be expensive condominiums and apartments beyond the financial reach of working families. In suburban communities, affordability problems present through a monoculture of housing types with insufficient range of tenure models; and in rural communities, affordability may be related to a net undersupply of all housing types.

Local jurisdictions, public housing agencies, and housing organizations are finding innovative ways to incentivize developers to "set aside" units at affordable price and rent points in their projects. These incentives can involve direct cash subsidies, though typically manifest as tax credits or tax-increment financing. Federal programs such as New Market Tax Credits and Low Income Tax Credits are popular incentives for encouraging housing affordability; local governments can also utilize state resources to offset project financing gaps, including grants and loans from the Ohio Housing Finance Agency.

Other valuable offset strategies that don't impact local government finances but do have monetary value to developers include:

- Density bonuses—grants developers the ability to exceed density limits specified in zoning without acquiring additional land
- Unit size reductions—permits reasonable reductions in area of affordable units relative to market-rate units;
- Required parking reductions—grants developers the ability to build fewer parking units based on proximity to fixed-route transit stations and high-frequency bus service
- Design flexibility—grants flexibility in design review standards
- Fee waivers—reduces developer costs by waiving certain permit or infrastructure fees (such as sewer connections)
- Fee deferral—allows developer to defer fee payments until development is fully occupied[78]

Some municipalities may wish to consider formalizing affordability into their zoning. This would be best suited for municipalities with substantial investments in public transit, or districts that function as major regional and community amenities. Such practices, labeled "inclusionary zoning," ensure that a percentage of housing units remain affordable to individuals or families earning less than 80% of area median income.

WHY THIS IS IMPORTANT. Preservation of housing affordability is a major determinant of regional livability. The Analysis of Impediments to Fair Housing Choice conducted as part of Vibrant NEO 2040, available online at http://vibrantneo.org/. provides a snapshot of the region's housing affordability issues as well as a roadmap for rectifying them. Northeast Ohio communities must consider the findings of the analysis carefully, and marshal resources to fill any affordability gaps. Ensuring affordable and accessible communities of choice is essential to maintaining Northeast Ohio's economic competitiveness as well as the fiscal solvency of all of its communities.

GETTING IT DONE. As in 4.1 and 4.2, this initiative must be led by local jurisdictions, including municipalities, townships, and counties. Regional planning entities such as MPOs and COGs can play a more active role in this initiative, however, especially in places where major regional transportation investments are being made, such as regional centers and transit corridors. Regional centers and transit corridors are ideal locations for affordable, workforce-oriented housing; municipalities in which such centers and corridors are located should take action to ensure that new housing development responding to future transit investment can accommodate individuals and families of all income levels.

POTENTIAL LEAD Public Housing Authorities; Municipalities, Townships, Counties; Metropolitan Planning Organizations
TARGET COMMUNITY Strategic investment areas, asset risk areas, cost risk areas
IMPLEMENTATION COMPLEXITY Moderate

KEY CONCEPT: Affordable Housing

"Affordable housing" refers to the availability of housing for individuals or families earning a lower income. Housing is understood to be unaffordable if it requires greater than 30% of a household's income. To measure the supply of affordable housing in a community, housing experts compare the median sales and rental price of housing in a community with the percentage of individuals, families, and households falling within certain thresholds of the average income for a particular area, usually a county. The percentage of housing affordable to individuals, families, and households within 80% of area median income is the classic indicator used by housing agencies and advocates to measure housing affordability and pursue policies and projects that respond to a community's housing needs.

78 Policy Link, http://www.policylink.org/site/c.lkIXLbMNJrE/b.5137031/k.8659/How_to_Use_It.htm

CASE STUDY: Corridors of Opportunity and the Funder's Collaborative, Minneapolis-St. Paul, Minnesota

Affordable housing is an issue around which public-private partnerships, particularly with the nonprofit and philanthropic sectors, can be readily made. A prime example is the Corridors of Opportunity initiative led by the Metropolitan Council, the Saint Paul Foundation, and the McKnight Foundation in Minneapolis -St. Paul, Minnesota. The initiative is funded by a combination of HUD grants through the Sustainable Communities program, as well as a pilot grant from the Living Cities Integration Initiative. The funding is supporting a public-private partnership that is planning for affordable housing and smart land use around seven rapid transit corridors proposed for the Twin Cities metropolitan area.[79]

A related initiative in Minneapolis is the Central Corridor Funders Collaborative, a consortium of 13 philanthropic foundations supporting planning and investment in affordable housing around the Central Corridor Light Rail line, connecting the downtowns of Minneapolis and St. Paul. The collaborative has invested $5 million to date in planning efforts, including station area plans in the corridor, and expects to invest more than $20 million in actual housing development over the next 10 years.[80]

Minneapolis-St.Paul, Minnesota: Public-private partnership on smart land use and affordable housing around transit *Top: Central Corridor Funder's Collaborative http://www.funderscollaborative.org/about-us, Bottom: St. Paul Foundation http://www.saintpaulfoundation.org/who_we_are/our_impact/community_initiatives/central_corridor_funders_collaborative/)*

79 Corridors of Opportunity Initiative, http://www.corridorsofopportunity.org/about/vision-and-principles/

80 Central Corridor Funders Collaborative, http://www.funderscollaborative.org/

INITIATIVE 4.4: OFFER FINANCIAL LITERACY AND HOUSING EDUCATION PROGRAMS FOR TENANTS AND HOMEOWNERS. FOCUS ON AREAS IN ESTABLISHED COMMUNITIES WHERE INVESTMENTS IN HOUSING ARE UNDERWAY.

WHAT THIS MEANS. Financial literacy can be a tremendous barrier to entry into homeownership. Recognizing this fact, national organizations like NeighborWorks have partnered with local governments and philanthropic foundations to research, develop, and implement curricula aimed at building financial literacy in low-income communities. This has been especially needed since the foreclosure crisis began in 2007, causing many low-income homeowners to lose their homes. Cleveland and other communities in Northeast Ohio were particularly hard-hit by the crisis, which has caused vacancy and abandonment to reach near-epidemic rates.

WHY THIS IS IMPORTANT. Doing a better job of reaching and educating low-income communities on good financial management practices will help to prevent future crises like the one recently suffered in Northeast Ohio and many other places around the country. These efforts should not stop with current homeowners, but extend to tenants who may one day become homeowners.

GETTING IT DONE. Public housing authorities and community development corporations are best positioned to offer financial literacy and housing education programs to low-income communities, possibly in cooperation with local universities and community colleges. Local philanthropic foundations can be engaged as funding partners for these efforts.

TOOL: The Fair Housing Contact Service (FHCS)[81] in Akron is an independent non-profit agency which provides comprehensive educational opportunities, counseling and support services to people concerned about fair housing in our communities. FHCS offers several programs under Housing Counseling Service.

81 http://www.fairhousingakron.org/

TOOL: Cleveland-based KeyCorp[82] is one of the nation's largest bank-based financial services companies, with assets of approximately $91 billion. Learn and Earn is KeyBank's comprehensive financial education and awareness program, designed to address the growing need and desire of consumers to improve their financial management skills. Their goal is to provide access to resources that create a strong foundation for economic stability and growth in the communities they serve. Classes are free and open to the community. You do not have to be a KeyBank customer to attend.

POTENTIAL LEAD Public Housing Authorities; Municipalities; Universities; Nonprofit Organizations
TARGET COMMUNITY Strategic investment areas, asset risk areas
IMPLEMENTATION COMPLEXITY Low

82 https://www.key.com/personal/resources/learn-and-earn.jsp
https://www.key.com/personal/resources/financial-education-classes.jsp

RECOMMENDATION 5: ENHANCE AND COORDINATE THE REGION'S RAIL AND BUS SERVICES

Transit is an important layer of infrastructure and community services throughout the region because it carries a large number of people in a small amount of travel space. This allows dense concentrations of employment—a hallmark of a vibrant economy— accessible to a larger workforce without an accompanying expansion to the road network. In Northeast Ohio, taxes raised at the county level support transit service within that county. With notable exceptions, there is limited inter-jurisdictional crossover or coordination of service between counties. Strategic coordination and connection of different transit systems can offer one of the prime assets of any region: seamlessly connecting people to jobs across county and municipal lines. This would allow the region to take advantage of its multiple employment and activity centers and position itself as a dynamic, integrated regional economy.

This kind of coordination happens at multiple scales: it involves regional route planning to coordinate and enhance services along important regional corridors, but it also involves inter-jurisdictional coordination of service schedules, stop locations, common information sources, one fare media for all providers, branding and marketing, and other more detailed factors of transit service to ensure that different transit agencies' local systems work together to provide high-quality region-wide service. At its heart, though, this recommendation is intended to take advantage of the ongoing commitment of Northeast Ohio communities to public transit, find greater strength in this service through strategic coordination, and enhance the existing transit services to become more than the sum of their parts.

POLICY: Create a comprehensive regional transit plan that crosses county boundaries. Regional public transportation coordination focuses on maximizing the benefits of the public transportation investment through the coordination of services. Currently, there is no overall regional transit plan for Northeast Ohio.

TOOL: AMATS Public Transportation Needs Assessment: The Public Transportation Needs Assessment report identifies and describes the public transportation needs of the AMATS Area between 2010 and 2030. In the process of identifying the area's transportation needs, several important AMATS transportation objectives were considered:

- System Preservation
- Basic Mobility for All Persons
- Cost-Effectiveness and Efficiency of Travel
- Coordination among the Area's Transportation Providers
- Safety and Security
- Environmental Impacts
- Support for the Planning Objectives of the Area Communities
- Support of the region's Economy

A transit needs assessment like the one employed by AMATS that expands beyond an MPO's planning boundaries to encompass the needs and patterns for the entire region, especially as they relate to commuting, would be a good first step in identifying ways to improve accessibility and mobility.[83]

TOOL: ODOT Program Resource Guide[84]

TOOL: Unlocking MPO Funding Tools to Support Sustainability[85]

Northeast Ohio should consider the following specific initiatives to achieve this:

83 http://www.amatsplanning.org/

84 http://www.dot.state.oh.us/Divisions/Planning/LocalPrograms/LTAP/Documents/ODOT_Program_Resource_Guide_2013.pdf

85 http://origin.library.constantcontact.com/download/get/file/1101453267843-204/20130924_MPO_equitable_TOD_sustainability_issue_brief.pdf

INITIATIVE 5.1: INVEST IN A REGIONAL NETWORK OF BI-DIRECTIONAL PUBLIC TRANSIT CONNECTIONS BETWEEN NORTHEAST OHIO'S MAJOR JOB CENTERS.

WHAT THIS MEANS. Transit today in Northeast Ohio is made up of a series of county-based authorities that offer limited services to other counties. Although this responds to the primary service needs within an individual county, it does not necessarily respond to the dynamics of the regional economy, especially when residents of a particular county may work in another part of the region.

This initiative would maintain all transit operators' primary missions of serving their local communities, while expanding the traditional service area boundaries to connect the region's primary job centers. This initiative would allow transit to better respond to the region's existing and emerging economic driver industries and extend the range of modal choice available to Northeast Ohio employees. It does not require that each transit agency commits to offering extensive service outside of its core boundaries, but rather that a regional system of high-frequency express services becomes part of the regional transportation network.

WHY THIS IS IMPORTANT. Economically strong and vibrant regions offer multiple transportation choices. In an era of growing travel demand but increasingly limited funds for transportation infrastructure expansion, transit service utilizing existing corridors and infrastructure becomes a key approach to offering transportation choice beyond local services in a way that is responsive to the needs of a regional economy. It also provides a basis for focusing land use and economic development policy on the region's key employment and activity centers, as transit represents a public investment that must be managed to return the greatest possible value to the counties that support it.

Strategic integration of services also offers a potential benefit to individual transit agencies: as transit becomes a more convenient and attractive travel option, agencies are likely to see an increase in their overall ridership. This introduces economies of scale to an otherwise separated set of transit providers and offers the potential for a greater return on the funding committed to transit service. Northeast Ohio's expansive geographic area likely means that there

CASE STUDY: Northwest Transit Alliance, Oregon

Oregon: Connecting rural and urban transit systems into regional network *David Evans and Associates Inc., "Northwest Oregon Transit Alliance Regional Transit Program," 2012*

The benefits of coordinated regional transit operations are numerous: they are more convenient and understandable to riders and conducive to more effective public information efforts; enable operational efficiencies; can offer an opportunity to improve technology and improve communications; and generate saving to meet current and future unmet needs.

The Northwest Transit Alliance is a partnership between five transit agencies: Sunset Empire Transportation District, Lincoln County Transit, Columbia County Rider, Tillamook County Transportation District, and Benton County Rural and Special Transportation.

The U.S. Department of Energy, through the American Recovery and Reinvestment Act, provided $3.5 million in funding for a two-year pilot program of strategies and incentives for increasing transit use by commuters and visitors in rural northwest Oregon.

The goal of the project is to streamline connections between the Oregon Coast and the I-5 corridor; coordinate routes and schedules; and create a fare structure for travel focused on tourism. The Alliance also seeks to remove transit barriers between counties, brand and market the services as a coordinated system, and implement innovative partnerships with coastal business communities and the travel industry for long-term operational sustainability.

Anticipated benefits include livability and economic vitality outcomes such as better employer and employee attraction and retention, improved access to businesses, as well as environmental outcomes such as reduction in vehicle miles travelled with related reductions in greenhouse gas emissions and fossil fuel use. The five agencies on a whole have seen an increase in ridership.

The Northwest Oregon Transit Alliance is considered to be a national pilot program, and provides a replicable model for regional coordination among local government, transit providers, and economic development interests in other areas of the country.

will continue to be a need for inter-system transfers in using transit, but the coordination of service and location of route transfers at key regional centers—especially centers of employment—may reduce the number of transfers being made and reduce the time a given rider spends on a transit commute.

GETTING IT DONE. This initiative will require leadership from transit operators, with support from NEOSCC and regional planning partners, particularly the region's four MPOs, TeamNEO, and the Fund for Our Economic Future. NEOSCC and regional planning partners can pursue further study of the corridors highlighted in the Vision Map, leading corridor identification and analysis studies. With transit operators serving Northeast Ohio communities generally incorporated by county, however, it is advisable for the partnership to first explore and identify a range of suitable organizational structures for operating continuous service across jurisdictional boundaries in critical employment corridors. This will ensure that planning proceeds with sensitivity to institutional parameters.

A number of stakeholders must be involved in implementing a truly regional transit system that connects the region's major job centers. Given the complexity of the task and the scale of the region's geography, implementation should build on existing partnerships and begin with small, achievable steps. The region's transit agencies meet regularly on operational issues and have participated in crafting the Vibrant NEO 2040 Recommendations and Initiatives through a "transit caucus" convened for that purpose. This caucus could collaborate on the implementation of these Recommendations and Initiatives. The MPOs have the capacity to bring together transit, business, and community interests within their jurisdictions: the Northeast Ohio Areawide Coordinating Agency's Transit Council is a functioning partnership that could serve as a model platform for identifying and addressing the practical issues of creating the public/private and interagency partnerships that will be required to implement this recommendation.

Akron METRO Transfer Station *AMATS*

POTENTIAL LEAD
Transit Operators; Metropolitan Planning Organizations

TARGET COMMUNITY
Strategic investment areas, asset risk areas

IMPLEMENTATION COMPLEXITY
High

INITIATIVE 5.2: CREATE A NETWORK OF HIGH-FREQUENCY EXPRESS AND LOCAL TRANSIT ROUTES CONNECTING THE REGION'S JOB CENTERS. PRIORITIZE INFILL DEVELOPMENT IN THE CORRIDORS SERVED BY THESE ROUTES. IN THE SHORT AND MEDIUM TERMS, UPGRADE HIGH-PERFORMING EXISTING BUS ROUTES AND CREATE NEW BUS ROUTES IN DESIGNATED CORRIDORS. IN THE LONG TERM, UPGRADE THE HIGHEST-DEMAND ROUTES INTO COMMUTER RAIL SERVICE OR BUS RAPID TRANSIT (BRT).

WHAT THIS MEANS: Drawing on the approach of Initiative 5.1, this initiative calls for a focus on bus and rail routes that already carry high levels of ridership and serve critical connection needs within their communities, expanding the service on these routes and corridors to make transit a means of travel that is competitive with automobiles. Expansion of service means both increasing service frequency at key times of the day as well as extending the hours of the day that service is provided. In the case of inter-jurisdictional service coordination, this also means extending the length of service so that single routes are bounded by major origins and destinations—and not simply by political boundaries. It can also mean introducing express or limited-stop service between key destinations so that places with high concentrations of rider activity (such as major employment and shopping centers and university and college campuses) can be connected in shorter times. This also means investing strategically in relatively low-cost capital improvements—such as traffic signal infrastructure that gives priority to transit vehicles —that can improve the performance of transit service and offset the operational delays of frequent stops and starts that can come from high ridership demand.

WHY THIS IS IMPORTANT: Transit providers focus on high-performing routes and services to retain existing riders and attract new riders. They often prioritize service enhancements on these routes and strategic routes that connect to them so that transit becomes a more attractive and convenient travel option. When partnered with a regional approach to providing service between key activity centers (and focusing less strictly on adhering to county boundaries), many of these high-demand services can form the basis of a series of 'trunk routes' that orient transit service within a community and even throughout the region.

GETTING IT DONE. As in 5.1, this initiative must be led by transit operators with planning support as needed from the region's MPOs. But whereas 5.1 focuses on service between major regional job and activity centers, this initiative involves recalibrating the county-level networks to optimize connections local and express services and a broader regional transit network. In this respect, initiative 5.2 should follow planning and institutional coordination work occurring in 5.1, and involve tighter collaborations between individual transit operators and MPOs.

BEST PRACTICE: The Greater Cleveland Regional Transit Authority completely reconstructed 8.3 miles of historic Euclid Avenue as part of the Euclid Corridor Transportation Project, which opened fully in 2008. A bus rapid transit line, the HealthLine, now connects the central business district with major cultural, medical, and education users—all at one-fourth the cost of light rail. The transit project has helped catalyze $4.7 billion in spin-off investment and 11.4 million square feet of new and planned development, offering a successful example of the economic leverage potential for BRT.[86]

POTENTIAL LEAD Transit Operators; Metropolitan Planning Organizations; Municipalities, Counties
TARGET COMMUNITY Strategic investment areas, asset risk areas
IMPLEMENTATION COMPLEXITY Moderate

86 http://www.riderta.com/routes/HealthLine
http://www.rtahealthline.com/healthline-what-is.asp

CASE STUDY: Metro Transit Orange Line, Minneapolis, Minnesota

Orange Line BRT in Minneapolis *Metro Transit, http://www.metrotransit.org/metro-orange-line*

The Orange Line is a planned bus rapid transit line that extends high-capacity transit service into suburban communities in Hennepin County, Minnesota, and beyond. The proposed BRT will utilize a dedicated shoulder lane on the congested Interstate 35 corridor between downtown Minneapolis and the southern suburban city of Burnsville. The 16-mile long corridor accommodates the highest-ridership express bus routes currently in the system, with about 14,000 commuters using these services daily.[87]

87 Metro Transit, http://www.metrotransit.org/metro-orange-line

INITIATIVE 5.3: COORDINATE THE REGION'S TRANSIT SYSTEMS FOR JOINT MARKETING, INFORMATION TECHNOLOGY, AND FARE MEDIA, INCLUDING INFORMATION REGARDING PRIVATE TRANSIT RESOURCES SUCH AS UNIVERSITY/ HEALTH SYSTEM SHUTTLES, PRIVATE BUS SERVICES, AIRPORT TRANSPORTATION, ETC.

WHAT THIS MEANS. Transit users want the same ease of planning their travel as a motorist. Regardless of what operator is driving the bus and how many transfers are needed, riders should be able to plan their trips at one common website, pay with one common fare media, and track their trip on one mobile app. While transit ridership grows based on frequency, span, and location of service, transit ridership is kept through high quality of service. The infrastructure required to implement this initiative exists and requires only the common agreement to direct resources to implement it.

Information technology can contribute immensely to improving the experience of transit. The widespread deployment of computer aided dispatch (CAD) and automatic vehicle location (AVL) information infrastructure can be translated into a solution for resolving uncertainty associated with frequency and wait time. Many transit systems with high-capacity bus and rail service have implemented a "next bus" or "next train" information system that reads and broadcasts data from a CAD/AVL system onto station monitors. Greater Cleveland's Regional Transit Authority implemented such an information system on the HealthLine BRT. In recent years, with the rise of mobile technology, some systems are implementing "real time arrival" information systems that broadcast vehicle location and estimated arrival times at stations and stop in a dynamic, real time environment. The rapid evolution of this technology, especially Google Transit, which operates on the General Transit Feed Specification (GTFS) information indexing system, promises to bring real time arrival technology within budgetary reach of smaller transit systems.

Fare technology has also advanced rapidly, making farecard deployment and inter-system fare integration much more technically and financially feasible for medium-sized transit system. Washington, DC's SmarTrip card, for instance, integrates farebox payment systems between the Washington Metropolitan Area Transit Authority and the Maryland Transit Authority, enabling seamless transfer between systems for riders.

Beyond technology-based enhancements to the customer experience, transit operators frequently coordinate operations with private transit operators such as university and health system shuttles, private paratransit services, and airport transportation. Public operators also occasionally engage in joint marketing campaigns to encourage ridership of transit in general. Joint marketing campaigns are frequent occurrences in Los Angeles and San Francisco, large metro regions with a decentralized transit operator network much like Northeast Ohio's.

WHY THIS IS IMPORTANT. With financial resources for transit already scarce and growing scarcer, transit operators must make savvy investments in improvements to "soft" infrastructure that can attract more customers to the service. Social media has created new opportunities for budget-friendly, cross-platform marketing and promotion of transit service, which, compounded with participation from multiple partners, can yield savings in marketing budgets that can be channeled to other uses. Investing in fare integration technology extends the spatial reach of transit systems, but arguably the highest-return investment is in real-time arrival information systems.

GETTING IT DONE. Transit operators should lead implementation of this initiative, evaluating their current information infrastructure, upgrading needs, and communications budget. MPOs can help to offset the cost of such investments through allocations of Congestion, Mitigation, and Air Quality (CMAQ) funds or flexing of Surface Transportation Program (STP) dollars to transit agencies. CMAQ funds have been used elsewhere in the country to support everything from summer air quality awareness campaigns promoting transit to implementation of fare integration technology.

POTENTIAL LEAD

Transit Operators; Metropolitan Planning Organizations; Municipalities, Counties; Universities

TARGET COMMUNITY

Strategic investment areas, asset risk areas, cost risk areas

IMPLEMENTATION COMPLEXITY

Moderate

INITIATIVE 5.4: EVALUATE THE CONDITION OF ALL EXISTING RAIL TRACKAGE AND RAIL CROSSINGS TO DETERMINE WHAT INVESTMENTS WOULD BE NECESSARY TO BRING SUBSTANDARD INFRASTRUCTURE UP TO STANDARD FOR FREIGHT AND PASSENGER SERVICE.

WHAT THIS MEANS. Similar to other proposed asset inventory initiatives (3.1, 3.4), a rail network inventory is a necessary first step to considering regional-scale investments in capacity expansion. This initiative would first involve a survey of the current extent of the rail network, including closed and abandoned corridors, using existing geospatial data assets maintained by rail companies, transit operators, port authorities, and MPOs. A field survey should accompany secondary data collection, with particular focus on evaluating the conditions of tracks, bridges, and rail crossings. This process should engage all stakeholders involved in development and maintenance of the rail system, including rail companies, port authorities, transit operators, and MPOs. Once data are collected, stakeholders would evaluate findings and prioritize investment areas based on market demand, safety needs, and prospective future uses.

The evaluation effort should include analysis of the following elements:

- Condition of all rights-of-way including their carrying weights and opportunities for strengthening to increase freight transport demand
- Opportunities for removal of at-grade crossings
- Opportunities for construction of sidetracks to improve operational effectiveness

WHY THIS IS IMPORTANT. Rail is a vital component of a region's transportation system. Rail utilization has picked up appreciably in recent years thanks to the price volatility of fuel. This followed years of shrinking in the physical extent of the rail network nationally and regionally, as well as considerable business consolidation in the freight rail industry. An in-depth evaluation of the current state of existing rail assets would help to guide identification and prioritization of strategic opportunities for investment. This could include developing a regional commuter rail network linking various job centers, as suggested in the Vision Map, as well as a larger effort such as developing intercity passenger rail service between Cleveland, Youngstown, and Pittsburgh.

GETTING IT DONE. This initiative should be led by the Ohio Rail Development Commission (ORDC), an entity housed within the Ohio Department of Transportation. ORDC is uniquely positioned to engage rail companies as well as the necessary public sector stakeholders in a way that organizations in Northeast Ohio are not. It also warehouses extensive data resources pertaining to the state's rail assets.

NEOSCC consortium members, particularly MPOs, should initiate outreach to ORDC highlighting the need for such an inventory and evaluation process. This initiative should, to the greatest extent possible, interface with other initiatives addressing the disposition of vacant land to inform investment priorities in particular kinds of improvements to the rail system. Once under way, a short-term moratorium should be placed on creating new at-grade crossings and converting freight rail rights-of-way to any other use.

POTENTIAL LEAD

Ohio Rail Development Commission; Metropolitan Planning Organizations

TARGET COMMUNITY

Strategic investment areas, asset risk areas, cost risk areas

IMPLEMENTATION COMPLEXITY

Moderate

SPECIAL SECTION:

TRANSIT SUPPORTIVE POLICIES

INTRODUCTION

It takes more than vehicles carrying riders for communities to receive their return on investments in transit. Design policies are integral elements to ensuring that people can identify and access the transit system, while land use and zoning policies help concentrate people and mix land uses to maximize transit's effectiveness. When combined, design and land use policies not only increase transit's ridership potential, but also its value as an economic development and sustainability tool; more than all of that, these synergistic efforts help to create a place which is the ultimate in community building.

