WELCOME TO THE VIBRANT NEO 2040 ALTERNATIVE SCENARIOS OPEN HOUSE

Thank you for joining us for today's open house!

Vibrant NEO 2040 is a regional visioning and decision-making framework that is bringing together residents, elected leaders, the professional community, and civic groups to create a roadmap to a stronger Northeast Ohio.

The open house today looks at a series of "what-if" regional futures for Northeast Ohio. These "alternative scenarios" present the impacts of different growth and policies on issues like quality of life, the economy, the environment, transportation, and much more.

There are many stations around the room with activities and information. As you walk around, think about which scenarios best match your vision for the future of Northeast Ohio. Throughout the workshop, you'll find opportunities to record your opinions on various topics. Look for the comment cards at stations, and please let us know what you think!

What is your vision for Northeast Ohio?

Look for these comment cards as you move through the stations today.
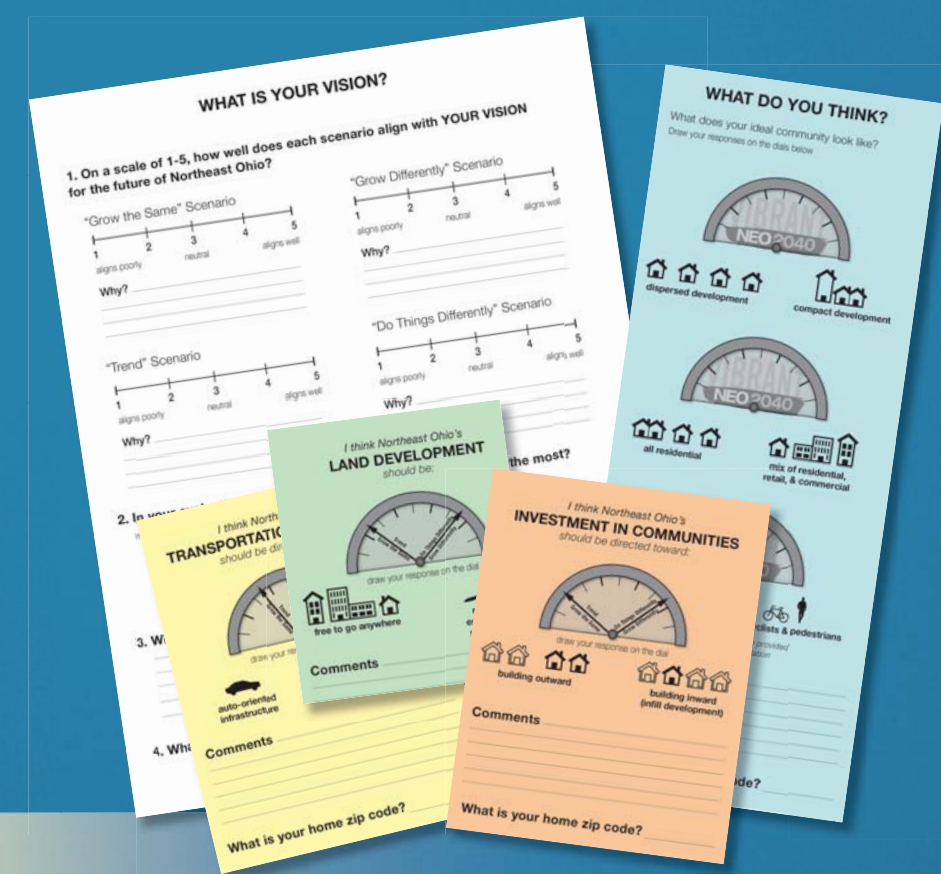
visit our website **VibrantNEO.org**

OUTREACH

The first Vibrant NEO 2040 outreach event occurred in the spring of 2013. If you attended, thank you for your participation! We presented the findings of the "Trend" Scenario and asked attendees to create their own scenarios with maps and game pieces. We also asked for instant crowd reactions to the presentation and collected general comments. We used all of this feedback to create the alternative scenarios that you see at this open house.

Your feedback today will help us create a preferred regional scenario, which we will present at the final outreach event in the fall of 2013.

1 "Trend" Scenario
(Business As Usual)
January - April 2013
Where are we currently headed?

2 Alternative Scenarios
May - July 2013
What are the possibilities?

3 Preferred Scenario
August - December 2013
Where do we want to go?

Phase 1 Outreach Workshops
April 30 - May 2

Today!
Phase 2 Outreach Open Houses
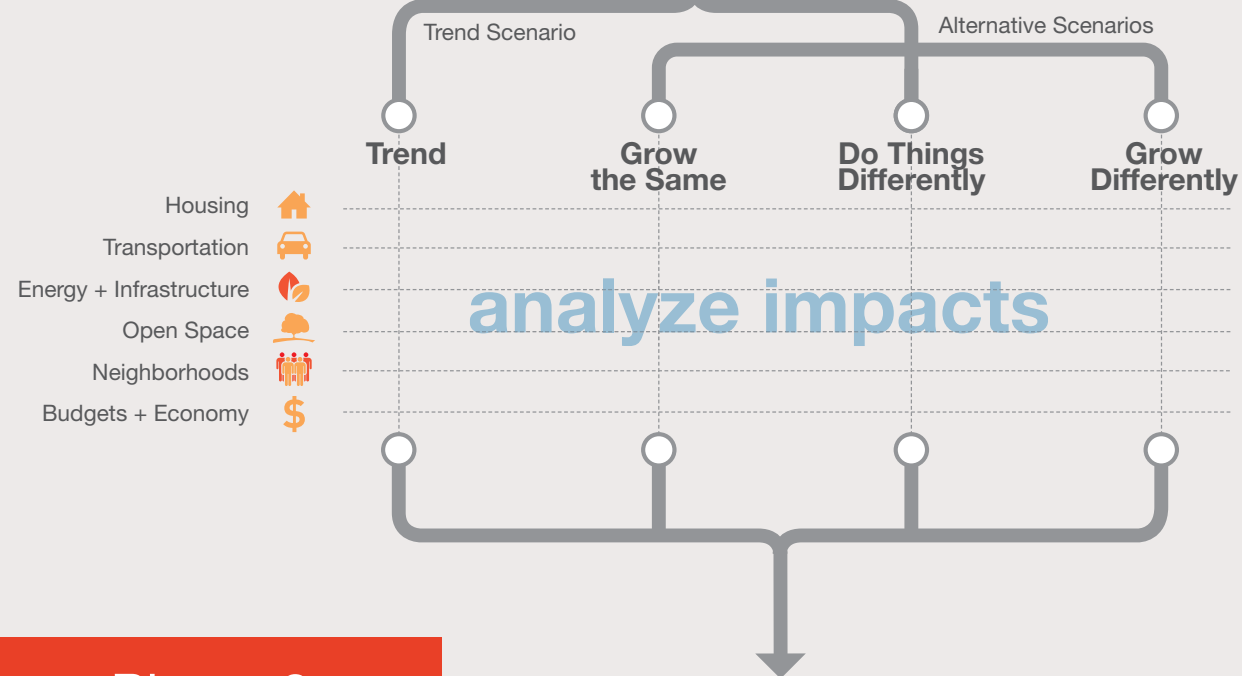July 29 - Aug. 7

Phase 3 Outreach
Late Sept.

VIBRANT NEO 2040

Images from the Phase 1 Workshops around the region

WHAT IS SCENARIO PLANNING?

DETERMINE THE RULES
+ How many people are there?
+ What are the policies?
+ What are the physical conditions?
+ Etc.

Population/employment projections

Zoning/land use

Suitability

Develop Scenarios

Trend Scenario

Alternative Scenarios

Trend

Grow the Same

Do Things Differently

Grow Differently

Housing
Transportation
Energy + Infrastructure
Open Space
Neighborhoods
Budgets + Economy

analyze impacts

Phase 2
Open Houses

WE ARE HERE!

CONSIDER THE RESULTS
+ What do we value?
+ What do we want to avoid?
+ What is the best way forward?

PREFERRED VISION

REGIONAL FRAMEWORK
+ What strategies to pursue?
+ What policies to change?
+ What partnerships to create?

IMPLEMENTATION

A learning tool

Vibrant NEO 2040 is using a scenario planning process to build a shared vision for the future of Northeast Ohio. Scenario planning acknowledges that there is no such thing as a crystal ball: rather than trying to predict the future, scenarios help us to explore several possible futures before we commit to a course of action. This enables us to make better-informed decisions about how we invest resources.

Based in reality

Each scenario uses a set of rules and assumptions, firmly rooted in the realities of Northeast Ohio, to show possible consequences of particular choices in such areas as housing, transportation, and land use. Historical trends are used in projecting patterns of movement and development in the region, and current conditions determine the constraints and possible choices. Also, the scenarios are spatial: they describe the physical outcomes of our choices, which in turn impact many of the things we care about, such as the economy, quality of life, transportation, the environment, and much more.

VIBRANT NEO 2040

THE FOUR SCENARIOS

The four scenarios shown at this open house are meant to provide insight. The goal is not to pick a "winner". Instead, consider how each scenario impacts the things you value, where the results may yield surprising insights, and how you might combine elements of multiple scenarios to create an ideal future (as well as what may be missing from all four). Feedback will be used to create a preferred scenario, which will be a key outcome of the Vibrant NEO 2040 process.

GROWTH ↑

"GROW THE SAME"
What if we grow and don't do things differently?

"GROW DIFFERENTLY"
What if we grow and do things differently?

"TREND"
What if our growth and approach stays the same?

The Trend Scenario (Business as Usual) was presented at Workshop 1.

"DO THINGS DIFFERENTLY"
What if we do things differently and our growth stays the same?

DO THINGS DIFFERENTLY →

Whenever you see four maps laid out together at the open house, they will follow the pattern in this diagram.

VIBRANT NEO 2040

Each scenario tests different assumptions about people, jobs, priorities, and policies for Northeast Ohio.

LAND USE OVERVIEW

What do the colors on the maps mean?

Mixed Use

Commercial

Stores, restaurants, and offices

Industrial

Other Built

Public buildings, hospitals, parking lots, roads, schools, and airports

Residential: Urban or Multifamily
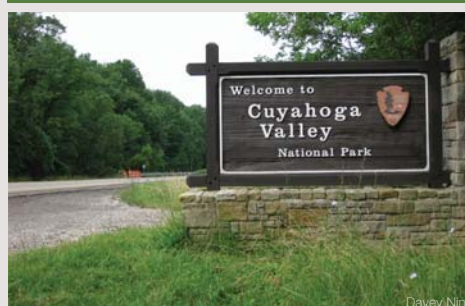
Residential: Suburban

Residential: Rural
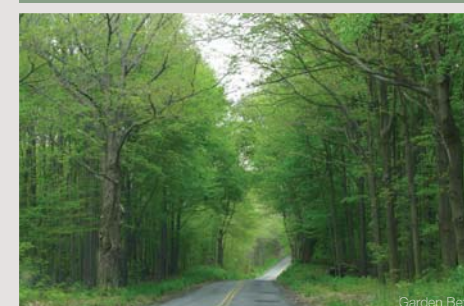
Abandoned

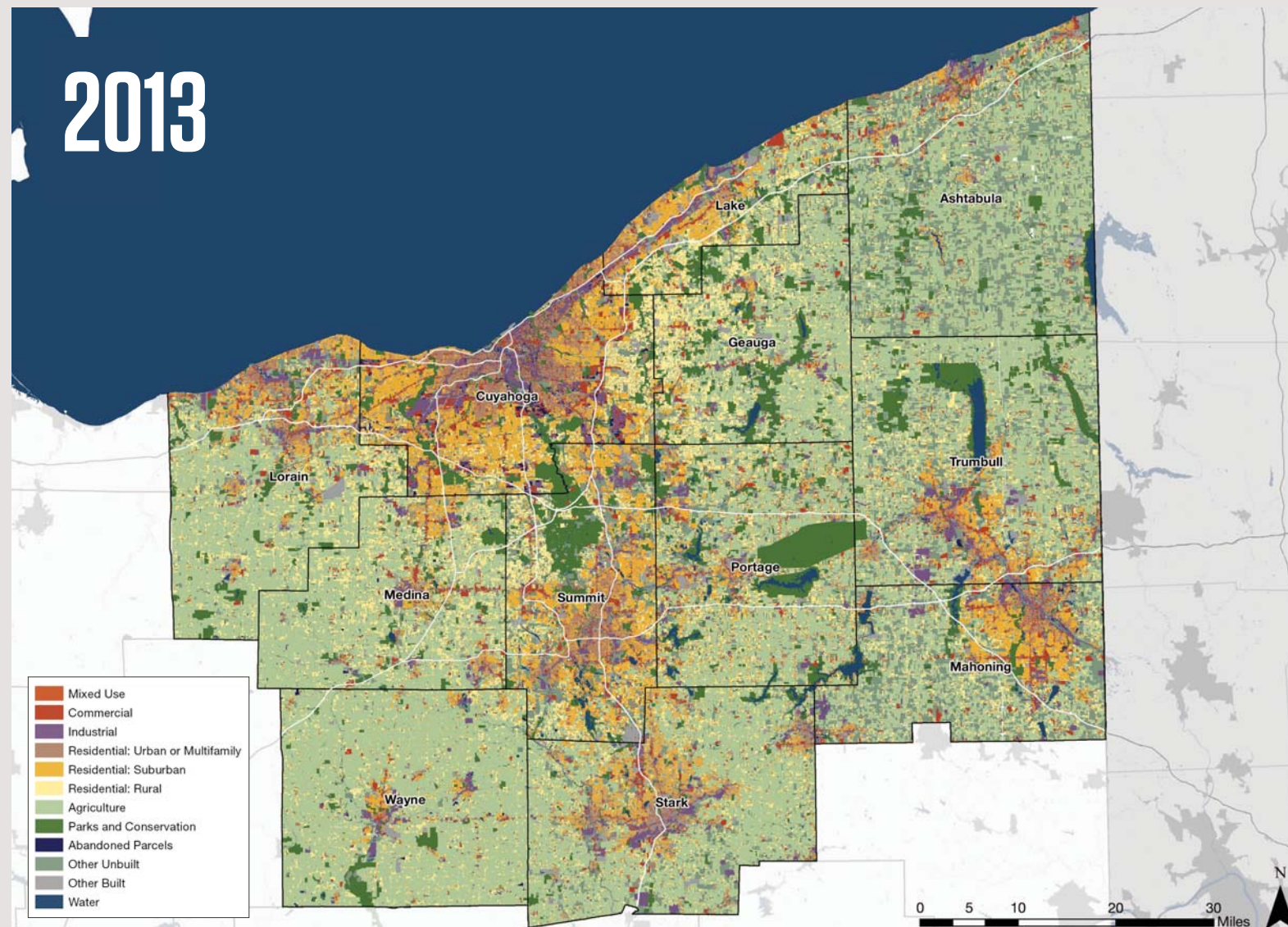Vacant structures and abandoned lots

Parks & Conservation

Agriculture

Other Unbuilt

Undeveloped land that is not conserved, cemeteries, and utility easements

VIBRANT NEO 2040

NORTHEAST OHIO TODAY

2013

Earlier phases of NEOSCC's work examined current conditions in depth. NEOSCC has found that the 5 realities facing Northeast Ohio today include:

