



Thinking like a (sustainable) region in Northeast Ohio

David Beach
GreenCityBlueLake Institute,
Cleveland Museum of Natural History
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Key questions for NEOSCC

- What does it mean to be sustainable at the regional scale?
- What issues need to be addressed at the regional scale?
- How do we implement long-term transitions toward greater regional sustainability?

Ways we are sustainable

- Abundant water
- Resilient ecosystems
- Less severe impacts from changes to the climate
- Diversity of landscapes
- Abundant assets from the past (cultural, educational, manufacturing know-how, medical facilities, infrastructure)
- History of good urban design and sustainable transportation



Ways we are *not* sustainable

- Water and air pollution
- Loss of natural areas and ecological functions
- Energy intensity and vulnerability
- Automobile dependency
- Fiscal crises
- Failing infrastructure
- Concentrations of poverty
- Housing market mismatch



Been down this regional road before...

Ohio Task Force on Regional Competitiveness and Cooperation

Drake-Sweeney-Ray Summits on Regional Competitiveness

Ohio Farmland Preservation Task Force

Church in the City (Cleveland Catholic Diocese)

Regional Environmental Priorities Initiative (CWRU)

Citizen's Bioregional Plan (EcoCity Cleveland)

Managing Change statewide conferences (OSU Extension, et al)

Northeast Ohio First Suburbs Consortium

Sustainable Communities 2000

Clean Water 2000 (NOACA and NEFCO)

Voices & Choices (Fund for Our Economic Future)

Lake Erie Balanced Growth Program (Ohio Lake Erie Commission)

Regional Prosperity Initiative (Northeast Ohio Mayors)

Youngstown 2010 (City of Youngstown)

MPO long-range plans



Common themes

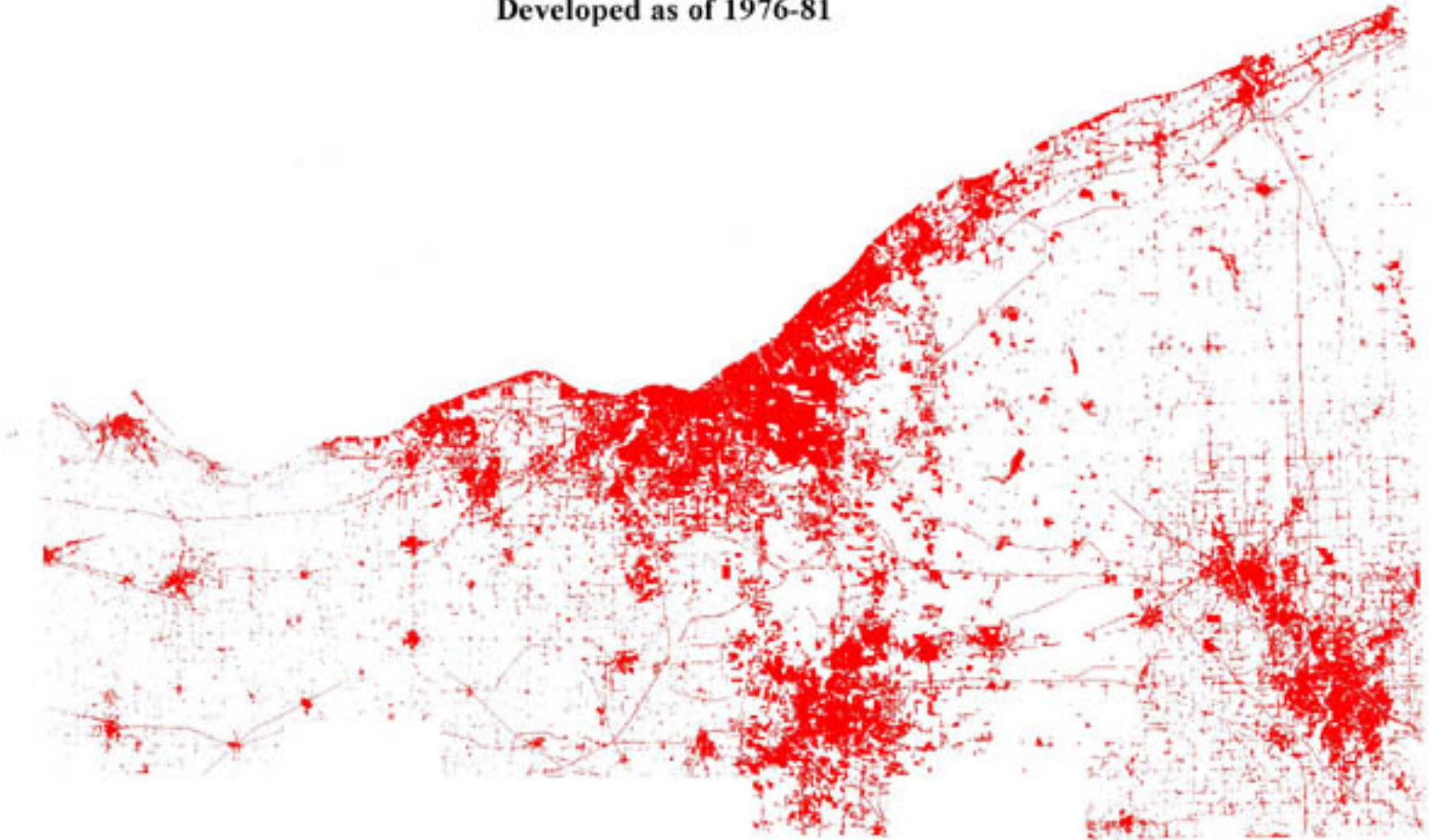
- Regional citistates compete in the new global economy
- The region's fragmentation makes us less competitive
- Key dynamic: Sprawl without growth
- Low-density, haphazard sprawl is costly and creates fiscal, environmental, transportation, and social problems
- We're not meeting the new market demand for vibrant, walkable communities





