RED FIELDS TO

green fields

Parks Transform

Neighborhoods and Waterfronts

Introduction

This booklet outlines a visionary concept to revitalize the uniquely positioned City of Cleveland, Ohio. Once a manufacturing center, Cleveland has diversified its infrastructure and is now considered an exemplar for downtown revitalization, urban renaissance, and public-private partnerships. Cleveland's population peaked over sixty years ago in the height of industry, and populations have subsequently decreased with the decline of heavy manufacturing. The City faces continuing challenges from concentrated poverty in some neighborhoods and a market flooded with vacant properties, low property values, and underutilized commercial corridors.

The current real estate crisis and flood of foreclosed properties threatens the stability of Cleveland's neighborhoods. This crisis also offers the City an opportunity to incorporate greening into community development by transforming derelict, vacant and foreclosed properties into green spaces that will serve as recreational and social hubs. Transforming these spaces from eyesores into assets will revitalize a community constructed through a solid work ethic.

By focusing new investment in areas of Cleveland characterized by underutilized commercial land and foreclosed residential property, public spaces can be developed, jobs created, land values increased, and significant economic development stimulated. In the Cleveland metropolitan area, this can be done by turning Red Fields to Green Fields.

Vacant land in Cleveland has the untapped potential to revitalize the State while creating jobs.

Problem #1:

The current real estate crisis and flood of foreclosed properties threatens the stability of Cleveland's neighborhoods.

The Status of Cleveland's Real Estate

The foreclosure crisis in Ohio is quite pronounced. From 1995 to 2009, Ohio foreclosure filings quadrupled. There was one foreclosure filing for every 56 housing units. In 2009, Ohio had a record 89,053 new foreclosure filings, and over 100,000 are expected for 2010.

Home sales have slowed on a year-over-year basis. Tight credit is one of the primary factors contributing to the slowdown.

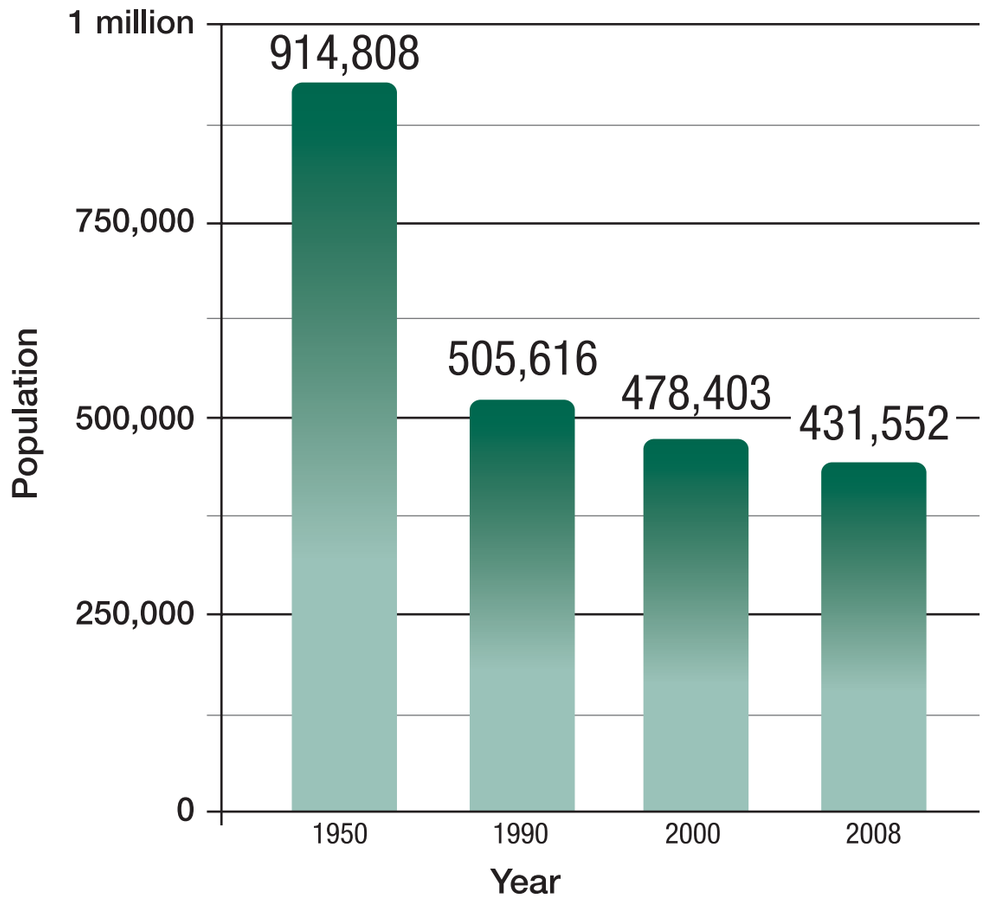
Cuyahoga County, which includes Cleveland, has about 17,000 vacant foreclosed properties - roughly 4 percent of its 395,000 houses.