1. **Taxpayers are burdened by costly fragmentation across our local/regional governments.**

2. **Cultural and natural resources are under stress.**

3. **Rising infrastructure costs exceed our means to pay.**

4. **Land use patterns affect local and regional budgets.**

5. **Our overall economy needs to be stronger.**

Current Population:
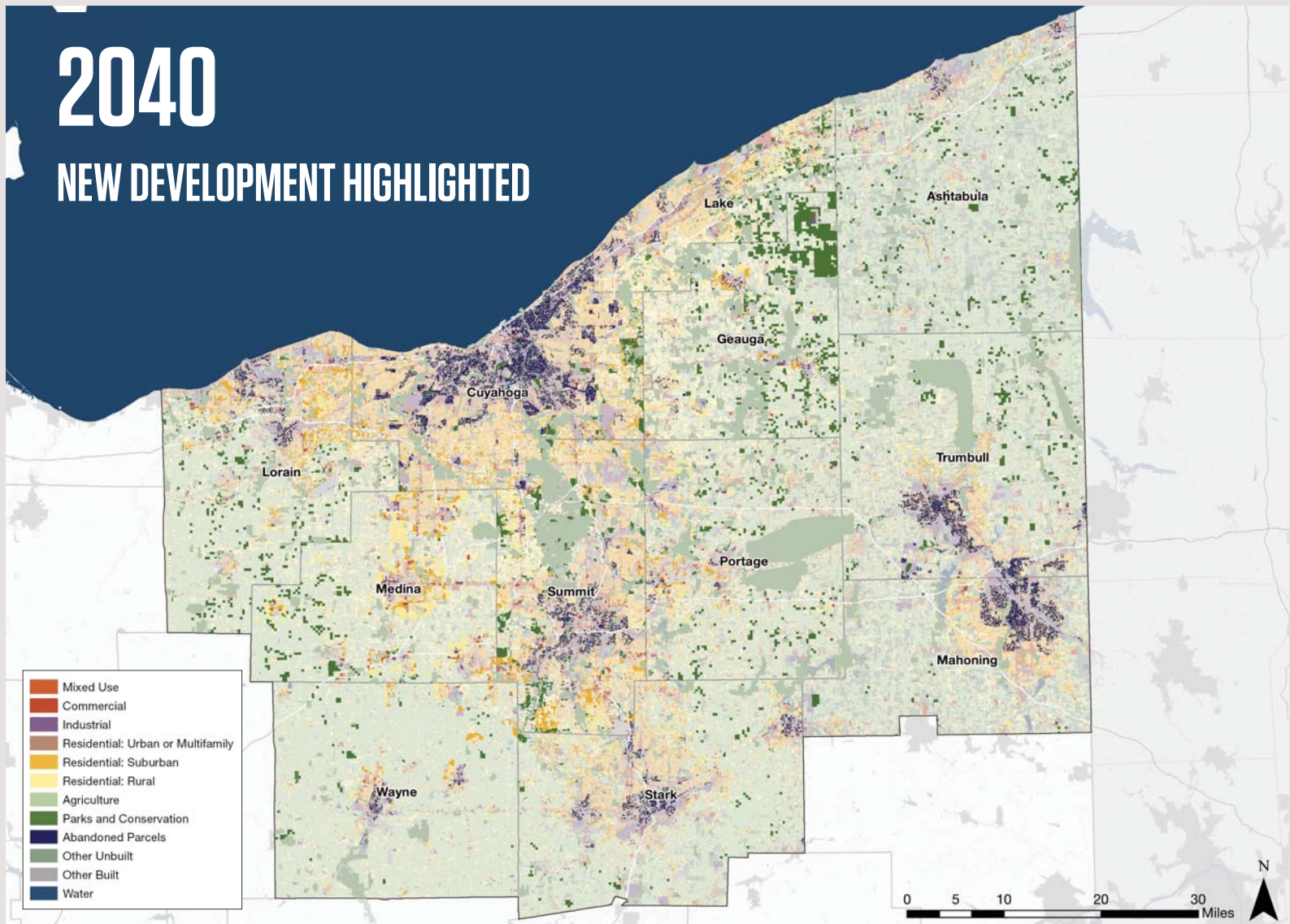**3,821,300 residents**

Current Employment:
1,731,700 jobs

Current Open Space:
276,000 acres of parks and conservation land

Map Legend

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

Map labels: Lake, Ashtabula, Geauga, Cuyahoga, Lorain, Trumbull, Medina, Summit, Portage, Mahoning, Wayne, Stark

0 5 10 20 30 Miles
N

Land Use Composition in the Region

2013

3%		5%	2	3%	3%	6%	14%	8%	17%	38%
unknown	abandoned	built other	mixed use	industrial	commercial	residential: urban	residential: suburban	residential: rural	parks & conservation	unbuilt other	agriculture

VIBRANT NEO 2040

Our diverse region faces significant challenges today. What future do we want?

THE "TREND" SCENARIO

What might the region look like if growth and approach stay the same?

2040

NEW DEVELOPMENT HIGHLIGHTED

Lake

Ashtabula

Geauga

Cuyahoga

Trumbull

Lorain

Medina

Summit

Portage

Mahoning

Wayne

Stark

Legend:
- Mixed Use
- Commercial
- Industrial
- Residential: Urban or Multifamily
- Residential: Suburban
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0 5 10 20 30 Miles

N

"GROW THE SAME"
What if we grow and don't do things differently?

"GROW DIFFERENTLY"
What if we grow and do things differently?

"TREND"
What if our growth and approach stays the same?

"DO THINGS DIFFERENTLY"
What if we do things differently and our growth stays the same?

in 2040 . . .

+ 👤 93,430 new residents

+ 💼 108,100 new jobs

+ 🌳 121,500 new acres of parks & conservation land

The "Trend" Scenario tests what the region might look like in 2040 if current development rates, patterns, and policies continue. This scenario includes:

- flat growth in population and employment
- trend of outward development away from existing communities
- majority of residential, office, and retail development is suburban-style, auto-oriented
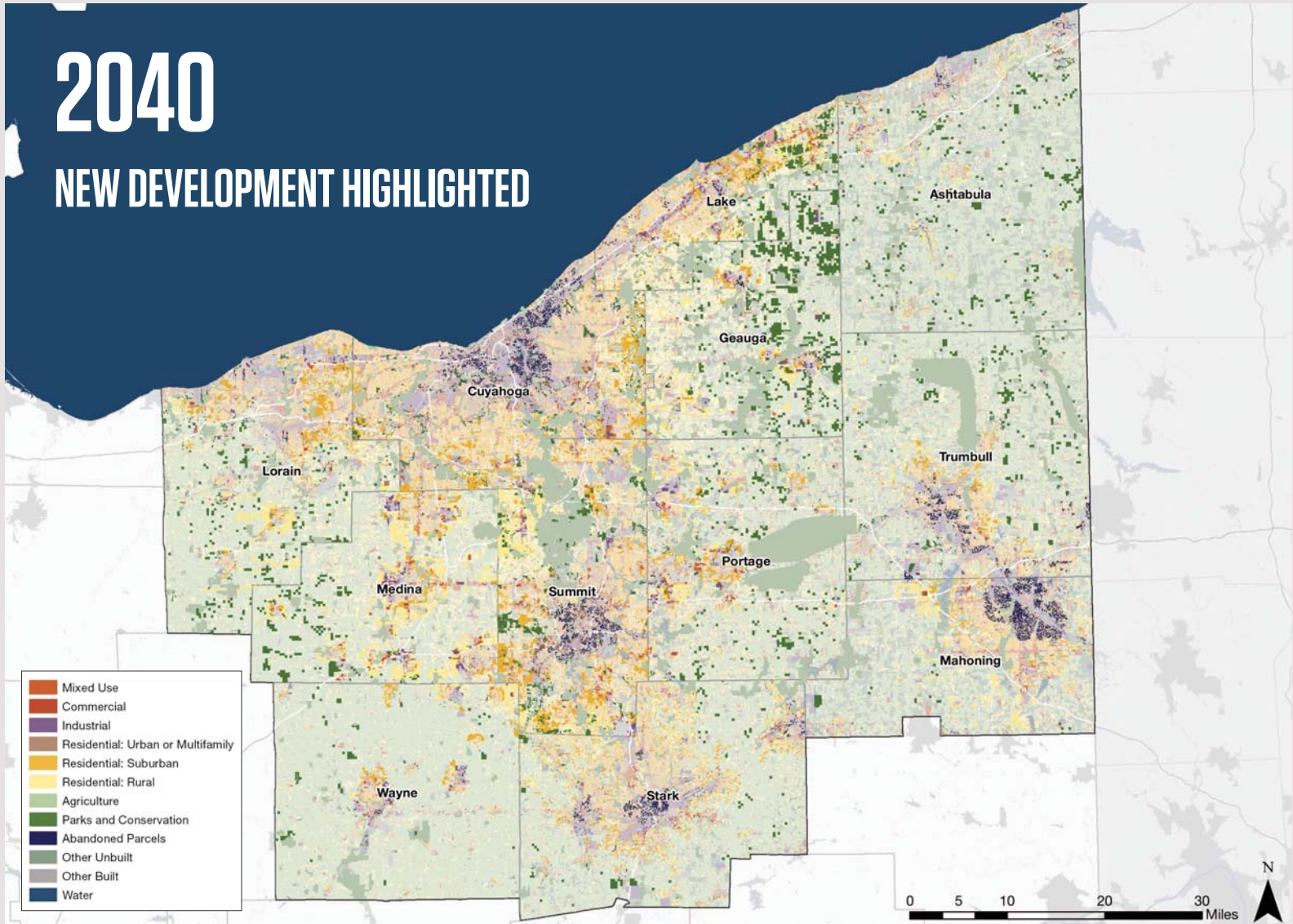- continued pattern of abandonment in urban areas

Population 2040: 3,914,600 residents (0.1% annual growth rate)

Employment 2040: 1,839,800 jobs (0.2% annual growth rate)
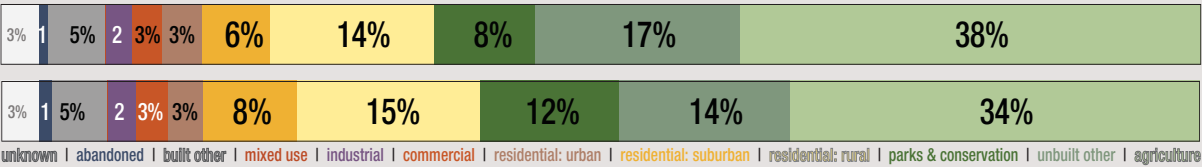
Parks + Conservation Land 2040: 398,700 acres

Land Use Composition in the Region

2013

3%	1	5%	2	3%	3%	6%	14%	8%	17%	38%

2040

3%	2	5%	2	2	3%	7%	14%	12%	15%	35%

unknown | abandoned | built other | mixed use | industrial | commercial | residential: urban | residential: suburban | residential: rural | parks & conservation | unbuilt other | agriculture

VIBRANT NEO 2040

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.

THE "GROW THE SAME" SCENARIO

What if we grow and don't do things differently?

2040
NEW DEVELOPMENT HIGHLIGHTED

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

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

0 5 10 20 30 Miles

N

in 2040 . . .

+ 👥 875,200 new residents

+ 💼 501,000 new jobs

+ 🌳 121,500 new acres of parks & conservation land

This scenario tests what the region might look like in 2040 if there are significantly more people and jobs, but current development patterns and policies continue. These forecasts represent an optimistic yet feasible level of growth. They assume that Northeast Ohio maintains its current share of national increases in population and employment.
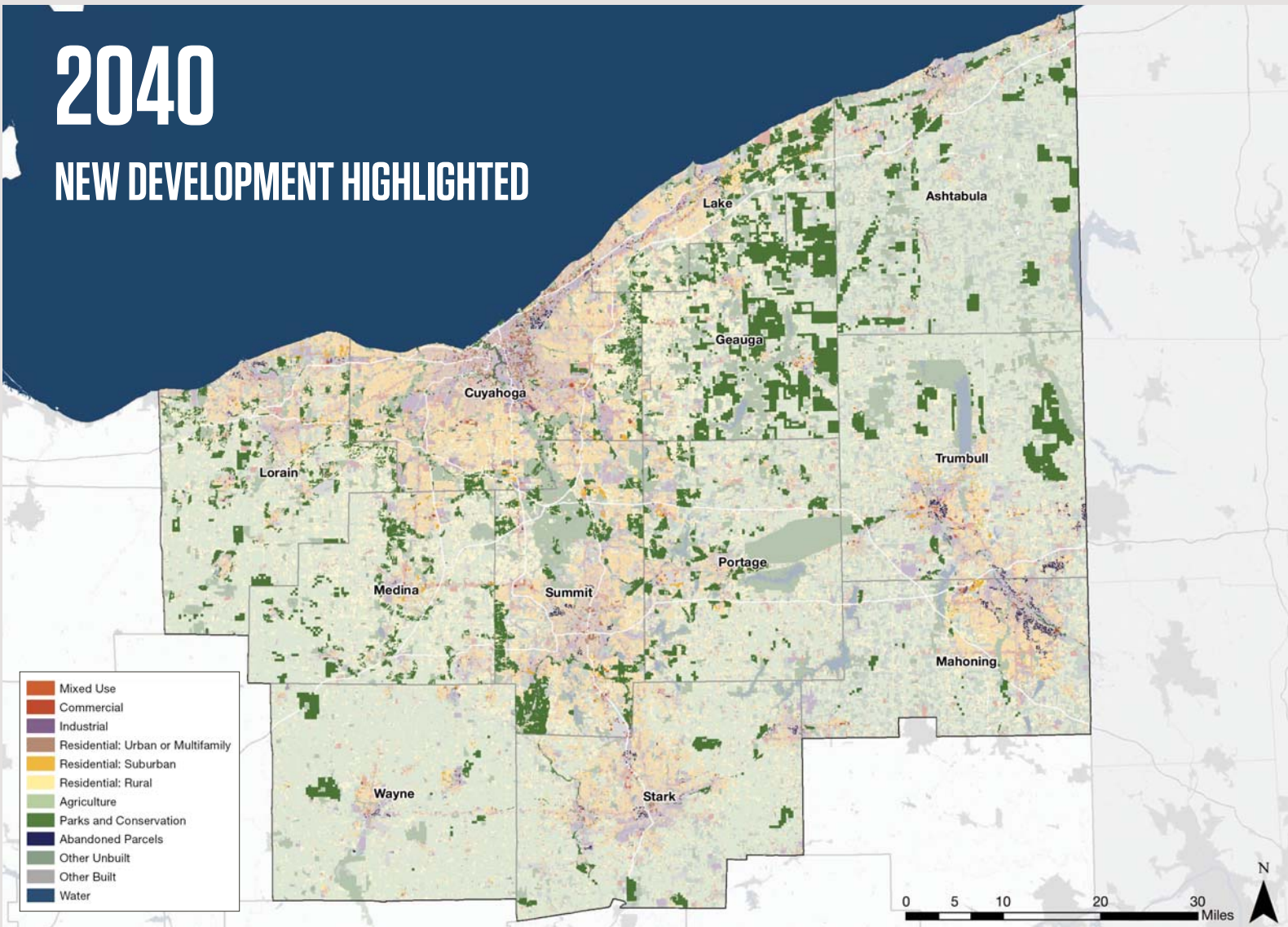
Population 2040: 4,696,400 residents (0.8% annual growth rate)