The following guidelines are recommended to help the communities of Northeast Ohio reap the maximum benefits of the transit investments recommended as part of NEO Regional Vision.

GUIDELINES

Density

Successful transit generally requires a minimum of seven residential units per acre in residential areas and 25 employees per acre in commercial centers, and about two to four times as much for premium quality transit. Increased population and employment densities place more potential riders within a 5 to 10 minute walking distance of transit stations/stops and higher densities, especially residential densities are recommended depending on the type of transit serving the area (see Figure 1). These densities create adequate transit ridership to justify frequent service, and help create active street life and commercial activities, such as grocery stores and coffee shops, within convenient walking distance of homes and worksites.

FIGURE 1: RECOMMENDED RESIDENTIAL DENSITY THRESHOLDS

TRANSIT MODE	MINIMUM DWELLING UNITS PER ACRE
Basic Bus Service	7-15
Premium Bus Service	15-18
Light Rail Transit, distance:	
0-1/8 mile	30
1/8-1/4 mile	24
1/4-1/2 mile	12

Data source: Transportation Cooperative Research Program, Report 102: Transit Oriented Development in the United States: Experiences, Challenges, and Prospect (2004).

Commercial land uses require acknowledgement of employment density as well as Floor to Area Ratio (FAR). Recommended FAR's start at 0.35 for nonresidential activities in transit supportive neighborhoods, but are more frequently recommended at minimums of 0.5 to 1.0 for commercial developments without structured parking and at least 2.0 for developments with structured parking. Employment density of 25 jobs per gross acre (15,000 jobs within a 1/2-mile) will support frequent, high capacity transit service. For light-rail service, employment densities of 50 jobs per gross acre are recommended.

High-quality transit supports the development of higher-density centers, which can provide accessibility and agglomeration benefits (efficiencies that result when many activities are physically close together), while automobile-only transportation systems conflict with urban density because they are space intensive, requiring large amounts of land for roads and parking facilities. Large-scale Park and Ride facilities without other uses tend to conflict with transit supportive neighborhoods, since a rail or bus station surrounded by large parking lots and arterials with heavy traffic is unlikely to provide the densities needed to generate sufficient transit demand. It is therefore important that such facilities be properly located, designed, and managed to minimize such conflicts and sited where they can accommodate transit without impacting the development potential of the area.

Mixed-Uses

Traditional, or Euclidean, zoning separates land uses, sets density thresholds and minimum lot sizes, and usually contains explicit regulations such as bulk and height controls and minimum parking requirements. To support transit, however, traditional zoning is often turned on its head (i.e., uses are intermixed, not excluded, and parking caps, rather than parking floors, are sometimes set).

To support transit, especially around high capacity stations, a municipality can create a special zone or change existing classifications. More common than either rezoning or new designations, however, is the creation of an overlay zone. As its name implies, an overlay zone is placed on the zoning map over a base zone. The overlay modifies, eliminates, or adds regulations to the base zone. Overlays provide for effective land-use control without increasing the complexity of the regulations.

Besides identifying land uses that require non-transit trips, like automobile repair shops, transit supportive zones often specify activities that are permitted as-of-right. The uses included in a transit supportive community should generate trips throughout the day. This strategy takes advantage of unused transit supply in off-peak hours and results in routes that are more productive than in areas with traditional rush-hour peaks. Ideally, the new zone generates approximately 1 to 1.5 jobs per household, providing significant employment opportunities for both residents and commuters.

The following list presents a sample of land uses appropriate for inclusion in a transit supportive district:

- Mid- to high- density residential
- Retail stores
- Banks
- Private offices/professional businesses
- Government offices
- Schools (especially higher education)
- Child-care centers
- Community facilities
- Public space
- Entertainment complexes

Pedestrian Orientation

Pedestrians who can walk to different land uses in under ten minutes are more likely to utilize those sites, including retail establishments, parks, and community facilities. Placing daily goods and services, as well as recreational destinations, within walking distance of residences increases the incentive to use alternative modes, supporting transit use for commuting and other regional travel. The following recommendations outline the key design factors which focus development to pedestrians:

- Require that active uses which generate a higher number of daily trips be located on the first two floors. These should include retail and open space located in the first 15–20 feet of building height. Land uses which generate fewer trips should occupy higher floors.
- Bring sidewalks up to the building line and prohibit parking from being located between the sidewalk and the building.
- Curb cuts are extensions of sidewalks. Design sidewalk-driveway interfaces to be identical to sidewalks (e.g. the sidewalk material and level should continue across the driveway). This alerts both pedestrians and drivers that they are traveling on a portion of the sidewalk.
- Install bollards, trees, and other street furniture to protect pedestrians and buildings from errant drivers.
- Require that sidewalks be at least five feet wide at all points.
- Install curb extensions (wider sidewalks) at all corners with on-street parking.
- Install pedestrian signals at all traffic signals.
- Actuate pedestrian phase at all times with traffic phase, e.g. not pedestrian actuated.
- Include Leading Pedestrian Intervals at all signals, thus allowing pedestrians to start ahead of traffic.

Access and Connections

For transit to be successful, pedestrians must be able to easily access the service and easily walk when they get off the bus or train. The following elements outline the vehicular and pedestrian policies recommended for promoting non-motorized transportation:

- Reduce vehicular roadway lane widths to no more than 11 feet per lane and never require pedestrians to cross more than three lanes without a protected refuge.
- Rededicate any reclaimed roadway space to provide or widen sidewalks, crosswalks, paths, and bike lanes.

- Reduce the number of conflict points between motorized and non-motorized modes. Where conflict points are unavoidable, ensure non-motorized modes have clearly delineated pathways and drivers are aware of their responsibility to share the road.
- Increase road and path connectivity, with non-motorized shortcuts, such as paths between cul-de-sac heads and mid-block pedestrian links.
- Adhere to and exceed the requirements of the Americans with Disabilities Act.
- Include street furniture (e.g., benches) and design features (e.g., human-scale street lights) without blocking traveler's "desire lines."[1]
- Guide motorized modes to operate at appropriate speeds and along appropriate routes for each location the community character.
- Provide bicycle parking and amenities (lockers, showers, access routes) to connect with all transit facilities.
- Determine parking standards as one component of overall multimodal accessibility options, not as the only mechanism to access a site.

Transit Infrastructure and Amenities

Transit stops that are easy to find and use are critical to passengers getting on and off the vehicle, regardless of whether the transit mode is a bus or train. Adequate pedestrian accessibility and enhanced passenger amenities at transit stops are critical to attracting people to transit. Provision of stop infrastructure is frequently tied to the number of riders who board and alight at each stop. The greater the number of riders (currently or planned), the greater the capital investment.

- All stops should have:
  - A level concrete pad
  - Reliable pedestrian access
  - Adequate lighting for safe and comfortable night use
  - Route and schedule information
- Stops with more than 50 boardings a day (including transfers) should have:
  - Bus shelter with bench
  - System map
  - Trash receptacles
- Stops with more than 300 boardings a day (including transfers) should also have:
  - "Super stop" shelter
  - Real time travel information

These amenities support transit service by making the bus riding experience comfortable and convenient. As described in *TCRP Report 46*: "The Role of Transit Amenities and Vehicle Characteristics in Building Transit Ridership," provision of certain physical amenities will draw more riders. The TCRP study was built around the Transit Design Game Workbook, a survey distributed to bus passengers in five cities: Rochester, New York; Ann Arbor, Michigan; Aspen, Colorado; Portland, Oregon; and San Francisco, California. The survey allowed people a budget of 12 to 18 points to spend on amenities, and also had the respondents weigh spending money on amenities or lowering the fare. Spending 18 points on amenities roughly equated to $450,000 in annualized costs for a 300-bus system, and resulted in a 1.5 to 3 percent increase in ridership. A study by the University of North Carolina at Charlotte also has indicated that improved bus stop amenities increases ridership.

Another important component of bus stops consists of safety and security measures, which increase transit effectiveness. Safety and security requires transit operators to provide a predominantly controlled environment so riders perceive that the agency is protecting them. In addition, it also requires emergency planning for when uncontrolled events occur, so that responses are planned and procedures are in place to answer unforeseen incidents. These preparations provide riders with both an actual and perceived safe environment, preventing public concerns that would limit the effectiveness of the transit system.

Providing a safe and secure environment requires a combination of design features, response plans, evaluation of public perception, and coordination between the multiple transit services and levels of government. All stops should be well-lit and provide clear sight lines with no "blind spots." Placement of stops in view of active uses is recommended. Wherever possible, stations and stops should be accompanied by clearly marked crosswalks and traffic control devices to provide a safe, controlled roadway crossing.

1 paths which travelers use, whether designated or not

RECOMMENDATION 6: ENHANCE WALKING AND CYCLING AS TRANSPORTATION OPTIONS TO INCREASE REGIONAL MOBILITY AND IMPROVE PUBLIC HEALTH

Walking, biking, and transit use often provide the most desirable means for making short trips, but across entire regions it can be harder to define a meaningful and significant role for them—especially when policy and funding decisions are being made. However, with the increases in housing and transportation costs in the last three decades, more and more attention has been given to how transportation factors into overall affordability and livability in urban regions. These two factors are interrelated: the affordability of transportation cannot be fully separated from overall affordability of housing and household cost of living.[88] This suggests that true affordability in transportation and housing relies on choices being provided for both, including available choices of housing close to employment and other basic services and available choices of transportation modes that do not mandate the high costs of automobile ownership and maintenance.

To allow transportation choice to support dynamic economic growth, Northeast Ohio can begin focusing throughout the region on improving the quality and accessibility of its alternatives to driving alone. When compared to the costs of car ownership, walking, bicycling and public transit are considerably more affordable commuting options, allowing household income to be conserved for other needs and priorities such as housing and savings. However, these means of travel will not be available or attractive to a broad section of Northeast Ohio's population if the region's transportation system is not equipped to carry them safely and conveniently. Regional efforts should focus on how to extend transit's service offerings so that it is convenient and direct, how to integrate local and regional travel options seamlessly, and how to ensure that the longer-distance connections made possible through better transit are accessible to riders—especially those reaching transit on foot or by bicycle.

88 Center for Neighborhood Technology Housing+Transportation Index, http://htaindex.cnt.org/

Cities and metropolitan regions best positioned to attract the emerging high-skilled industries of the 21st century are those that offer high quality of life and public amenities. Although walking, biking, and transit use are inherently options for transportation, they can also facilitate connections to recreation; cultural, sporting, and entertainment events; and other such attractions that Northeast Ohio already has in abundance. The low cost of these travel options and relatively low cost of adding transit service and bicycle and pedestrian networks to these infrastructure projects suggest that these forms of travel can be effective ways for the region to take advantage of more of its assets—and in so doing position itself as a more affordable and attractive place to live—without taking on major public expense to do so.

TOOL: Bike Sharing Program: Bike Sharing is an innovative transportation program providing ideal short distance, point-to-point, simple-to-use bikes for moving around the city. It allows users to pick up a bicycle at any self-serve station and return it to any bike station in the system's service area. In Columbus, CoGo Bike Share stations are located throughout downtown in relative close proximity to each other (about 1/3 mile apart), allowing for easy access and maximum use. The automated system features annual and 24-hour memberships which can be easily purchased at a station or online.[89]

TOOL: Federal Highway Administration (FHWA) has a one-stop shop website with safety tips and resources for local leaders, city planners, parents and others involved in improving pedestrian safety.[90]

Specifically, Northeast Ohio should consider the following initiatives:

89 http://www.cogobikeshare.com/

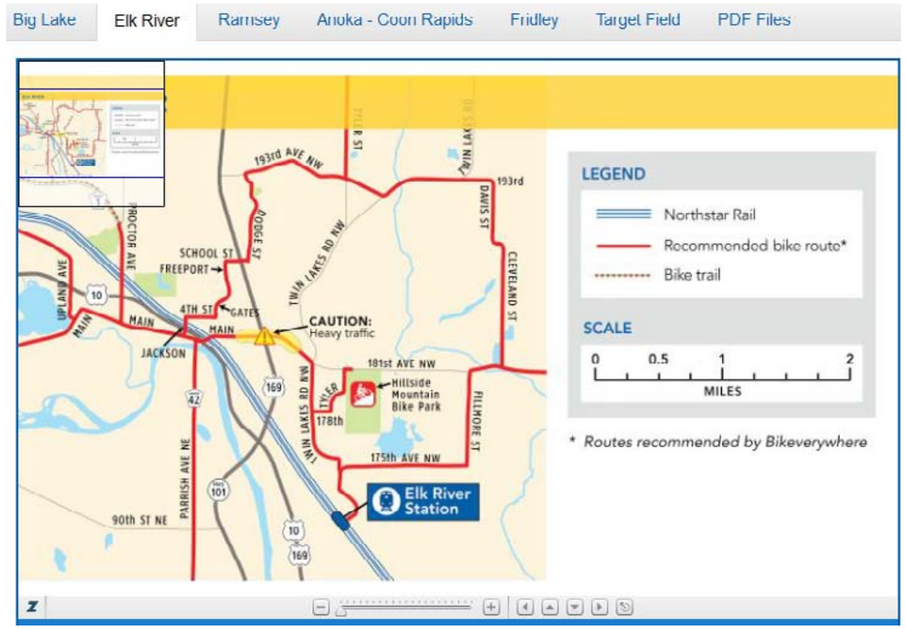
90 http://www.nhtsa.gov/nhtsa/everyoneisapedestrian/index.html

INITIATIVE 6.1: EXPAND THE EXISTING BICYCLE LANE AND TRAIL SYSTEM AND CONNECT IT TO REGIONAL TRANSIT HUBS VIA ON-AND-OFF STREET FACILITIES.

WHAT THIS MEANS: Existing bicycle route and facility networks may not currently offer the best connections to transit infrastructure. Identifying key opportunities to enhance these system connections—either through on-street bicycle facilities or off-street trails and paths—can define a concise set of system enhancement projects to better tie transit's regional connection potential to the greater reach afforded by bicycles. This involves coordination between the agencies providing service (that define transit route alignments and that often own and maintain transit stop and hub facilities) and local and state government agencies (that have responsibility for building and maintaining the roadway system). For this initiative to be successful, there must be an ongoing partnership to ensure that public funds are invested in the right places and in a way that provides benefit to all partners.

When combined with a revised set of project selection criteria at the MPO level emphasizing alternative modes in transportation decision-making (refer to Initiative 5.2), an approach based on transit access helps to define a focused strategic direction that increases regional travel choice and ensures that public investment in transportation infrastructure has the farthest-reaching regional benefit for its cost. Being able to access funding at the MPO level unlocks opportunities for making these kinds of connections to transit facilities.

Taking on this initiative may also involve identifying the key transit hubs for which bicycle investment needs to be prioritized. This in turn may involve coordination of transit service so that hubs of regional significance can be defined. (Refer to Initiatives 4.1 and 4.2, which discuss investment in a regional system of core connecting routes between major economic centers and service enhancements along these routes and other high-performing transit routes.) It also means defining clear policies and design guidance on how bicycles will be accommodated at the end of the biking trip. In general, urban buses throughout the United States are equipped with on-vehicle bicycle racks to allow bicycle riders accessing transit service to carry bicycles with them. This



Minneapolis, Minnesota: On-street bicycle connection mapper to commuter rail *Metro Transit*

approach has capacity limitations that are directly related to the frequency of service provided. Transit agencies, local governments, and other partner organizations can invest in bicycle parking and storage facilities that increase the ability of transit service to serve patrons connecting by bicycle.

WHY THIS IS IMPORTANT: Bicycles are a form of connecting to transit service that is underutilized in Northeast Ohio communities. Due to the greater travel speeds they offer, they can extend the potential reach of transit stations from the half-mile distances comfortable for pedestrians up to three miles in the same 10-minute travel time. Since these bicycle links are still comparably short distances compared to an overall commute trip, weather issues do not significantly limit these trips. As a result, bicycling enables potential increases in transit ridership without a need for corresponding investment in road projects or additional connecting transit service. Many communities have provided demonstrable benefits with respect to mobility and accessibility though resourceful and incremental additions to the bicycle network. Bicycle lanes may be striped on a street with a wide outer lane when that street is being resurfaced, or individual travel lane widths may be reduced across the street's width to fit bicycle lanes.

This initiative is a useful investment that is likely to offer even greater benefit as cycling increases in the future. National Household Travel Survey data have shown an increase of nearly 50 percent in cycling as a commuting travel mode between 2001 and 2009.[91] Although the size of the Northeast Ohio region may not readily facilitate commuting exclusively by bicycle, strategic actions would connect local and regional bicycle networks to the transit service envisioned in Recommendation 4 and its supporting initiatives.

GETTING IT DONE. This initiative should be led by Northeast Ohio's MPOs, in close collaboration with local jurisdictions where proposed connections would occur. MPOs are best positioned to scope and secure funding for a regional corridor and connection identification process, and prioritize projects for construction utilizing their established committees and procedures. MPOs should engage key implementing partners and stakeholders, including local jurisdictions and Metroparks authorities. Funding for planning work can be secured through normal MPO funding channels, or via discretionary grant applications, such as the Federal Highway Administration's (FHWA) Transportation, Community, and System Preservation (TCSP) program.

POTENTIAL LEAD

Nonprofit Organizations; Metropolitan Planning Organizations; Metroparks Authorities; Municipalities, Counties

TARGET COMMUNITY

Strategic investment areas, asset risk areas, cost risk areas

IMPLEMENTATION COMPLEXITY

Low

91 TCRP Report 163, Guidelines for Providing Access to Public Transportation Stations, p.66

INITIATIVE 6.2: REPAIR EXISTING SIDEWALKS AND CROSSWALKS AND ADD NEW ONES AS NEEDED WHEREVER A FIXED-ROUTE BUS SERVICE IS IN OPERATION.

WHAT THIS MEANS. It is a truism to state that walkability and walking are dependent on availability of a quality pedestrian realm. Even though the notion of "walkable communities" is enjoying renewed popularity and expression in new commercial and residential developments, many places remain profoundly unfriendly to pedestrians. Northeast Ohio is no exception.

Quality pedestrian facilities are especially important in areas with high rates of transit utilization, or prevalence of transit-dependent populations. Walking is central to the "first mile-last mile" problem in transportation planning, whereby transit users often have to walk to and from transit stops to access their homes, places of employment, and shopping and entertainment destinations. When pedestrian facilities are lacking or in disrepair, this can be at best unpleasant—and at worst unsafe. In either case, transit users suffer a distinct disadvantage compared to motorists. Sidewalks and crosswalks in areas served by fixed-route transit should be repaired, and if necessary installed, with a design up to national Americans with Disabilities Act (ADA) standards.

WHY THIS IS IMPORTANT. In addition to redressing a genuine equity concern, bringing the pedestrian environment up to standard in transit-rich areas can have several positive side effects. First, it can help to catalyze other investments such as a complete streets retrofit or broader streetscape design, as well as new infill or redevelopment. It can also help to induce more transit ridership by changing perceptions of accessibility, especially if paired with such additions as bus shelters and other streetscape infrastructure that improves the waiting experience. Finally, it induces more walking and physical activity, which the Center for Disease Control and Prevention cites as one of the most powerful preventative measures of chronic disease.

GETTING IT DONE. Since the pedestrian realm is the responsibility of the local municipality, a coordinated effort is needed between the municipalities to provide and repair sidewalks and crosswalks, and the transit operators who provide transit service. With already stretched municipal budgets, Northeast Ohio communities may want to consider forming Transportation Improvement Districts and corridors to help finance sidewalk and pedestrian realm improvements.[92]

MPOs can play a valuable role in facilitating analysis and planning efforts, and may be best-positioned to jumpstart efforts by providing research support and facilitating stakeholder exploration of the needs. An example of this was a survey and study commissioned by the North Jersey Transportation Planning Authority (NJTPA) in 2011, which evaluated pedestrian safety near bus stops throughout Northern New Jersey. The report featured recommended standard street treatments to improve accessibility to the state's extensive bus transit assets.[93]

POTENTIAL LEAD
Municipalities; Metropolitan Planning Organizations

TARGET COMMUNITY
Strategic investment areas, asset risk areas

IMPLEMENTATION COMPLEXITY
Moderate

92 http://www.dot.state.oh.us/Divisions/JobsAndCommerce/tid/Pages/default.aspx

93 North Jersey Transportation Planning Authority, http://www.njtpa.org/Planning/Regional-Studies/Recently-Completed-Studies/Pedestrian-Safety-at-and-Near-Bus-Stops-Study/Pedestrian-Safety-at-Bus-Stops-Study/Final_Report_Excluding_Appendices.aspx

INITIATIVE 6.3: PROMOTE "COMPLETE STREETS" THROUGH REGIONAL POLICY AND THE IDENTIFICATION OF LOCAL CHAMPIONS.

WHAT THIS MEANS. "Complete Streets" refers to the practice of building streets that embrace a full range of mobilities—walking, cycling, and transit, in addition to driving. Historically, streets accommodated all of these functions. It was only the early decades of the 20th century that roadway design began to rigidly segregate users, and apportion more space to the rapidly evolving technology of the automobile. This move initially was framed as a protection of pedestrian health and safety: early campaigns for separated rights-of-way cited ghastly collisions as the reason for embracing a street design philosophy that ultimately settled in decisive favor of the car.

In recent years, the notion of streets as multimodal places has enjoyed resurgence nationwide. Early complete streets efforts in metro areas like Portland, Oregon, were championed by municipal governments and supported by regional planning agencies. These focused on reclaiming sections of roadway, especially overbuilt ones, for bike and bus lanes, streetcar tracks, and an expanded, landscaped pedestrian realm. Taking heed of successes by early adopters, countless communities have adopted complete streets ordinances that compel city planners and engineers to design streets to accommodate multiple users. As of January 2013, over 500 local jurisdictions and 27 states have adopted complete streets policies. The City of Cleveland is the only community in Northeast Ohio to have a complete streets ordinance, which was passed in 2011.[94]

WHY THIS IS IMPORTANT. Encouraging complete street design has many positive transportation, economic, and health benefits. Complete streets help to reduce congestion and encourage mode shift, thus contributing to a virtuous cycle whereby modal utilization balances to maximize existing roadway capacity. Investment in quality streetscapes also has proven economic value, with various studies documenting

94 City of Cleveland Office of Sustainability, http://www.city.cleveland.oh.us/CityofCleveland/Home/Government/CityAgencies/OfficeOfSustainability/SustainableMobility?_piref34_1131668_34_1122491_1122491.tabstring=Tab

Example of a complete street in downtown Cleveland *City Architecture*

10-15% value premiums for homes and businesses in places with high WalkScores and cycling access.[95] By encouraging walkable, bikeable communities and contributing to air pollution reduction, complete streets help to activate citizens and improve public health.

With an historical focus on highways and automobiles as the nearly unanimous means of transportation in the United States, many state and regional transportation agencies have not adequately identified where non-vehicular transportation can help to meet regional transportation needs. As a result, projects that would facilitate public use of alternative travel modes are not given the same level of attention and funding priority. Promoting complete streets policies corrects this imbalance, setting the stage for more holistic and integrated transportation policymaking.

GETTING IT DONE. Local jurisdictions and MPOs are the logical entities to lead implementation of this initiative. MPOs play a powerful role by setting regional policy and programming federal transportation funds for investment in the transportation system. MPOs in Northeast Ohio should consider adopting regional complete streets plans and

95 Litman, Todd, Evaluating Non-Motorized Transportation Benefits and Costs, Victoria: Victoria Transport Policy Institute, 2013

modifying project selection criteria for regional Transportation Improvement Programs to privilege projects that integrate multimodal improvements and complete streets principles.

Amending MPO project selection criteria to emphasize non-motorized transportation and transit projects help to give these project types a place in regional decision-making and underscore their importance in a regional commitment to a concept of mobility that extends beyond vehicular travel. This is also a critical first step in allowing those projects that are more costly and complex—especially those needing bridges, grade crossings, and other extensive engineering—to have access to a greater pool of potential funding beyond what individual local governments may be able to provide. Local governments often carry the responsibility of building bicycle and pedestrian networks, but a more holistic set of project selection criteria can help to advance those projects with truly regional significance and implement a balanced transportation system.

While MPOs can spearhead initial efforts to adopt complete streets, promoting the practice will involve extensive engagement of stakeholders. MPOs should work closely with local governments to engage economic development agencies, school districts, law enforcement, Metroparks authorities, land conservancies, public health districts, social service organizations—any entity with a stake in the region's streets.

POLICY: Adopt a "Complete Streets" policy: Local governments should integrate a complete streets" approach into their transportation planning and funding decisions. These policies require agencies to balance the needs of all users in the planning, design and construction of all transportation projects. This allows users of all ages and abilities including pedestrians, bicyclists, motorists, transit riders, older people, children and those with disabilities—to move safely along and across a network of complete streets. Good multimodal facilities along major roads can reduce congestion by providing an alternative to short-distance car trips.

BEST PRACTICE: City of Cleveland Complete and Green Streets Ordinance:[96] The City of Cleveland passed a Complete and Green Streets ordinance in September of 2011. The ordinance requires implementation of sustainable policies and guidelines in all construction projects within the public right-of-way. This ordinance will create a walking, biking and public transportation-friendly city while reducing environmental impact by incorporating green infrastructure. Additionally, the city completed a Complete and Green Streets Typologies Plan in 2013.