Cleveland's Population Decline

From 1950 to 2008, the City's population fell from its peak of 914,808 to 431,552; a decline of 53%.

Although the rate of decline has slowed, it still continues. From 2000 to 2008, the population went from 478,403 to 432,552; a 10% decline.

Growing swaths of the city remain disinvested and dilapidated.



Cleveland's Economic Outlook

Unemployment

Total employment growth for Cleveland is below negative 5%: one percent below the U.S. average.

Cleveland was once a titan of the industrial sector but has since diversified its employment boundaries to meet the changing landscape of contemporary U.S economics. This change has led to a more diverse working landscape but fewer jobs as well.

» 6,800

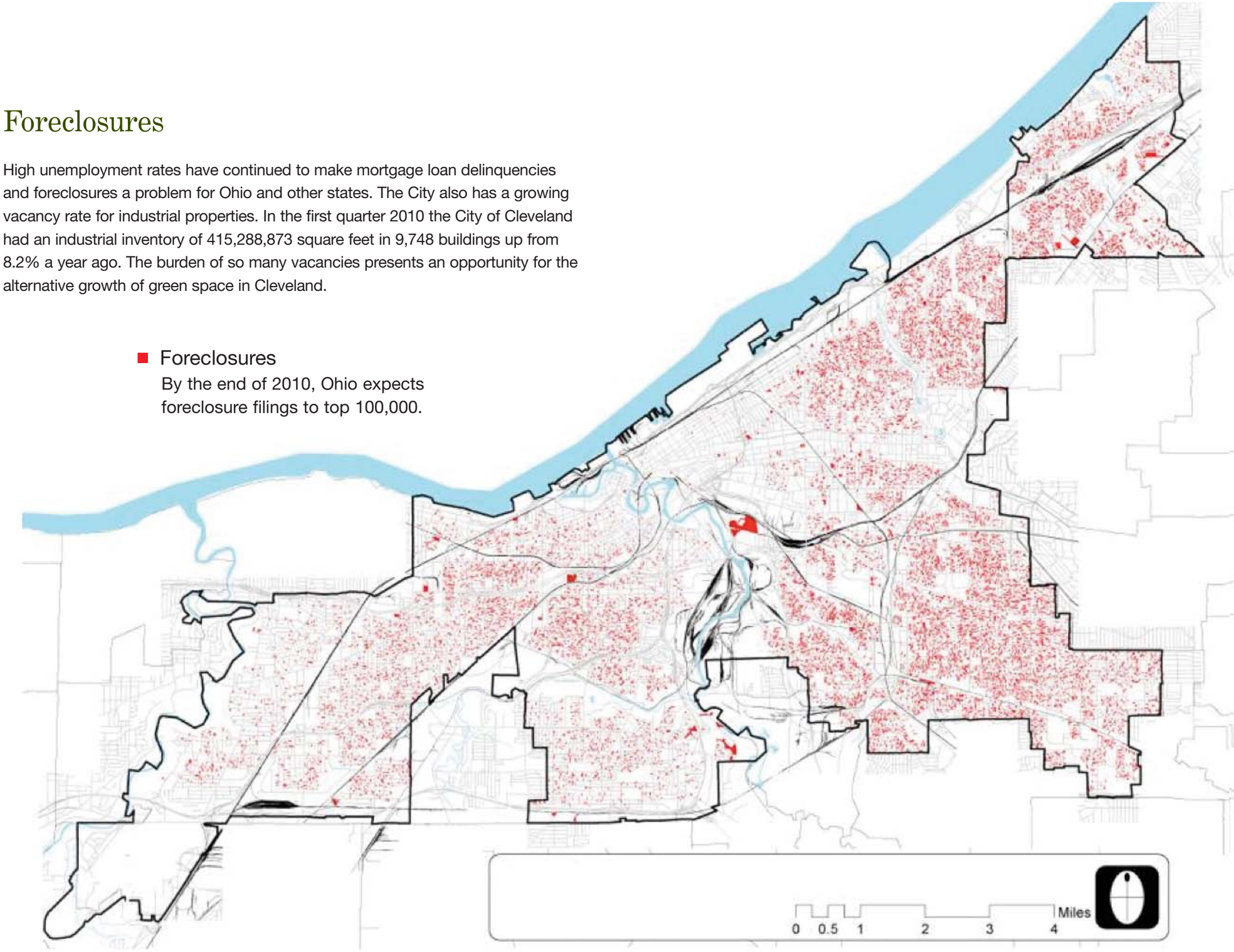
Construction jobs lost from February 2009 to February 2010

- The Ohio unemployment rate has more than doubled since 2000 to 10.3%.
- Cleveland has lost 132,500 jobs since July 2000; 6% of their population.
- Cleveland had lost 69,000 jobs since July 2007.