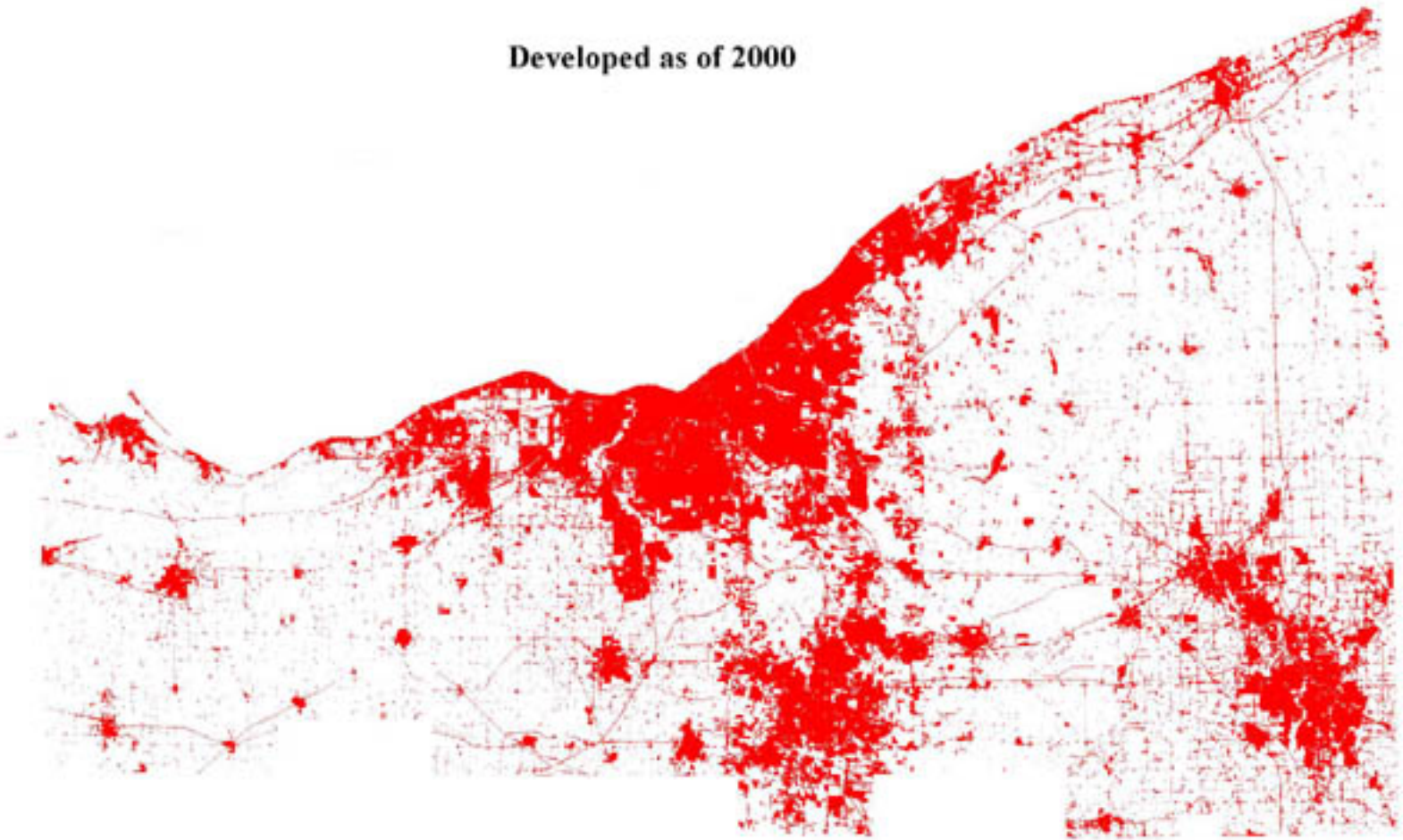


Developed as of 1976-81



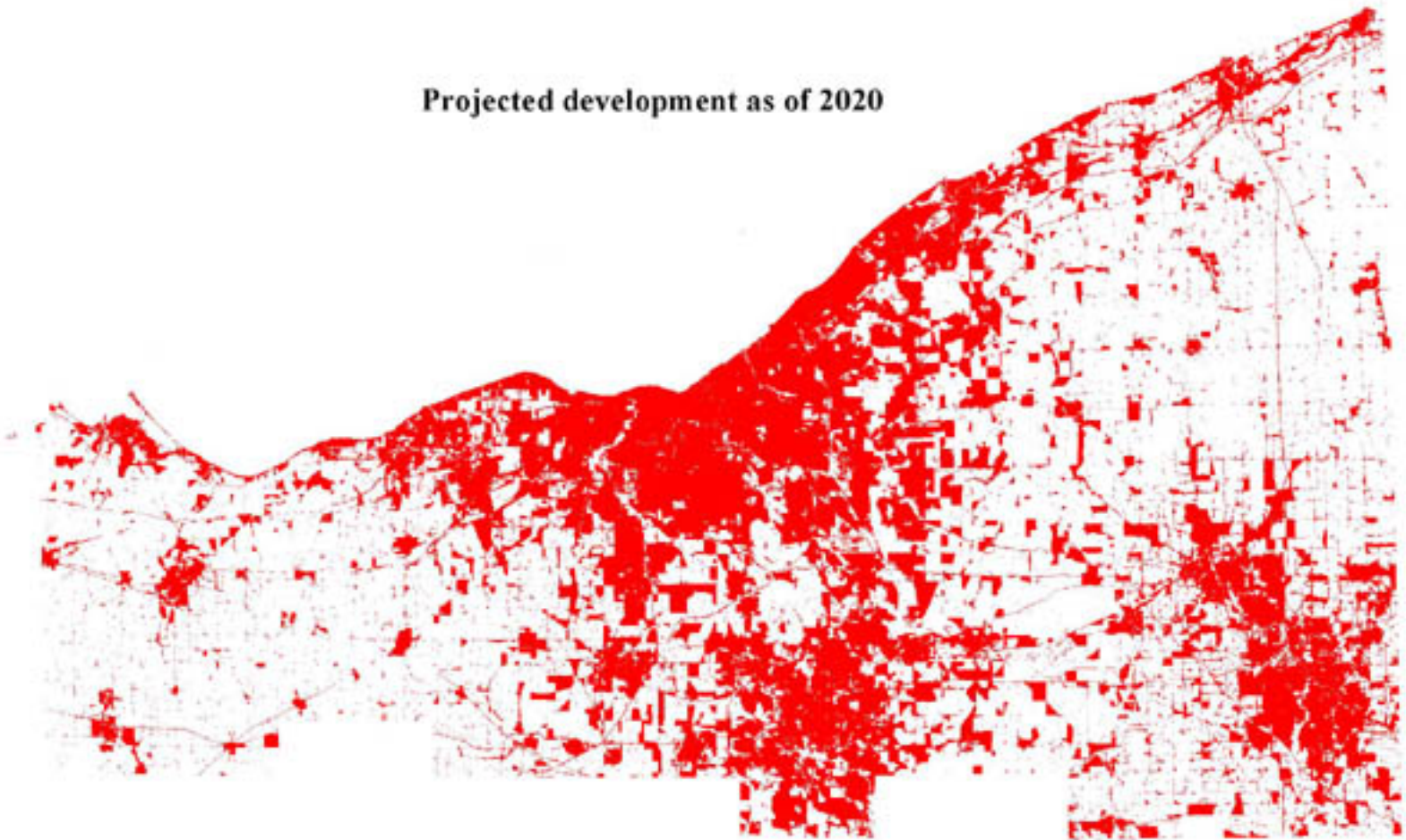
Source: NODIS for GreenCityBlueLake

Developed as of 2000



Source: NODIS for GreenCityBlueLake

Projected development as of 2020



Source: NODIS for GreenCityBlueLake



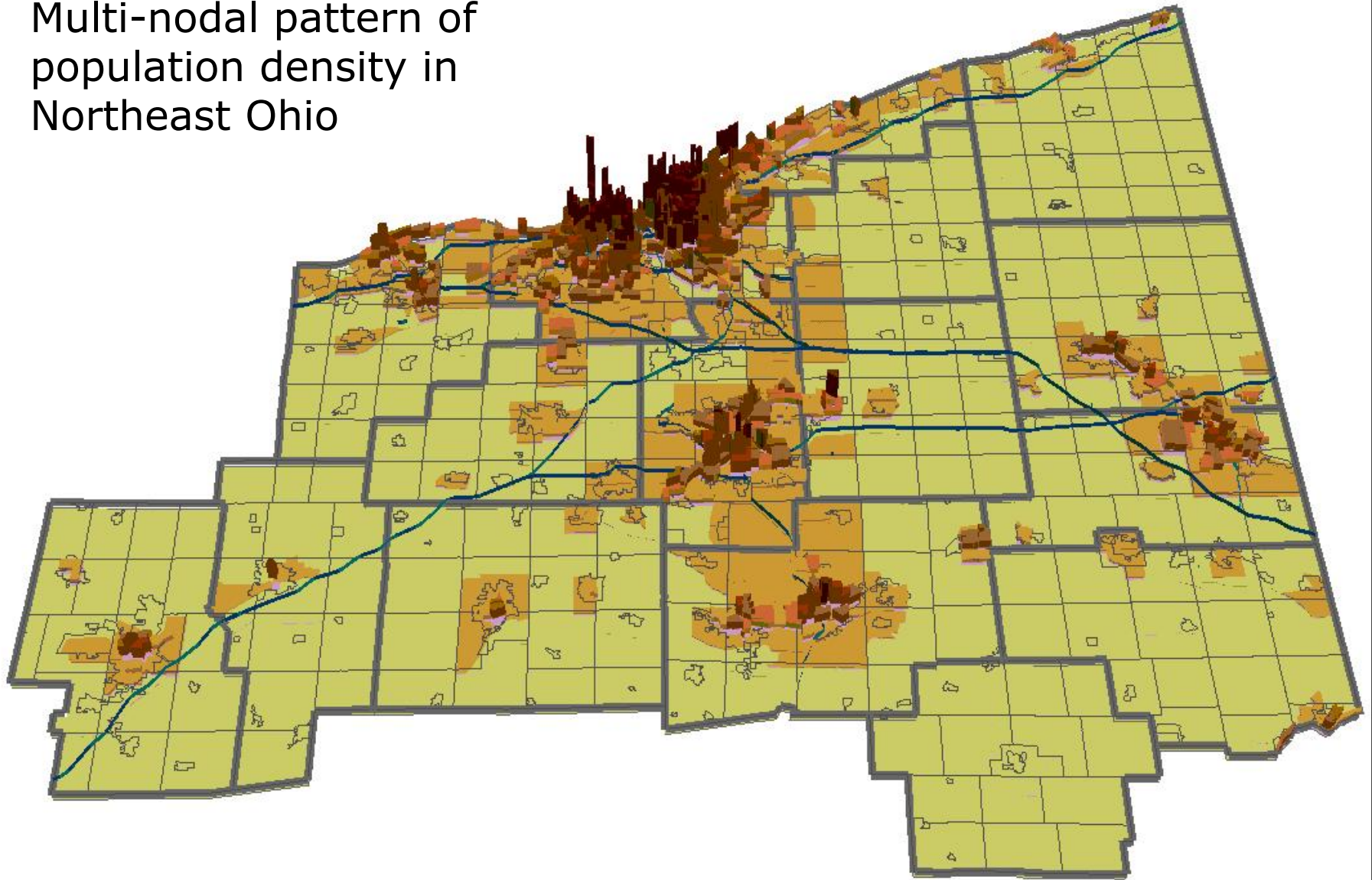




Virtues of density

- More natural areas and farmland
- More energy savings
- More walking and transit
- Cleaner air and water
- More cost-effective utilization of infrastructure
- More urbanity and choices

Multi-nodal pattern of population density in Northeast Ohio



Source: NODIS, prepared for GreenCityBlueLake, 2010

Transit modes related to residential density

Local bus service	Minimum residential density (dwelling units/acre)
Minimum – ½ mile route spacing, 20 buses/day	4
Intermediate – ½ mile route spacing, 40 buses/day	7
Frequent – ½ mile route spacing, 120 buses/day	15

Pushkarev and Zupan, Regional Plan Association

Sustainable urbanism requires minimum development densities roughly four times higher than the average new U.S. development density of two dwelling units per acre.