Employment 2040: 2,232,700 jobs (1% annual growth rate)

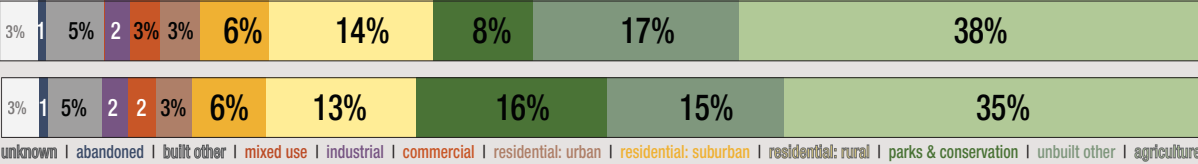Parks + Conservation Land 2040: 398,700 acres (Same as "Trend")

Land Use Composition in the Region

2013

3%	1	5%	2	3%	3%	6%	14%	8%	17%	38%

2040

3%	1	5%	2	3%	3%	8%	15%	12%	14%	34%

unknown | abandoned | built other | mixed use | industrial | commercial | residential: urban | residential: suburban | residential: rural | parks & conservation | unbuilt other | agriculture

VIBRANT NEO 2040

With jumps in population and employment, "Grow the Same" overcomes some of the challenges in the "Trend" Scenario. However, without any other changes, there will still be significant outward migration and a large amount of new development that is expensive to build and maintain. The increase in new development will impact many natural and agricultural resources.

THE "DO THINGS DIFFERENTLY" SCENARIO

What if we do things differently and our growth stays the same?

2040

NEW DEVELOPMENT HIGHLIGHTED

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

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

0 5 10 20 30 Miles

N

	"GROW THE SAME"	"GROW DIFFERENTLY"
	What if we grow and don't do things differently?	*What if we grow and do things differently?*
	"TREND" *What if our growth and approach stays the same?*	**"DO THINGS DIFFERENTLY"** *What if we do things differently and our growth stays the same?*

in 2040 . . .

+ 👤 93,430 new residents

+ 💼 108,100 new jobs

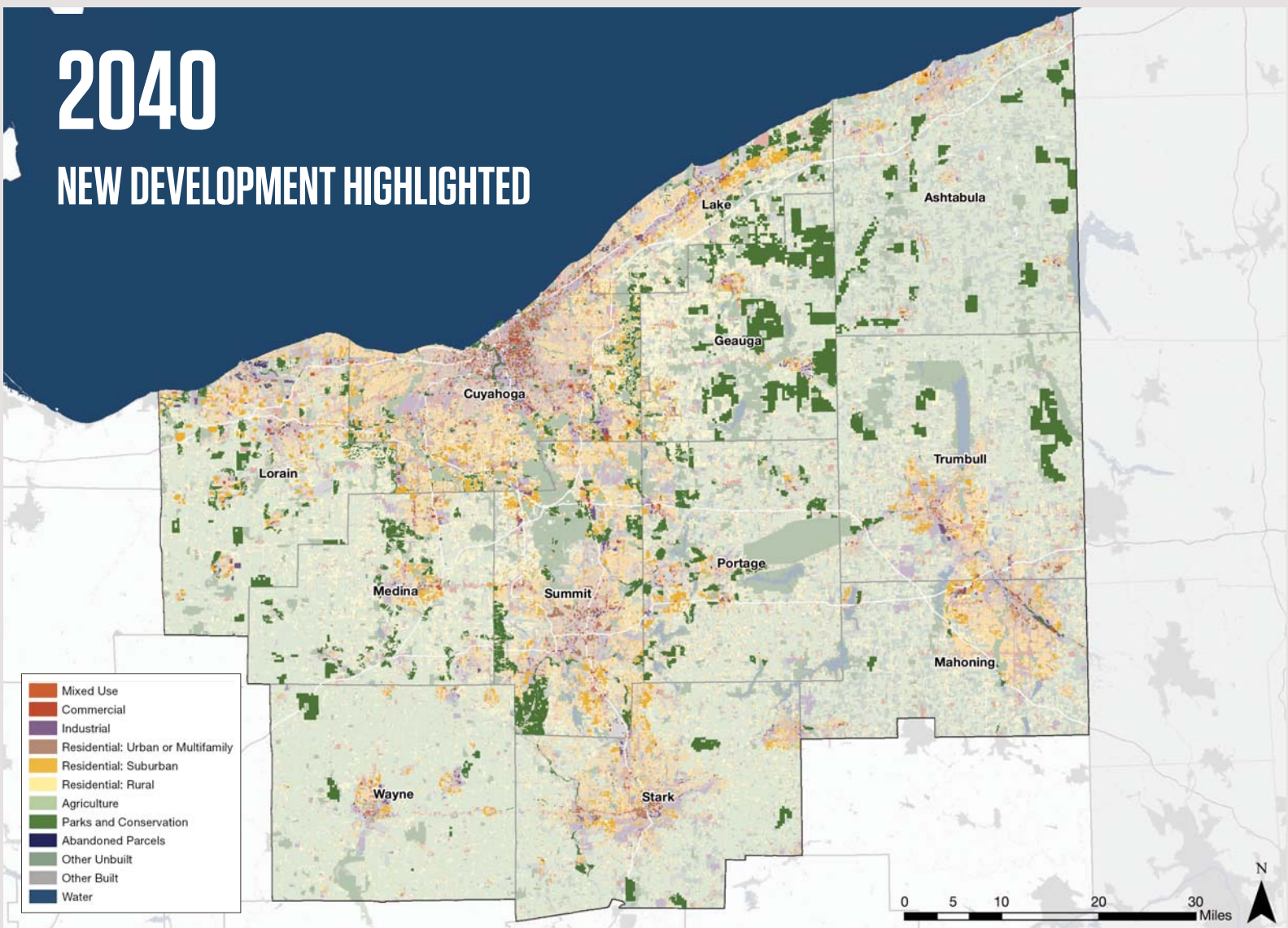+ 🌳🌳🌳 288,500 new acres of parks & conservation land

This scenario tests what the region might look like in 2040 if growth remains flat but policies and development patterns change. This scenario includes:

- a focus on reinvestment in existing communities (in contrast with the current trend of outward migration)
- limiting new development in environmentally sensitive areas like wetlands and floodplains and protecting agricultural land
- using existing infrastructure whenever possible (roads, sewers, and utilities)
- an increased proportion of mixed use, walkable development
- expanded public transportation network to connect people, jobs, and other destinations
- the greatest amount of new conservation land of any of the scenarios (the focus on prioritizing growth near existing communities reduces competition in rural and undeveloped areas)
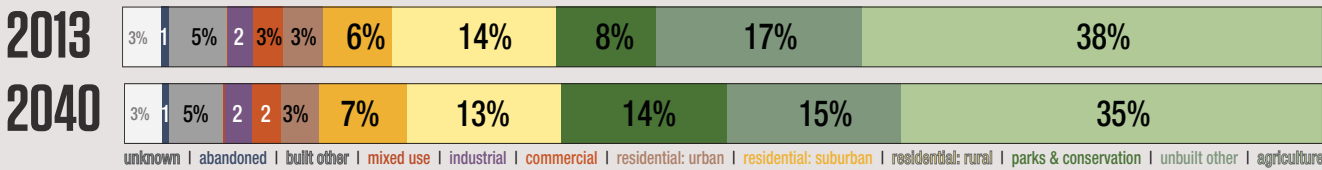
Population 2040: 3,914,600 residents (0.1% annual growth rate) (Same as "Trend")

Employment 2040: 1,839,800 jobs (0.2% annual growth rate) (Same as "Trend")

Parks + Conservation Land 2040: 564,600 acres

Land Use Composition in the Region

2013

3%	1	5%	2	3%	3%	6%	14%	8%	17%	38%

2040

3%	1	5%	2	2	3%	6%	13%	16%	15%	35%

unknown | abandoned | built other | mixed use | industrial | commercial | residential: urban | residential: suburban | residential: rural | parks & conservation | unbuilt other | agriculture

VIBRANT NEO 2040

Even without a major increase in jobs and people, the region can strengthen its legacy communities, protect its farms and natural areas, and achieve fiscal stability.

THE "GROW DIFFERENTLY" SCENARIO

What if we grow and do things differently?

2040
NEW DEVELOPMENT HIGHLIGHTED

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

Map labels: Lake, Ashtabula, Geauga, Cuyahoga, Trumbull, Lorain, Medina, Summit, Portage, Mahoning, Wayne, Stark

0   5   10   20   30 Miles

N

"GROW THE SAME"
What if we grow and don't do things differently?

"GROW DIFFERENTLY"
What if we grow and do things differently?

"TREND"
What if our growth and approach stays the same?

"DO THINGS DIFFERENTLY"
What if we do things differently and our growth stays the same?

in 2040 . . .

+ **875,200 new residents**

+ **501,000 new jobs**

+ **205,600 new acres of parks & conservation land**

This scenario combines the higher growth of "Grow the Same" with the different policies of "Do Things Differently." This scenario tests what the region might look like if additional growth occurs and is prioritized in and near existing urban areas. See the board summarizing "Do Things Differently" for a list of key policy inputs. Despite the emphasis on open space preservation, "Grow Differently" has less conservation than "Do Things Differently" because the higher number of people and jobs creates competition and drives up land prices.

Population 2040: 4,696,400 residents (0.8% annual growth rate) (Same as "Grow the Same")

Employment 2040: 2,232,700 jobs (1% annual growth rate) (Same as "Grow the Same")

Parks + Conservation Land 2040: 481,600 acres

Land Use Composition in the Region

2013: 3% | 1 | 5% | 2 | 3% | 3% | 6% | 14% | 8% | 17% | 38%

2040: 3% | 1 | 5% | 2 | 2 | 3% | 7% | 13% | 14% | 15% | 35%

unknown | abandoned | built other | mixed use | industrial | commercial | residential: urban | residential: suburban | residential: rural | parks & conservation | unbuilt other | agriculture

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VIBRANT NEO 2040

Changing policies has a bigger positive impact on fiscal outcomes than simply adding more people and jobs, but doing both results in the highest revenue compared with costs. Abandonment also practically disappears. The additional growth results in more open space conflict compared with "Do Things Differently."
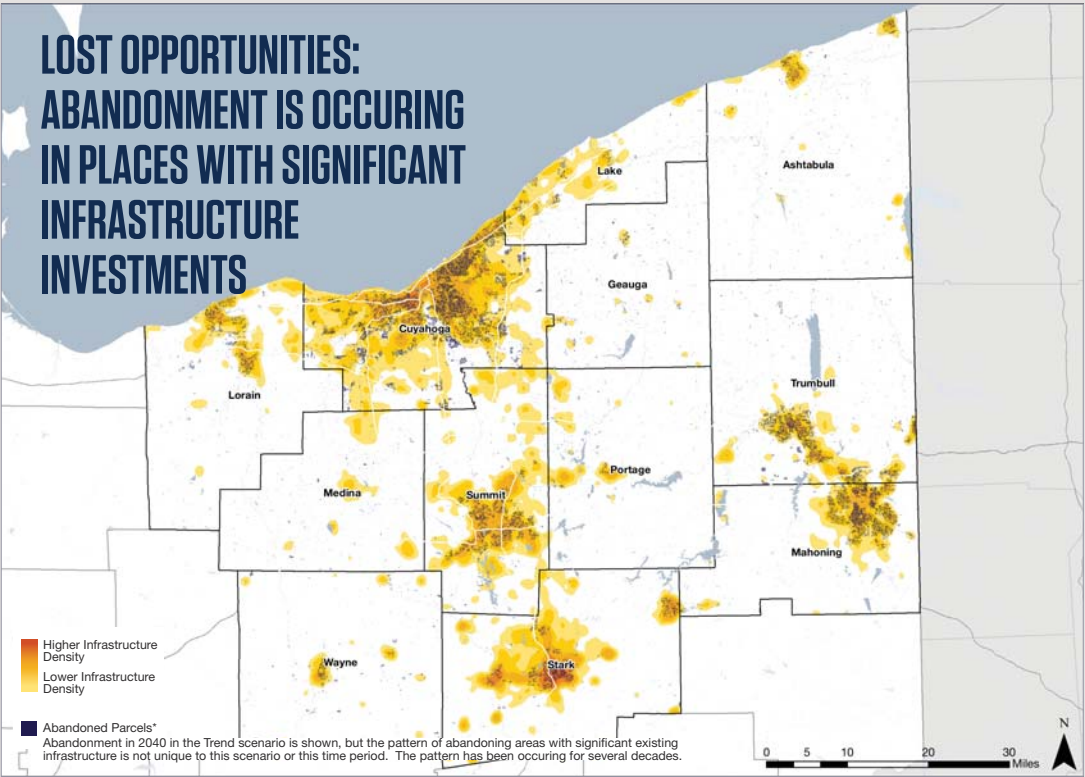
OUTWARD MIGRATION

The region has been migrating outward for decades. What are the impacts of this trend?
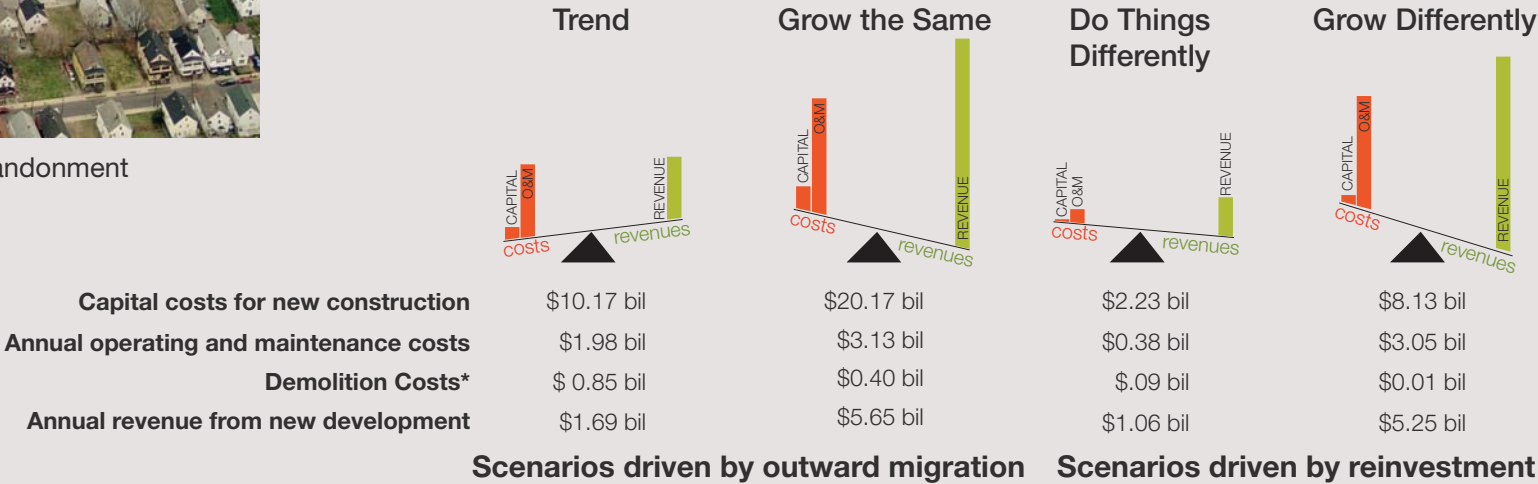
Outward migration means that new construction tends to occur outside of already-established cities, villages, townships and neighborhoods. These new homes, shopping centers, office buildings, hospitals, churches and schools are often occupied by residents that were already living elsewhere in the region. When this occurs and no one moves in to fill the gaps in the communities that are left behind, the result is abandonment, which has severe financial, social, and psychological costs.