POTENTIAL LEAD

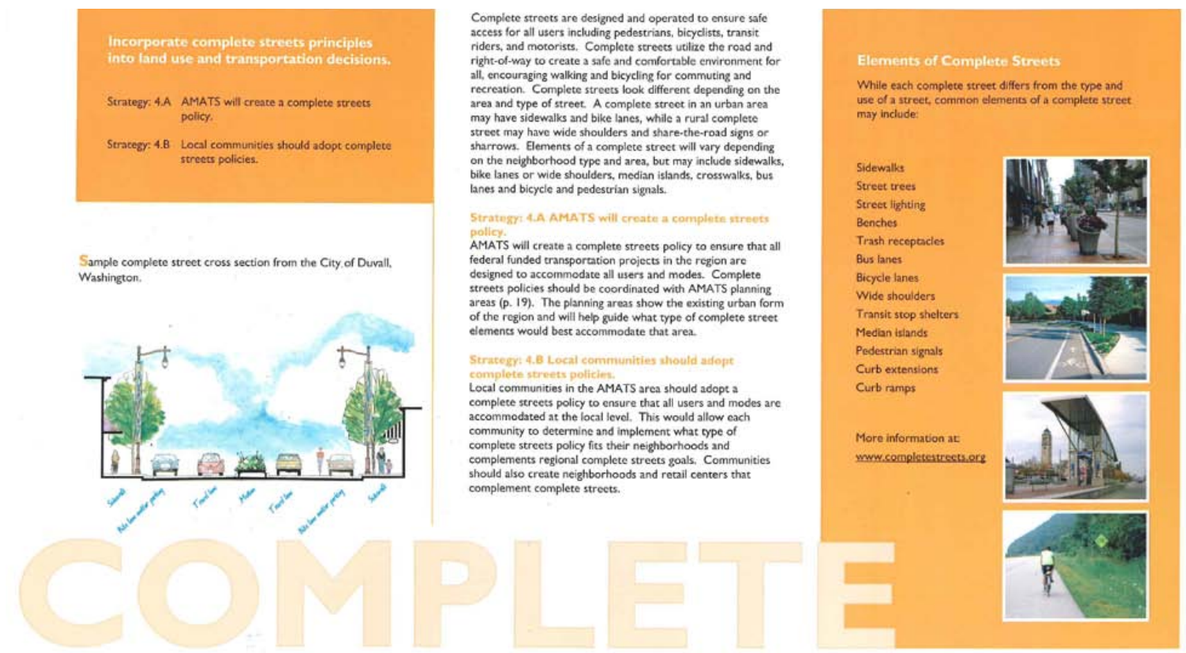
Municipalities, Townships, Counties; Metropolitan Planning Organizations

TARGET COMMUNITY

Strategic investment areas, asset risk areas

IMPLEMENTATION COMPLEXITY

Moderate



AMATS Connecting Communities Complete Streets Recommendations *AMATS Connecting Communities Guide*

96 http://www.city.cleveland.oh.us/CityofCleveland/Home/Government/CityAgencies/OfficeOfSustainability/SustainableMobility?_pir ef34_1131668_34_1122491_1122491.tabstring=Tab

SPECIAL SECTION:

THE ECONOMIC BENEFITS OF COMPLETE STREETS

The documented economic impacts of Complete Streets projects are summarized below in five categories: consumer spending, property value, business benefits, individual transportation costs, and perceptions of complete streets.

CONSUMER SPENDING

Large increases in consumer spending correlate to specific Complete Streets and Green Streets investments.

- "Tourists coming to Vermont to walk and bicycle in the scenic, human-scale towns and compact, pedestrian-friendly town centers have proved to be an economic boon. In 1992, an estimated 32,500 visiting cyclists spent $13.1 million in Vermont—about twice the amount of money generated by Vermont's maple syrup producers in a good year."[1]
- As shown in Figure 1, a 2012 study done by the New York City Department of Transportation documents several consumer spending impacts of recent Complete Streets projects in New York.[2]
- "Visitors who would come [to Prince Street in New York City] more often with a reallocation of space from parking to pedestrians spend about five times as much money in the neighborhood as do visitors who would come less often."[3]
- Bicycle parking is more space efficient than automobile parking. One study finds that each square meter of bicycle parking generated $31 per hour, whereas each square meter of automobile parking generates only $6 per hour.[4]
- A University of Washington study finds that people are willing to pay about 11% more for goods in landscaped business districts than in non-landscaped districts (and up to 50% for convenience goods).[5]

FIGURE 1: CONSUMER SPENDING IMPACTS FROM COMPLETE STREETS IMPROVEMENTS IN NEW YORK CITY

COMPLETE STREETS IMPROVEMENT	DOCUMENTED EFFECT
8th/9th Avenue (Manhattan) cycle track	Up to 49% increases in retail sales
Pearl Street (Brooklyn) conversion of underutilized parking to plaza space	172% increase in retail sales
Pearl Street (Manhattan) conversion of parking lane to on-street seating	Businesses fronting the new seating area saw a 14% increase in sales
Fordham Road (Bronx) new rapid bus transit line and associated street improvements	71% increase in sales at businesses along the corridor

- A recent study[6] of East Village shoppers in New York City finds:
  - "Aggregate weekly spending by public transit and non-motorized transportation users account for 95 percent of retail dollars spent in t he study area."
  - "People on bike and foot spend the most per capita per week, $163 and $158, respectively, at local businesses."

PROPERTY VALUES

Residential, office, and commercial property values benefit from nearby investments in bicycle, pedestrian, and transit infrastructure as well as urban design and landscape improvements.

- "In a typical market, an additional one point increase in Walk Score®[7] was associated with between a $700 and $3,000 increase in home values."[8]
- Figure 2 shows differences in property values in places with a Walk Score of 80 versus a Walk Score of 20.[9]

FIGURE 2: PROPERTY VALUE IMPROVEMENTS WITH WALK SCORES OF 80 VS. 20

PROPERTY TYPE	MARKET VALUE	NET OPERATING INCOME	APPRECIATION PER QUARTER
Office	+54%	+42%	1.92%
Retail	+54%	+42%	--
Apartments	+6%	--	--

1 Local Government Commission Center for Livable Communities. (2000). Local Government Commission. Retrieved May 13, 2013, from The Economic Benefits of Walkable Communities: http://www.lgc.org/freepub/docs/community_design/focus/walk_to_money.pdf

2 New York City Department of Transportation. (2012). Measuring the Street: New Metrics for 21st Century Streets. New York City: New York City DOT.

3 Schaller Consulting. (2006). Curbing Cars: Shopping, Parking and Pedestrian Space in SoHo. New York City: Transportation Alternatives.

4 Lee, A., and March, A. (2010). Recognising the economic role of bikes: sharing parking in Lygon Street, Carlton. Austrailian Planner, 85-93.

5 Hastie, C. (2003). The Benefits of Urban Trees. Warwick District Council.

6 Transportation Alternatives. (2012). East Village Shoppers Study: A Snapshot of Travel and Spending Patterns of Residents and Visitors in the East Village. New York City: Transportation Alternatives.

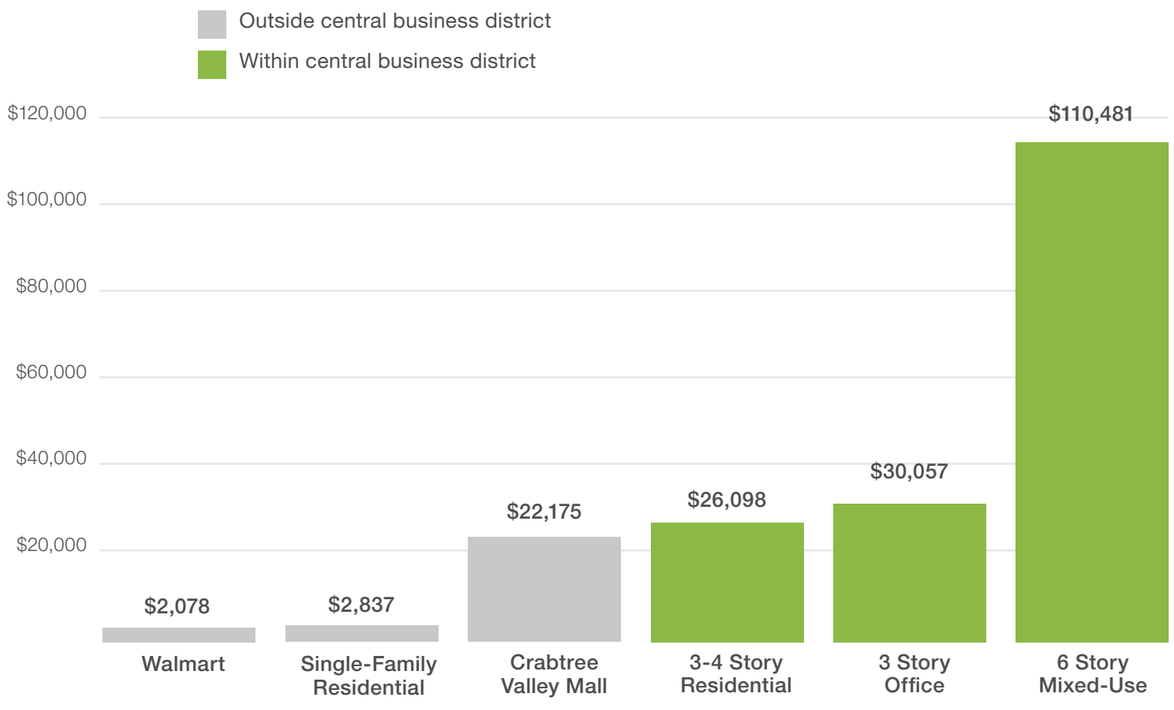
7 walkscore.com

8 Cortright, J. (2009). Walking the Walk: How Walkability Raises Home Values in U.S. Cities. CEOs for Cities.

9 Kooshian, C., and Winkelman, S. (2011). Growing Wealthier: Smart Growth, Climate Change and Prosperity. Center for Clean Air Policy.

- "Office, retail and apartment values increased by 1-9% for each 10-point Walk Score increase."[10]
- Residential property values are higher in walkable neighborhoods:
  - Residential property values are 5.2% higher in more walkable London neighborhoods.[11]
  - House values are 15.5% higher in walkable neighborhoods than in non-walkable areas, all else equal.[12]
  - Property values are 11% higher in New Urbanist neighborhoods than in conventional, auto-dependent neighborhoods.[13]

FIGURE 3: MUNICIPAL PROPERTY TAX YIELD PER ACRE, RALEIGH, NC



10 Litman, T. (2013). Evaluating Non-Motorized Transportation Benefits and Costs. Victoria: Victoria Transport Policy Institute.

11 Buchanan, C. (2007). Paved with Gold. London: Commission for Architecture and the Built Environment.

12 Song, Y., and Knaap, G.-J. (2003). The Effects of New Urbanism on Housing Values: A Quantitative Assessment. National Center for Smart Growth Research and Education, University of Maryland.

13 Eppli, M., and Tu, C. C. (2000). Valuing the New Urbanism: The Impact of New Urbanism on Prices of Single-Family Homes. Urban Land Institute.

- The City of San Mateo reviewed several studies for the Bicycle Master Plan and found that home prices near trails are higher than home prices farther away.[14]
- Mixed-use, walkable development generates ten times higher property tax yields than more suburban development patterns. Figure 3 shows findings from a study documenting tax yields from different types of development in Raleigh, North Carolina.[15]

BUSINESS BENEFITS

Neighborhoods with bicycle, pedestrian, and transit friendly environments are much more likely to have high businesses occupancy rates. Businesses benefit from higher worker productivity.

- National data indicates that infrastructure projects specific to cycling generate 11.4 jobs per $1 million spent. By contrast, traditional road projects like repaving or widening generate only 7.8 jobs per $1 million spent.[16]
- A cost-benefit analysis indicates that every dollar spent on bicycle networks yields $4-5 in benefits (including security, health effects, and reduced costs of motorized traffic).[17]
- Figure 4 summarizes findings of a 2012 study conducted by the New York City Department of Transportation on commercial vacancies.[18]

FIGURE 4: COMMERCIAL VACANCY IMPACTS FROM COMPLETE STREETS IMPROVEMENTS NEW YORK CITY

COMPLETE STREETS IMPROVEMENT	DOCUMENTED EFFECT
1st/2nd Avenue (Manhattan) dedicated bus and bike lanes	47% fewer commercial vacancies
8th/9th Avenue (Manhattan) protected bicycle lane	49% fewer commercial vacancies

14 City of San Mateo. (2011). Bicycle Master Plan. San Mateo: City of San Mateo.

15 Building Better Budgets: A National Examination of the Fiscal Benefits of Smart Growth Development. Smart Growth America, 2013.

16 Garrett-Peltier, H. (2011). Pedestrian and Bicycle Infrastructure: A National Study of Employment Impacts. Amherst: Political Economy Research Institute, University of Massachusetts Amherst.

17 Alliance for Bicycling and Walking. (2012). Bicycling and Walking in the United States: 2012 Benchmarking Report. Washington, DC: Alliance for Bicycling and Walking.

18 New York City Department of Transportation. (2012). Measuring the Street: New Metrics for 21st Century Streets. New York City: New York City DOT.

- Occupancy rates of office buildings are positively affected by landscaping amenities, which have a higher correlation with occupancy than direct access to arterial routes.[19]
- Businesses whose employees bicycle more often or farther than others benefit from higher employee productivity. On average, employees who bicycle to work are absent fewer days than those who do not.[20]
- The addition of bicycle lanes on Broad Street in Memphis is associated with the addition of 16 new businesses, 29 property renovations, and 40,000 visitors to the Arts Walk event.[21]
- An oft-cited study of the economic impacts of bicycle investments in North Carolina's Outer Banks finds that 1,400 jobs are supported annually through bicyclist expenditures. The overall estimate of annual economic impact of bicyclists in the region is at least $60 million.[22]

INDIVIDUALS' TRANSPORTATION COSTS

When people have transportation choices, they can save significantly on transportation expenses.

- A national study of transportation expenses reveals that people living in areas with sprawling characteristics have fewer transportation options and therefore spend an average of $1,300 more per year on transportation than people in non-sprawling areas.[23]
- "Shifting from automobile to non-motorized travel is estimated to provide parking savings of $2-4 per urban-peak trip (a typical commute has $4-8 per day parking costs), $1-3 per urban off-peak trip, and about $1 per rural trip."[24]

POSITIVE PERCEPTIONS OF COMPLETE STREETS

Businesses and residents across the county strongly support complete streets.

- "The [bike] lanes slowed down traffic and people started noticing the businesses more. Our business revenues have grown on average 30% per year—yes, an art-related business in a tough economy."—Pat Brown, co-owner of T Clifton Gallery on Broad Avenue in Memphis.[25]
- "[Adding bike lanes] was probably one of the best things to happen for my business."—Katelynn Meadows, owner of Sweetly on Broad Avenue in Memphis.[26]
- "We really have to look at bicycling as a viable and important part of the transportation network and not just a recreational pursuit. [San Mateo County] needs to take more of a leadership role to publicize bike routes and get cities to work together to construct practical bicycle infrastructure so that people can get to work more easily."—San Mateo County Supervisor Dave Pine on Bike to Work Day 2013.[27]
- "We all know that change is hard, but 70% of our respondents think that the bike lane is going in the right direction." New York City Council Member Gale Brewer conducted a survey of people in the Upper West Side neighborhood after installation of once-disputed bicycle and pedestrian safety improvements on Columbus Avenue. The street redesign was found to reduce crashes by 34%. Of those surveyed, including merchants who originally opposed the design, 73% thought the changes improved the street.[28]
- A 2003 study of merchants on Valencia Street in San Francisco found that 65% of merchants think traffic calming improvements improved business and sales and 65% also would support more traffic calming measures on the corridor.[29]

19 Wolf, K. (1998). Urban Forest Values: Economic Benefits of Trees in Cities. Seattle: Center for Urban Horticulture, University of Washington.

20 Hendriksen, I., Simons, M., Garre, F., and Hildebrandt, V. (2010). The association between commuter cycling and sickness absence. Preventative Medicine, 132-135.

21 Flusche, D. (2012). Bicycling Means Business: The Economic Benefits of Bicycle Infrastructure. Advocacy Advance.

22 Lawrie, J., Guenther, J., Cook, T., and Meletiou, M. P. (2004). The Economic Impact of Investments in Bicycle Facilities. Raleigh: North Carolina Department of Transportation, Division of Bicycle and Pedestrian Transportation.

23 Surface Transportation Policy Project. (2000). Driven to Spend. Center for Neighborhood Technology.

24 Litman, T. (2013). Evaluating Non-Motorized Transportation Benefits and Costs. Victoria: Victoria Transport Policy Institute.

25 Flusche, D. (2012). Bicycling Means Business: The Economic Benefits of Bicycle Infrastructure. Advocacy Advance.

26 Ibid.

27 Boone, A. (2013, May 13). Streetsblog. Retrieved May 14, 2013, from As Bike to Work Day Booms, Some San Mateo County Cities Lead the Way: http://sf.streetsblog.org/2013/05/13/9000-bike-commuters-on-san-mateo-countys-bike-to-work-day-2/?utm_medium=referral&utm_source=pulsenews

28 Kazis, N. (2011, October 12). Streetsblog. Retrieved May 13, 2013, from Bike Lane Made Columbus Avenue Safer, and UWS Residents Noticed: http://www.streetsblog.org/2011/10/12/bike-lane-made-columbus-avenue-safer-and-uws-residents-noticed/

29 Drennen, E. (2003). Economic Effects of Traffic Calming on Urban Small Businesses. San Francisco: San Francisco State University.

INITIATIVE 6.4: COLLABORATE WITH SCHOOL DISTRICTS AND LOCAL COMMUNITIES TO FURTHER DEVELOP SAFE ROUTES TO SCHOOL, ENCOURAGING WALKING AND BIKING, AND SITE NEW SCHOOLS IN WALKABLE LOCATIONS.

WHAT THIS MEANS. This initiative takes advantage of potential federal funding for transportation enhancement projects by developing school-specific plans to provide safe walking and biking access. It also takes advantage of greater independence that MAP-21 transportation legislation has given to MPOs in influencing how local governments may use transportation funds within regions.

WHY THIS IS HELPFUL. Children and adolescents walking and biking to school are useful barometers of success in many planning-related objectives: neighborhoods are safe and sufficiently convenient to schools, streets are designed well enough that parents will allow children to walk or bike, and schools are an integral part of communities to the degree that they are navigable and easy to find. This initiative can also bring regional knowledge and resources to encourage and enable school-specific planning for better walking and bicycling access.

Walking and biking access to schools also offer an opportunity for school districts to realize a savings in transportation costs. In many suburban school districts around the United States, transportation—especially busing—is one of the largest single costs that districts incur. This is due mostly to the expansive distances that local school districts cover and, in many cases, the inability of local roads and streets to accommodate the needs of children walking or riding bicycles on them. The nationwide recession of 2007-2012 marked a significant decline in property tax revenue for local governments around the nation and thus a decrease in funding for public school districts. This greatly strained school budgets and cast new attention on the funding obligations related to transporting students.[97] Planning for and implementing transportation system enhancements that make walking and bicycling safe and desirable options for school access can allow school districts to consolidate or reduce busing services without requiring students to be driven to school by family members.

Taking on an initiative such as this is also useful in that it establishes a format for planning for other populations with special mobility needs, such as senior citizens and persons with disabilities. Although these are separate groups and do not always need access to single-location facilities such as schools, the planning process that this initiative will launch can be used as a model for how to engage local governments and community institutions in identifying and planning for the needs of other special communities in Northeast Ohio.

GETTING IT DONE. Regional agencies, especially MPOs, are also well positioned to facilitate this dialogue in that they can provide training and technical assistance to local governments and school districts, while allowing them to take on the primary responsibility of setting their own school-specific plans for improvements. These agencies often provide necessary funding for the Safe Routes to Schools projects to be implemented, but they can also help the organizations seeking to use these funds to define improvements that constitute the most effective way of doing so.

TOOL: Ohio's Safe Routes to School Program:[98] The goal of this program is to assist communities in developing and implementing projects and programs that encourage and enable children in grades k-8, including those with disabilities to walk or bike to school safely. Successful Safe Routes to School programs include an integrated approach that addresses all 5 E's of the program: Engineering, Education, Enforcement, Encouragement, and Evaluation.

POTENTIAL LEAD

Metropolitan Planning Organizations; School Districts; Municipalities, Townships

TARGET COMMUNITY

Strategic investment areas, asset risk areas, cost risk areas

IMPLEMENTATION COMPLEXITY

Moderate

97 Safe Routes to School Partnership National Statistics on School Transportation, http://www.saferoutespartnership.org/sites/default/files/pdf/school_bus_cuts_national_stats_FINAL.pdf

98 http://www.dot.state.oh.us/Divisions/Planning/SPPM/MajorPrograms/SafeRoutes/Pages/default.aspx

RECOMMENDATION 7: PRESERVE OUR NATURAL AREAS FOR FUTURE GENERATIONS, PROVIDE OUTDOOR RECREATION OPPORTUNITIES, AND DEVELOP A REGIONAL APPROACH TO PROTECTING AIR, WATER, AND SOIL QUALITY

Conservation is an arduous but necessary enterprise, a condition that can be readily observed in the region's land use and land cover patterns. According to a recently released report sponsored by the Western Reserve Land Conservancy, approximately 7 percent of the land area of Northeast Ohio is preserved public open space. The study noted that this figure is considerably less than the 10-15 percent recommended by landscape ecologists familiar with the region. The question of how and where this gap is filled is of great importance to the region's future.

Of equal importance for the region is how to best invest scarce resources in infrastructure and landscape management strategies that protect and enhance water, soil, and air quality. Northeast Ohio's legacy as a manufacturing center has left thousands of acres of land in need of remediation. Furthermore, urbanization of watersheds combined with patches of outdated sanitation and stormwater infrastructure compromise the ecological health of the region's waterways.

The region should pursue the following initiatives to secure the future of its landscapes and natural resources:

INITIATIVE 7.1: EXPAND AND CONNECT THE EXISTING NETWORK OF PARKS, TRAILS, RIVERS, LAKES, AND NATURAL AREAS THROUGH CONTINUED PARTNERSHIPS WITH PRIVATE LAND OWNERS, LAND CONSERVANCIES, LAND TRUSTS, COMMUNITY MEMBERS, AND LOCAL GOVERNMENTS.

WHAT THIS MEANS. Northeast Ohio has an impressive legacy of thinking and acting big on its parks and recreation assets. From Cuyahoga County's Emerald Necklace to the many conservation areas in rural areas of the region, evidence of fruitful partnerships between governments, land owners, and community organizations abound. The region should continue and expand upon this legacy of investing in parks and natural spaces.

Expanding the region's parks and natural spaces will require coordination and mutual support of the work of Metroparks and local parks authorities, local governments, and land conservancies and trusts. Land conservancies are particularly valuable partners in this effort, as they act as an intermediary between private landowners and public entities, negotiating and holding easements on private properties. The easement process is entirely voluntary and deeply respectful of individual property rights; easements are carefully crafted in close consultation with landowners, who agree to forego all future development rights, in perpetuity.

Trails are also important elements of a region's parks and natural spaces system. The region should fill gaps in the existing regional trail network, and consider constructing new trails to expand the network. Trails provide opportunities not only for active recreation, but also for commuting between regional centers, returning many benefits to the region and its communities. Northeast Ohio's Towpath Trail is a good example of a regional trail linking parks and nature reserves, and connecting major regional centers.

Shoreway Tunnels. Redevelopment of vacant land and brownfields along existing freeway to public space. *City Architecture*

WHY THIS IS IMPORTANT. In an urban region, availability of space for human recreation and habitat preservation is an important determinant of livability and attractiveness of place. Setting aside land for an accessible, integrated parks and natural space network is a necessary investment in the region's future. Doing so strategically maximizes the impact of the investment by layering in additional functions, such as mobility or stormwater management.

GETTING IT DONE. Controlling the disposition of future conservation land and parkland beyond the existing boundaries of the region's municipalities is an important question that no single type of entity in Northeast Ohio, public or private, is adequately positioned to manage on its own. Ownership of the initiative must ultimately come from the Cuyahoga Valley National Park, Metroparks authorities and land conservancies, though NEOSCC and regional planning partners can play an important role in convening and facilitating a regional partnership between these entities. Given the history of cooperation on parks and open space matters and the civic-mindedness of the region's land conservancies, it is not anticipated that this process of interagency collaboration would be particularly difficult.

GREEN INFRASTRUCTURE EXAMPLE: Green Alleys

In older, established urban areas and urban areas characterized by high levels of vacancy, municipalities should consider using alleys as a system to convey stormwater to neighborhood detention or infiltration basins, or to allow water to infiltrate on-site to avoid standing water or discharge into larger hydrological systems. The Cities of Chicago and Philadelphia have enacted such programs. Chicago has created over 100 green alleys in the six years of the program, and it is credited with diverting some 70 million gallons of stormwater from treatment facilities in that timeframe[102].

Municipalities in Northeast Ohio could map alleys in their area and engage water and sewer districts like the Northeast Ohio Regional Sewer District in the design and funding of green infrastructure improvements.

102 Community Health Councils, http://www.chc-inc.org/downloads/CASLA%20Alleyway%20Report.pdf

In addition to the broader regional policy coordination this initiative envisions, local governments, particularly townships and counties, should support the efforts of land conservancies and trusts by offering incentives such as tax rebates and tax abatements to landowners who agree to an easement, as well as supporting the organizations' outreach efforts.