-- Douglas Farr, Sustainable Urbanism





Single Family Detached

(2 Story)
Alley Loaded



10 DU/ AC
2 Car Garage
Wood Frame

Semi-Detached w/ In-Law Unit

(2-3 Story)
Alley Loaded



15 DU/ AC
1 Car per Dwelling
Wood Frame

Front Loaded Row Houses

(3 Story)
Front Loaded



20-25 DU/ AC
1 Car per Dwelling
Wood Frame

Rear Loaded Row Houses

(3 Story)
Rear Loaded



25-30 DU/ AC
2 Cars per Dwelling
Wood Frame

Stacked Rowhouses

(4 Story)
Rear Loaded



30-35 DU/ AC
2 Cars Per Dwelling
Wood Frame

Stacked Flats

(5 Story)
1 Level Podium



35-45 DU/ AC
1 Car per Unit
Wood Frame Over
Concrete Garage

Midrise Stacked Flats

(below 8 Stories)
2 Level Podium
Below Life Safety



45-75 DU/ AC
1 Car per Unit
Concrete Frame



Market demand for quality urbanism

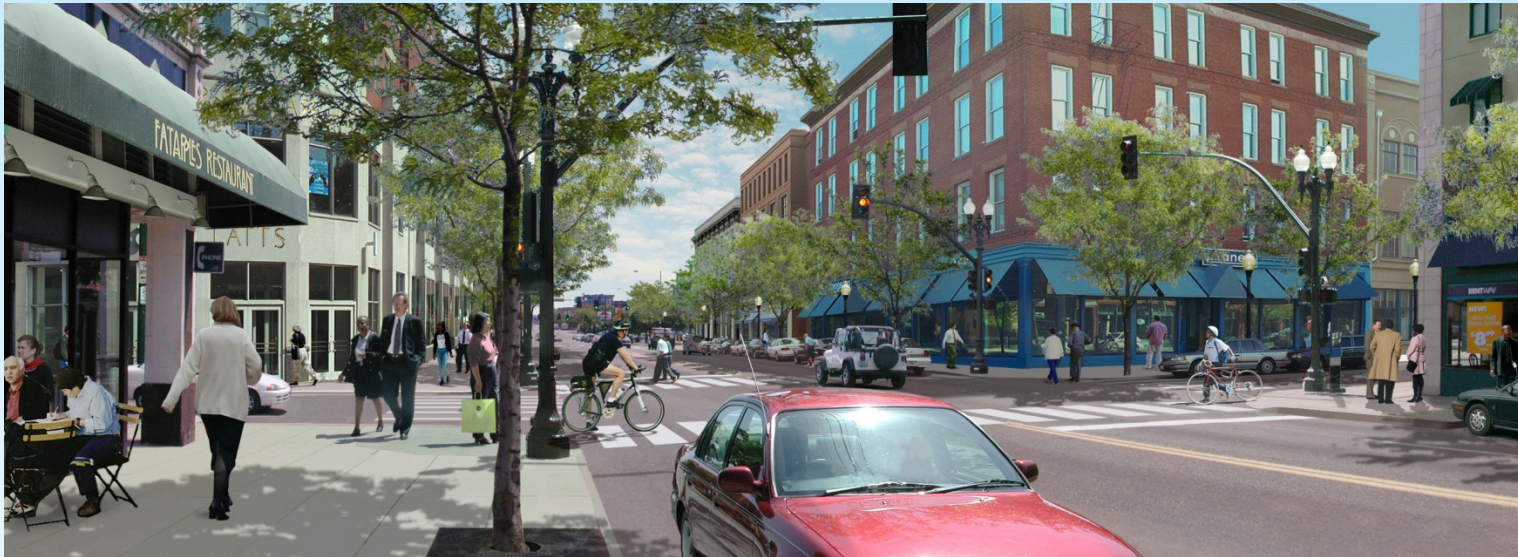
- Aging baby boomers
- Gen Xers
- Young people who don't like driving
- Other households without school-age children

Faith in long-term transitions

- Small changes accumulate
- Transformations happen over decades
- Change will happen regardless, so might as well try to get what we want
- Key is to nudge trends and find inflection points