Source: BLS

Foreclosures

High unemployment rates have continued to make mortgage loan delinquencies and foreclosures a problem for Ohio and other states. The City also has a growing vacancy rate for industrial properties. In the first quarter 2010 the City of Cleveland had an industrial inventory of 415,288,873 square feet in 9,748 buildings up from 8.2% a year ago. The burden of so many vacancies presents an opportunity for the alternative growth of green space in Cleveland.

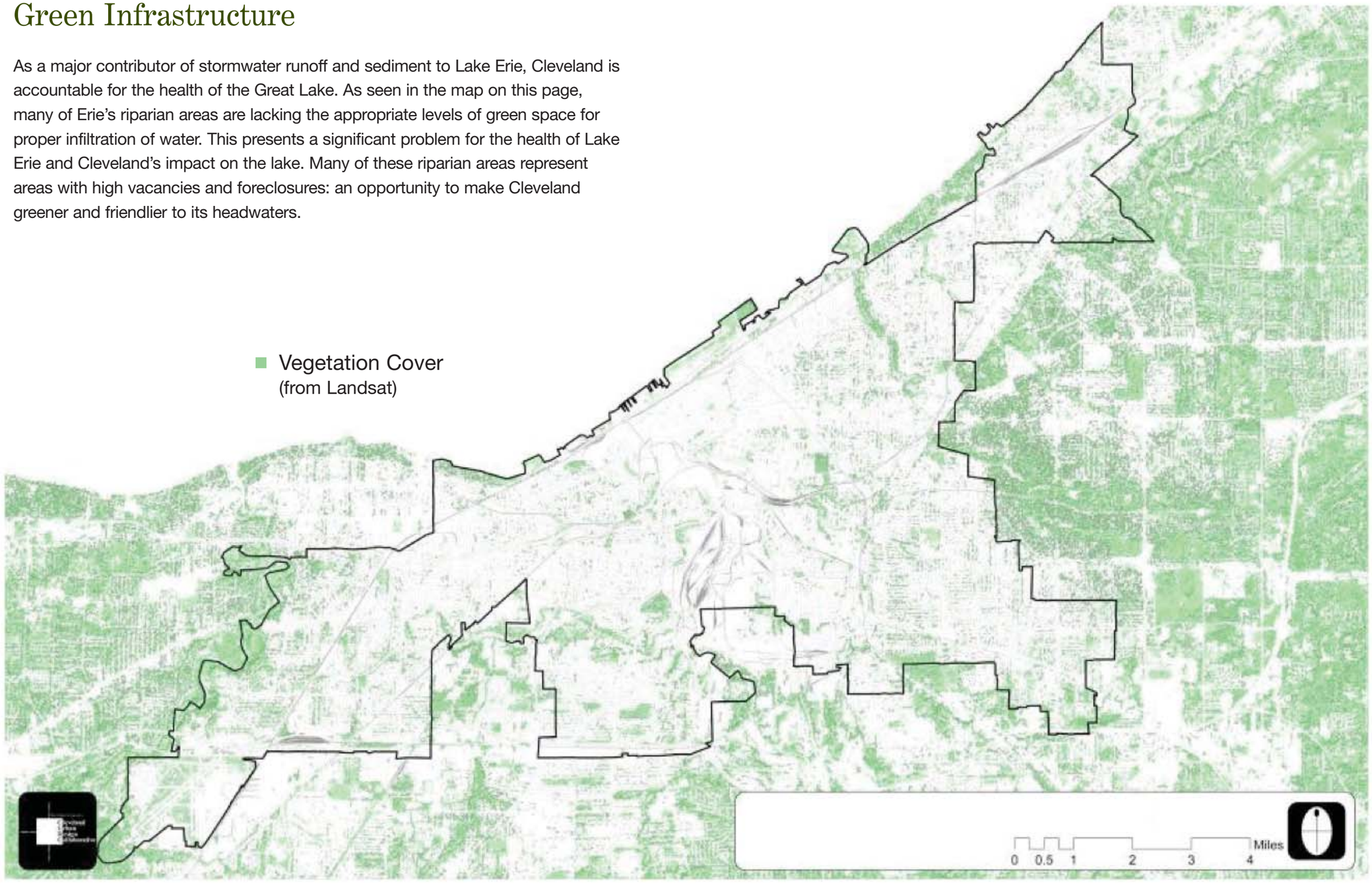


Problem #2:

City planning needs to consider the geology of its landscape including its hydrologic corridors. Conflicts need to be resolved between human concerns and ecological necessities. River corridor planning within Cleveland must consider the natural patterns with which the city was endowed before settlement.