BEST PRACTICE: Mill Creek Preserve: Located in Boardman Township, the Mill Creek Preserve consists of over 300 acres of upland and wetland habitats. Formerly the Orvets Sod Farm, the Metroparks acquired the property using grants from the Clean Ohio Conservation Fund and Wetland Resource Restoration Sponsorship Program (WRRSP). Due to its location along Mill Creek and the presence of a regionally significant 102-acre forested wetland complex, the Metroparks identified this property for acquisition in order to protect these sensitive habitats.[99]

PILOT PROJECT: Fry Farm Acquisition—Phase 1: This project provides for the acquisition of approximately 75 acres as the first phase of a three-phase acquisition for a 323-acre park. This purchase also provides for the planned Lower Middle Branch Trail, a 10-foot wide multi-use recreational trail extending north to Frank Esmont Park in Canton Township and to Monument Park in Canton.[100]

PILOT PROJECT: Cleveland Lakefront Nature Preserve:[101] an 88-acre former dredge disposal site on Lake Erie in Cleveland that has been converted into a nature preserve and recreational amenity. The site provides habitat for hundreds of species of birds, butterflies, and mammals and offers a 1.3 mile trail loop for visitors to enjoy the wildlife and views of Lake Erie and downtown Cleveland.

POTENTIAL LEAD Metroparks Authorities, Land Conservancies and Trusts; Municipalities, Townships, Counties; Councils of Governments
TARGET COMMUNITY Strategic investment areas, asset risk areas, cost risk areas
IMPLEMENTATION COMPLEXITY Moderate

99 http://www.millcreekmetroparks.org/visit/places/nature-preserves/

100 http://www.clean.ohio.gov/

101 (Dike 14) http://www.cuyahogaswcd.org/grantfunded-dike14.htm

INITIATIVE 7.2: SUPPORT AND EXPAND GREEN INFRASTRUCTURE OPTIONS FOR FLOOD CONTROL AND GENERAL WATER MANAGEMENT, BOTH AT THE LOCAL LEVEL WITH PROJECTS LIKE GREEN ALLEYS AND BIOSWALES, AND AT THE REGIONAL LEVEL WITH A NETWORK OF LARGE, UPSTREAM WATER RETENTION AREAS.

WHAT THIS MEANS. The science and design of green infrastructure—i.e. infrastructure that uses softer landscape strategies rather than traditional hardscape—has advanced appreciably in recent years. Engineers, ecologists, and landscape architects alike recognize that heavily engineered stormwater conveyance systems destroy delicate stream ecologies, remove valuable soil through erosion, and flush toxins into larger hydrological systems—all of which make communities more vulnerable to natural disaster. Professionals in these fields have settled on best management practices (BMPs) such as rain gardens, detention ponds, bioswales, and daylit streams as part of a more decentralized, ecological approach to managing water, especially during heavy rain events.

Vacant and abandoned land could provide Northeast Ohio communities with a supply of sites on which to develop green infrastructure. Depending on their scale and position in the watershed, vacant urban lands could be reprogrammed to capture and filter stormwater on site, preventing it from entering streams or pipes in the first instance. Or, such land could be designed to detain stormwater runoff after major events, potentially cleaning and then gradually releasing the water into the stream to alleviate pressure on the system.

WHY THIS IS IMPORTANT. Green infrastructure represents a more cost-effective control method for stormwater that reduces stress on the region's valuable waterways.

Curb cuts allow stormwater to flow into the central planting area in this parking lot in Cleveland Heights *City Architecture*

Restored falls on the Chagrin River, Chagrin, OH *City Architecture*

Collinwood Recreation Center Bio retention basin *City Architecture*

GETTING IT DONE. Local jurisdictions, in cooperation with land banks, should lead the way on introducing green infrastructure to suitable vacant land in downstream communities, as well as using more of porous pavement and implementing bioswale water conveyance treatments. At a regional scale, Metroparks authorities, land conservancies, and Soil and Water Conservation Districts should collaborate on identifying and developing a network of water retention areas.

POLICY: Adopt a green infrastructure approach to open space, habitat and water resources: The region can benefit in multiple ways by aligning open space, habitat and water resource programs to serve, where effective, as green infrastructure. Green infrastructure allows the integration of inter-related programs such as natural resources management, mapping, parks conservation, floodplain management and planning. It also requires an assessment of the full range of economic value and costs related to land conservation.

BEST PRACTICE: Combined Sewer Overflow mitigation:[103] The Northeast Ohio Regional Sewer District plans to spend $42 million over the next several years on neighborhood "green infrastructure" projects aimed at reducing flooding and the discharge of untreated waste.

PILOT PROJECT: Green Street Project:[104] Project that aims to beautify residential neighborhoods while reducing run-off from stormwater; program also incentivizes residents to utilize sustainable solutions as residents who adapt the practices receive a discount on their NEORSD stormwater utility fee.

POTENTIAL LEAD Metroparks Authorities, Land Conservancies and Trusts; Municipalities, Townships, Counties; Soil and Water Conservation Districts
TARGET COMMUNITY Strategic investment areas, asset risk areas, cost risk areas
IMPLEMENTATION COMPLEXITY Moderate

103 http://www.neorsd.org/cso.php

104 http://www.cleveland.com/insideout/index.ssf/2013/07/free_rain_barrels_gardens_prog.html#incart_river#incart_m-rpt-2

INITIATIVE 7.3: IMPROVE REGIONAL QUALITY OF LIFE AND HEALTH BY FOCUSING ON THE INTERFACE BETWEEN NATURAL AND HUMAN SYSTEMS IN THE AREAS OF FLOOD MITIGATION, STORMWATER RUN-OFF, AND CLEAN BEACHES AND THE WATER QUALITY OF OUR LAKES, RIVERS, AND STREAMS.

WHAT THIS MEANS. The quality and cleanliness of the region's water resources are shaped by interactions between human and natural systems. At the center of this dynamic are engineered and natural forms of hydrography. Engineered hydrography consists of sewers, culverts, ditches, levies, dams, and the "softer" treatments advocated in 7.2; natural hydrography consists of creeks, streams, rivers, lakes, ponds and reservoirs—any natural path taken by water. As watersheds urbanize, engineered hydrography replaces natural systems, putting increased stress on remaining natural hydrographic features. The effects of such stress can be observed in bank erosion, deep channelization, and increased pollutant loads in streams and rivers, which have downstream consequences for larger aquatic systems such as Lake Erie.

In recent years, engineers, landscape architects, and planners have realized the extent of damage wrought by previous generations of practice and explored new stormwater management strategies at a variety of scales. Strategies are policy-based, such as enacting stricter floodplain regulations, as well as project-based, such as installation of bioswales and rain gardens.

WHY THIS IS IMPORTANT. Engineered systems do not so much "control" natural systems as redirect their energy, to either positive or negative effect. The harmful effects of previous generations of engineered hydrography on natural systems have already been covered, but with an increasingly volatile climate, their core intended function of "protecting" communities will be pushed to and beyond the point of failure. New infrastructural strategies for managing and cleansing stormwater, as well as understandings of failure risk, are needed to better protect lives and property in a climate-uncertain future. These strategies should be based on designing infrastructure that more closely mimic natural hydrographic function, and using policy to define a safe relational distance for development.

GETTING IT DONE. This is a multi-faceted initiative, involving action at numerous scales: regional, watershed, and site. NEOSCC and its consortium partners should take lead by engaging the region's soil and water conservation districts, sanitary districts, the Cuyahoga Valley National Park and the region's Metroparks to survey existing practice and develop a suite of water management strategies and tools applicable to the region's watersheds. Several entities in Northeast Ohio already have a strong start on this; by facilitating networking and knowledge exchange, best practices can be scaled regionally.

BEST PRACTICE: Stark County Storm Water Management Program:[105] A consortium established by the Stark County Regional Planning Commission was created to map stormwater features in the urbanized area in Stark County, Ohio. This concept was mandated by the Ohio EPA and falls under the NPDES Phase II regulations.

TOOL: Stark County Water Quality Protection Toolkit:[106] The Nimishillen Creek Watershed lies almost entirely in Stark County. The Stark County Planning Commission used this watershed as a model and organized data to create a water quality protection toolkit. The toolkit is divided into five sections. The first four sections address current sources of pollution: stormwater runoff and flooding, agricultural runoff, failing home sewage treatment systems and acid mine drainage. The last section addresses how to prevent future sources of pollution. In each section, possible solutions are suggested along with information regarding funding sources and implementation for each solution.

PILOT PROJECT: Lakewood Lakefront Open Space Project:[107] The project consists of the acquisition of approximately one acre of beach area on Lake Erie. In addition to public access the project provides for the introduction of appropriate native plantings; creates habitat; prevents erosion; and completes an aesthetically pleasing resource.

POTENTIAL LEAD

Metroparks Authorities, Land Conservancies and Trusts; Municipalities, Townships, Counties; Councils of Governments

TARGET COMMUNITY

Strategic investment areas, asset risk areas, cost risk areas

IMPLEMENTATION COMPLEXITY

Moderate

105 http://www.co.stark.oh.us/internet/docs/rpc/Storm%20Water%2009-14.pdf

106 http://www.co.stark.oh.us/internet/HOME.DisplayPage?v_page=rpc

107 http://development.ohio.gov/cleanohio/

INITIATIVE 7.4: STRENGTHEN AND EXPAND WATERSHED PARTNERSHIPS THAT FOSTER COMMUNICATION AND COLLABORATION BETWEEN UPSTREAM AND DOWNSTREAM COMMUNITIES ACROSS ALL NORTHEAST OHIO WATERSHED GEOGRAPHIES.

WHAT THIS MEANS. Watershed partnerships are collaborations of municipal jurisdictions, parks authorities, soil and water districts, and, occasionally, community groups whose boundaries fall within the same watershed. Often advised by scientific experts and environmental advocacy organizations, watershed partnerships are vehicles for promoting good policy and intergovernmental cooperation on stormwater management, stream restoration, and flood control.[108] The model developed as a result of U.S. and state EPA mandates to control nonpoint source pollution and erosion, which specified that such partnerships would be formed to aid in development of "Watershed Action Plans" to guide individual stakeholders' remediation efforts. The success of the mandatory watershed partnerships has inspired the formation of voluntary partnerships in the region and throughout the country.

There is a wide range of programmatic scopes for watershed partnerships. Any partnership formed in response to EPA mandates must carry out certain activities related to implementation of a watershed action plan, typically regulatory action at the level of the individual jurisdiction. Most partnerships also provide educational programming for local primary and secondary school students, as well as technical assistance and advisory services to members of the partnership. Some partnerships assist members with grant applications for projects, employing a partnership-based vetting project to advance the strongest projects to the competition. Operations are typically supported by a mix of member contributions and grants from state and federal supporting agencies. A much smaller number of partnerships have more robust funding requirements and standards, such as proportional allocation of membership fee by land area or population.

Northeast Ohio is fortunate to have a robust network of watershed partnerships, some of which are doing national practice-leading work. Chagrin River Watershed Partners is an example of note. Like many other regional watershed partnerships, Chagrin was formed in response to a regulatory requirement. It proved to be a highly effective collaboration, and its members decided to incorporate it as a non-profit organization. With a budget derived from membership fees and voluntary contributions—making it a unique case and example for the growth of other Northeast Ohio watershed partnerships—Chagrin River Watershed Partners has been able to successfully mature into a trusted resource for its 37 members, which include municipalities, townships, and parks authorities in Cuyahoga, Geauga, Lake, and Portage Counties.[109] In addition to convening stakeholders and providing technical assistance, it is empowered to provide subsidies and other financial incentives within the scope of its portfolio of restoration and retrofit projects.

WHY THIS IS IMPORTANT. Because outcomes associated with good ecosystem management generally manifest over a longer term than can be felt in municipal political and budget cycles, they are usually subordinated to more immediate concerns. The effects of deferring action compound over time and eventually cost communities dearly. Cooperation with other jurisdictions on issues that cross boundaries is a winning proposition, as it spreads the costs of action across a larger resource base and allows focus on projects with maximum benefit to the functioning of a large-scale system. This is the essential logic for watershed partnerships, the most effective of which have developed scientifically-informed strategies for policies and physical improvements to watershed systems.

The case of Chagrin River Watershed Partners illustrates the value of cooperation and pooling of resources to tackle common problems at the watershed scale. When the partnership first convened in 1996, it began with a data-gathering and research process to understand the spatial distribution of stress areas within the watershed. This contributed to development of a common base of knowledge on which the partners could generate and evaluate options for physical and policy improvements within the watershed. The final Watershed Action Plan contained a section identifying most impactful and suitable areas for implementation of stormwater best management practices (BMPs); the partners worked in subsequent years to steadily implement treatments in these areas. In 2006, the partners convened again to create a Balanced Growth Plan for the watershed. The final plan, passed in 2009, contained a new tier of goals and recommended actions for the partners that moved beyond riparian-based interventions to more general matters of land use policy and urban design.[110]

GETTING IT DONE. Watershed partnerships should be considered an integral step in the effort to preserve the region's water quality for future generations. Presently, 12 watershed partnerships are active in Northeast Ohio, mostly covering drainage basins to Lake Erie (though a few notable gaps in this network exist, namely in Ashtabula County); fewer watershed partnerships in parts of the region south of the Lake Erie drainage basin. Partnerships should be formed in all of the region's watersheds. For areas where a watershed partnership currently does not exist, efforts to form a partnership could be led by Areawide Planning Agencies like NOACA, Eastgate, and NEFCO, or by local county officials in collaboration with municipal and township officials. NEFCO already sponsors a full-time watershed coordinator for the Upper Tuscarawas and Middle Cuyahoga River Watersheds. All partnerships, new or existing, should consider engagement of land conservancies, land banks, and other organizations involved in land preservation a top priority. Partnerships should also directly engage community and neighborhood groups should also be engaged directly in the work of watershed partnerships, if they are not already. Doing this creates a network for voluntary action at the scale of the individual homeowner that can augment the positive stormwater management impacts of traditional riparian-based interventions.

POTENTIAL LEAD Watershed Partnerships; Soil and Water Conservation Districts; Metropolitan Planning Organizations, Councils of Governments; Municipalities, Townships, Counties
TARGET COMMUNITY Strategic investment areas, asset risk areas, cost risk areas
IMPLEMENTATION COMPLEXITY Moderate

108 Ohio Department of Natural Resources, https://www.dnr.state.oh.us/tabid/9192/Default.aspx

109 Chagrin River Watershed Partners, http://www.crwp.org/

110 Chagrin River Watershed Balanced Growth Plan, http://www.crwp.org/files/ChagrinRiverBGPlan_20091210.pdf

INITIATIVE 7.5: EXPAND COLLABORATION BETWEEN EXISTING NATURAL RESOURCE DISTRICTS AND CONSIDER THE CREATION OF NEW DISTRICTS WHERE APPROPRIATE.

WHAT THIS MEANS. Ohio, like many states, mandates a county-based network of soil and water conservation districts to comply with federal requirements.[111] These districts are charged with advising local governments and landowners on best conservation practices as well as implementing various control infrastructures. While soil and water conservation districts are constituted to serve both urban and rural areas, the expertise and operational range of such districts are generally oriented more toward agriculture. Furthermore, as the geography of soil and water districts follows political (county) boundaries, management values applied for the benefit of one group of stakeholders may carry negative consequences for downstream stakeholders, or result in contradictory system outcomes. Some of the pitfalls associated with fragmented ecosystem management are discussed in 7.4.

The wording of this initiative suggests two alternative paths. One is to orchestrate collaborations between existing soil and water conservation districts on ecosystem-scale issues, either through a watershed partnership, regional councils of government, or a new collaborative structure. Another is to formalize the watershed scale of ecosystem management into a new kind of natural resource management district, potentially replacing existing soil and water conservation districts. Nebraska's Natural Resource District (NRD) system provides a good model in this respect. NRDs are legal subdivisions of the State of the Nebraska that replace the county-based soil and water districts prevalent in many states, and are charged with managing watersheds (including flood control), conserving soil resources, promoting best land management practices for farmers and ranchers, protecting critical habitat, and developing and maintaining local recreational areas and trail systems. They are organized around the state's major drainage basins, so the scope of their programming and services effectively span human and ecological systems, and urban and rural contexts.[112] A statewide association of NRDs helps to bind the system into a single community of practice, where best practices and knowledge are freely exchanged and serve to improve the programming and effectiveness of all NRDs.

WHY THIS IS IMPORTANT. Natural resources are products of highly dynamic systems playing out in multiple media (water, air, soil). It follows that natural resource management must be appropriately scaled and scoped to address issues playing out everywhere from the individual site to the watershed or air shed. The existing framework for natural resource protection and management stems largely unchanged from the New Deal era, itself a response to disastrous environmental management practices. With 21st-century problems such as climate uncertainty and increasing incidence of severe weather events, solutions will not present themselves as long as management entities remain organizationally siloed from one another, and with the costs and benefits of action unevenly distributed between them. Reconsidering the spatial and institutional scope of natural resource management functions and services is an appropriate, and arguably necessary, step.

GETTING IT DONE. This initiative ultimately envisions a substantial reorganization of the existing jurisdictional framework in which natural resource management occurs in Northeast Ohio. The watershed partnership model discussed in 7.4 represents a useful direction for the framework to evolve. NEOSCC and regional planning partners could catalyze this by convening a working group of regional Metroparks authorities, soil and water conservation districts, and other jurisdictional entities involved in the existing network of watershed partnerships. This group could explore the barriers and prospective benefits of reorganizing natural resource management districts in the region, appraise the record of watershed partnerships, perhaps with the support of local and state universities, and evaluate the feasibility of formalizing these partnerships into jurisdictional entities—possibly consolidating one or more existing jurisdictional entities.

Pursuing this initiative to its logical end will likely necessitate legislative action at the state level, local and regional referendums, and extensive negotiations among governments and jurisdictional units—making it one of the most difficult initiatives to implement. Should the will to pursue this initiative to its full conclusion not materialize, the exploration process proposed above could evolve instead into voluntary interagency agreements or a regional compact to work collaboratively toward achieving regional natural resource conservation goals.

POTENTIAL LEAD Municipalities, Townships, Counties; Soil and Water Conservation Districts
TARGET COMMUNITY Strategic investment areas, asset risk areas, cost risk areas
IMPLEMENTATION COMPLEXITY High

111 Ohio DNR Soil and Water Conservation District, http://www.dnr.state.oh.us/tabid/9093/Default.aspx

112 Nebraska Association of Resources Districts, http://nrdnet.org/

INITIATIVE 7.6: DEVELOP AND MAINTAIN A NATURAL RESOURCES INVENTORY OF THE REGION.

WHAT THIS MEANS. Natural Resource Inventories (NRIs) have emerged in recent years as best practice in environmental management. A NRI is an objective index of natural features that often spans geology, soil, water, plant communities, animal habitats, and human infrastructure. Ideally, the NRI is assembled through a process of stakeholder-driven discovery, whereby professionals work with communities in a process of collecting, integrating, and interpreting environmental data from a number of sources. Base data typically come from federal agencies like the United States Geological Survey, and sometimes from state and local sources—though the quality and quantity of such data vary widely.

The best NRIs comprise at least two phases: an initial data collection and integration effort, followed by analysis of datasets and ideally field surveys. Field surveys are an important means of verifying the validity of generalized land cover and habitat data, which are derived from satellite imagery at a coarser geographic scale than what is ideal, particularly to inform any future policy. They also enrich understanding of the distribution of ecological process and function across the landscape, a major factor in adjudicating the value of a particular landscape, and thus its suitability for different uses or states.

Whereas the initial data collection can often be performed handily by a MPO or COG, county or city, or other entity with basic geographic information system (GIS) facilities, the analysis and field verification work must be performed by technical experts. The Mid America Regional Council (MARC), Kansas City's MPO and COG, pioneered a best practice in natural resource inventories through a partnership with local consulting firms that sought to build internal capacity and longer-term monitoring and management systems within MARC. MARC has since used the results of the NRI to educate and empower its member jurisdictions on environmental planning and stewardship issues.

WHY THIS IS IMPORTANT. Identifying significant natural resources and features—and impacting forces—is the first step in being able to effectively preserve them. The NRI approach provides a rich factual base on which to build a conversation about the ecological value of landscapes, and to develop rules to protect that value from diminishment. This conversation is not an easy one to have, but it is necessary. When done well, the process of developing a NRI can serve the important function of building relationships and trust between stakeholders so cooperation and joint action can occur, particularly important when natural features and resources cross jurisdictional boundaries. In the case of Kansas City, the process creating the NRI-built institutional relationships and collaborations that made it possible to form new watershed partnerships and action plans for green infrastructure, stormwater management, and parks/open space management. One such partnership emerging from the Kansas City NRI, the Blue River Partnership, has evolved into its own interlocal agreement sharing costs in the implementation of watershed stabilization treatments.[113]

GETTING IT DONE. Fortunately, the Northeast Ohio region already has a solid foundation for a full natural resource inventory through datasets developed to inform the scenario planning work of Vibrant NEO 2040. This includes detailed land use and land cover maps, and ecological value indices developed from U.S. Geological Survey data. Additionally, the region's several watershed partnerships, universities, and land trusts and conservancies possess high-quality, finely resolved datasets. The challenge will be in integrating these various source of data and engaging the interests of the parties charged with developing and maintaining environmental data on the region.

This initiative should be led by NEOSCC's consortium members, particularly the region's MPOs and COGs. NEOSCC can invite and convene partners in the inventory effort, utilizing its non-profit status to build good process and multi-stakeholder trust in the use of data. Partners invited into a NRI should include: soil and water conservation districts, Metroparks and other parks districts, sewer districts, watershed partnerships, planning departments and commissions, the US Army Corps of Engineers, the Cuyahoga Valley National Park, and state and federal EPAs. The U.S. EPA has supported natural resource inventories in the past through grants and technical assistance; the Ohio Department of Natural Resources is also a source of potential support for development of a natural resource inventory.

POTENTIAL LEAD

Metropolitan Planning Organizations, Councils of Governments; Universities; Nonprofit Organizations

TARGET COMMUNITY

Strategic investment areas, asset risk areas, cost risk areas

IMPLEMENTATION COMPLEXITY

Moderate

113 MARC Natural Resources Inventory, http://www.marc.org/Environment/Smart_Growth/NRI/index.htm

RECOMMENDATION 8: SUPPORT SUSTAINABLE AGRICULTURE AND THE LOCAL FOOD SYSTEM IN NORTHEAST OHIO

Urban agriculture has enjoyed a surge in popularity in recent years, as restaurateurs, public policy experts, and planners alike have become aware of the transformative potential and value of local food systems to community development. The U.S. Department of Agriculture estimated that local food systems accounted for over $1.2 billion in direct-to-consumer sales of agricultural produce in 2007 alone, with ample room for growth.[114] While this is a fraction of overall sales of agricultural products, the federal government and numerous state and local governments see a host of benefits in encouraging urban agriculture and local food systems, from increased food security to reduced transportation costs and emissions and opportunities for community-building.

Cleveland was an early adopter of the urban agriculture movement and the importance of investing in a local food system. Several Northeast Ohio counties and communities have followed suit. The region should continue to support the emerging local foods movement through amendments to zoning codes, procurement policies, and direct and indirect financial incentives. Initiatives focused on the reuse of vacant land should actively incorporate urban agriculture and local foods in the conversation. The following initiatives should be considered by the region as it works to strengthen and expand the region's already vibrant local foods movement:

INITIATIVE 8.1: SUPPORT THE EXPANSION OF COMMUNITY SUPPORTED AGRICULTURE (CSAS), FARMER COOPERATIVES, FARM-TO-SCHOOL PROGRAMS, AND OTHER EXISTING MECHANISMS THAT SUPPORT SUSTAINABLE AGRICULTURE AND ENHANCE FOOD ACCESS.

WHAT THIS MEANS. The entrepreneurial ecosystem around the local foods movement is expanding steadily. It includes a diverse range of actors: community supported agriculture (CSA) cooperatives, incubators, research extensions, farmers markets, and many others. Many cities and towns throughout the country and Northeast Ohio have moved in recent years to establish farmers markets and amend zoning laws to allow for orchards, crops, and in some cases small-scale livestock. Fewer, however, have invested in the intermediate segments of the local food supply chain, where the most value is added. Such investments have included:

- Granting vacant or abandoned municipal- or land bank-owned buildings and land to local cooperatives or CSAs for sorting, processing, and/or distribution of produce
- Allocating community development block grant (CDBG) and other economic development funding to startup farms and food processing enterprises
- Amending procurement standards and policies to privilege locally-sourced foods

Farm-to-School programs are a good example of intentional efforts to build linkages between a local foods industry and institutions, resulting in a host of benefits to all parties involved. The Ohio State University extension service maintains a resource for farm-to-school initiatives throughout the state. Several Northeast Ohio community school districts, including the Cleveland Metropolitan School District, have inaugurated farm-to-school programs using state-level resources and programs such as that offered by the OSU Extension.[115]

Ohio City Farm *City Architecture*

WHY THIS IS IMPORTANT. The local foods movement should no longer be viewed as a fad, but as an important economic and community development paradigm. Investing in networks of local producers, processors, and consumers builds individual wealth through new opportunities, activates vacant and underutilized space, connects communities, and keeps value within the region.

GETTING IT DONE. This initiative is relatively easy to implement, as there are a many ways that various public entities can support the local foods system. Local governments, land banks, and school districts should lead the way in this effort given their ability to financially support local producers and processors through amended zoning regulations, procurement standards, building and land cleanup and acquisition. Entities participating in vacant land inventories and evaluation efforts proposed above (3.1 and 3.4), especially local governments and land banks, should consider the needs of local food producers and processors and encourage their participation in those processes.

BEST PRACTICE: Rid-All Green Partnership[116] has turned an empty and forgotten piece of land in Cleveland's Kinsman neighborhood into an urban farm where they grow produce to bring healthy, local food to area institutions and citizens and train others on this work. They have two greenhouses and four hoop houses in Cleveland's Forgotten Triangle. The Rid-All Farm harvests 150 to 200 pounds of vegetables a week that's distributed to local restaurants, institutions and consumers.