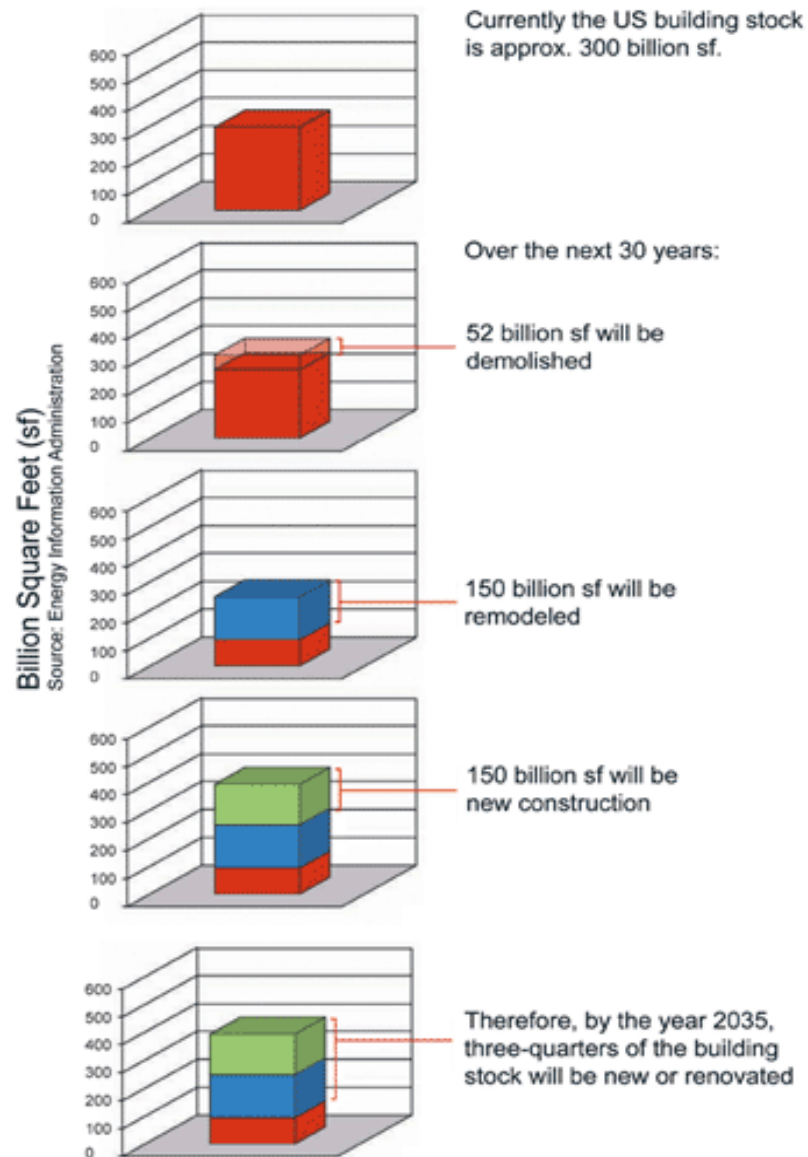


www.urban-advantage.com

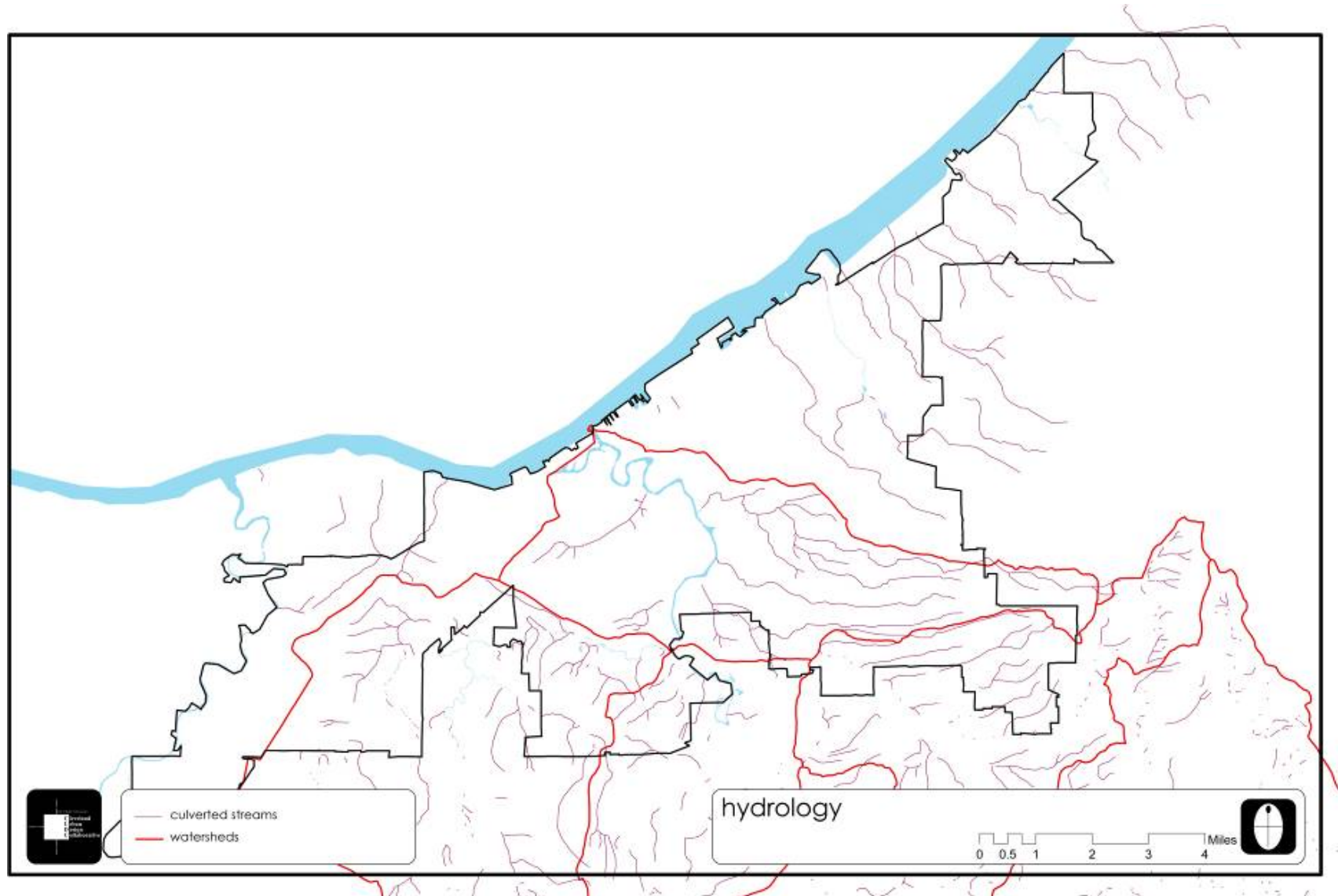


www.urban-advantage.com

Imagining transitions: Buildings