LOST OPPORTUNITIES: ABANDONMENT IS OCCURING IN PLACES WITH SIGNIFICANT INFRASTRUCTURE INVESTMENTS

Higher Infrastructure Density
Lower Infrastructure Density

Abandoned Parcels*
Abandonment in 2040 in the Trend scenario is shown, but the pattern of abandoning areas with significant existing infrastructure is not unique to this scenario or this time period. The pattern has been occuring for several decades.

Abandonment doesn't just leave behind homes and other buildings. It also leaves behind overgrown lots, roads, sewers, and utilities that tax payers must maintain.

New development away from existing communities is linked to abandonment in legacy communities.

	Trend	Grow the Same	Do Things Differently	Grow Differently
Capital costs for new construction	$10.17 bil	$20.17 bil	$2.23 bil	$8.13 bil
Annual operating and maintenance costs	$1.98 bil	$3.13 bil	$0.38 bil	$3.05 bil
Demolition Costs*	$ 0.85 bil	$0.40 bil	$.09 bil	$0.01 bil
Annual revenue from new development	$1.69 bil	$5.65 bil	$1.06 bil	$5.25 bil

Scenarios driven by outward migration   **Scenarios driven by reinvestment**

* assumes 50% abandoned housing units demolished; cost assumptions: $10,000 per single family unit; $4 per sq ft for multifamily units (800 sq ft unit on avg); $4/sq foot for each commercial (office, retail, public, educational, hotel) building – assume on average 500 sq feet for each commercial worker; and $3/sq foot for each industrial building – assume 1000 sq feet on average for each industrial worker.

VIBRANT NEO 2040

Outward migration and abandonment are linked. When new construction exceeds regional demand, older buildings are abandoned. This is a hardship for the communities left behind and also means taxpayers must pay for new infrastructure to support the new development.

OUTWARD MIGRATION vs. INWARD REINVESTMENT

what if we BUILD OUTWARD?

2013

2040

abandoned lot

new abandoned structure

new infrastructure new roads

new infrastructure

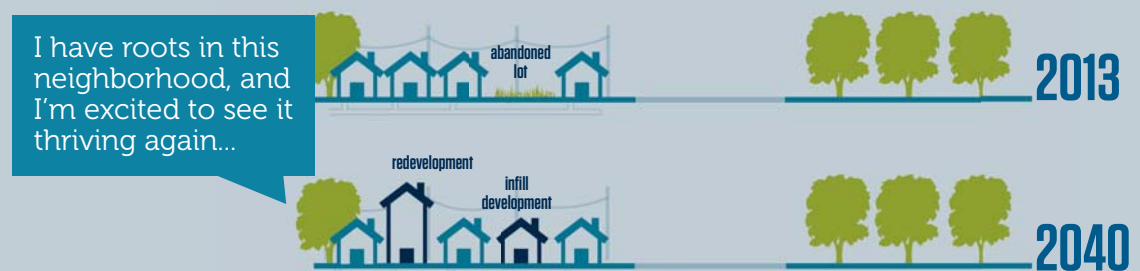*I'm glad I was able to afford a home with a large yard in a quiet suburb away from the city...*

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?

abandoned lot

2013

redevelopment

infill development

2040

I have roots in this neighborhood, and I'm excited to see it thriving again...

Inward = New development in already established communities

VIBRANT NEO 2040

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

# OUTWARD MIGRATION IN THE FOUR SCENARIOS

Where are people moving in the four scenarios?

Grow the Same

+ 875,200 new residents
+ 546,000 new homes
+ 93,136 new abandoned homes
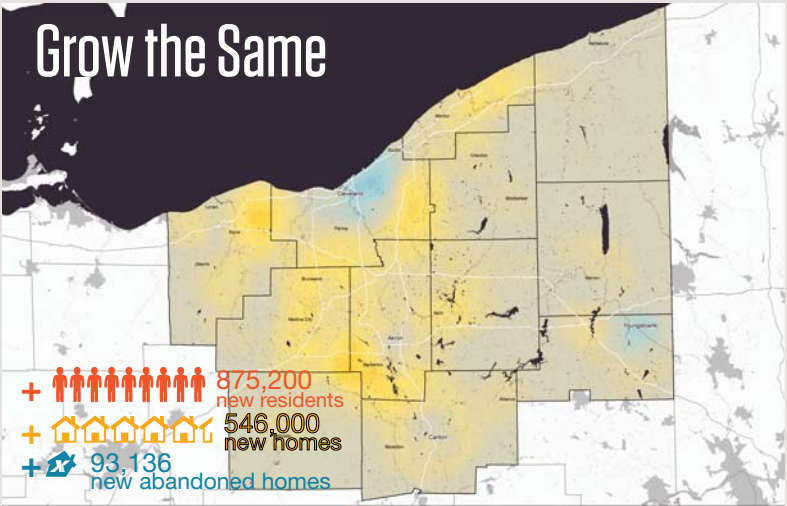
"Grow the Same" has the same emphasis on outward development as "Trend," but higher growth in this scenario reduces the amount of abandonment in existing communities.

Grow Differently

+ 875,200 new residents
+ 459,000 new homes
+ 2,400 new abandoned homes
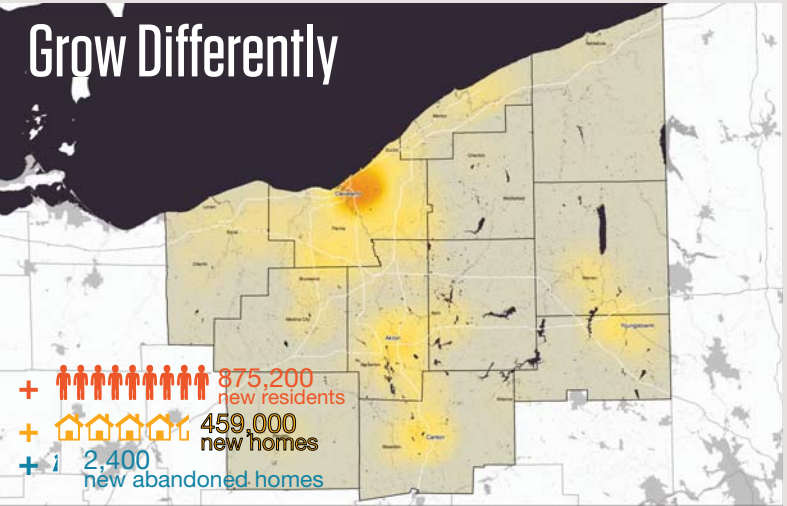
"Grow Differently" has the same increase in growth as "Grow the Same" and the same focus on reinvestment as "Do Things Differently." As a result, abandonment is the lowest.

Trend

+ 93,430 new residents
+ 276,800 new homes
+ 174,900 new abandoned homes
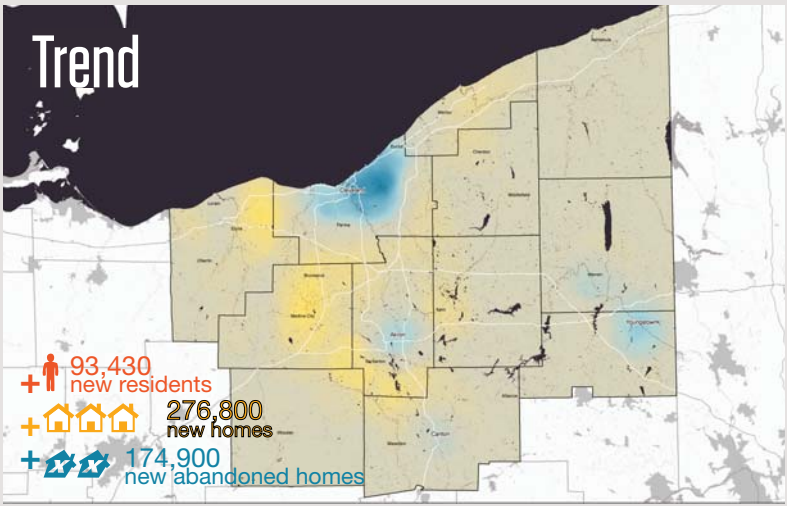
"Trend" has a nearly stable population but sizable growth away from existing communities. As a result, abandonment is highest.

Do Things Differently

+ 93,430 new residents
+ 120,700 new homes
+ 19,800 new abandoned homes
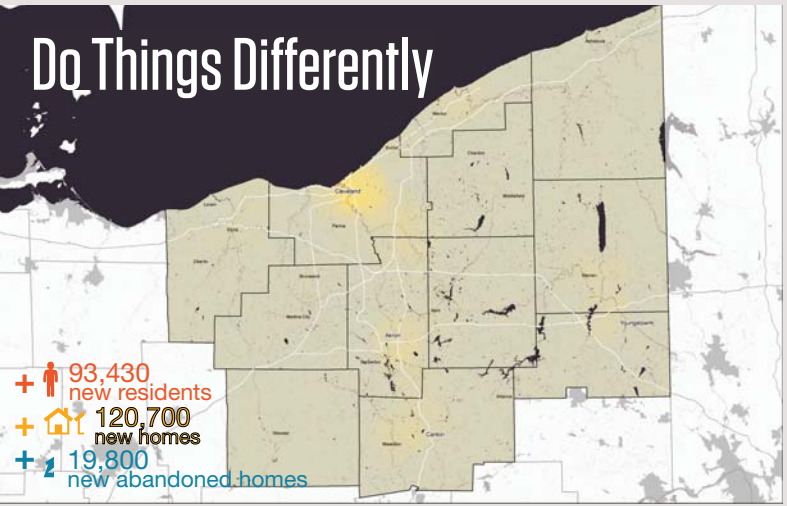
"Do Things Differently" focuses new development in and near existing areas. Abandonment is significantly lower than "Trend" even though there is no additional population growth because there are fewer "extra" housing units constructed.

Development Location

length = all development in each scenario

Scenario		
Trend	24,100 / 4,287	**69%** 64,100 acres
Grow the Same	47,900 / 5,000 / 8,900	**70%** 121,800 acres
Do Things Differently	4,300	**36%** 7,300 acres
Grow Differently	34,400 / 13,700	**40%** 32,200 acres

total developed acres
- 40,000 80,000 120,000 160,000

■ **Acres of Redevelopment**
(new development replaces existing)

■ **Acres of Infill or Adjacent Development**
(within 500' of existing development)

■ **Acres of "Leapfrog" Development**
(more than 500' away from existing development)

change in housing unit density

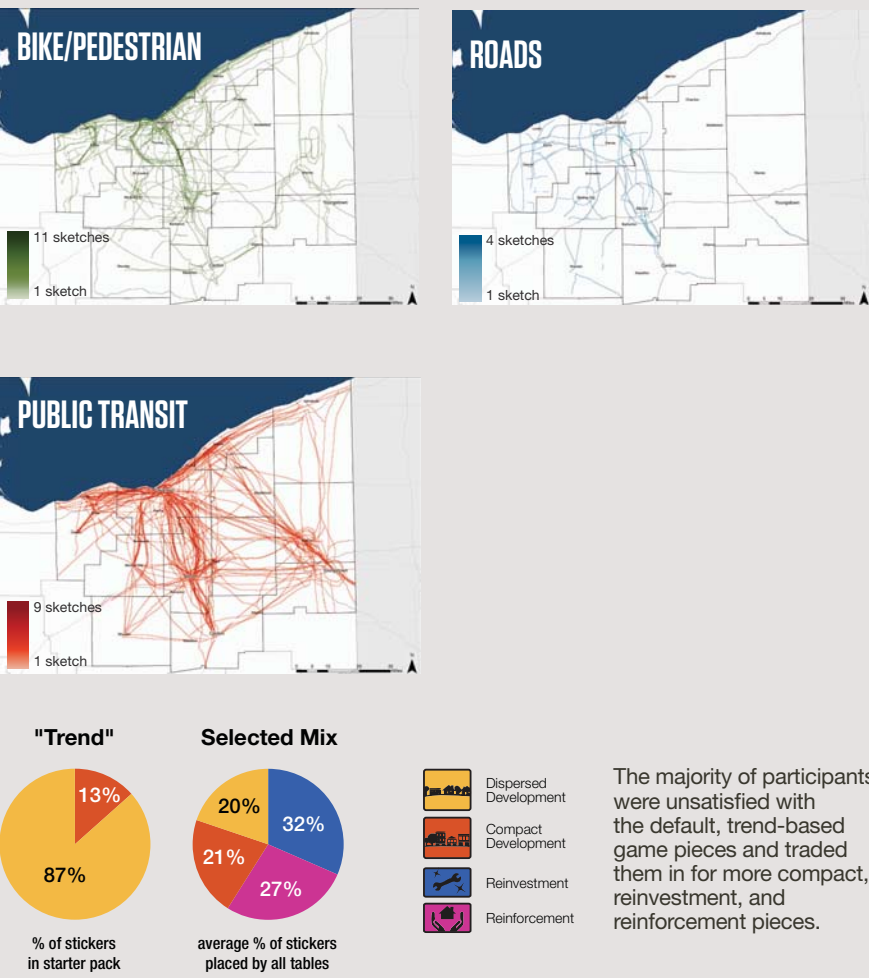decreasing — no change — increasing

VIBRANT NEO 2040

Different policies and market conditions can produce radically different development patterns for Northeast Ohio. These patterns have significant impacts on abandonment, fiscal stability, and the future of today's rural and undeveloped places.
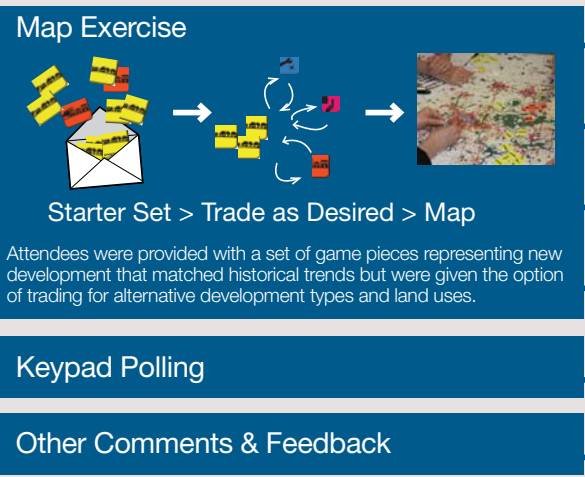
WORKSHOP 1 RESULTS