114 USDA Economic Research Service, http://www.ers.usda.gov/publications/err-economic-research-report/err97.aspx#.UjzGRMashcY

115 Ohio State University Extension, http://farmtoschool.osu.edu/content/overview.htm

116 http://www.greennghetto.org/

TOOL: The 30 Mile Meal:[117] Wondering where to find local peaches or lamb? Or a restaurant that serves great food and supports local farmers? The 30 Mile Meal™ celebrates and promotes those producing, selling and serving local foods within a 30-mile radius of Athens, Ohio. The 30 Mile Meal provides a shared identity for their many farmers, specialty food producers, farmers and retail markets, food events, and independently-owned eateries and bars featuring locally sourced menus. The 30 Mile Meal Project is a collaboration of the Athens County Convention and Visitors Bureau, the Appalachian Center for Economic Networks (ACEnet) and 130 local food partners.

PILOT PROJECT: The Oberlin Project local food system strategy:[118] The growth of local food systems includes a comprehensive plan to increase local food processing and distribution, utilize waste as an input to local agriculture and promote urban agriculture. The Oberlin Project has organized a network of local farmers who are exploring new production techniques that store large amounts of carbon in soil and plant biomass. This provides a promising solution to climate change, offsetting the carbon releases of the community through investments in farms in the surrounding area. Local Food Systems development in the greater Oberlin area will unfold through a four-step process that includes: assessment, investment, capacity, and replication.

POTENTIAL LEAD Municipalities, Townships, Counties; Land Banks; Nonprofit Organizations; School Districts
TARGET COMMUNITY Strategic investment areas, asset risk areas, cost risk areas
IMPLEMENTATION COMPLEXITY Low

117 http://www.athensohio.com/30mile/

118 http://www.oberlinproject.org/local-foods

INITIATIVE 8.2: PARTNER WITH INDIVIDUAL LANDOWNERS, THE FOOD PROCESSING INDUSTRY, AND LOCAL ORGANIZATIONS TO PROTECT AGRICULTURALLY VALUABLE LAND FOR FUTURE GENERATIONS.

WHAT THIS MEANS. Agricultural land is a precious resource that is diminished by exurban growth and development. The farm crisis of the 1980s inaugurated a several-decade decline in the economic prospects of smaller family-owned farms, with many families choosing to exit the business entirely and sell their properties. This trend intersected with structural shifts in the American workforce to produce a period of rapid sprawl. Though the pace of suburban building has slowed in the aftermath of the 2008 recession and the price of agricultural land is at an all-time high (as of 2013), the structural conditions of declining family farms remain the same, and promises only to worsen in coming years.

Many regions and local governments have recognized this dynamic and partnered with a constellation of actors to facilitate the transition in farm ownership from kinship-based models to new generations of producers and processors. Several of Ohio's peer states, notably Minnesota, are leading national practice in this regard. Minnesota's program engages the considerable knowledge and resources of the University of Minnesota, offering a host of resources from networking events and initiatives between experienced and emerging young farmers to estate planning and legal consulting services.[119]

In addition to providing support for farm transition planning, mechanisms are needed to hold agricultural land in easement. Agricultural land trusts and conservancies have taken shape in several states to meet this need. The first agricultural land trust, in Marin County, California, was established in 1980 in response to a rapid urbanization scheme proposed for the coastal area of this Bay Area county. It has succeeded in preserving nearly 50,000 acres of farmland, contributing greatly to the scope and scale of the region's food shed. The model has also been successfully applied to ranchers and commodity producers—Colorado Cattlemen's Agricultural Land Trust, founded in 1995, has preserved over 417,928 acres throughout the State of Colorado, for instance.

119 University of Minnesota Ag Transitions Program https://www.agtransitions.umn.edu/

Less common, and a potential area for Northeast Ohio to innovate in this sector, is employing agricultural easements to convert former commodity farm operations into produce (fruit and vegetable) cultivation.

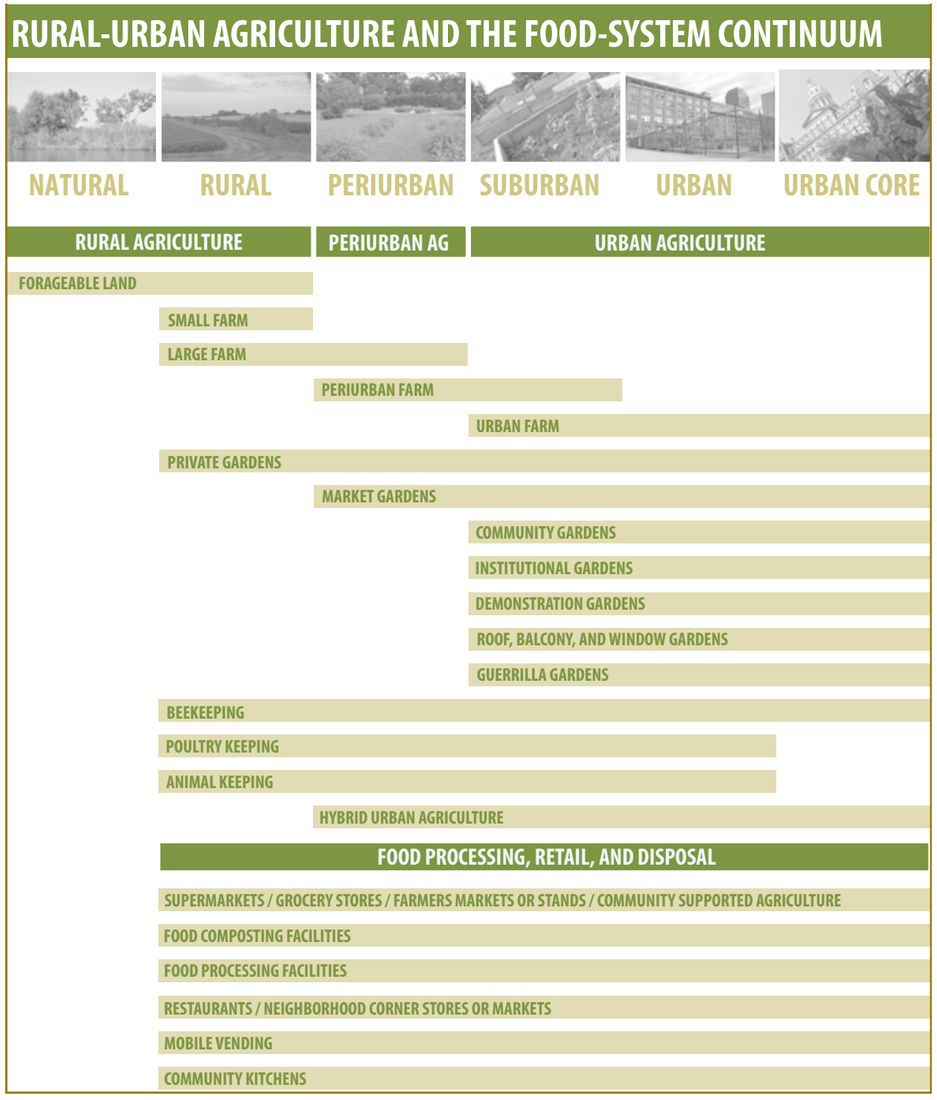
WHY THIS IS IMPORTANT. While the dominant model of agricultural land succession is in decline, the demand and need for food, particularly locally-cultivated food, is ever-rising. There is no shortage of willing entrants to the market, but both they and prospective sellers are hampered by the absence of mechanisms facilitating and supporting transactions. This is a problem of market organization, and if regions are to secure valuable agricultural lands and their productive capacity for the future, something must be done about it.

GETTING IT DONE. Northeast Ohio's land conservancies are already working to preserving agricultural land, but ensuring continued and successful agricultural use is not in their core skill set, nor should it necessarily be. The region should consider formation of an agricultural land trust, either as an independent entity or as a subsidiary of an existing land trust, whose dedicated mission is to preserve agricultural land for the next generation(s). In addition to using the standard tool of easements to preserve land, this entity could play a valuable role in intergenerational networking between farmers, especially with the surge of interest in local foods.

Leadership of this initiative is an issue. While the State of Ohio does have a farm preservation program currently active, it is modestly funded and grants much latitude to counties on screening candidate farmsteads. A more robust private, non-profit, or university-based entity is probably best positioned to lead exploratory efforts, with soil and water conservation districts playing an advisory role. Local philanthropic foundations should be engaged in this, as it bears directly on a whole way of life and a vital aspect of the region's character and economy, as well as the State of Ohio.

TOOL: Agricultural Easement Purchase Program:[120] A permanent deed restriction, placed on a parcel or several parcels of active agricultural land. The deed restricts that use of the land for agriculture only, in perpetuity.

120 http://www.cvcountryside.org/farmland/neo-farmland-preservation-land-preservation.php



The Funder's Network for Smart Growth and Livable Communities, "Investing in Healthy, Sustainable Places through Urban Agriculture," July 2011. p.2. Accessed at http://www.fundersnetwork.org/files/learn/Investing_in_Urban_Agriculture_Final_110713.pdf

TOOL: Agricultural Security Areas:[121] An Agricultural Security Area is a 10-year agreement between farmer, County Commissioners, and Township Trustees to not initiate any non-farm development for a period of 10 years. ASA's must be at least 500 contiguous acres and therefore may require neighbors applying together. The benefits of placing a farm in an ASA are a guaranteed 10-year no-build period, plus some may be eligible for tax abatement on new construction of farm buildings. In most counties, either the Planning Department or the Soil and Water Conservation District are responsible for the application process.

POTENTIAL LEAD

Land Conservancies; Nonprofit Organizations; Ohio State University Extension, Universities; Soil and Water Conservation Districts

TARGET COMMUNITY

Cost risk areas

IMPLEMENTATION COMPLEXITY

Moderate

121 http://www.agri.ohio.gov/divs/FarmLand/Farm_ASA.aspx

INITIATIVE 8.3: REVIEW AND AMEND LOCAL ORDINANCES TO ALLOW FOR SMALL- AND MODERATE-SCALE URBAN FARMING ON OCCUPIED AND VACANT PARCELS THAT ARE ENVIRONMENTALLY SAFE FOR GROWING FOOD.

WHAT THIS MEANS. Zoning and land use are significant, yet easily changed, barriers to urban farming and growth of the local food system. Many municipalities ban certain agricultural uses on urban land outright, while others restrict eligible agriculture uses to personal gardens. In recent years, municipalities in Ohio and elsewhere have adopted amendments to local zoning to remove barriers, and in some cases encourage, urban farming. The cities of Cleveland and Youngstown have addressed urban agriculture by substantially revising their zoning codes. Some strategies for modifying zoning include:

- Creation of a dedicated urban agriculture zoning class within municipal code
- Creation of an urban agriculture overlay district for application to larger sections of the city
- Revision of existing discrete zoning classes where urban agriculture could be permitted[122]

Municipalities in peer regions have largely opted to go with the latter strategy. Chicago adopted a citywide ordinance that amended zoning to allow a specified range of urban agricultural uses by right in certain zoning classes, while reserving others for special permits and prohibiting some outright[123]. Pittsburgh's approach is similar, though it is simplified through establishment of three primary use categories and three accessory use categories and less accommodating of animal/livestock cultivation.[124]

WHY THIS IS IMPORTANT. Northeast Ohio communities with a high volume of vacant land should pay particular attention to how their zoning codes impact urban agriculture activities, and be proactive in creating zoning that encourages urban agriculture. Doing so would transition vacant land back into productive use, generating needed economic activity and accompanying revenue.

GETTING IT DONE. This initiative must be led by local jurisdictions, particularly municipalities. NEOSCC and regional planning partners, particularly COGs and Food Policy Councils, can research and provide syntheses of best practices on zoning that is friendly to urban farming, but the process of changing zoning and land use controls rests squarely with local jurisdictions, particularly municipalities. Municipalities throughout Northeast Ohio should review their zoning codes to determine the degree to which existing code impedes agricultural uses, consider the range of such uses that are appropriate to their community, and devise strategies for making their codes friendlier to those uses.

Municipalities should consider collaborating with local land banks and agricultural extensions to identify vacant parcels suitable for multiple scales of farming, and consider the needs of urban agriculture while engaging in the vacant land inventories proposed in 3.1 and 3.4. They should also consult with urban farmers on their needs and desires, and leverage agricultural and environmental expertise to ensure that parcels unsafe for food cultivation are either remediated or barred from use.

POLICY: Support integrating food system elements into urban, rural, and regional economic development plans: Incorporating food issues into economic development analyses and plans assures that the important economic contributions that the food sector makes to communities and regions are preserved and enhanced.

TOOL: Urban Agriculture Zoning Code:[125] Urban agriculture is the practice of cultivating, processing, and distributing food in or around a village, town, or city. The City of Youngstown recently updated their zoning code and a section is dedicated to urban agriculture (i.e. Chapter 1102.02 (t)).

PILOT PROJECT: Cleveland Urban Agriculture Incubator Pilot Project:[126] Six acres of land at East 83rd and Gill, donated from the City Land Bank, will be turned into a farm, due to $100,000 grants from the Ohio Department of Agriculture and the City of Cleveland, and $740,000 from the Ohio State University Extension, via the U.S. Department of Agriculture. The goals of the incubator are to promote entrepreneurship and access to fresh produce in an area that sorely needs both. If successful, the model will be replicated in other neighborhoods.

Urban agriculture in Cleveland: Chateau Hough *City Architecture*

Urban Agriculture Innovation Zone *City Architecture*

POTENTIAL LEAD	Municipalities, Townships, Counties; Councils of Governments, Food Policy Councils
TARGET COMMUNITY	Strategic investment areas, asset risk areas, cost risk areas
IMPLEMENTATION COMPLEXITY	Low

122 American Planning Association, Zoning Practice [ed March 2010] http://www.planning.org/zoningpractice/2010/pdf/mar.pdf

123 City of Chicago Urban Agriculture Ordinance, http://www.cityofchicago.org/content/dam/city/depts/zlup/Sustainable_Development/Publications/Urban_Ag_Ordinance_9-1-11.pdf

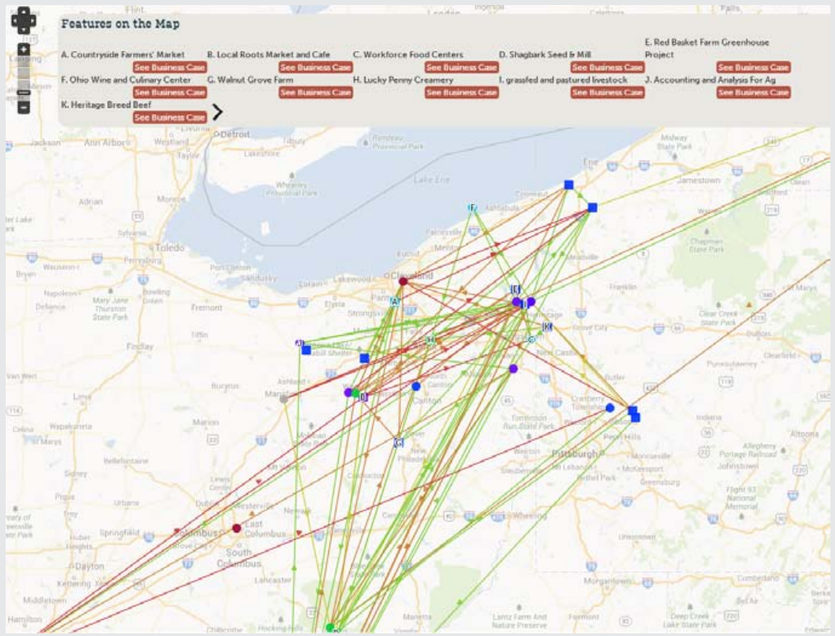
124 City of Pittsburgh, http://www.pittsburghpa.gov/dcp/files/urbanagriculture/Urban_Agriculture_Handout.pdf

125 http://www.cityofyoungstownoh.org/city_hall/departments/planning/planning.aspx

126 http://blog.cleveland.com/metro/2010/10/new_program_to_create.html

LOCAL CASE STUDY: Regional Agriculture Industry Cluster Study, OSU, Fund for Our Economic Future, Cleveland-Cuyahoga Food Policy Coalition (CCFC)

Since 2010, a partnership between Ohio State University, The Fund for Our Economic Future, and over 100 local food system stakeholders have been working on the forming an "Agriculture-Bioscience Industry Cluster," with support from the Ohio Agricultural Research and Development Center (OARDC) located in Wooster. OARDC, an affiliate of the Ohio State University, was awarded nearly $2.5 million in grant dollars to implement an online social network, LocalFoodSystems.org, to connect businesses, suppliers, and producers involved in Northeast Ohio's Local Foods value chain.[127] Both efforts aim to scale up and generate stronger backward and forward linkages for the region's fledgling local foods industry. This marks an important evolutionary moment in the conversation on Northeast Ohio's food system, as it makes the business case for investment in local foods as an economic development strategy.



Greater Cleveland, Ohio: Local food system network visualization *Local Food Systems, http://www.localfoodsystems.org/map*

127 Local Food Systems, http://www.localfoodsystems.org/

INITIATIVE 8.4: SUPPORT THE WORK OF LOCAL FOOD INITIATIVES TO SHARE BEST PRACTICES AND IDENTIFY POLICIES OF REGIONAL SIGNIFICANCE.

WHAT THIS MEANS. Robust community organization and development initiatives are taking shape nationwide around issues of food access, food security, and local foods cultivation and distribution systems. An emerging organizational form that gives expression to this is the food policy council, often a non-profit organization or coalition of interested public and private stakeholders. Such councils have been formed for everything from neighborhoods and districts to entire multi-county regions. Most of Northeast Ohio's food policy councils are formed at the county level. Six food policy councils are in existence in the region, in Cuyahoga, Lake, Lorain, Mahoning, Summit, and Trumbull counties.

Food policy councils serve a variety of roles, depending on how they are constituted and the robustness of their funding. At the most basic level, food policy councils evaluate barriers to local food cultivation and access; at their most sophisticated, they offer training and act as "chambers of commerce" for enterprises within the local food supply chain. The Cleveland-Cuyahoga Food Policy Coalition (CCFPC) is an example of one such wide-spectrum organization. Convened by a partnership of the Ohio State University Extension and Case Western Reserve University, the organization has engaged City and County officials along with multiple non-profit organizations, businesses, and active farming operations.[128]

WHY THIS IS IMPORTANT. Like other initiatives highlighted above, engaging and encouraging local food policy councils can yield a host of benefits to communities, including healthier citizens, wealth creation, and vacant land reuse. By coordinating regionally, the pace by which innovations are refined into best practices can be accelerated.

GETTING IT DONE. This initiative requires leadership from both the government and non-profit sectors. Local governments and land banks could provide funding or in-kind resources to assist with land acquisition and remediation, or with securing grants from federal and state agencies. Regional collaboration and best practices dissemination should be led by partnerships of the Ohio State University and local universities in Northeast Ohio counties, taking cue from the successful organizational structure of the Cleveland-Cuyahoga Food Policy Coalition. With Ohio State University Extension as the element of continuity, best practices could be readily shared region- and state-wide, connecting county-level food policy councils into a broader community of practice.[129]

POTENTIAL LEAD

Food Policy Councils; Ohio State University Extension, Universities; Municipalities, Townships, Counties

TARGET COMMUNITY

Strategic investment areas, asset risk areas, cost risk areas

IMPLEMENTATION COMPLEXITY

Moderate

128 Cleveland-Cuyahoga Food Policy Coalition, http://cccfoodpolicy.org/home

129 Ohio State University Extension Statewide Food Policy Network, http://glennschool.osu.edu/food/

RECOMMENDATION 9: INCREASE COLLABORATION AMONG THE REGION'S GOVERNMENT AGENCIES TO EXPAND INFORMATION SHARING AND FIND MORE COST-EFFECTIVE MEANS OF PROVIDING ESSENTIAL SERVICES

Local governments throughout the United States are facing unprecedented fiscal pressure. The housing crisis and recession of 2006-2012 negatively impacted municipal revenue, leading in many cases to a downward cycle of cut services and increased debt. Federal and state governments, a hitherto reliable source of financial aid to budget-strapped municipalities, were unable to fill the gap to the degree needed.

This condition shows no sign of abatement in the future. Most analysts forecast ever-shrinking discretionary federal spending, meaning that federal funding for urban infrastructure and service projects will be tied increasingly to performance and scale of impact. Municipalities must evaluate ways in which they can increase the efficiency with which public services and goods are delivered.

Northeast Ohio is well-positioned to develop and scale such practices. Already, some local governments in the region have become state and national practice leaders in consolidating and sharing services. The region should continue on this path by pursuing the following initiatives:

INITIATIVE 9.1: STUDY PRIVATIZATION AND PUBLIC-PRIVATE PARTNERSHIPS AS MEANS TO FUND CRITICAL INFRASTRUCTURE PROJECTS THAT CANNOT BE FUNDED SOLELY THROUGH PUBLIC DOLLARS.

WHAT THIS MEANS. Cities and counties are caught between two fiscal fires. On the one hand, the recession has led to depressed revenues; on the other, investment needs are accruing rapidly. Compounding this difficult situation is the mounting cost of planning, constructing, and maintaining physical infrastructure, acutely felt at a time when regional economies are just emerging from recession. It is not surprising that, under these circumstances, many local governments are looking to partnerships with private organization to fill financial gaps and keep cities running. The Vibrant NEO 2040 regional visioning process recommends initiatives and projects that will require significant investment and involve considerable regulatory and jurisdictional complexity.

Transportation is a sector that is particularly well suited for privately-led or public/private partnerships. Northeast Ohio is not unfamiliar with public-private partnerships, having relied on this tool to develop sports facilities and spur the redevelopment of the Euclid Corridor in Cleveland. Partnerships on a regional scale, though not found in Northeast Ohio, are to be found at the state and regional level in other parts of the country. These examples may serve as models for implementing the Vibrant NEO 2040 Vision and Framework. One such state-level model is Virginia's Office of Transportation Public-Private Partnerships. Most are at a regional or municipal scale, though, including the Denver Regional Transit District (RTD)'s FasTracks Light Rail expansion project and a proposed concession agreement between the Chicago Transit Authority and Goldman Sachs to leverage funds for needed upgrades to the Red Line elevated train.

The case of Denver's FasTracks initiative warrants particular attention. Facing a multi-billion dollar capital shortfall for its West Side light rail transit line, the RTD opted to enter into a build-operate-maintain agreement with a private consortium of funders. The agreement, which leveraged $1.3 billion of up-front private for the $2 billion project, is expected to yield returns of $4 billion over the course of the 40-year contract.

WHY THIS IS IMPORTANT. The region should consider and study options for fully or partially privatizing construction and maintenance of certain infrastructure, particularly new capital investments that are developed in follow-on planning efforts to Vibrant NEO 2040. This is not a proposition to approach lightly; major questions regarding fiscal benefit, social equity, and security are involved. Chicago's failure to perform adequate due diligence when privatizing the city's parking meters will end up costing taxpayers dearly over a long time.

GETTING IT DONE. The decision to privatize or engage in PPP on infrastructure rests with the entity (entities) having jurisdiction. The barriers to structuring a PPP are many: in determining feasibility for a private partner plus long-term costs and benefits for the jurisdiction; legal restrictions on the jurisdictional entity's contracting powers; and political (especially voter) sentiment. In the transportation sector, where PPP is most common, the Ohio Department of Transportation can assume a leading role in developing a PPP model for the state, scaling up its existing Division of Innovative Delivery to define best practices and standards.[130]

POTENTIAL LEAD
Ohio Department of Transportation; Municipalities, Townships, Counties

TARGET COMMUNITY
Strategic investment areas, asset risk areas, cost risk areas

IMPLEMENTATION COMPLEXITY
Moderate

130 http://www.dot.state.oh.us/Divisions/InnovativeDelivery/Pages/default.aspx

INITIATIVE 9.2: UTILIZE JOINT PROCUREMENT STRATEGIES AND THE SHARING OF FACILITIES, STAFF, AND OTHER RESOURCES WHEREVER POSSIBLE TO SAVE MONEY ON THE PROVISION OF PUBLIC SERVICES.

WHAT THIS MEANS. Joint procurement is an emerging best practice in public management and administration. Though its benefits may appear obvious, joint procurements are difficult to structure owing to divergent priorities and needs. Thus, transparency and communication are critical first steps in structuring effective partnerships on procurement. An equally important question is administration of a procurement process. This has been resolved a number of ways, from vesting regional councils of government (COGs) with administering procurement and contract administration on multi-jurisdictional projects, to one-off agreements between jurisdictions in which one partner agrees to manage procurement and contracting.

Fortunately, Ohio has been a pioneer in the practice of joint procurement, particularly in the transportation sector. Three of the cases featured in a recent report from the Greater Ohio Policy Center were from the Northeast Ohio region, and the Ohio Legislature's passage of HB 153 in 2011 eliminated a number of barriers to effective intergovernmental collaboration on procurement caused by state law—including a dramatic streamlining of the interlocal agreement process.[131] This is a practice ripe for scaling throughout the region.

In some cases, it may make sense to take the spirit of interlocal cooperation a step further and actually share or consolidate facilities, staff, and other assets. This can mean anything from jointly administering services or facilities through a contract to consolidating units of local government. Again, the State of Ohio has been a national practice leader in encouraging such arrangements.

The Beyond Boundaries initiative, a cabinet-level office dedicated to promoting interlocal collaboration on public service and goods provision, outlines eight priority domains for local governments to consider:

- Technology
- Education
- Administration
- Public safety/911 systems
- Economic development
- Fleet management and operations
- Health and human services
- Facilities and facilities maintenance[132]

WHY THIS IS IMPORTANT. Local governments in Northeast Ohio are faced with mounting costs of providing essential services while overall regional growth remains flat. While some communities have employed one solution to this problem—poaching commercial and industrial development from other places in the region—a far healthier solution would involve pooling resources and obligations, increasing the efficiency of government while cutting costs.