Imagining transitions: Green infrastructure



Re-Imagining Cleveland: KSU Urban Design Collaborative

FUTURE DEVELOPMENT
POTENTIAL

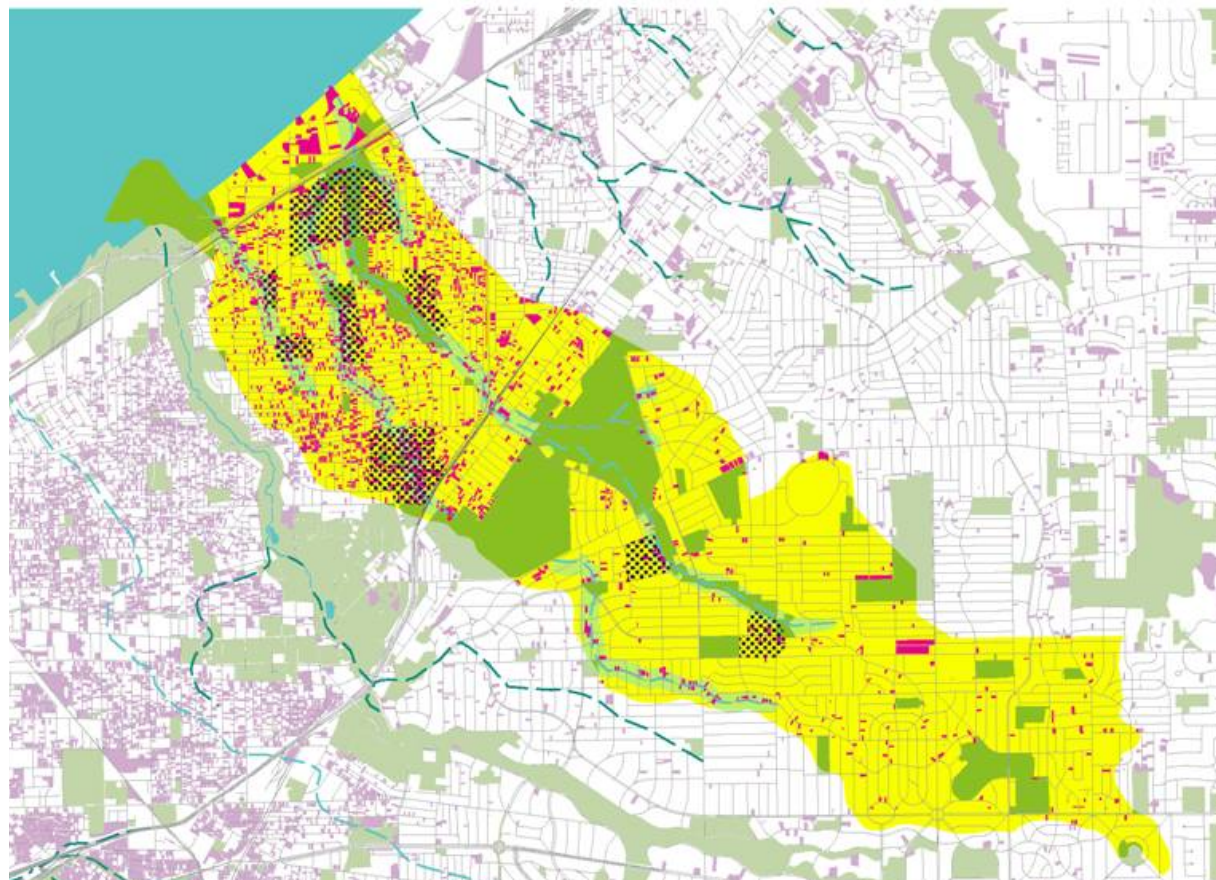
GREENING ALONG BURIED
CREEKS AND STREAMS