COMBINED VISION

Legend:
- Dispersed Development
- Compact Development
- Reinvestment
- Reinforcement
- Agriculture Conservation
- Other Conservation
- Bicycle/Pedestrian
- Public Transportation
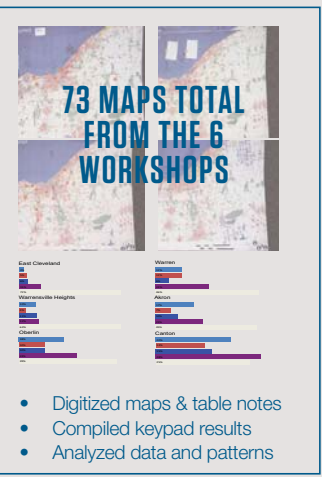- Road Investment
- Area with no game pieces or sketches
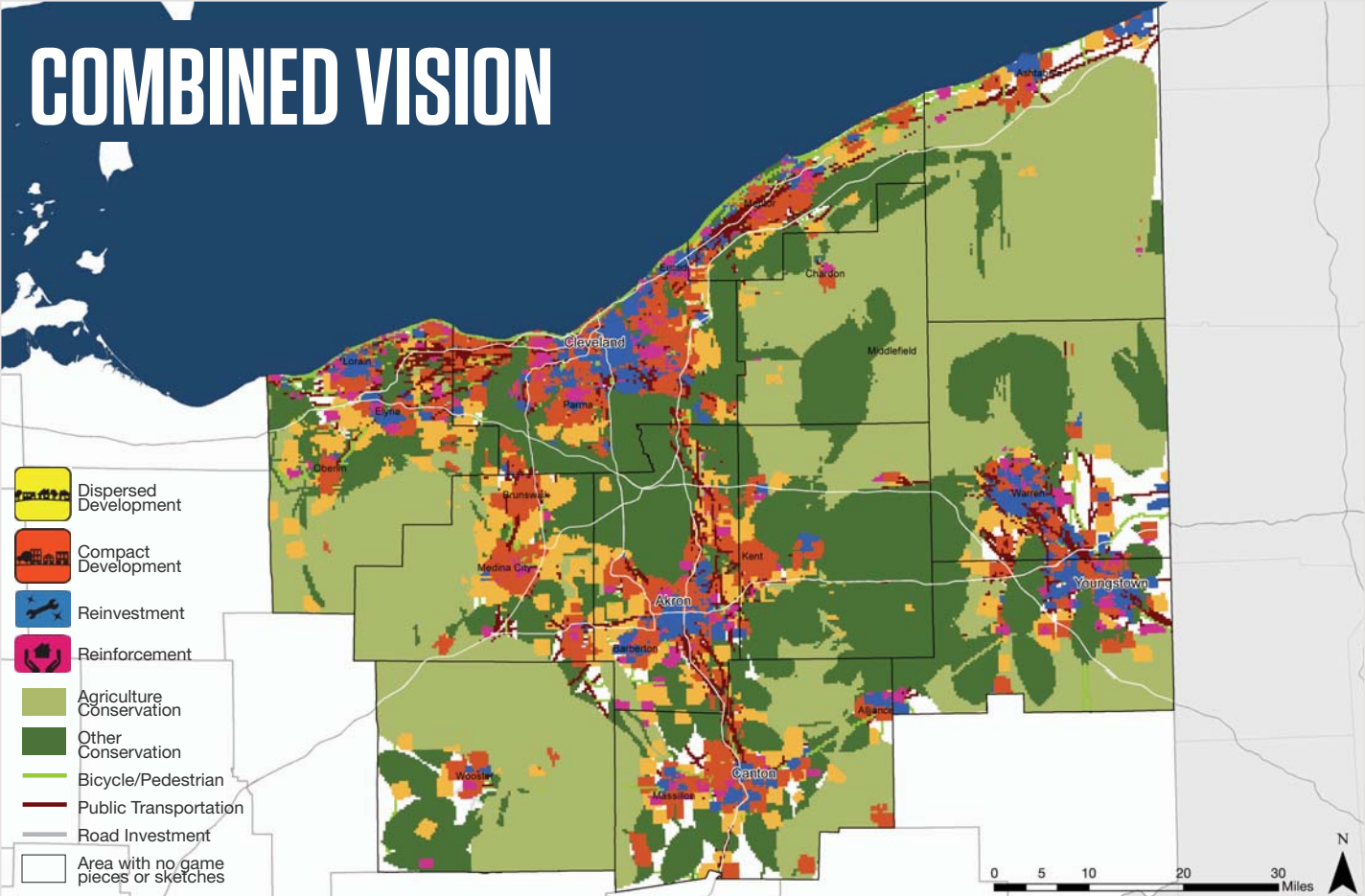
Feedback from all 73 maps from the Phase 1 Workshops was digitized and overlaid. This map shows the majority votes for each part of the region.

BIKE/PEDESTRIAN
11 sketches
1 sketch

ROADS
4 sketches
1 sketch

PUBLIC TRANSIT
9 sketches
1 sketch

"Trend"
- 13%
- 87%

% of stickers in starter pack

Selected Mix
- 20%
- 32%
- 21%
- 27%

average % of stickers placed by all tables

- Dispersed Development
- Compact Development
- Reinvestment
- Reinforcement

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

WORKSHOP 1 (SPRING 2013)

Map Exercise

Starter Set > Trade as Desired > Map

Attendees were provided with a set of game pieces representing new development that matched historical trends but were given the option of trading for alternative development types and land uses.

Keypad Polling

Other Comments & Feedback

ANALYSIS

73 MAPS TOTAL FROM THE 6 WORKSHOPS

- Digitized maps & table notes
- Compiled keypad results
- Analyzed data and patterns

FINDINGS

The majority of tables wanted to:

- Reinvest in legacy communities
- Balance auto-oriented development with communities that support walking, biking, and public transportation
- Protect natural and agricultural resources

ALTERNATIVE SCENARIOS

Priorities & Policies for the "Do Things Differently" & "Grow Differently" Scenarios

We incorporated the recurring feedback themes and the placement of the game pieces into the inputs for the "Do Things Differently" and "Grow Differently" scenarios.

VIBRANT NEO 2040

OPEN SPACE: ENVIRONMENT & AGRICULTURE

Importance of the natural environment

Forests, rivers, streams, lakes, wetlands, and other open spaces benefit our region in multiple ways by:

- cleaning air, soil, and water
- providing habitat for local wildlife and migrating birds
- offering recreation opportunities like hiking, canoeing, hunting, fishing, bird-watching, and mountain biking
- reducing flooding

Significance of agriculture

Agriculture is a major part of NEO's regional economy:

- Several internationally recognized brands have roots in Northeast Ohio
- Acts as a source of local economic development by supporting maple sugaring, wine making, and tourism

Development transforms open space and can diminish its ecological and economic functions

Loss of high ecological value land

Cuyahoga Valley National Park = 33,000 acres

Grow the Same 12,990 acres
Trend 6,280 acres
Grow Differently 3,340 acres
Do Things Differently 550 acres

New impervious land cover

Cuyahoga Valley National Park = 33,000 acres

Grow the Same 55,140 acres
Grow Differently 30,620 acres
Trend 28,320 acres
Do Things Differently 8,120 acres

Loss of prime agricultural land

Cuyahoga Valley National Park = 33,000 acres

Grow the Same 60,040 acres
Trend 31,100 acres
Grow Differently 18,810 acres
Do Things Differently 4,740 acres

What does high ecological value mean?
Areas of high ecological value support plants and animals and generate and protect natural resources. To identify these areas, we consider factors like vegetation, proximity to other open spaces, soil type, geographic features, and type of land or water (wetland, pond, river, coast, etc).

What is impervious land cover and why does it matter?
"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 and create runoff. Increased stormwater runoff can cause erosion, increase the risk of flooding, and lower water quality.

What is prime agricultural land?
The physical and chemical characteristics of land determine how suitable it is for growing food or other crops. Soil character and typical weather conditions are a few of the factors that influence whether land is well-suited for agriculture. Northeast Ohio has approximately 1.2 million acres of prime agricultural land.*

*Classification are based upon soil surveys from the Natural Resources Conservation Service (NRCS) which are developed in combination with input from local agencies. "Prime" land in this chart includes areas of prime farmland, farmland of local importance, and farmland of unique importance.
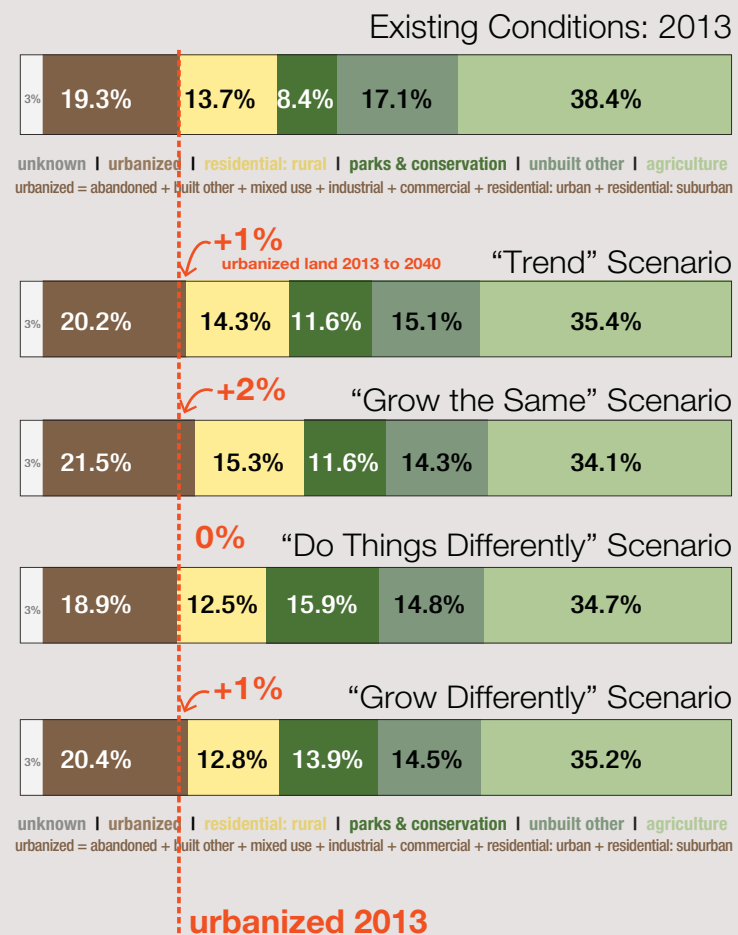
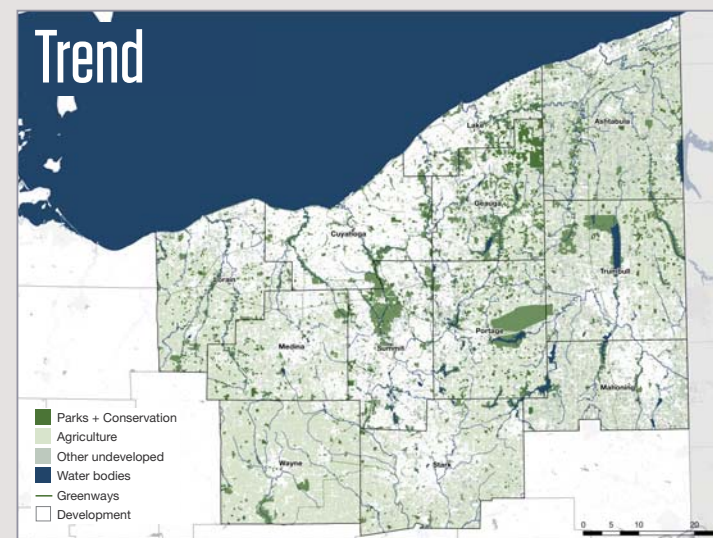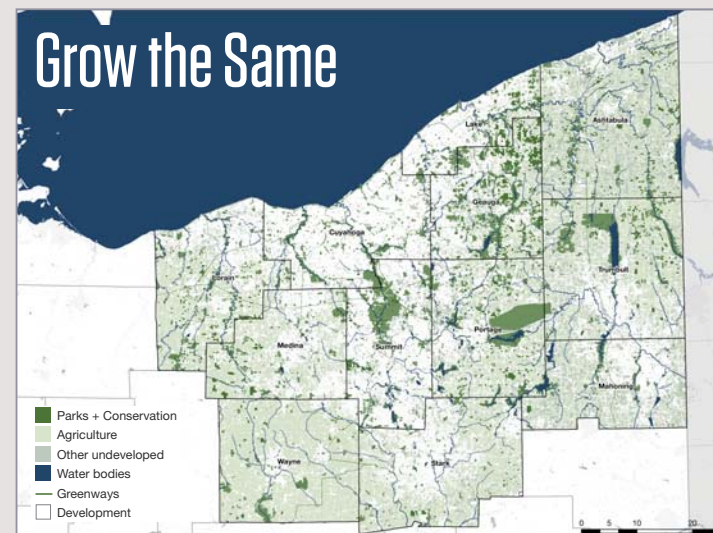## Scenario impacts on energy use and greenhouse gas emissions:

	"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)

VIBRANT NEO 2040

Development affects wildlife habitats, agriculture land, recreational open space, and air, water, and soil quality.