GETTING IT DONE. This initiative already has a strong source of leadership in the State of Ohio's Local Government Innovation Fund and the Beyond Boundaries program, both of which are housed at the Ohio Department of Development Services. It is incumbent upon Northeast Ohio's local governments and other jurisdictions to evaluate their obligations and explore opportunities to save on costs through sharing procurements, services, and resources. The high level of state support for sharing services, not to mention the fiscal benefits, should encourage all local governments in Northeast Ohio to act upon this promising practice.

The Consolidation of the Health Departments in Summit County[133]—In January 2011, the merger of the Summit County, Akron, and Barberton health districts took effect and became "Summit County Public Health."

PILOT PROJECT: EfficientGovNetwork:[134] Launched in 2009, EfficientGovNetwork is a competitive award and civic engagement program that encourages and accelerates government collaboration and efficiency by providing funds to local government collaboration projects as selected by the residents of Northeast Ohio. It was created, in part, as a response to the research co-sponsored by the Fund for Our Economic Future highlighting the duplicative nature of local government in Northeast Ohio and the high cost of delivering services.

POTENTIAL LEAD Municipalities, Townships, Counties; Metropolitan Planning Organizations, Councils of Governments; Ohio Department of Development Services
TARGET COMMUNITY Strategic investment areas, asset risk areas, cost risk areas
IMPLEMENTATION COMPLEXITY Low

131 Greater Ohio Policy Center, http://www.greaterohio.org/files/policy-research/county-township5-24-13final.pdf

132 Beyond Boundaries, State of Ohio, http://www.beyondboundaries.ohio.gov/index.aspx

133 http://www.kent.edu/cpph/research/upload/final-scph-report.pdf

134 http://www.efficientgovnetwork.org/

Ohio: Local Government Innovation Fund Program Participants
Ohio Development Services Agency

LOCAL BEST PRACTICES: Ohio Local Government Innovation Fund / Summit County

State-level incentives for innovation in service sharing exist in the Local Government Innovation Fund (LGIF), which provides grants and loans to communities working to deliver services and goods more efficiently.[135] The fund supports this work from the outset, providing up to $50,000 grants for feasibility studies on sharing services, and up to $500,000 loans for proposed collaborations. Trumbull County took advantage of the program to finance construction of a shared facility for winter road maintenance equipment, a move which is projected to save residents in four townships participating in the arrangement nearly $1.5 million.

Summit County has been especially active and successful in developing service-sharing agreements. The Health Departments of the cities of Akron and Barberton recently elected to merge with the Summit County Health Department. The efficiencies gained from aligning resources and regionalizing personnel assignments resulted in a near doubling of the number of health inspections performed per inspector. Additionally, Akron opted to merge its building permit department with Summit County. Several municipalities followed suit, resulting in savings estimated at $1.2 million.[136]

135 Local Government Innovation Fund, http://www.development.ohio.gov/cs/cs_localgovfund.htm

136 Beyond Boundaries, http://www.beyondboundaries.ohio.gov/index.aspx

INITIATIVE 9.3: IDENTIFY ONE OR MORE ORGANIZATIONS THAT WILL HOST AND MAINTAIN THE TECHNICAL RESOURCES CREATED BY NEOSCC SO THAT THEY WILL REMAIN CURRENT, ACCURATE, AND AVAILABLE FOR FUTURE REGIONAL VISIONING AND PLANNING.

WHAT THIS MEANS. Vibrant NEO 2040 involved extensive data collection and integration, surveys of best practices, and compilations of tools and pilot projects. Taken together with the alternative development scenarios and the indicators, the output of NEOSCC constitutes a body of valuable resources for the region as it plans its future.

Data-driven resources require maintenance, however, and maintenance requires an organizational framework and adequate financial support. Most regions that have undergone visioning processes similar to Vibrant NEO 2040 have invested their MPOs with responsibility for carrying the Vision and its products forward; several created non-profit organizational entities whose dedicated purpose was to work with stakeholders to advance the Vision's goals, including providing technical assistance and planning services. The Salt Lake City metro area's Envision Utah is the stand-out example of the latter group.[137]

WHY THIS IS IMPORTANT. NEOSCC was able to generate appreciable momentum in Northeast Ohio in regional thinking through the Vibrant NEO 2040 process. As the region proceeds with planning and implementing the Vision, it will be important for data to be maintained and refreshed so progress toward Vision goals can be measured. This need not involve high levels of methodological sophistication; the Technical Appendix contains detailed notes on data sources and instructions on how to calculate indicator statistics. What will be necessary is the computing infrastructure and data storage capacity to perform these updates

137 Envision Utah, http://www.envisionutah.org/

GETTING IT DONE. In Northeast Ohio, MPOs, COGs, and universities are the current organizations best positioned to do take over NEOSCC work products. The resources could be distributed to one (especially in the case of a university partner), or several (in the case of MPOs and COGs) of these organizations for ongoing maintenance and use, with recommendations from NEOSCC on updating methodology and on data standardization. Ideally, however, NEOSCC would be retained and formalized as an inter-governmental, cross-sectoral partnership that maintains and updates the resources created for the visioning process, and works with regional planning entities and other partners to continue standardizing regional data.

Regardless of the "ownership" structure of the data and post-visioning work, the region should consider extending the NEOSCC indicators and trends web platform into a more dynamic virtual space for sharing and interacting with data. The Boston Indicators Project, launched in 2011, is a good example of this; it has served to galvanize action across jurisdictions and sectors to work toward implementing Boston's regional vision, which was completed in 2008.[138] NEO CANDO at Case Western Reserve University could be a logical partner for developing an online mapping interface for geographic data.

POTENTIAL LEAD
Metropolitan Planning Organizations, Councils of Governments; Nonprofit Organizations; Municipalities, Townships, Counties
TARGET COMMUNITY
Strategic investment areas, asset risk areas, cost risk areas
IMPLEMENTATION COMPLEXITY
Moderate

138 Boston Indicators Project, http://www.bostonindicators.org/

INITIATIVE 9.4: ALIGN MPO/COG/ODOT TRANSPORTATION MODEL INPUTS AND CONTINUE TO COLLABORATE, SHARE INFORMATION, AND ALIGN POLICY OBJECTIVES ACROSS THE MULTIPLE REGIONAL PLANNING AGENCIES OF NORTHEAST OHIO.

WHAT THIS MEANS. The planning area in Vibrant NEO 2040 encompasses four transportation management areas (TMAs) served by four metropolitan planning organizations (MPOs). MPOs are federally-designated regional transportation planning entities charged with modeling transportation system performance and travel demand, maintaining a long range transportation plan for their TMA, and administering a Transportation Improvement Program through which federal transportation dollars flow to transportation project. Given the scope of MPOs' duties, aligning transportation models, information systems, and policy objectives between these organizations is an important administrative step in making progress toward the region's Vision.

In other urban regions with several MPOs, an overarching coordination entity may exist to help align MPO's modeling and planning efforts. The seven-MPO West Central Florida MPOs Chairs Coordinating Committee (CCC) in the Tampa Bay and central Gulf coast region is composed of the board chairpersons of each of its constituent MPOs, with non-voting advisory representation from Florida Department of Transportation district secretaries, the area's regional planning councils, and a non-governmental business-led transportation authority in the Tampa Bay area. The Committee develops a unified long-range transportation plan that helps to guide the updates of federally-endorsed long-range plans of member MPOs, organizes a regional congestion management system, and coordinates between member MPOs on major investment studies and project programming.[139]

139 West Central Florida Chairs Coordinating Committee, http://www.regionaltransportation.org

WHY THIS IS IMPORTANT. Today, there is not a formal overarching framework of coordination between Northeast Ohio's MPOs. The multiple MPOs of the region may currently update long-range transportation models, plans, and transportation improvement programs on different cycles, may define differing selection criteria for projects to be included in the plans and programmed for funding, and may focus public outreach and comment on purely local issues due to their limited geographic scope. This may result in missed opportunities for combining efforts, programming projects, and developing policies that seek to achieve common objectives. It may also lead to major project investments that fail to yield the benefits and outcomes projected of them because they are not coordinated with other investments throughout the region and thus do not fully achieve their intended potential utility. Both of these in turn may hinder Northeast Ohio's efforts at economic growth and development in the long term, especially as the region begins to draw on its collective strengths in keeping itself economically competitive.

GETTING IT DONE. Northeast Ohio's MPOs should consider forming a coordinating council to align their activities and help ensure that truly regional projects and opportunities for investment are mutually understood. Ideally, this would further allow the coordinated planning and programming of projects to extend the benefits that an individual MPO's investment of public funds would have for the entire region. An individual metropolitan area's projects and programs could yield additional, region-widebenefits if they were designed to complement one another and contribute to meeting the objectives for regional connectivity discussed in 5.1 and 5.2.

The council does not have to be large in size and may indeed be most effective when giving limited but strategic recommendations. Establishment of a coordinating committee for these MPOs can be an initial step in ensuring better coordination and making sure that transportation investments that benefit the larger region are mutually understood. It would specifically allow the following:

- Joint use of transportation models, with the possibility of integration into an overall regional travel demand model
- A focused audience for public comment on individual MPO LRTP drafts as they are being developed
- Real-time understanding of project demand from local governments throughout the region (as understood from MPO calls for projects)
- Potential combination/leverage of funds for technical assistance programs and other planning initiatives, especially related to Congestion Management and Air Quality (CMAQ)

POTENTIAL LEAD
Metropolitan Planning Organizations, Councils of Governments

TARGET COMMUNITY
Strategic investment areas, asset risk areas, cost risk areas

IMPLEMENTATION COMPLEXITY
Moderate

INITIATIVE 9.5: FOSTER GREATER ENGAGEMENT BETWEEN MPOS/COGS AND ORGANIZATIONS/ INITIATIVES THAT ADDRESS NATURAL RESOURCES, PARKS, SEWER, PUBLIC HEALTH, HOUSING, EDUCATION, PRIVATE BUSINESS INVESTMENT, AND ECONOMIC DEVELOPMENT.

WHAT THIS MEANS. The Vibrant NEO 2040 visioning process brought the region's MPOs and COGs into contact with a wide spectrum of organizations, initiatives, and stakeholders with which they do not regularly engage. These include philanthropies, metroparks, community and economic development agencies, housing agencies, health districts, universities policy centers, private developers, advocacy groups, and natural resource management entities. The alternative scenarios created during the process showed how the transportation and community development work of MPOs and COGs interacts with the region's many other systems and attributes to produce outcomes that affect livability. These relationships should be further explored to inform more substantive planning and policy-making in the future.

WHY THIS IS IMPORTANT. The alternative scenario exercise illustrated the value of interdependent systems thinking—how one decision or physical pattern in one system impacts the performance of others, yielding a chain of impacts that eventually affects the environment of that same system. If the ambitious objectives set forth in this plan are to take shape, not to mention the initiatives proposed above, the level of involvement and communication between MPOs, COGs, and stakeholders in a variety of areas must continue and increase. This is especially true of economic development and business entities, as many of the initiatives proposed above address how infrastructure investments and land use policy should be made to strengthen economic development prospects in the region.

GETTING IT DONE. Many of the initiatives proposed above involve MPO and COG leadership, or view them as a catalyst for further action or a source of research and information support. Taken together, these initiatives provide a roadmap for how MPOs and COGs can engage in the work of organizations and efforts taking place in other areas of focus:

- Natural resources—7.1, 7.2, 7.6
- Parks—7.1
- Sewer—1.3, 1.5
- Public Health—3.1, Recommendation 6, Recommendation 8
- Housing—Recommendation 1, Recommendation 4
- Education—6.4
- Economic Development—Recommendation 1, Recommendation 3

POLICY: Build stronger local governance and partnerships: While the growth of new economic sectors and stronger markets will ultimately transform cities, those changes may not take place unless the cities themselves build new and stronger local governance structures, reorganize operations, and build greater capacity. Partnerships must be created to bridge the public, nonprofit, and private sectors.

POTENTIAL LEAD
Metropolitan Planning Organizations, Councils of Governments; Universities; Nonprofit Organizations; Special Purpose Districts or Agencies; Municipalities, Townships, Counties

TARGET COMMUNITY
N/A

IMPLEMENTATION COMPLEXITY
High

INITIATIVE 9.6: SUSTAIN THE MOMENTUM OF NEOSCC BY CONTINUING TO CONVENE STAKEHOLDERS TO IDENTIFY AND ADDRESS REGIONAL ISSUES AND TO ADVANCE THE REGION'S COLLABORATIVE CAPACITY.

WHAT THIS MEANS. NEOSCC filled a tremendously valuable role by convening and facilitating dialogue between stakeholders throughout the Vibrant NEO 2040 process. The "Workstreams" NEOSCC convened brought together stakeholders who had limited interaction in the past to engage in a joint fact-finding process culminating in the indicators and trends platform. The results were striking: data-driven identification of commonalities across several dimensions of concern, along with open dialogues about what it meant. From these conversations, outward migration, fiscal health, and environmental quality emerged as the central themes guiding the process.

WHY THIS IS IMPORTANT. Dialogue builds trust between parties lacking a common history and helps them to identify common interests and concerns—critical first steps to being able to build consensus and agree on joint action. Since many of the required next steps to implement the region's Vision require intergovernmental collaboration or larger regional collaborations, there is an acute need for a space and support function similar to what NEOSCC provided for the regional visioning effort.

GETTING IT DONE. The natural lead for this initiative would be a formalized NEOSCC entity, which could provide the skilled staff and resources to convene ongoing working groups of stakeholders to implement the region's Vision. If appetite for extending NEOSCC's life is too low, the successors of the organization may want to consider identifying a university partner(s) to fill the facilitation role. Either way, progress toward a vibrant Northeast Ohio in 2040 hinges on the availability of a good facilitation and collaboration management entity.

POTENTIAL LEAD

Metropolitan Planning Organizations, Councils of Governments; Universities; Nonprofit Organizations; Special Purpose Districts or Agencies; Municipalities, Townships, Counties

TARGET COMMUNITY

Strategic investment areas, asset risk areas, cost risk areas

IMPLEMENTATION COMPLEXITY

Moderate

DEVELOPMENT STRATEGIES

The Development Strategies bring the Vision down to the neighborhood scale. They provide guidance for creating and maintaining quality places. The local and incremental steps that they describe are a key aspect of the overall Vision, and like the Recommendations, they are tailored to address the unique needs of the many different communities found in our region. These Strategies are not intended to present a rigid planning formula or to prescribe the future of a community—they are meant, instead, to illustrate the tremendous transformative potential of thoughtful planning, design, and development.

This section references many of the community categories presented throughout *Vibrant NEO 2040: A Vision, Framework, and Action Products for Our Future*. The section includes the six Place Types, as well as the smaller Development Types that made up the building blocks of the scenarios. See the "Existing Conditions" section for more information.

To make the best use of the Strategies, readers should look for the Development Types found in their communities or that their communities are considering building. The Strategies associated with those types will offer guidelines and best practices for getting the most out of their investments and for creating the highest quality outcomes.

DEVELOPMENT TYPE: UNIVERSITY / COLLEGE TOWN DISTRICT

Neighborhoods surrounding a university or college. Combines the needs of students and educators with nearby communities to provide various housing options and amenities. Typically high density, compact, and mixed-use in legacy cities and established cities and towns.

- Maximize the potential for linking students, residents, and employees through connected and shared spaces and amenities.
- Connect to adjacent institutions and businesses to create knowledge-sharing communities, linking students with potential jobs.
- Encourage density through mixed-use, off-campus housing options and supportive amenities like grocery stores, retail, restaurants, etc.
- Locate and expand within existing urban fabric and infrastructure networks. Focus on infilling adjacent surface parking lots and vacant lots and on renovating vacant buildings to expand and consolidate the campus footprint.
- Promote healthy living and active lifestyles by creating walkable environments, multimodal streetscapes, and integrated public and park spaces.
- Incentivize employees to live near their work and be part of the greater education community.
- Promote the expansion of transit connectivity and multimodal options through the development of transit centers that connect to regional networks, bicycle amenities, continuous sidewalks and walkable neighborhoods.
- In higher density districts, incentivize parking garages rather than surface parking to free-up land to develop the density and mixture of uses essential to creating a vibrant urban district.

ASSOCIATED AND SUPPORTING DEVELOPMENT TYPES:

EXISTING UNIVERSITY / COLLEGE TOWN DISTRICTS

- Mixed-Income Neighborhood
- Medical / Institutional Centers
- Transit Oriented Development
- Compact Residential
- Business / Commerce District (Mixed-Use)
- Neighborhood Main Street
- Downtown Commercial Core
- Western Reserve Town Centers

NEW UNIVERSITY / COLLEGE TOWN DISTRICTS

- Medical / Institutional Centers
- Downtown Residential
- Arterial Commercial Districts

SUCCESS STORY: CITY OF KENT AND KENT STATE UNIVERSITY[140]

Kent is a city in Portage County that in 2008 foresaw an opportunity to connect the region's largest public university to its struggling downtown with millions of dollars of reinvestment made by both the public and private sectors to generate activity and attract business to the college town.

The growth and vitality of Kent is linked directly to the city's largest economic driver, higher education. Its ties to Kent State University, with over 5,000 employees and 28,000 students, are strengthened and capitalized upon by dense, mixed-use redevelopments. Recently, an increase in private development has revitalized the downtown, improving and enhancing the historic fabric. Acorn Alley, at the center of this downtown district, was repositioned with a blend of renovation and new construction to create a concentration of retail and shops aimed at attracting employees, students and residents to downtown Kent. New mixed-use buildings have provided office space for businesses. The University has extended its campus into downtown Kent with an esplanade, gateway, and two new planned academic facilities. The City of Kent, and Portage County, and the Portage Area Regional Transportation Authority (PARTA) have partnered with the University to construct a new hotel, a retail-anchored mixed-use district and transit center/parking garage that supports the adjacent uses and connects downtown Kent and the University to the wider region. The resulting district is a transit oriented, multimodal, and walkable downtown community draws residents, employees, and students to downtown Kent. Improving the transit connectivity and the quality of its off-campus, Kent has positioned itself with potential students, faculty and employees as high-quality; competitive place to learn, work and live. As Kent continues to grow, it has the potential to expand its role in the region by developing its connections to the region's major population centers through enhanced transit connections.

Historic Downtown Kent *Photo by JonRidinger, (http://en.wikipedia.org/wiki/File:Downtown_Kent_Ohio_2.jpg)*

Kent Central Gateway, which opened in 2013 includes retail, bus bays, and a parking garage *Photo by JonRidinger, http://commons.wikimedia.org/wiki/File:Kent_Central_Gateway_night_1.JPG*

140 Statistics from www.kent.edu and www.kentohio.org

DEVELOPMENT TYPE: MEDICAL / INSTITUTIONAL CENTER

Medical and institutional centers and the associated development and services that emerge around them. Larger campuses are typically located in legacy cities, but smaller campuses and satellites develop in suburbs and smaller cities and towns. Large campuses tend to become regional centers for research, science, medicine, and innovation. They employ large numbers of people in many levels of employment and often serve as regional economic generators. Smaller centers may build around associated uses and cause related development, like medical office space, to occur.

- Coordinate and attract supportive amenities such as parking garages, transit system upgrades, residential uses, parks and green spaces, and commercial uses that support employees and visitors.
- Connect with universities and educational facilities to expand curricula and link students with potential employers and resources for entrepreneurship.
- Promote healthy living and active lifestyles by creating walkable environments, multimodal streetscapes, and integrated public and park spaces.
- Zone for specialty uses and "spin-off" development like incubators and labs.
- Assemble and consolidate larger tracts of land for redevelopment, paying particular attention to vacant land and buildings adjacent to existing medical facilities.
- Limit surface parking and impervious surfaces by updating zoning to require the use of green building standards and shared parking; to reduce parking requirements and establish parking maximums; and to support use of transit and bicycling for commuting.
- Locate new development near existing infrastructure to minimize the need for extensions and public subsidy. Emphasize sites where recent infrastructure investment has already been made.
- Prioritize areas that can facilitate future expansion and growth.
- Identify underserved markets—particularly the growing population of aging Baby Boomers—and enable their access to care by transit as well as the private automobile.

ASSOCIATED AND SUPPORTING DEVELOPMENT TYPES:

EXISTING MEDICAL / INSTITUTIONAL CENTER	NEW MEDICAL / INSTITUTIONAL CENTER
• Mixed-Income Neighborhood	• Suburban Multi-Family Neighborhood
• Senior Living Communities	• Arterial Commercial
• Transit Oriented Development	• Light Industrial Business Parks
• Compact Residential	• Corporate Campuses
• Business / Commerce District (Mixed-Use)	• Suburban Subdivisions
• University / College Town District	• New Town Center

SUCCESS STORY: UNIVERSITY CIRCLE

University Circle, the historic cultural district of Cleveland, has grown as a mixed-use district and emerged as an educational and medical center for the Northeast Ohio. Home to the region's largest private research university, Case Western Reserve University. The Cleveland Institute of Art, The Cleveland Institute of Music, the Cleveland Museum of Art, the Cleveland Symphony, multiple museums, and two nationally recognized hospital systems—University Hospital and Cleveland Clinic—the district has expanded from its formal institutional roots to become a vibrant mixed-use, transit oriented regional employment center and residential community. Public spaces and a multimodal street network complement the built environment and help define the identity of one of the most densely-developed, transit-connected, live-work-play communities in Ohio. In recent years, over a billion dollars of combined private and public investments have infused new uses into the neighborhood with walkable streets, mixed-use retail, new transit connections, and access to nearby cultural amenities. Strategic partnerships between the educational and medical institutions have replaced surface parking lots with new residential and commercial developments that have connected their campuses to the adjacent neighborhoods. A growing demand for residential options serving students and employees has led to substantial development of multi-family housing ranging from affordable apartments to high-end townhomes. Health tech and biomedical incubators have filled new office and laboratory buildings along the Euclid Corridor, a rapidly developing mixed-use district connected to University Circle and downtown Cleveland by a bus rapid transit (BRT) line. The expansion of University Circle as one of the region's most vital employment centers has the potential for stimulating reinvestment in the adjacent neighborhoods and creating around the Circle a vibrant cluster of diverse, attractive, walkable urban neighborhoods that appeal to the Circle's employees, students and visitors.

Uptown Mixed-Use Student Housing *City Architecture*

Cleveland Clinic *City Architecture*

Museum of Contemporary Art *City Architecture*

DEVELOPMENT TYPE: WATERFRONT DEVELOPMENT

Communities and developments that are adjacent to, and influenced by, the coast of Lake Erie and other bodies of water. Residential and mixed-use buildings that provide access to the water and waterfront living. Consideration for the continued access by adjacent communities to the waterfront through parks and other public recreation spaces.

- Strengthen connections and access to waterfronts across the region
- Revitalize industrial waterfronts by redeveloping obsolete industrial sites and formerly inaccessible areas with new land uses, such as housing, retail, and recreation
- Reuse and repurpose functionally-obsolete industrial and commercial structures along the region's legacy industrial waterfronts
- Connect trails and bikeway networks by strengthening access to water, creating trailheads, and providing amenities along the routes
- Activate waterfronts with complete communities that include residential and commercial uses and green space within the development
- Maximize the potential of development by consolidating large tracts of land to allow for consistent development guided by thoughtful master planning
- Incorporate quality public space and green infrastructure
- Protect waterways from potential ecological damage
- Minimize run-off and impervious surfaces through zoning standards such as parking maximums, percent landscaping minimums, tree cover, and bio-retention

LOCAL EXAMPLES:

Before and after Quay 55 Residential Redevelopment, Cleveland *City Architecture*

Before and after Harbor Walk, Lorain *City Architecture*

ASSOCIATED AND SUPPORTING DEVELOPMENT TYPES:

EXISTING WATERFRONT DEVELOPMENT

- Downtown Commercial Core
- Heavy Industrial Development (replacement)
- Compact Residential
- Mixed-Income Neighborhood

NEW WATERFRONT DEVELOPMENT

- Senior Living Communities
- Downtown Residential Neighborhood
- New Town Center
- Lifestyle Center / Mall District

DEVELOPMENT TYPE:
SENIOR LIVING COMMUNITY

Residential communities for aging populations with needs not easily met by traditional residential neighborhoods. Residents range in age and circumstances. Many such households are made up of empty-nesters who have downsized from larger homes or grandparents raising their grandchildren and have unique intergenerational needs. Focus on accessibility and independence by locating everyday needs nearby like retail and social gathering space.

- Integrate into existing communities and neighborhoods to allow residents to age in place.
- Develop around existing amenities like parks, community centers, retail nodes, and cultural institutions.
- Design for a variety of family structures.
- Provide housing options that can be adopted to meet changing needs.
- Provide quality connections that integrate seniors into the community and allow for varying levels of independence. These include fully accessible sidewalks, transit stops, green spaces and exercise facilities.
- Locate near existing transit access or extend existing transit to serve these communities.
- Connect to health care systems or provide access within the neighborhood.
- Prioritize sites that connect seniors with the community, including areas near college campuses, downtowns, institutional centers, etc.

LOCAL EXAMPLES:

Gabriel's Green, Cleveland *City Architecture*

Foster Pointe, Cleveland *City Architecture*

ASSOCIATED AND SUPPORTING DEVELOPMENT TYPES:

EXISTING SENIOR LIVING COMMUNITY	NEW SENIOR LIVING COMMUNITY
• Mixed-Income Neighborhood	• Suburban Multi-Family Neighborhood
• University / College Town District	• New Town Centers
• Transit Oriented Development	• Mixed-Income Neighborhood
• Compact Residential	• Waterfront Development
• Western Reserve Town Center	• Arterial Commercial Districts
• Neighborhood Main Streets	• Lifestyle Center / Mall District
	• Downtown Residential Neighborhood

DEVELOPMENT TYPE: MIXED-INCOME NEIGHBORHOOD

Residential neighborhoods, typically with existing public infrastructure and aging housing stock, that may be transitioning through waves of renovation, restoration, demolition, or replacement. Smaller lot sizes that maintain proximity of neighbors and original fabric. Housing of a type and scale that may no longer meet the needs and demographic characteristics of the contemporary market. Tend to be within legacy cities or older suburbs.