VACANCY ADJACENT
TO CULVERTS

GREENSPACE

DUGWAY
SUB-WATERSHED

ILLUSTRATION AND COMPONENT LAYERS



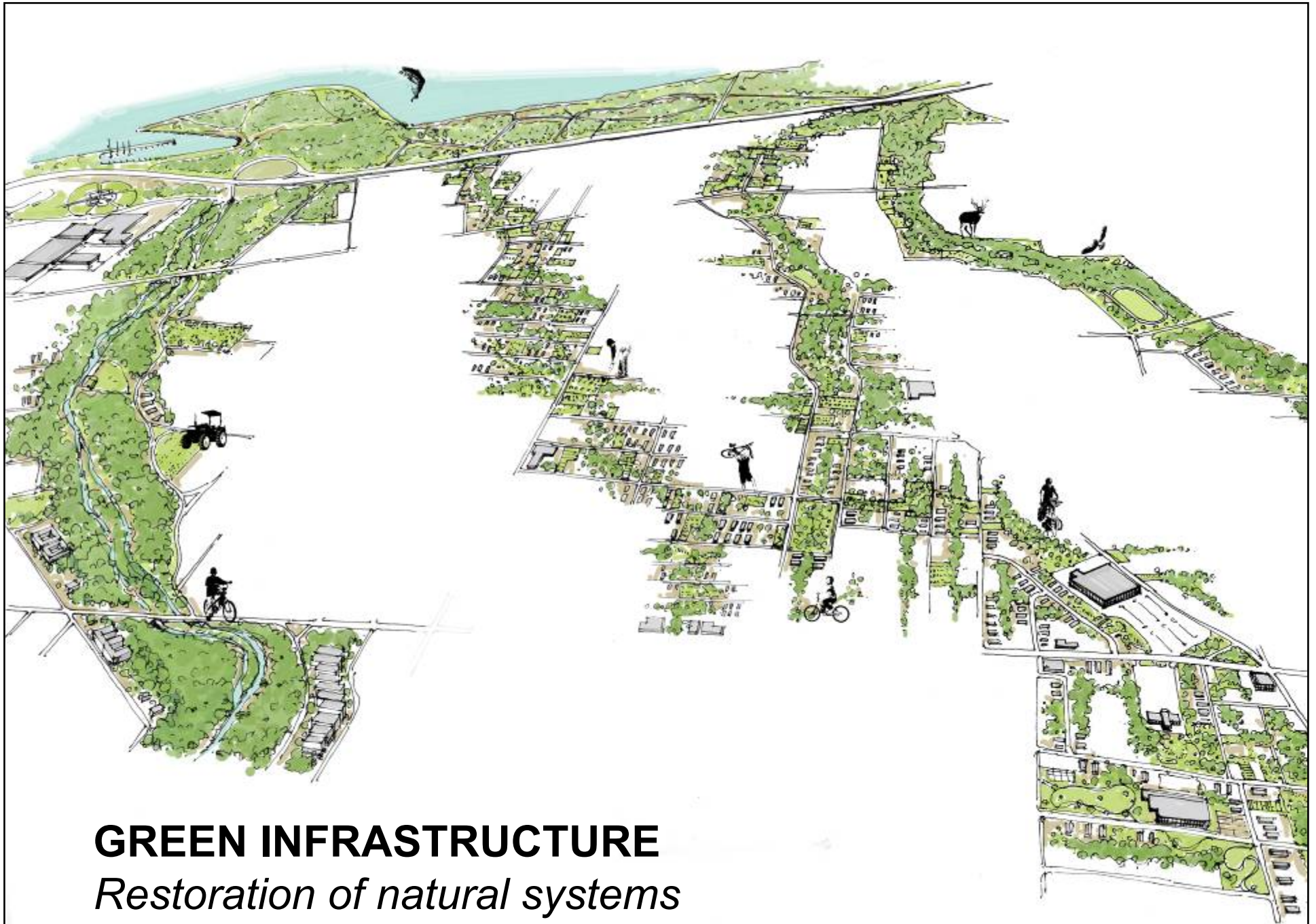
Re-Imagining Cleveland: KSU Urban Design Collaborative



GREEN INFRASTRUCTURE

Neighborhood-scale riparian strategy

Re-Imagining Cleveland: KSU Urban Design Collaborative



GREEN INFRASTRUCTURE

Restoration of natural systems

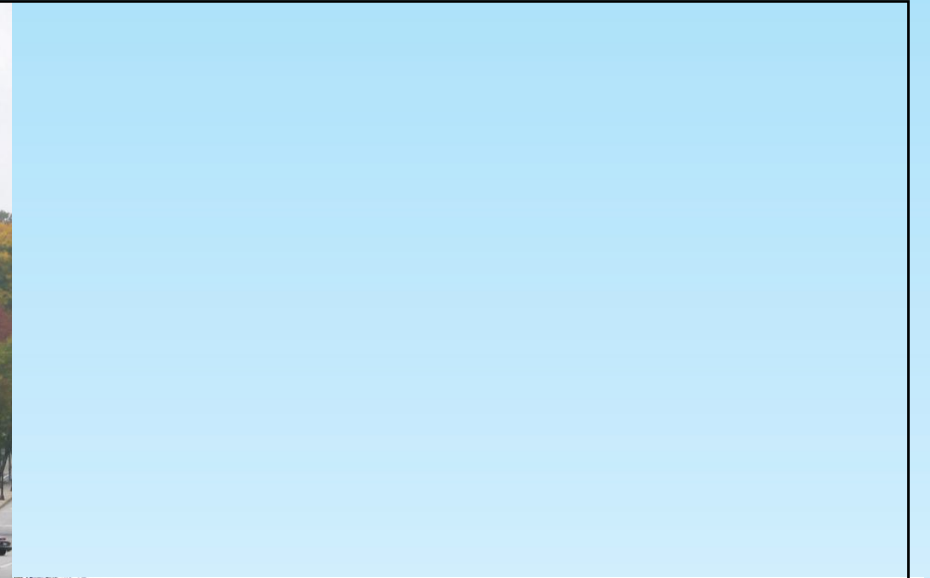
Re-Imagining Cleveland: KSU Urban Design Collaborative

Transition thought process: Revitalization of legacy cities and towns

- How many households are needed to create vibrant urban cores throughout the region in 20-40 years?
- What programs will help build the required units year by year?
- What will shift a small percentage of home buying decisions?











Toward sustainable land use

- Priority conservation areas – protection/restoration of natural areas, water resources, prime farmland, etc.
- Priority development areas – nodes and corridors to build density of housing and jobs
- Strategies for making it easier to develop in PDAs and harder in PCAs
- Make the case for change – and *implement!*

Changing the balance of development on the ground.

As we have seen, there has been no shortage of reports and information on what the Northeast Ohio Region is or needs...

What it has lacked is the leadership and constituency to carry forth a common vision for a competitive region.

—David Sweet, Dean of the Levin College of Urban Affairs, Cleveland State University, 1997



David Beach
GreenCityBlueLake Institute
Cleveland Museum of Natural History
dbeach@cmnh.org
216-231-4600 x3366

www.gcbl.org

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