OPEN SPACE: ENVIRONMENT & AGRICULTURE

## Changes in open space and urbanized land across the scenarios

Existing Conditions: 2013

3%	19.3%	13.7%	8.4%	17.1%	38.4%

unknown | urbanized | residential: rural | parks & conservation | unbuilt other | agriculture
urbanized = abandoned + built other + mixed use + industrial + commercial + residential: urban + residential: suburban

+1% urbanized land 2013 to 2040

"Trend" Scenario

3%	20.2%	14.3%	11.6%	15.1%	35.4%

+2%

"Grow the Same" Scenario

3%	21.5%	15.3%	11.6%	14.3%	34.1%

0%

"Do Things Differently" Scenario

3%	18.9%	12.5%	15.9%	14.8%	34.7%

+1%

"Grow Differently" Scenario

3%	20.4%	12.8%	13.9%	14.5%	35.2%

unknown | urbanized | residential: rural | parks & conservation | unbuilt other | agriculture
urbanized = abandoned + built other + mixed use + industrial + commercial + residential: urban + residential: suburban

urbanized 2013

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).

Grow the Same

Parks + Conservation
Agriculture
Other undeveloped
Water bodies
Greenways
Development

Grow Differently

Parks + Conservation
Agriculture
Other undeveloped
Water bodies
Greenways
Development

Trend

Parks + Conservation
Agriculture
Other undeveloped
Water bodies
Greenways
Development

Do Things Differently

Parks + Conservation
Agriculture
Other undeveloped
Water bodies
Greenways
Development

The protection of open space in "Trend" and "Grow the Same" is based upon land prices and ecological value.* Acquisition is opportunistic and occurs where ecological value is high and land prices are low. As a result, new open space is likely to be disconnected and scattered.

* The ecological value of open space depends upon factors like vegetation, proximity to other open spaces, soil type, geographic features, and type of land or water (coast, river, etc).
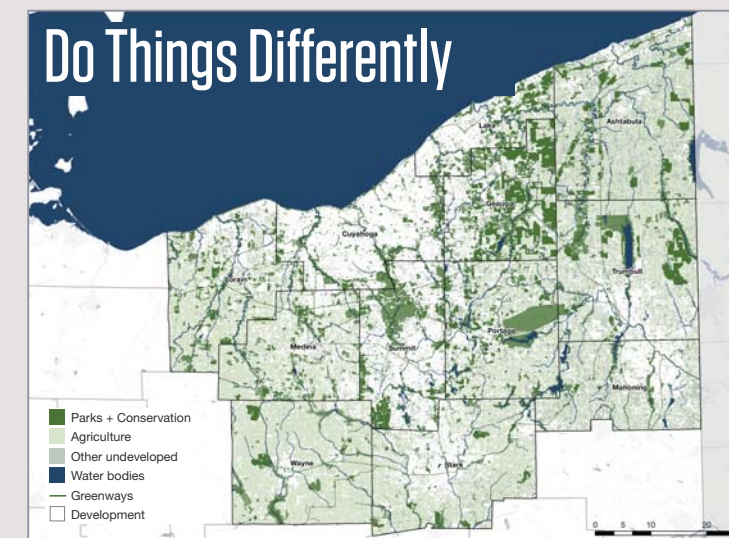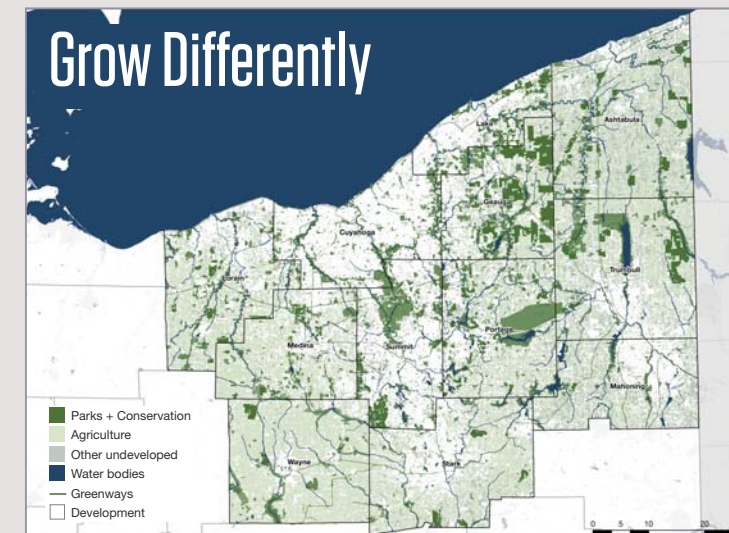
Open space acquisition in "Do Things Differently" and "Grow Differently" is driven by an overarching strategy that aims to protect:

- river and stream corridors and other water bodies
- large patches of land that are good for wildlife habitat
- linkages between existing open space and greenways, especially between Lake Erie and areas further south

In many places where this conservation occurs, and particularly along waterways and in linkages to the existing park network, we assume there will be trails and paths for walking, biking, and other forms of recreation.

VIBRANT NEO 2040

Northeast Ohio has significant environmental assets. Depending on the region's future course of action, these assets could be linked and protected or challenged by new development pressure.

DEVELOPMENT VS ENVIRONMENTAL PROTECTION

what if we
ALLOW DEVELOPMENT ANYWHERE?

Our development regulations are too much of a burden...

- Increased land supply can lower development costs
- Additional development generates tax revenue
- Development on or near sensitive ecological areas can disrupt their functions
- Development near waterbodies can create flood risks and hurts water quality

river corridors and water bodies impacted

Cuyahoga Valley National Park = 33,000 acres

Grow the Same 29,210 acres

Trend 14,800 acres

NEFCO

THE "TREND" AND "GROW THE SAME" SCENARIOS ALLOW DEVELOPMENT TO OCCUR NEAR WATERBODIES

what if we protect
ENVIRONMENTALLY SENSITIVE AREAS?

Natural resources are important and need to be protected...

- Protects water quality and preserves habitat for wildlife
- Keeps development out of areas that are at risk for flooding
- Creates building restrictions, which could increase development costs or cause a developer to go elsewhere

"DO THINGS DIFFERENTLY" AND "GROW DIFFERENTLY SCENARIOS" DO NOT ALLOW DEVELOPMENT TOO CLOSE TO WATERBODIES

Streams: 75' buffer or 100 year floodplain, whichever is greater

Ponds, Lakes, and Wetlands: 120 ft. buffer

Rivers: 210' buffer or 100 year floodplain, whichever is greater
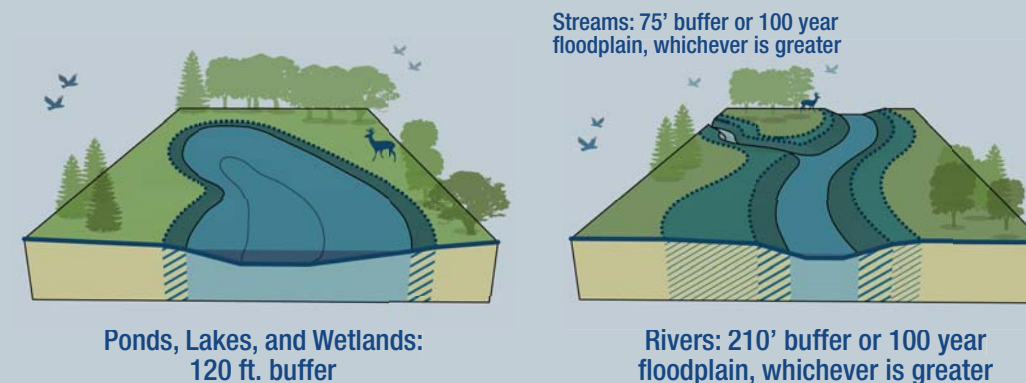
The "Do Things Differently" and "Grow Differently" Scenarios increase the limits on new development by preventing new development in sensitive environmental areas adjacent to waterbodies. These constraints are adapted from model ordinances from Chagrin River Watershed Partners (http://www.crwp.org/index.php/member-services/model-regulations).

VIBRANT NEO 2040

There is competition for land. Many natural areas provide important ecological functions, but they also represent potential development revenue.

PLACE TYPES and COMMUNITY CHARACTER

What do you want your community to look like? The physical surroundings are more than aesthetics; they impact whether it's possible to walk and bicycle, whether public transportation is viable, energy consumption, other environmental impacts, infrastructure costs, tax revenue, and more.

what if we develop in a DISPERSED PATTERN?
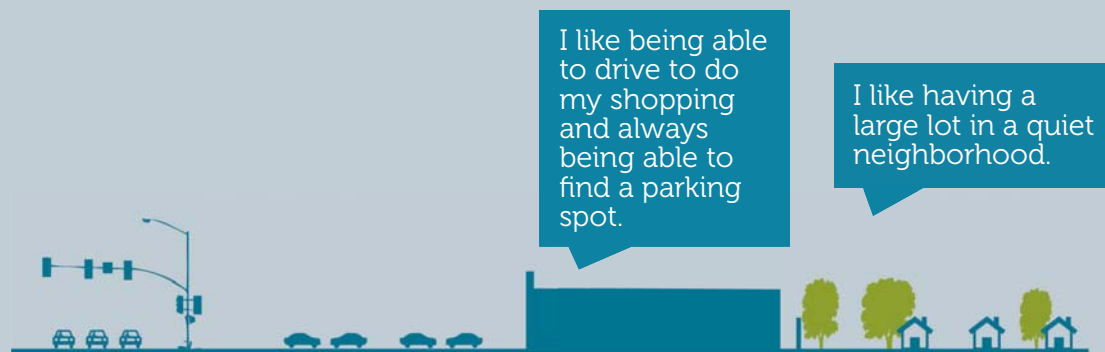
> I like being able to drive to do my shopping and always being able to find a parking spot.

> I like having a large lot in a quiet neighborhood.

- 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?
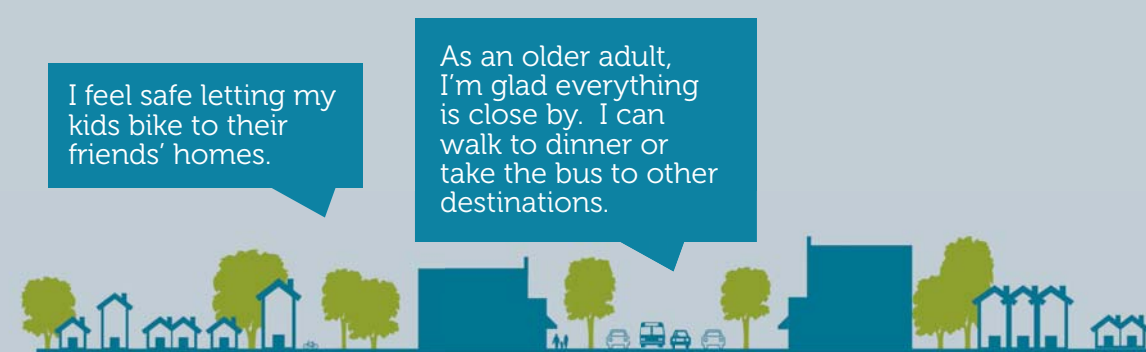
> I feel safe letting my kids bike to their friends' homes.

> As an older adult, I'm glad everything is close by. I can walk to dinner or take the bus to other destinations.

- 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.

CARS vs. PUBLIC TRANSPORTATION

The scenarios test two different transportation approaches: one that emphasizes auto-oriented investment, and a second that balances 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.

what if we prioritize
AUTO-ORIENTED DEVELOPMENT?

Transportation 2040
"Trend" & "Grow the Same"
Scenarios
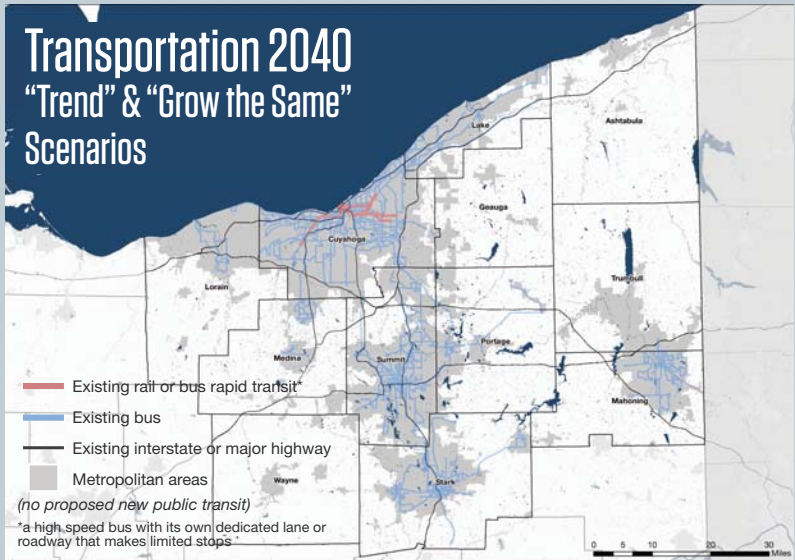
Roads are what we use most, so that's where our tax dollars should go. Transit's not a priority here.

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

The transportation strategy behind this network 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.

what if we prioritize
PUBLIC TRANSIT & WALKABILITY?

I'd love to commute to work by train, but currently I don't have reliable service. In these scenarios, I can own a car but don't need to use it for every trip.

Transportation 2040
"Do Things Differently" &
"Grow Differently" Scenarios

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

These scenarios represent a significant additional investment in public transportation. 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 and Akron metro areas and extend a commuter bus line from Akron to Youngstown. 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.

	"Trend"	"Grow the Same"	"Do Things Differently"	"Grow Differently"
Average daily vehicle miles traveled per household*	23.7 miles	25.4 miles	22.5 miles	22.0 miles
Average weekly non-auto trips per household*	8.5 trips	8.2 trips	10.0 trips	9.6 trips
* Only household-based trips included				

THE TRANSPORTATION NETWORK INFLUENCES HOW PEOPLE GET AROUND AND HOW MUCH THEY DRIVE.

VIBRANT NEO 2040

Transportation goes beyond mobility: it is a cross-cutting theme that influences, and is influenced by, development, land use, place types, and community character.