- Encourage variety in the types and scales of available housing options: single-family homes, duplexes, townhomes, multi-family buildings, etc.
- Revitalize existing neighborhoods by refurbishing vacant and aging building stock to maintain original character. Infill vacant land to strengthen fabric.
- Consider strategic demolition of housing that no longer meets contemporary market demand.
- Develop high quality housing options for a range of income levels, age groups, and household sizes.
- Create communities that meet the needs of aging populations by offering access to transit, community centers, healthcare, and retail amenities.
- Leverage and strengthen existing assets that support residential communities, such as parks, schools, recreation and neighborhood centers, retail, and access to employment.
- Combine market rate and affordable options within residential developments.
- Connect neighborhoods with safe, multimodal routes for children and residents that link transit, school, and other amenities.
- Locate near existing and growing job centers.

ASSOCIATED AND SUPPORTING DEVELOPMENT TYPES:

EXISTING MIXED-INCOME NEIGHBORHOODS	NEW MIXED-INCOME NEIGHBORHOODS
• University / College Town Districts	• Senior Living Communities
• Medical / Institutional Centers	• Waterfront Development
• Compact Residential	• Transit Oriented Development
• Western Reserve Town Centers	• New Town Centers
• Neighborhood Main Streets	

SUCCESS STORY: CENTRAL CHOICE NEIGHBORHOOD

The Central Neighborhood is a 670 acre tract of land immediately southeast of downtown Cleveland that supports an existing dense population of over 10,000 residents, educational institutions, a hospital system and an array of social services organizations. Nearly half of Central's residents live in subsidized housing, with 91% of families led by single females. The neighborhood is plagued by meager educational attainment, unemployment, a lack of access to healthcare, poor health literacy, and high crime rates. Eighty percent of its children live in poverty. In 2012, the Cuyahoga Metropolitan Housing Authority (CMHA) undertook a Choice Transformation Plan—an initiative financed by the U.S. Department of Housing and Urban Development—to comprehensively understand Central's challenges and opportunities, rediscover its potential and needs, and envision a transformation that reconnects the community, attracts residents from all income levels, and creates ladders of success for residents and children to lead quality and productive lives. Many of the necessary elements of a complete community already exist in the Central Neighborhood: excellent transit, ongoing initiatives to create complete streets, several educational opportunities from cradle to college, parks, recreation centers, a library, and a grocery-anchored shopping center. A major focus of the transformation is a reversal of the stigma of public housing that has limited the neighborhood's potential for becoming a vibrant, mixed-income community. To emphasize the Housing Authority's commitment to transforming Central, CMHA demolished functionally obsolete housing that discouraged connectivity and positive social interactions.

Aged, functionally obsolete housing estates are reimagined as a new mixed-income community
City Architecture

Replacing the outdated and inaccessible walk-up style buildings are new, outward-facing townhomes with individual front doors and yards facing new streets that re-establish the neighborhood's historic street network and enable the houses to blend in with nearby single-family homes. The Care Alliance began construction on a new, on-site health center in 2013 that will provide quality health, dental, pediatric, and geriatric care to residents regardless of their ability to pay. A new multi-story mixed-use, LEED building will anchor the site and connect to Cuyahoga Community College (Tri-C)'s Metro Campus. CMHA has formed a partnership with two of the neighborhood's anchor institutions--Tri-C and St. Vincent's Charity Medical Center--to encourage their employees to live close to work in new a mixed-use apartment building and new townhomes. CMHA has also worked to reduce or eliminate the social isolation of public housing residents: Subsidized units will make up 50% of the redevelopment and will be interspersed throughout enabling residents of all income to live side-by-side throughout the Central neighborhood.

The redevelopment of the Cedar Estates encourages connectivity to the institutions found at the east end of the study area with a goal of providing housing options for employees and students to live in the neighborhood they work *City Architecture*

Vacant land and lack of commercial amenities are reimagined as neighborhood centers that mix housing options with resident needs *City Architecture*

DEVELOPMENT TYPE: SUBURBAN MULTI-FAMILY NEIGHBORHOOD

Residential neighborhoods that grew along major transit corridors connected to a dense downtown central business district. Typically found in legacy cities and their 1st ring suburbs. Various types of housing from standard lot single-family, duplexes, and a mix of multi-family options. Schools, city halls, parks, and other community amenities are often embedded in the residential fabric.

- Preserve density and the fabric of neighborhood through zoning regulations.
- Enhance walkability and connectivity through continuous sidewalks and bicycle amenities.
- Encourage higher density, particularly along transit corridors, through multi-story development and a variety of housing options.
- Consider the scale, dimension, and character of typical streets. Create standards and guidelines for new development that reflect the hierarchy of the street network, with higher density and multi-family homes along arterials that blend and scale down to low-traffic, lower-density residential side streets.
- Incorporate housing options that meet the needs of an aging population.
- Intersperse market rate and affordable housing within neighborhoods.
- Assemble and consolidate large tracks of land for redevelopment to allow for consistent and comprehensive master planning.
- Integrate and enhance transit access and quality green space, along with amenities that support existing neighborhoods.

ASSOCIATED AND SUPPORTING DEVELOPMENT TYPES:

EXISTING SUBURBAN MULTI-FAMILY

- Waterfront Development
- Senior Living Community
- Mixed-Income Neighborhood
- Corporate Campuses
- Light Industrial Business Park
- Transit Oriented District
- Western Reserve Town Center

NEW SUBURBAN MULTI-FAMILY

- Medical / Institutional Centers
- Transit Oriented District
- New Town Center
- Lifestyle Center / Mall District

DEVELOPMENT TYPE: CORPORATE CAMPUSES

Commercial office space with multiple buildings clustered together. May be a single corporation with multiple departments and buildings or several corporations occupying one campus. Typically located adjacent to similar uses like light industrial, commercial, and retail. They are places with good access to highways. Usually located away from dissimilar uses like residential neighborhoods and shopping centers. Have large parking lots or garages and are set back from roads with few connections to the adjacent roadway network. May require facilities for shipping and truck traffic, and some green space and landscaping may be incorporated into the site's layout. Usually has a large number of employees who commute daily to the site. May have associated supportive retail.

- Locate near existing infrastructure and networks to minimize the need for extensions and public subsidy.
- Prioritize sites where recent infrastructure investment has occurred.
- Incentivize employees to live near their work: create residential communities adjacent to existing campuses and incorporate mixed-use, transit oriented walkable residential/commercial development in the development of new campuses.
- Prioritize areas that can support future expansion, particularly on sites that are vacant and underutilized.
- Limit surface parking and impervious surfaces through the use of green building standards and parking maximums.
- Remediate and consolidate former industrial site or large tracts of vacant land to create opportunities for planned redevelopment and strategic growth.
- Plan new developments to incorporate green space, recreation areas, and natural landscapes that benefit both employees and adjacent residents.

ASSOCIATED AND SUPPORTING DEVELOPMENT TYPES:

EXISTING CORPORATE CAMPUSES

- Mixed-Income Neighborhood
- Heavy Industrial Development
- Light Industrial Business Park
- Downtown Commercial Core
- Business / Commerce District

NEW CORPORATE CAMPUSES

- Medical / Institutional Center
- Transit Oriented District
- Business / Commerce District

LOCAL EXAMPLES:

Goodyear Headquarters, Akron *City Architecture*

DEVELOPMENT TYPE: LIGHT INDUSTRIAL BUSINESS PARK

Commercial campuses that mix together office buildings, light industrial warehouses, distribution centers, and consumer goods production. They are often large employment centers and are found in nearly every type of community. They develop near access points to regional transportation networks—highways, rail corridors, and shipping channels. Often designed to accommodate heavy truck traffic volumes. Many legacy cities with vacated industrial land could benefit from the redevelopment of those areas into Light Industrial Business Parks, bringing jobs and activity back into the core of the cities.

- Locate near existing infrastructure and networks to minimize the need for extensions and public subsidy.
- Prioritize sites where recent infrastructure investment has occurred.
- Identify, assemble, and consolidate large tracts of vacant industrial land. Organize and plan these areas to create concentrated industrial zones that can take advantage of shared infrastructure networks.
- Inventory, prioritize, and maintain critical infrastructure to preserve the value of industrial sites.
- Locate near existing economic centers to foster innovation and job creation focal points.
- Connect to regional economic and job centers through quality transit options.
- Make access for employees a priority site location factor. Identify industrial sites near existing transit services or within proximity of potential employees to bring jobs and people closer together.
- Incentivize assembly, clean-up, remediation, and marketing of sites to create shovel-ready redevelopment opportunities, particularly near existing and historic employment bases.
- Consider changing designated land use of vacant properties particularly if they are located near sensitive uses like education, residential, or recreation. Utilize tools like highest and best use studies to determine the appropriate land use for these sites.
- Minimize the impacts on environmental systems and incentivize programs that prevent future contamination of sites.
- Maintain a walkable, multimodal network that facilitates access to the employment center.

ASSOCIATED AND SUPPORTING DEVELOPMENT TYPES:

EXISTING LIGHT INDUSTRIAL BUSINESS PARK	NEW LIGHT INDUSTRIAL BUSINESS PARK
• Medical / Institutional Centers • Mixed-Income Neighborhood • Transit Oriented Development • Compact Residential • Business / Commerce Districts • Western Reserve Town Center • Heavy Industrial Development • Arterial Commercial District	• Corporate Campuses • Mixed-Income Neighborhood • Transit Oriented Development • Business / Commerce District • New Town Center • Suburban Subdivision

DEVELOPMENT TYPE: DOWNTOWN COMMERCIAL CORE

Mixed-use regional economic centers with a variety of high-density building stock. Centrally located in an urban core and pairs predominantly office space with related retail. Increasingly features multi-family residential uses.

- Maintain or create design standards that are complimentary of historical fabric.
- Incorporate quality public spaces, parks, and amenities that enhance connectivity and the outdoor experience.
- Create coordinated wayfinding systems and design in order to highlight major attractions, historic destinations, dining, retail, and transit systems.
- Encourage and provide for an active tourism economy through marketing, branding, and accommodations.
- Introduce green infrastructure to mitigate stormwater runoff and provide quality landscaping, tree lawns, and public art.
- Connect to surrounding communities and the region with high-quality transit options that are accessible and intuitive.
- Maintain a walkable, multimodal network that encourages access to the employment center.
- Revise zoning requirements to favor development of parking garages. Reduce parking space requirements to reduce the size and environmental impact of surface. Adopt parking lot design standards that screen cars from view and maintain the urban street edge.
- Infill vacant and underutilized lots and renovate abandoned buildings before expanding outward.
- Incentivize reuse and renovation through public subsidy, particularly for buildings of historical significance and character.

ASSOCIATED AND SUPPORTING DEVELOPMENT TYPES:

EXISTING DOWNTOWN COMMERCIAL CORES	NEW DOWNTOWN COMMERCIAL CORES
• Mixed-Income Neighborhood	• Waterfront Development
• University / College Town District	• Downtown Residential
• Transit Oriented Development	• Transit Oriented Development
• Compact Residential	

SUCCESS STORY: FLATS EAST BANK

Cleveland was first founded in the Flats of the Cuyahoga River Valley when Moses Cleaveland came ashore on the east bank of the Cuyahoga River in 1796. Historically the Flats have been the industrial spine of Cleveland, home to John D. Rockefeller's Standard Oil Company, and several integrated steel mills. The industry that built the city's wealth also damaged its environment: Most notably, the Cuyahoga River infamously caught fire in 1969. This event was one of the environmental disasters that led to the establishment of the US Environmental Protection Agency (EPA) and passage of the Clean Water Act of 1972. As heavy industry receded from the Flats the district took on a new role and identity as the region's premier waterfront entertainment district. From the mid-1980s to the late 1990s the district flourished. Eventually crime and speculation tarnished its image, leading to the abandonment and demolition many once-prosperous establishments.

After almost a decade-long fallow period, the Flats re-emerged as a transit oriented, mixed-use, LEED ND waterfront district. The first of three phases of redevelopment was completed in 2013 and included an 18-story office tower, a 150-room hotel, and several restaurants. Subsequent phases will reconnect the Flats to the river with restaurants and urban piazzas and a river walk that will extend the Ohio & Erie Canal Towpath Trail to Lake Erie. Phase 2 includes introducing residential density to the district by developing a mixed-use building consisting of 140 apartments and related retail amenities.

The East Bank site represents a major public-private partnership with developers working alongside government agencies to make the project a reality and restore to the city's riverfront long-absent energy and excitement. The ongoing redevelopment of Cleveland's Flats promises intimate connections to the Cuyahoga River, exceptional views of the city's industrial valley and historic bridges expanded downtown residential options, and a unique and vibrant meeting place for the city's growing convention and visitor market. Most importantly, this development represents a renewed commitment to sustaining the urban core of the City.

Historically, the Flats thrived with industry. This image shows the area in the mid 1950s. *Copyright: Cleveland Memory; Image created by Herman Seid, originally published in the Cleveland Press, Oct. 27, 1955. Available online through the Cleveland Memory Project http://web.ulib.csuohio.edu/SpecColl/*

GCRTA Flats East Bank Rapid Station *City Architecture*

Flats Phase 2 Concept along river; Completed Phase 1 in background *flatseast.com*

DEVELOPMENT TYPE: DOWNTOWN RESIDENTIAL NEIGHBORHOOD

Residential communities located in core urban areas. These areas take advantage of existing building stock by renovating, restoring, and infilling the historic fabric. Residents have the ability to travel easily, often by walking, to amenities like retail and parks.

- Renovate and adapt historic building to retain their character, density, and to responsibly reuse the existing building stock
- Revitalize vacant or underused buildings to attract and create new living options
- Take advantage of existing incentive programs (ex: Historic Renovation Tax Credits) and establish new programs and policy to catalyze investment
- Infill vacant lots with contextual architecture that maintains design standards that are complimentary of the historic fabric
- Update zoning codes to permit shared or reduced parking, a mixture of uses, and the densities necessary to support a robust transit system
- Incentivize employees to live near their work
- Coordinate private development with public capital improvements, such as streetscape enhancements, public parks, and other pedestrian-scale amenities

LOCAL EXAMPLES:

Realty Building and Wick Building *City Architecture*

ASSOCIATED AND SUPPORTING DEVELOPMENT TYPES:

EXISTING DOWNTOWN RESIDENTIAL	NEW DOWNTOWN RESIDENTIAL
• University / College Town Districts • Mixed-Income Neighborhoods • Senior Living Communities • Waterfront Development • Transit Oriented Districts • Western Reserve Town Centers • Corporate Campuses • Downtown Commercial Cores • Business / Commerce District	• New Town Centers • Medical / Institutional Centers • Compact Residential

DEVELOPMENT TYPE: TRANSIT ORIENTED DISTRICT

Nodes and corridors, organized around transit that have the potential to be densely developed, mixed-use districts. Examples of catalyzing infrastructure include express buss, bus rapid transit and streetcar lines. Development is typically a mix of commercial retail, office and residential uses. The transit focus of the neighborhood encourages complete live-work-play communities that are walkable and convenient for many age groups and family sizes.

- Expand the regional transit network and closely coordinate land use and transportation planning to find opportunities for synergy.
- Enhance the transit experience to attract increased ridership.
- Focus development around quality transit infrastructure.
- Promote mixed-use, walkable, and dense neighborhoods.
- Encourage retail options that support commuters, employees, and residents.
- Emphasize development linking large student populations and concentrations of jobs to transit networks.

Shaker Square *City Architecture*

ASSOCIATED AND SUPPORTING DEVELOPMENT TYPES:

EXISTING TRANSIT ORIENTED DEVELOPMENT

- University / College Town Districts
- Mixed-Income Neighborhoods
- Senior Living Communities
- Waterfront Development
- Suburban Multi-Family Neighborhood
- Light Industrial Business Parks
- Corporate Campuses
- Downtown Commercial Cores
- Business / Commerce District
- Compact Residential
- Downtown Residential Neighborhood
- Arterial Commercial District
- Lifestyle Center / Mall District
- Neighborhood Main Street
- Heavy Industrial Development
- Western Reserve Town Center

NEW TRANSIT ORIENTED DEVELOPMENT

- New Town Centers
- Mixed-Income Neighborhoods
- Senior Living Communities
- Downtown Residential Neighborhood
- Lifestyle Center / Mall District
- Business / Commerce District

DEVELOPMENT TYPE: COMPACT RESIDENTIAL

Residential neighborhoods, typically with existing public infrastructure, with aging housing stock that may be transitioning through waves of renovation, restoration, demolition, or replacement. Smaller lot sizes that maintain proximity of neighbors and original fabric, but type and size of housing may no longer be appropriate to meet changing needs and demographics. Tend to be within legacy cities or older suburbs.

- Preserve density and fabric of neighborhoods through zoning regulations and design review.
- Enhance walkability and connectivity with continuous sidewalks, crosswalks, and bicycle amenities.
- Encourage infill of vacant lots or create programs that allow adjacent homeowners to purchase and maintain sites (example: side-yard expansions).
- Create and support land banks to monitor and maintain vacant parcels until redevelopment becomes viable.
- Expand existing densities by redeveloping large tracts of land with compact-lot sizes or townhome clusters.
- Consider scale, dimensions, and character of typical residential streets when planning new developments. Important variables include tree plantings, lawns, setbacks, yards, driveways, sidewalks, rights-of-way, and on street parking.
- Integrate green space and recreation areas to encourage activity and a sense of community.
- Plan for services and infrastructure upgrades that increase value of neighborhoods.
- Incorporate housing options that meet the needs of an aging population and enable residents to age in place.
- Improve ease of access to transit options, retail amenities, community centers, and medical care.

Existing Eveready Facilities *City Architecture*

SUCCESS STORY: BATTERY PARK

Once the national headquarters and plant for Eveready Battery, this redevelopment has incrementally transformed a 14.6 acre, heavily-polluted industrial site into a thriving urban mixed-income neighborhood. Situated on a bluff overlooking Lake Erie and downtown Cleveland, Battery Park marks the first major housing development specifically identified by the city's Lakefront Plan. It also serves as a critical part of a larger revitalization effort in the Detroit Shoreway Neighborhood. A range of public spaces including volleyball courts, bike trails, and a newly-restored pedestrian link to Lake Erie's shoreline provide access throughout the surrounding neighborhood, views of the lakefront and an easier, safer connection to Edgewater Park and the Gordon Square Arts District. Small scale walkable streets with on-street parking and lighted sidewalks add to the welcoming atmosphere and sense of community felt within the neighborhood. The development incorporates a broad range of residential unit types and price points that include townhomes, loft buildings, and single-family homes. The original Eveready Powerhouse and its landmark smokestack are preserved and memorialize the industrial heritage of the site. The powerhouse has been renovated to incorporate a restaurant, market, fitness facilities, and community meeting space. The diversity of the architecture is reflected in its residents and is found throughout the neighborhood, offering variety and vitality while respecting the surrounding fabric. Battery Park was conceived with substantial public involvement, input, and participation. A true sign of Battery Park's success is its positive impact on the surrounding neighborhoods including related economic development, increased property values, and an improving market for home ownership.

ASSOCIATED AND SUPPORTING DEVELOPMENT TYPES:

EXISTING COMPACT RESIDENTIAL

- University / College Town Districts
- Mixed-Income Neighborhoods
- Suburban Multi-Family Neighborhood
- Medical / Institutional Centers
- Transit Oriented Districts
- Western Reserve Town Centers
- Heavy Industrial Development
- Neighborhood Main Streets

NEW COMPACT RESIDENTIAL

- Senior Living Communities
- Mixed-Income Neighborhoods
- Waterfront Development
- New Town Centers

Battery Park Townhomes *City Architecture*

DEVELOPMENT TYPE: WESTERN RESERVE TOWN CENTERS

Traditional town or small city centers that developed around central space like a town square or public green. Often these communities serve a civic function as county seats and can be cultural or economic centers. Typically, these communities grew at the same time period as the region's legacy cities and often suffer similar issues of aging building stock and infrastructure, leaving many in need of rejuvenation. Redevelopment and opportunities to re-establish these communities exist, with many successful examples throughout the region.

- Maintain, strengthen, and celebrate assets that define a place, including its central green or square and other gathering spaces, historic architecture and building fabric, street level activity, natural features, and cultural institutions.
- Create consistent and complimentary design standards and guidelines to preserve the character and charm of these established places. Preserve the traditional street-wall that defines the central green or square and resist the intrusion of surface parking lots and free-standing structures that diminish the integrity of the central space and its immediate surroundings.
- Utilize historic town centers to create nodes and points of interest along regional networks (bikeways, scenic drives, etc.).
- Invest in core infrastructure to maintain economic vitality, encourage investment, and facilitate growth.
- Focus investments at the core to create a critical mass of development and complimentary uses that will attract supportive markets and further investment.
- Use mechanisms like SIDs (Special Improvement Districts), BIDs (Business Improvement Districts) Historic Tax Credits (federal and state), and Mainstreet programs to generate investment capital.
- Use mechanisms like historic designation and local design review to preserve the existing fabric of the district. Resist demolition of historic and contextual buildings for the purpose of creating surface parking lots.
- Invest in branding, marketing, and public art campaigns to increase awareness.
- Encourage towns to actively pursue National Register historic designation of their town centers and connect to assets of similar significance across the region.
- Activate town centers by reimagining upper-story development and encouraging residential and live/work spaces that attract a residential population and support continued use of historic and contextual buildings.

ASSOCIATED AND SUPPORTING DEVELOPMENT TYPES:

EXISTING WESTERN RESERVE TOWN CENTERS	NEW WESTERN RESERVE TOWN CENTERS
• University and College Town Districts • Senior Living Communities • Medical / Institutional Centers • Compact Residential • Mixed-Income Neighborhood • Waterfront Development • Suburban Multi-Family Neighborhood • Corporate Campuses • Downtown Residential Neighborhoods • Neighborhood Main Street • Business / Commerce Districts	• Do not occur • New town centers may act as replicas

Medina Town Square *City Architecture*

DEVELOPMENT TYPE: NEIGHBORHOOD MAIN STREETS

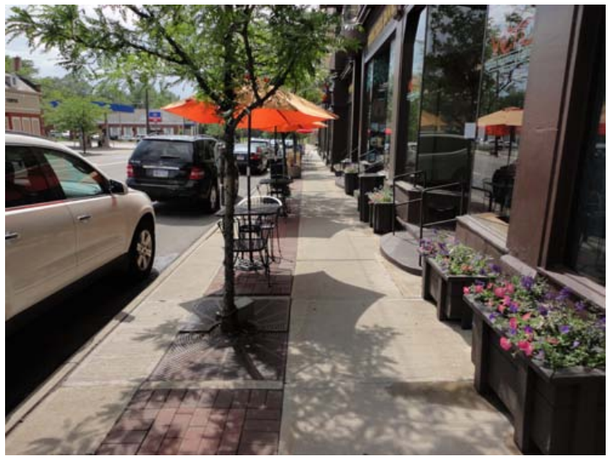
Neighborhood scale streets that function as main access corridors to community retail and cultural assets like theaters, while incorporating multiple modes of access and walkable environments. Historically, they were developed as streetcar commercial districts, with residential incorporated in the form of mixed-use buildings along the streetcar route and lower density one- and two-family residential development on adjacent side streets.

- Promote pedestrian enhancements and amenities.
- Incorporate bicycle lanes and facilities.
- Enhance the transit user's experience.
- Calm traffic through well designed streets.
- Take advantage of initiatives like Cleveland's Storefront Renovation Programs.
- Use mechanisms like SIDs (Special Improvement Districts) and BIDs (Business Improvement Districts) to generate investment capital.
- Invest in branding, marketing, and public art campaigns to increase awareness.
- Maintain setbacks of adjacent buildings to ensure the continuity of the established urban fabric.
- Encourage mixed-use development with active ground floors.
- Strengthen relationships to sidewalks.
- Provide wide sidewalks that accommodate leisure and outdoor retail.
- Integrate on street parking in strategic locations.
- Maintain a defined street frontage and encourage the redevelopment of vacant lots and surface parking.

ASSOCIATED AND SUPPORTING DEVELOPMENT TYPES:

EXISTING NEIGHBORHOOD MAIN STREETS	NEW NEIGHBORHOOD MAIN STREETS
• University and College Town Districts	• University and College Town Districts
• Senior Living Communities (Mixed-Use)	• Senior Living Communities (Mixed-Use)
• Transit Oriented Development	• Transit Oriented Development
• Compact Residential	• Compact Residential
• Mixed-Income Neighborhood	• Mixed-Income Neighborhood
• Western Reserve Town Center	

LOCAL EXAMPLES:



Cedar Fairmount *City Architecture*

Highland Square *City Architecture*

DEVELOPMENT TYPE: BUSINESS / COMMERCE DISTRICTS

Commercial campuses and districts that have grown up adjacent to freeway interchanges and along existing arterial roads and transit corridors. Many of them may be deteriorating or adjusting to new market conditions. These districts are found in many types of communities. They often have a concentration of multi-story office buildings that may include limited retail to serve those employed in the district. They may also consist of free standing retail or small strip retail centers. They often feature extensive landscaping and large surface parking lots with related stormwater retention basins. Many of these districts were developed incrementally by individual property-owners and developers and lack a master plan or overall organizational framework that connects the individual developments, minimizes environmental impacts, enables transit access and manages commuter traffic flows effectively.