PUBLIC TRANSPORTATION trade-offs

BENEFITS OF PUBLIC TRANSPORTATION

100 people per bus maximum capacity

Bus Rapid Transit (BRT)

600 people per train maximum capacity

Light Rail Transit (LRT)

1,000 people per train maximum capacity

Commuter Rail
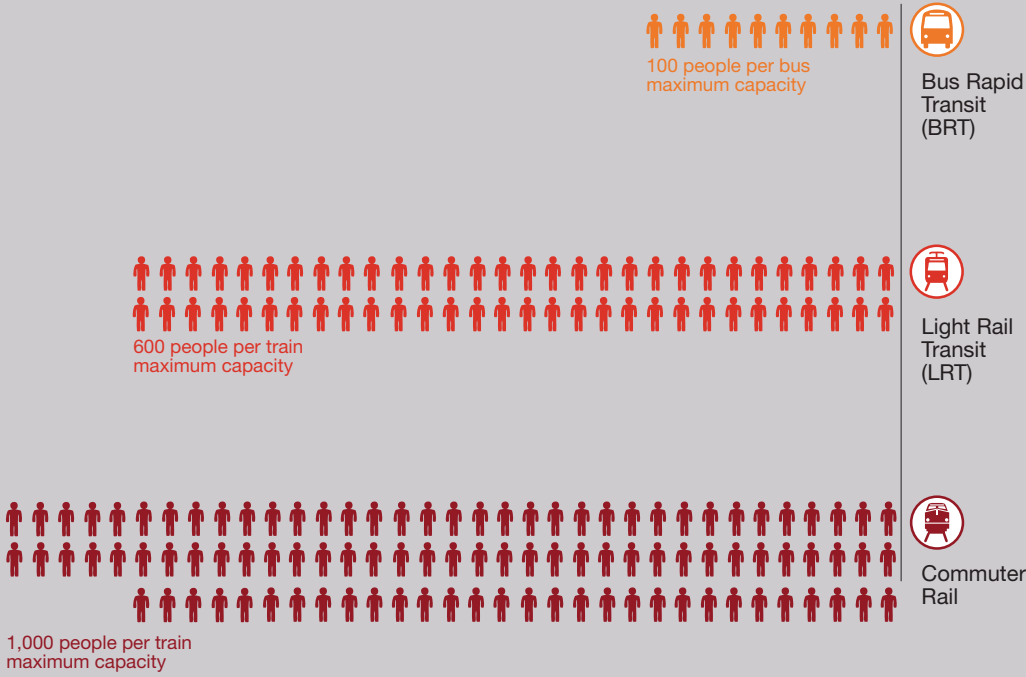
OTHER BENEFITS

- Connects people and jobs
- Improved mobility for people of all ages
- Catalyst for development
- Creates jobs
- Moves more people in the same amount of roadspace
- Improves air quality and reduces greenhouse gas emissions
- Reduces transportation costs

COSTS OF PUBLIC TRANSPORTATION

Bus Rapid Transit (BRT)

$7M to $24M per mile, average = $13.5 million
- training 10,500 workers
- demolishing and greening 775 abandoned homes
- improving or building 70 miles of pedestrian / bicycle infrastructure
- building 60 acres of parks
- building 2.5 miles of roads

Building one mile of BRT costs the same as . . .

Light Rail Transit (LRT)

$45M to $200M per mile, average = $50 million
- 39,000 workers
- 2,800 abandoned homes
- 260 miles pedestrian/bicycle infrastructure
- 225 acres of parks
- 8 miles of roads

Commuter Rail

$160M to $611M per mile, average = $160 million
- 125,000 workers
- 9,200 abandoned homes
- 850 miles of pedestrian/bicycle infrastructure
- 700 acres of parks
- 40 miles of roads

CASE STUDY: CLEVELAND HEALTHLINE BRT

> $5.9 BIL ECONOMIC BENEFITS   VS. $200 MIL CAPITAL COSTS

- The HealthLine is a Bus Rapid Transit (BRT) in downtown Cleveland. The 9.38 miles long system includes 36 stations.
- Ridership has been increasing steadily since the system opened in 2008. (48.2 million passenger trips in 2012, a 5% increase from previous year)
- This year, the Healthline was ranked as the top BRT line in the US by the Institute for Transportation and Development Policy (rankings are based on service planning, infrastructure, station design, quality of service, and access)
- Capital Costs: $200 million total ($168.4 million for the transit component was provided by the full funding grant agreement with the FTA; $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 rehab; generated $62 million in local taxes; and increased jobs by 13,000

VIBRANT NEO 2040

Public transportation has many benefits. Although it does require significant capital investment, a well-designed system usually creates positive economic impacts that exceed costs.

FISCAL HEALTH: JOBS, INFRASTRUCTURE, & SERVICES

We've heard that jobs and the economy are top priorities for Northeast Ohio. The different development patterns and infrastructure investments shown in the scenarios produce very different outcomes for public budgets and ultimately the taxpayers.

What do these graphs mean?

Local Government Revenue to Spending Ratio by County

revenue exceeds spending

20%

0

-20%

-40%

-60%

spending exceeds revenue
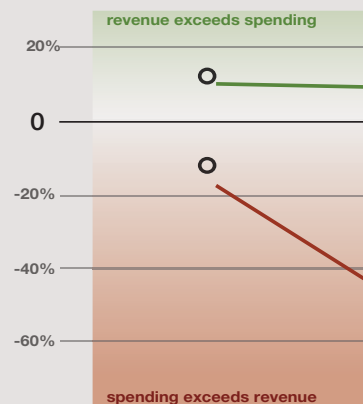
Green = Fiscally Strong
- Values greater than 0 mean that the government is bringing in more revenue than it is spending
- These budget surpluses indicate more money is available to finance new infrastructure projects, fund school systems, and maintain existing infrastructure

Red = Fiscally Weak
- Values less than 0 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

Trend

"GROW THE SAME"	"GROW DIFFERENTLY"
"TREND"	"DO THINGS DIFFERENTLY"

Local Government Revenue to Spending Ratio by County

revenue exceeds spending

20%

0

-20%

-40%

-60%

spending exceeds revenue

Current*

Trend

2040

● Regional total
○ County total
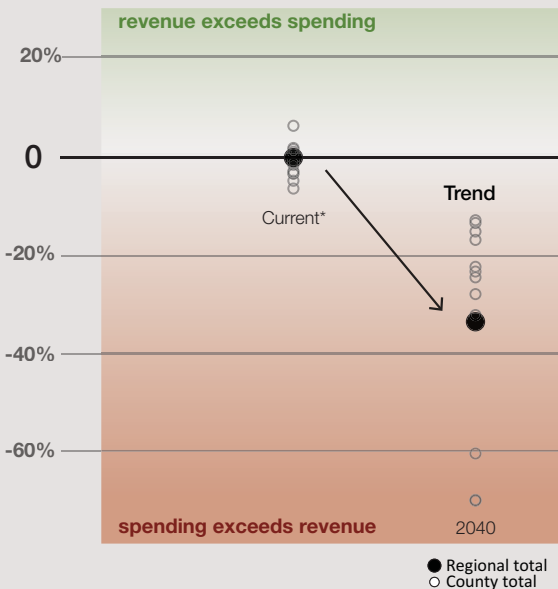
Financial Outcomes
- Negative fiscal impact across the region
- All counties experience declining revenues compared with costs
- The most fiscally strong county in 2040 is weaker than the weakest county today

What is driving these changes?
- **High Cost of New Infrastructure:** Most new development is dispersed and requires lots of new roads and utilities. These are expensive to build and maintain. The costs of this kind of development to the municipality usually exceed revenue over the long term.
- **High Rates of Abandonment:** The high rates of new abandonment result in lost tax revenue and additional demolition and clean-up costs. The per-person cost of infrastructure increases because fewer people are left to pay for systems sized for a much larger population.

VIBRANT NEO 2040

If current trends continue, all counties will be operating "in the red."

FISCAL HEALTH: JOBS, INFRASTRUCTURE, & SERVICES

Consequences of adding more & jobs

"Grow the Same"

The difference between "Trend" and "Grow the Same" is an increase in 800,000 people and 400,000 jobs.

Local Government Revenue to Spending Ratio by County
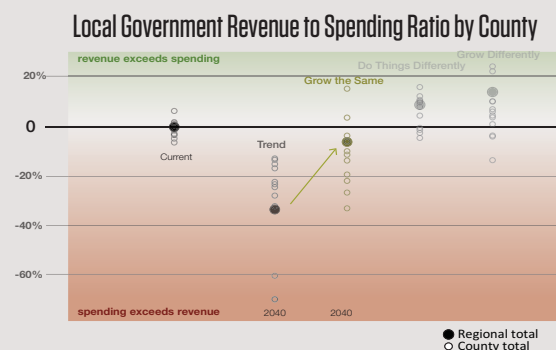
Financial Outcomes

- The region overall performs better with more people and jobs, but some counties still see rising costs relative to revenue compared with today.
- There is an increased disparity between fiscally strong and fiscally weak counties. Some counties do very well; others do very poorly.
- Many of the counties "in the red" are relatively rural today and experience an influx of people by 2040 in this scenario. Either tax rates or land use policy would need to change in order to pay for the infrastructure and services required to support the new population.

What is driving these changes?

- More people and jobs add revenue, but this change alone doesn't solve all of the region's fiscal challenges.
- Some of the additional residential growth, particularly the dispersed, auto-oriented development, creates long-term costs that outweigh the revenue generated.
- Sheer numbers help fill in the gaps created by outward migration and result in lower abandonment and improved fiscal outcomes for the legacy industrial cities.

Consequences of alternative policies and investments

"Do Things Differently"

The difference between "Trend" and "Do Things Differently" is a change in policies and investments.

Local Government Revenue to Spending Ratio by County
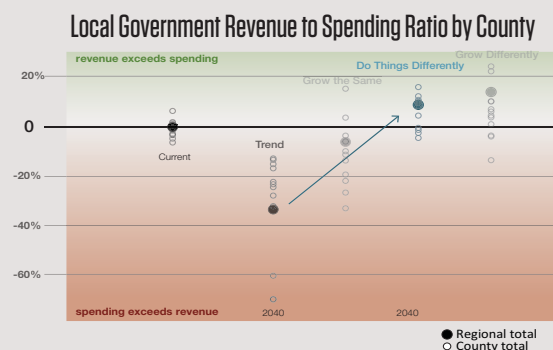
Financial Outcomes

- The region overall performs better financially in this scenario than it does today.
- The improvements associated with the new policies and investments of "Do Things Differently" have nearly twice the magnitude of those created simply by adding more people and jobs, as seen in the "Grow the Same" scenario.
- This scenario has the least variation between the fiscally strongest and weakest counties.

What is driving these changes?

- Takes advantage of infrastructure that has already been built.
- Capitalizes on legacy industrial sites as unique assets for future industry job growth.
- More compact options with improved transit access - revenue exceeds costs.
- Minimal increase in abandonment

Consequences of adding more people & jobs and alternative policies and investments
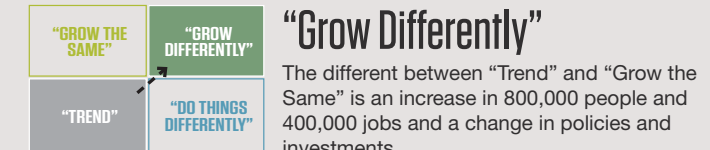
"Grow Differently"

The different between "Trend" and "Grow the Same" is an increase in 800,000 people and 400,000 jobs and a change in policies and investments.

Local Government Revenue to Spending Ratio by County
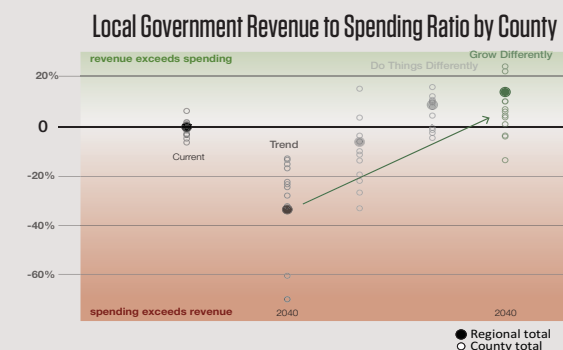
Financial Outcomes

- This scenario has 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 Differently."
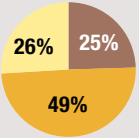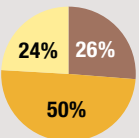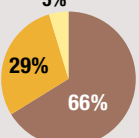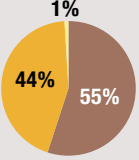
What is driving these changes?

- 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." These tend to be counties that are rural today but are growing rapidly relative to their existing population. For those communities, this scenario doesn't mean that a balanced budget is out of reach: it means that it will difficult for them to add population, maintain the same tax structures and development patterns as today, and balance their budgets.

VIBRANT NEO 2040

More jobs and better policies can each individually improve the fiscal health of the region, but the best outcomes result from a coordinated effort that combines both. Also, the scenarios show that it's possible for the region to achieve financial stability even without a large increase in population and employment. Finally, those communities that are rural today but rapidly growing will need to make important decisions about managing growth in the future in order to preserve their values while maintaining balanced budgets.

SCENARIO SUMMARY

Legend:
- "GROW THE SAME"
- "GROW DIFFERENTLY"
- "TREND"
- "DO THINGS DIFFERENTLY"

Scenario	Population 2040	Employment 2040	Population Growth 2010-2040	Employment Growth 2010-2040	New Parks + Conservation Land	New Homes (# and type)	New Abandoned Homes
"Trend" Scenario	3,914,600 residents	1,839,800 jobs	+ 93,430 new residents	+ 108,100 new jobs	+ 121,500 new acres of parks + conserved land	+ 276,800 new housing units (25% / 49% / 26%)	+ 174,900 new abandoned housing units
"Grow the Same" Scenario	4,696,400	2,232,700	+ 875,000	+ 501,000	+ 121,500	+ 546,000 (26% / 50% / 24%)	+ 93,100
"Do Things Differently" Scenario	3,914,600	1,839,800	+ 93,430	+ 108,100	+ 288,500	+ 120,000 (66% / 29% / 5%)	+19,800
"Grow Differently" Scenario	4,696,400	2,232,700	+ 875,000	+ 501,000	+ 205,600	+ 459,000 (55% / 44% / 1%)	+ 2,400

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

VIBRANT NEO 2040

Acres of Outward Migration	Lane Miles of New Roads	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
23,400 acres consumed by outward migration	3,100 lane miles of new roads	31,100 acres of prime farmland lost	6,300 acres of conserved land lost	28,300 acres 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
48,400	6,000	60,000	12,000	55,100	25.4	39%	25%	-6.4%
4,100	700	4,700	500	8,100	22.5	50%	35%	+10.4%
29,800	2,400	18,800	3,300	30,600	22.0	53%	34%	+13.8%

VIBRANT NEO 2040

IMAGINE My NEO

You can play today! Feedback is still being collected!

WHAT IS IMAGINE MY NEO?

ImagineMyNEO is an interactive, online tool for envisioning the future of Northeast Ohio. As of mid-July, 1,067 unique responses had been recorded, representing all 12 counties of the region. Developed as part of Vibrant NEO, **ImagineMyNEO** offers individuals a chance to learn about planning issues, opportunities, and tradeoffs, as well as to explore potential policies and investments. Responses to **ImagineMyNEO** will be used to inform a preferred future scenario.

Color indicates how well budget and policy choices support priorities
LOW — HIGH
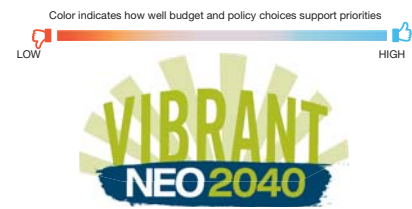
The above image presents a preliminary composite profile of the region's priorities, based on the responses received as of mid-July on ImagineMyNEO.

HOW DOES IT WORK?

1. Identify Priorities

ImagineMyNEO first asks users to identify their priorities for the future. Users give stars to the priorities they value most. The size of the icons represents the number of stars selected assigned to the issue.

2. Understand Impacts

Second, users can learn about how different planning projects and policies impact the priorities they selected. Icons change color as users click on policies that might have a positive, neutral, or negative impact, and clicking on each icon reveals a written explanation. The colors of the icons represent how selected projects and policies support respondents' priorities.

3. Plan a Scenario

In the final stage, it's decision time: users have 15 coins and may choose as many policies as they want and as many projects as they can afford.

In the final screens, users can view a map to see what people voted for in different counties. Users can click on individual projects and policies to see where they are receiving the greatest percentage of the votes.

IMAGINE My NEO

PRIORITIES

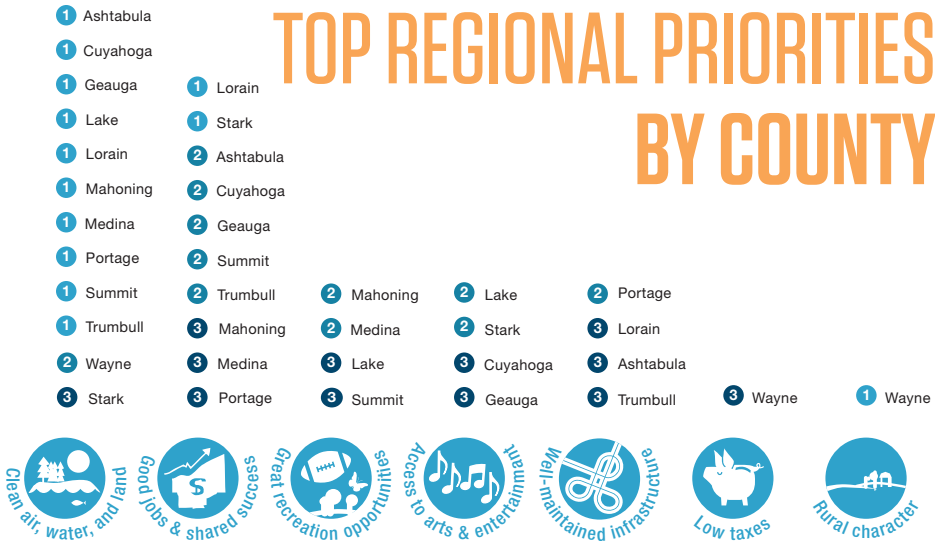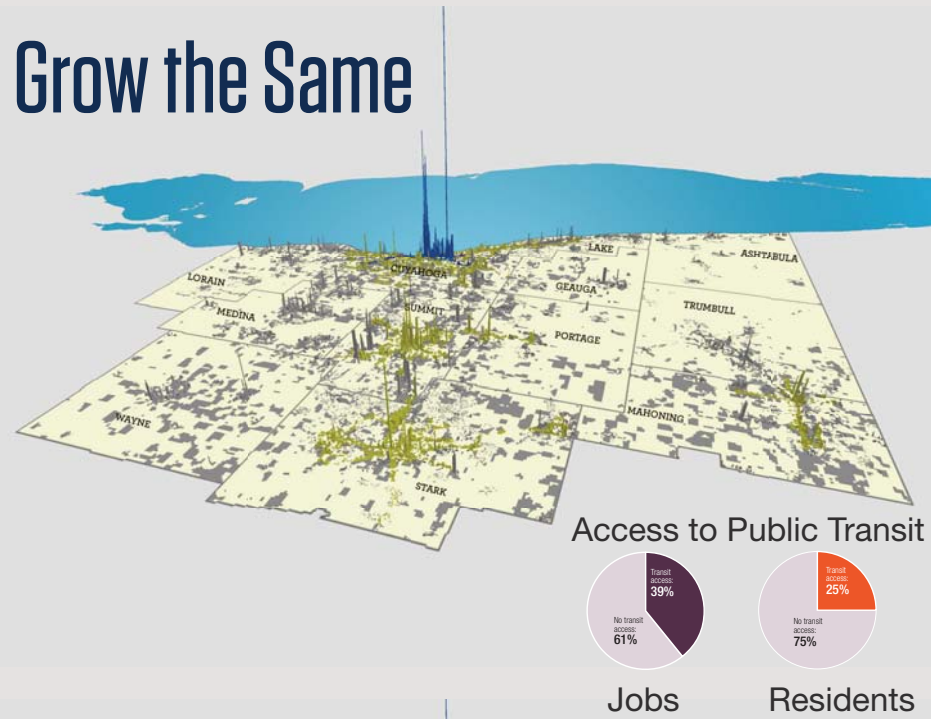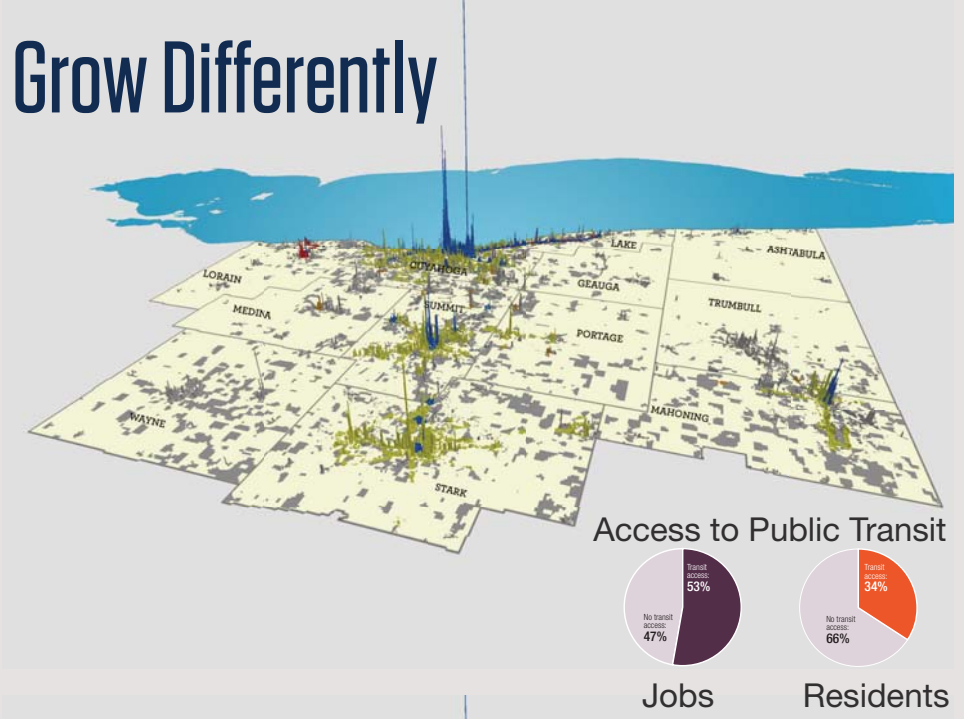|	TOTAL STAR VOTES ★★★★★	COMPOSITE STARS ★★★★★
We have clean air, water, and land	3,676	★★★½
Residents can find good jobs and share in the region's financial success	3,453	★★★
There are recreational opportunities and parks nearby	3,155	★★★
I can experience great arts, culture, sports, and entertainment	3,152	★★★
We preserve our open spaces and natural resources	3,118	★★★
We have well-maintained infrastructure	3,109	★★★
Children can safely walk or bike to neighborhood schools	2,924	★★★
I can get to places without a car	2,656	★★½
We preserve and invest in our central cities	2,550	★★½
My community has an urban character	1,920	★★
My taxes are low	1,783	★★
I can easily stay in my community after I retire	1,631	★½
My community has a rural character	926	★
My community has a suburban character	896	★
There are fewer local development and zoning regulations	777	★

TOP REGIONAL PRIORITIES BY COUNTY

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

Clean air, water, and land · Good jobs & shared success · Great recreation opportunities · Access to arts & entertainment · Well-maintained infrastructure · Low taxes · Rural character

POLICIES & PROJECTS

TOTAL DISLIKES 👎 | TOTAL LIKES 👍

Policy	Dislikes	Likes
Encourage mixed-use development	326	741
Locate new jobs, major developments, and key services near transit	328	739
Regionalize or encourage interlocal provision of some services	350	717
Enact stronger local pollution regulations	382	685
Share local tax revenues regionally	385	682
Encourage a greater variety of housing types in the community	387	680
Require developers to pay for their own infrastructure	391	676
Allow higher residential densities in my community	440	627
Enable townships to manage their growth	460	607
Relax government regulations on development	482	585
Reduce the size and reach of local government	500	567

STANDARDIZED COINS

Project	Coins
Clean up vacant and abandoned properties, including brownfields	507
Invest in creating vibrant public spaces	389
Invest in pedestrian, bicycling, and transit services	371
Invest in job training	349
Provide incentives for job creation	317
Build more community parks	313
Prioritize maintenance of existing infrastructure	294
Expand and connect network of open, green, and natural spaces	175
Establish land trusts to protect the region's farms	117
Lower local taxes	34
Prioritize investment in new infrastructure	10

*The above coin totals represent a standardized total assigned to each project based on the proportion of coins received for each project category to the total coins possible for each project category.

TRANSPORTATION connecting people & jobs

Grow the Same

Access to Public Transit

Transit access 39%
No transit access 61%
— Jobs

Transit access 25%
No transit access 75%
— Residents

Grow Differently

Access to Public Transit

Transit access 53%
No transit access 47%
— Jobs

Transit access 34%
No transit access 66%
— Residents

Trend

Access to Public Transit

Transit access 41%
No transit access 59%
— Jobs

Transit access 25%
No transit access 75%
— Residents

Do Things Differently

Access to Public Transit

Transit access 50%
No transit access 50%
— Jobs

Transit access 35%
No transit access 65%
— Residents
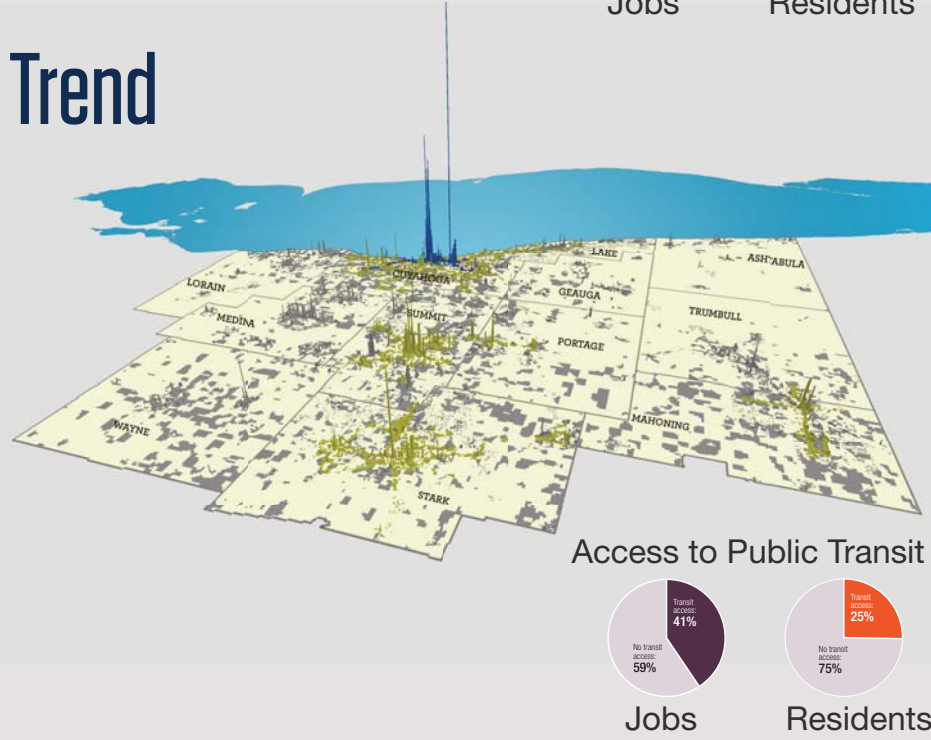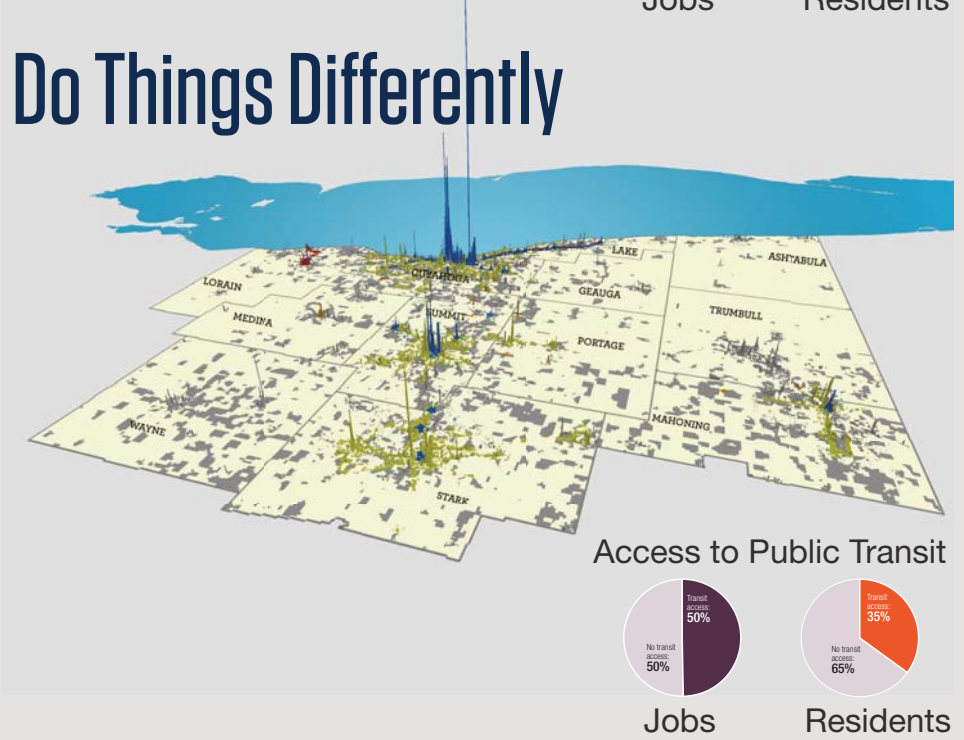
One of the most important functions of public transportation is to connect people and jobs. This is an issue especially for low income workers in Northeast Ohio, as established in the 2013 Regional Analysis Of Impediments to Fair Housing Choice and Fair Housing Equity Assessment.
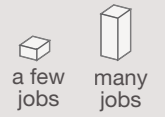
Bar height shows job density in each scenario, and colors show transit accessibility

Height of bar = job density in 2040

a few jobs   many jobs

Shading = Proximity to transit station or stop

- Access to multiple modes
- Commuter rail access
- BRT access
- Express bus access
- Local bus access
- No transit access

VIBRANT NEO 2040

Currently, many of the region's job centers are only accessible by car. The transit networks in "Do Things Differently" and "Grow Differently" significantly enhance access to these sites.