- Identify areas that are existing or emerging and prioritize development in strategic locations.
- Inventory, prioritize, and maintain critical infrastructure to preserve the value of vacant land within emerging districts.
- Assemble and consolidate large tracts of vacant and underutilized land for coordinated planning efforts and specialized zoning classifications.
- Plan for future development that connects and unifies businesses into districts.
- Zone for a mixture of uses that incorporates green space that encourages outdoor activities and provides retail, fitness and related amenities for employees.
- Locate near existing transit infrastructure and where recent public investments have already been made.
- Design new developments to support transit service, daily walking and bicycle commuting.
- Consider revised parking requirements, shared parking strategies, percent landscaping, and green building codes.
- Enhance district streetscape extend sidewalks and bicycle facilities to improve multimodal access.

ASSOCIATED AND SUPPORTING DEVELOPMENT TYPES:

EXISTING BUSINESS / COMMERCE DISTRICTS	NEW BUSINESS / COMMERCE DISTRICTS
• Compact Residential • Corporate Campuses • Light Industrial Business Parks • Transit Oriented Development • Medical / Institutional Centers • Downtown Commercial Cores • Arterial Commercial Districts	• Transit Oriented Development • Light Industrial Business Parks

LOCAL EXAMPLES:

Chagrin Highlands Spec Office *jresgroup.com*

Eaton Center, Chagrin *jresgroup.com*

DEVELOPMENT TYPE: HEAVY INDUSTRIAL DEVELOPMENT

Industrial districts that are traditionally embedded in the urban cores of the legacy cities, but have since spread out across the region. Compact residential neighborhoods historically grew up or were developed around these sites to provide housing for workers in close proximity to their employment. Many of the companies in these districts produce materials and products, such as steel, chemicals, machined goods and industrial equipment, that are used by other firms rather than by consumers directly. Facilities are often large-scale and require extensive road, rail and port infrastructure to support them. During the a two-decade period from the late 1970s to the late 1990s the region saw many of these companies close, relocate or downsize substantially resulting in widespread abandonment of these districts. The resulting concentrations of brownfield heavy industrial land can be found in each of the region's legacy cities and many of its first ring suburbs.

- Identify, assemble, clean and consolidate large vacant industrial sites land that can take advantage of existing infrastructure networks and facilities. Organize and plan these areas to create competitive "industrial opportunity zones" that can meet contemporary market demand and restore these properties to productive use.
- Inventory, prioritize, and maintain critical infrastructure to preserve their value to adjacent industrial sites.
- Locate near existing economic centers to foster innovation and job creation focal points.
- Connect to regional economic centers through high-quality transit service.
- Make access for employees a priority site location factor. Identify industrial sites near existing transit services or within proximity of potential employees to bring jobs and people closer together.
- Incentivize assembly, remediation, and marketing of sites to create shovel-ready redevelopment sites that meet the expectations and needs of contemporary businesses. Develop zoning designations that allow former heavy industry sites to be developed as complimentary uses, such as Light Industrial Business Parks, Corporate Campuses, or Business / Commerce Districts.
- Consider changing the zoning classification of vacant heavy industry sites adjacent to sensitive uses such as schools, housing, and parks. Utilize analytic tools like highest and best use studies to determine the appropriate contemporary land use for these sites.
- Encourage repurposing vacant industrial land that is located near ecologically sensitive areas to passive uses that protect and expand these areas.

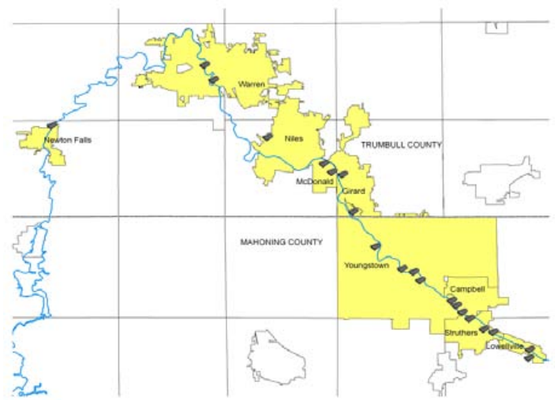
Study Area—Ohio Works Site Youngstown *MRCI*

ASSOCIATED AND SUPPORTING DEVELOPMENT TYPES:

EXISTING HEAVY INDUSTRIAL DEVELOPMENT	NEW HEAVY INDUSTRIAL DEVELOPMENT
• Compact Residential	• Transit Oriented Development
• Corporate Campuses	• Light Industrial Business Parks
• Light Industrial Business Parks	• Business / Commerce Districts
	• Waterfront Development (as a replacement)

SUCCESS STORY: MAHONING RIVER CORRIDOR INITIATIVE

The Mahoning River Valley is the central industrial corridor for the greater Youngstown-Warren community. Historically lined with mills and steelyards, the 800-acre river corridor suffered a protracted period of disinvestment and massive job loss in the 1970s and 1980s. The resulting decline, population loss, and abandonment left behind many large heavy industrial sites. All of these were environmentally contaminated and have required remediation in order to be returned to productive use. As a result of over 100 years of heavy industrial use, the Mahoning River has been classified by the Ohio EPA as "unfit for human contact." In response to this major challenge, the Youngstown State University's Center for Urban and Regional Studies established the Mahoning River Corridor Initiative (MRCI). The Initiative has undertaken a comprehensive approach to clean-up, reuse, water quality restoration, job creation, and recreational development. This multi-year effort began with a feasibility report that identified and inventoried potential project sites as well as major infrastructure and environmental projects necessary to make the sites economically productive and ecologically viable again. The Initiative's process has led to the funding and marketing of several sites. Successful manufacturing firms that have relocated or expanded along the Mahoning River and its tributaries include Fireline Inc., Allied Erecting and Dismantling, and most notably, Vallourec, a state-of-the-art steel and pipe manufacturing facility on the site a demolished former integrated steel mill. Vallourec's capital investment totals almost $1 billion and resulted in a significant number of new, well-paying industrial jobs.



MRCI Study Area and Identified Sites*MRCI*

DEVELOPMENT TYPE: ARTERIAL COMMERCIAL DISTRICT

Commercial strips that develop based on proximity to vehicular access points like highways and major arterial roads. Typically a series of strip retail centers and outparcels, these centers tend to be built new and without an overall planning strategy. Many have become outdated and subsequently abandoned, rather than renovated, before their physical life expectancy is reached.

- Develop master plans that encourage overall development strategies and study existing districts to create connections between individual buildings.
- Encourage density around transit connections and provide pedestrian infrastructure.
- Incentivize renovation and redevelopment before expanding outward: reduce retail vacancy and premature obsolesce.
- Revise zoning codes to incorporate shared parking strategies, parking maximums, stormwater retention, and on-site filtration.
- Create design standards to establish place-based identity and support retail continuity within districts.
- Invest in marketing, consistent signage, landscape screening, and branding efforts.

LOCAL EXAMPLES:

Golden Gate Strip Center *City Architecture*

ASSOCIATED AND SUPPORTING DEVELOPMENT TYPES:

EXISTING ARTERIAL COMMERCIAL	NEW ARTERIAL COMMERCIAL
• Lifestyle Centers / Mall Districts	• New Town Centers
• Transit Oriented Development	• Waterfront Development
• Suburban Multi-Family Neighborhood	• University / College Town District
• Senior Living Communities	• Medical / Institutional Centers
• Suburban Subdivisions	• Business / Commerce District
	• Lifestyle Centers / Mall Districts

DEVELOPMENT TYPE: LIFESTYLE CENTER / MALL DISTRICT

Commercial developments that combine a variety of retail options into a major commercial center. Indoor malls and their outdoor equivalent, the lifestyle center, allow consumers to go to one central location that houses multiple shops, department stores, restaurants, etc. Allows consumers to park and walk around, enjoying a fully retail environment. Modern lifestyle centers often incorporate outdoor spaces, entertainment, and recreation to complete the experience and allow consumers time to take a break while remaining in the retail center. Many are beginning to create live-work-play environments by adding mixed-use office space and residential to their retail program.

- Create design standards, consistent signage, landscaping, and screening requirements.
- Integrate development into an overall master plan that accommodates growth, connect to existing street network in a logical manner, and minimizes negative impacts on adjacent properties.
- Prioritize investments and “re-modeling” of existing malls to meet market demands rather than building new ones. Adapt and retrofit old, declining malls into lifestyle centers or other non-retail uses consistent with local zoning.
- Revise zoning codes to accurately determine parking requirements, stormwater management, and percent landscaping versus hardscape.
- Integrate mixed-uses into new mid-rise buildings that have retail focused ground floors and a combination of office and residential above.
- Determine locations to avoid market oversaturation and discourage avoidable retail vacancy and premature obsolesce.

LOCAL EXAMPLES:

Legacy Village *City Architecture*

Summit Mall, Akron *City Architecture*

ASSOCIATED AND SUPPORTING DEVELOPMENT TYPES:

EXISTING MALLS / LIFESTYLE CENTERS

- Arterial Commercial District
- Transit Oriented Development
- Suburban Multi-Family Neighborhood
- Senior Living Communities
- Suburban Subdivisions

NEW MALLS / LIFESTYLE CENTERS

- New Town Centers
- Waterfront Development
- University / College Town District
- Medical / Institutional Centers
- Business / Commerce District
- Arterial Commercial District

DEVELOPMENT TYPE: NEW TOWN CENTER

Contemporary version of the traditional town center. Creates a central, public space in areas that have no existing centers or cultural assets but do have a growing population to support a district that consolidates commercial, civic, and cultural activities.

- Locate where concentrated growth is occurring or anticipated and where no community “place” exists to build around
- Encourage the building of these centers in areas where they will not be in competition with existing centers (ex: Western Reserve Town Centers) or otherwise detract from existing assets or communities
- Design a central focal point, such as a park or town square, that serves as a community gathering space
- Create design standards that encourage consistency and a sense of place, address signage and streetscape and landscaping.
- Develop master plans to guide future and limit the impact of development on traffic congestion, and sensitive ecological areas
- Focus density and development around transportation infrastructure to allow for a logical street hierarchy, shared infrastructure, and manageable growth and maintenance
- Integrate mixed-use into mid-rise buildings
- Revise and create zoning restrictions to allow for shared parking strategies

ASSOCIATED AND SUPPORTING DEVELOPMENT TYPES:

EXISTING NEW TOWN CENTERS

- University / College Town Districts
- Medical / Institutional Centers
- Waterfront Development
- Senior Living Communities
- Mixed-income Neighborhoods
- Corporate Campuses
- Light Industrial Business Parks
- Transit Oriented Development
- Business / Commerce Districts
- Arterial Commercial Districts
- Lifestyle Centers / Mall Districts
- Suburban Subdivisions

NEW TOWN CENTERS

- University / College Town Districts
- Medical / Institutional Centers
- Waterfront Development
- Senior Living Communities
- Mixed-income Neighborhoods
- Corporate Campuses
- Light Industrial Business Parks
- Transit Oriented Development
- Business / Commerce Districts
- Arterial Commercial Districts
- Lifestyle Centers / Mall Districts
- Suburban Subdivisions

DEVELOPMENT TYPE: SUBURBAN SUBDIVISION

New planned residential communities that are developed all at once, rather than by individual builders. Typically they are developed in new locations that are not traditionally or formerly residential, so they require new infrastructure to be installed. Housing sizes vary from moderately-scaled developments for families and seniors to large lots with significant separation between homes.

- Prioritize sites that are adjacent to existing infrastructure or residential development in order to backfill the urbanized area before extending outward.
- Establish guidelines that promote green building and energy efficient design.
- Take advantage of resources to assist smaller communities in subdivision process, addressing topics such as how to zone, establish setbacks, manage rights-of-way, etc.
- Consider revising existing zoning codes in urbanizing townships to better respond to changing market demands.
- Consider adjusting minimum lot size requirement to support denser suburban development instead of than rural residential.
- Use zoning to protect ecologically sensitive areas and farmland.
- Conduct long-term financial analysis to ensure that the development is cost effective for local jurisdiction.
- Consider using cost impact analysis tools to establish infrastructure fees and maintenance cost sharing.

LOCAL EXAMPLES:

Subdivision Street, Strongville *City Architecture*

ASSOCIATED AND SUPPORTING DEVELOPMENT TYPES:

EXISTING SUBURBAN SUBDIVISIONS	NEW SUBURBAN SUBDIVISIONS
• Lifestyle Centers / Mall Districts	• New Town Centers
• Arterial Commercial Districts	• Waterfront Development
• Suburban Multi-Family Neighborhood	• Lifestyle Centers / Mall Districts
• Senior Living Communities	• Medical / Institutional Centers

DEVELOPMENT TYPE: RURAL RESIDENTIAL

Typically occurs in townships where land use is predominately rural or agricultural. Homes are spread out on large lots often as part of a farm or estate. Connections to retail, civic, and commercial amenities are distant. Infrastructure is limited—water and sewer utilities are not typically available. Most properties have their own well supply and septic system.

- Maintain rural character and density through zoning and development guidelines.
- Encourage good stewardship to preserve high-quality agricultural land and natural areas.
- Take advantage of resources, such as 208 Water Quality Management Plans, to assist smaller communities in managing their own growth.
- Conduct long-term financial analysis to ensure that the development is cost effective for local jurisdiction.

LOCAL EXAMPLES:

NEOSCC

Photo by Scott Bauer, USDA Natural Resources Conservation Service

DEVELOPMENT TYPE: CONSERVANCY / PARKS

Areas like national and state parks, nature preserves, high quality wetlands and habitats, and local parks. Found throughout the region in a variety of forms. Provide ecological functions and recreational areas for residents. May be connected with bike and trail networks, scenic railways, waterways, and roads. Ecologically and culturally sensitive assets that increase value and the quality of nearby neighborhoods and communities. In more densely developed areas, parks may be small pockets with plazas that serve as social gathering spaces and landscaping that softens the urban environment. Also play an important role of maintaining outdoor recreation in communities for families, exercise, events, dog walking, etc.

- Advocate for regulation to prevent damage and destruction of waterways, farmland, and high ecological value land.
- Continue to place value on our ecologically sensitive areas and habitats by expanding conservation efforts.
- Invest in infrastructure and programming that expands access and connectivity of parks and green space.
- Continue to invest in greenways and connections that link the region's green space network together.
- Consider conversion of vacant urban land to parks and green space, particularly if sites are no longer viable as economic generators, are adjacent to other conservation areas, and could be used as an amenity to an existing neighborhood.
- Integrate parks and green space in new and established areas.
- Utilize parks and green space to incorporate natural functions in urbanized areas, such as stormwater retention, bio-filtration, reduced heat island effect, and to reduce air pollutants.
- Provide parks and recreation areas that incorporate gathering spaces, shade trees, canopy structures, programming for different age groups, and fitness amenities.
- Design multi-purpose trails and bikeways to be accessible and enjoyable for all residents.

SUCCESS STORY: THE OHIO AND ERIE CANAL TOWPATH TRAIL

The Ohio and Erie Canal Towpath Trail is a multi-million dollar trail network that is nationally recognized as a one of the best examples of regional public partnership for a greenway system. Tracing the historic Ohio and Erie Canal from Cuyahoga to Tuscarawas County, the Towpath Trail is an 84-mile scenic bikeway that attracts over 2.5 million users per year. Originally constructed in the early 19th Century, the Ohio and Erie Canal was a freight waterway intended to connect Lake Erie to the Ohio River. The economic viability of the Canal was diminished when railroads began to take over the freight market. The Canal had 146 lift locks and a rise of 1,206 feet and was used for over 85 years until it became unnavigable due to neglect and damage from flooding. In 1966, the canal was declared a National Historic Landmark. Much of the central portion was incorporated into Cuyahoga Valley National Park in the 1980s. The multi-purpose trail today follows the original mule towpath through forest land, under and over bridges, through towns and cities, and even over water bodies. The Towpath was made possible through a public partnership between agencies throughout the region—The National Park System, Cleveland MetroParks, StarkParks, Summit MetroParks, and Tuscarawas County. Each entity brings their own unique assets and attractions to the Towpath. The Towpath includes 48 trailheads, 10 visitor centers, and hundreds of miles of connecting trails that lead through towns, cities, and local parks. The Towpath Trail is fully accessible by foot and bike and most of the length is ADA accessible. Sections of the trail link to horseback bridle paths. A majority of the route follows the Cuyahoga River, the Scenic Railroad, and the Ohio & Erie Canal Scenic Byway (part of the National America's Scenic Byways program). The Towpath Trail partnership continues to grow, with extensions planned to add 17 miles including a connection through the industrial Flats in Cleveland to its northern terminus on the shores of Lake Erie. New amenities for bikers and hikers, historical markers, recreational facilities, restaurants, and scenic lookouts continue to be planned and built along the Towpath route enhancing the path's quality as a nationally-recognized bikeway and regional asset.

Cuyahoga Valley Scenic Railroad, Brecksville *CSVR*

Grainger Bridge, Independence, and Summit Lake Floating Trail, Akron
Ohio & Erie Canalway National Heritage Area

SUCCESS STORY: MILL CREEK METROPARKS

Mill Creek MetroParks is a cherished asset of the Mahoning Valley and serves as a key example of publicly-lead investment and strategic conservation of a valued resource in the Northeast Ohio region. Mill Creek MetroParks is the metropolitan park district serving Mahoning County. Its 4,400 acres of land represent one of the largest metropolitan park systems in the country and are home to historic sites, recreational facilities, public gardens, and trails open to residents and visitors since 1891. Lanterman's Mill, falls, and covered bridge were added to the National Register of Historic Places in 2005. Lanterman's Grist Mill, the inspiration for the park's name, was built in the 1840s and restored in the 1980s.

The Mill continues to serve as an educational monument to the Mahoning Valley's industrial past. The MetroParks' strategic plan, developed in 2013, guides the future of the park system and encourages sustainable growth, operations, and partnership. As part of this plan, the park identified the need to improve access and connections between the park and surrounding community, expand education facilities, and update their marketing strategy to engage the public, evoking the original intent of the park as a natural sanctuary for the residents of the city. Today, the MetroParks provide a range of options for visitors to experience and enjoy nature with formal gardens and scenic wildlife, an outdoor amphitheater for concerts and performances, sports facilities for golf, tennis, fishing, boating, volleyball, skiing, sledding and hiking, and a variety of environments to explore and enjoy. The MetroParks also boasts 15 miles of trails that pass through steep hillsides, deciduous and evergreen forests, extensive wetlands, grass meadows, and gorges with cascading waterfalls. One of the more notable additions is the D.D. & Velma Davis Education and Visitor Center, which opened in 2000 in Fellows Riverside Gardens. The D. & Velma Davis Education and Visitor Center provides a venue to host events, an auditorium for lectures, a banquet hall, horticultural library, museum, café, gift shop, classrooms, and an observation tower overlooking Lake Glacier, the park's 44-acre recreational lake created in 1906 from the damming Mill Creek. To strengthen their commitment to sustainability, the park has also led wetlands restoration and protection programs and water quality improvement projects like retrofitting parking lots to create natural biofiltration gardens and prevent run-off into the surrounding sensitive ecosystems and habitats.

Suspension Bridge *Mill Creek MetroParks*

Covered Bridge *Mill Creek MetroParks*

D.D. & Velma Davis Education & Visitor Center *Mill Creek MetroParks*

Lanterman's Mill *Mill Creek MetroParks*

Judge Morley Pavilion *Mill Creek MetroParks*

New Biofiltation Parking Lot *Mill Creek MetroParks*

EVERYDAY ACTIONS

Vibrant NEO 2040 is a vision for an entire region, and achieving it hinges on the actions of individual citizens, communities, and institutions. The Framework is a written explanation how of these actions might be carried out through projects and policies, a process which will naturally involve a variety of scales, time horizons, and collaborators. In the meantime, it is important not to lose sight of how our actions each and every day contribute to building the future we want.

This section offers ideas for action in implementing several of the Vibrant NEO objectives in different spheres and at several scales. Taken together, these ideas can be understood as a ladder of investment in building the future of Northeast Ohio: from the individual or household taking ownership of the principles of the Vision, to the engaged citizen that works with neighbors and like-minded to improve communities, to the advocate that devotes extra effort to achieving a particular milestone. Each is critical to making Vibrant NEO 2040 happen. What's your path?

OWN IT, NEO

It all begins with individual choices. You can do something every day to make Northeast Ohio a more vibrant, resilient and sustainable place to live. We encourage Northeast Ohioans to take stock of current practices and choices and reflect on what it might mean to change, and then take ownership of that change. This section can help you identify a few ways that you can personally support the Vibrant NEO 2040 Vision. It is not exhaustive, nor is it intended to be, as there are many paths of individual contribution. Do something, however, that is not already part of your personal routine, so a new net benefit results in changing the indicators measures.

THERE ARE MANY POTENTIAL PLACES TO START. YOU CAN OWN THE VISION...

+ **Investigate transit, biking or carpool benefits to encourage sustainable commuting practices**. A host of incentives exist for companies to encourage employees to carpool, take transit, or bike to work; look into these incentives and reach out to your firm's HR coordinator to start a conversation or see what you can do to promote an existing program.
+ **Encourage your employer to install showers when physically possible and financially feasible**. Installing showers and dressing space within bathrooms sends a firm signal that a company encourages active forms of commuting to the office—resulting in a net reduction of energy use through transportation, and reducing contributions to smog-forming emissions.
+ **Research public transit options where you live and try taking it to work**. If you live and work in an urban or suburban context, chances are you are served by some form of public transit. Try riding the bus or train to work; you will help start a virtuous cycle of reducing congestion and emission of smog-forming chemicals during peak commute hours, supporting current operations, and bolstering the case for improving service.
+ **Try walking or biking for recreation and light errands**. While sometimes limited based on availability of sidewalks and other supportive infrastructure, walking and biking for light shopping and errand-running can be a great and practical way of getting your daily physical activity in while alleviating congestion, emissions, and wear and tear on roads.
+ **Don't idle**. Any benefits you might think accrue from idling are outweighed by wasted fuel and polluting emissions after a mere 30 seconds. Save on money and smog by turning off your car's engine, especially during the warmer months of late spring and summer.
+ **Don't top off at the pump**. When you top off, you not only overwhelm built-in emissions control mechanisms in your car, but you release smog-forming volatile organic compounds into the air. Not topping off helps to keep Northeast Ohio's air clean.
+ **Look into local community supported agriculture (CSA) organizations and buy a share**. You'll get fresh, locally-sourced produce delivered to your doorstep!
+ **Read labels and seek out locally-produced foods at the grocery store or farmer's market**. Your next meal will generate value for Northeast Ohio and cut down on the emissions associated with transporting food long distances.
+ **Drink from the tap, especially if your community does not offer recycling**. This helps to reduce the amount of bottles in landfills and lakes, contribute to reduced municipal recycling costs, and in the long run transform the way this is done.
+ **Look into creating an organic fruit, vegetable, or herb garden on your lawn, or getting a plot in a community garden**. This puts dollars and cents behind the satisfaction of living (partially) off your own land.
+ **Incorporate a rain garden, rain barrel(s), and/or permeable pavers on one's property to capture stormwater runoff**. This will help to reduce the burden on the sewer network and incidence of combined sewer discharges, which pollute Northeast Ohio's waterways.
+ **Use household cleaning products, solvents, and paints that are low in volatile organic compounds (VOCs) or contain no VOCs**. This helps reduce the incidence of smog-forming emissions, which keeps Northeast Ohio in attainment of national air quality standards and thus prevents additional federal regulation of industry and transportation.
+ **Try composting as a means of diversifying waste streams and providing nutrients for gardens**. By composting, you divert important nutrients from being wasted at the landfill to your personal or community garden's soil.

GET INVOLVED

Achieving the Vision laid out in Vibrant NEO 2040 will require engaged and informed citizens who also "own" the Vision. Northeast Ohio fortunately enjoys a rich tapestry of civic organizations. From your local neighborhood association to civic clubs, social service agencies to one of the many community organizations in the region, many avenues for engagement exist. If there are community issues or ideas expressed in Vibrant NEO 2040 about which you are particularly passionate, you should consider ways you can translate that passion into advocacy.

THIS CAN MEAN...

+ **Participating in a park or neighborhood street cleanup**. Neighborhood associations and civic improvement organizations frequently organize cleanups of public space. This results in a tangibly improved environment, builds community, and means one less area that needs to be covered by often already overburdened public works crews.
+ **Adopting a park or public space**. Adopting a park or other public space is another great way of taking ownership at the community level. In this case, "adopting" means putting time, and in some cases, money, resources into maintaining a park or other public space. Especially in areas where governments are fiscally stressed, this practice can add up quickly, while also resulting in tangible improvements to the neighborhood.
+ **Becoming a member of a community organization**. Community organizations often rely on volunteers and voluntary contributions to sustain operations. By getting involved, you help to keep an organization serving the community.
+ **Starting or joining a community cycling club**. Cycling clubs are great ways to learn safe cycling, boost your confidence for on-street riding, meet new friends and cycling enthusiasts, and advocating for safer streets.
+ **Getting active in your local neighborhood or business improvement association**. Perhaps the simplest thing is to get involved in the association or organization that focuses on your neighborhood or business district. These are the natural platforms for civic improvement projects such as those described above, but they are also vital sources of information on current issues and activities happening in your neighborhood.
+ **Joining an advocacy-oriented community organization**. If you have expertise or interest in a particular area, you may consider joining an organization that advocates in that area and volunteering your talents, time, and energy to furthering their agenda.
+ **Seeking a position on appointed boards and commissions**. A great way to get involved and shape decision-making processes is to serve on an appointed board or commission that adjudicates matters of municipal policy. These bodies occasionally make final motions of approval or rejection, or recommend a particular action to an elected governance board, such as a city council. Your local government will have a host of boards and commissions overseeing everything from zoning to building permits, public health to parks; learn more on your local government's website.