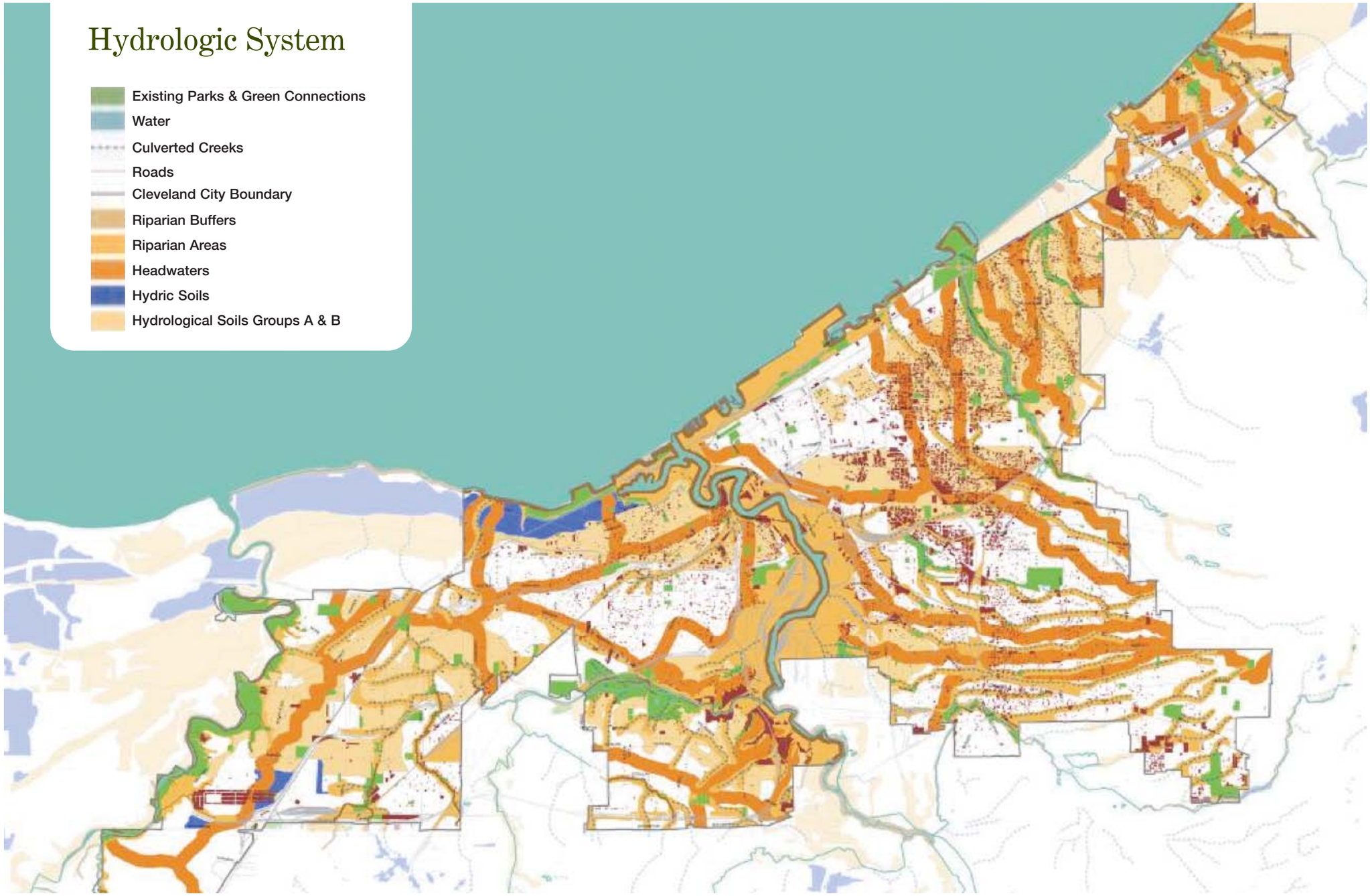
Green Infrastructure

As a major contributor of stormwater runoff and sediment to Lake Erie, Cleveland is accountable for the health of the Great Lake. As seen in the map on this page, many of Erie's riparian areas are lacking the appropriate levels of green space for proper infiltration of water. This presents a significant problem for the health of Lake Erie and Cleveland's impact on the lake. Many of these riparian areas represent areas with high vacancies and foreclosures: an opportunity to make Cleveland greener and friendlier to its headwaters.



Hydrologic System

- Existing Parks & Green Connections
- Water
- Culverted Creeks
- Roads
- Cleveland City Boundary
- Riparian Buffers
- Riparian Areas
- Headwaters
- Hydric Soils
- Hydrological Soils Groups A & B

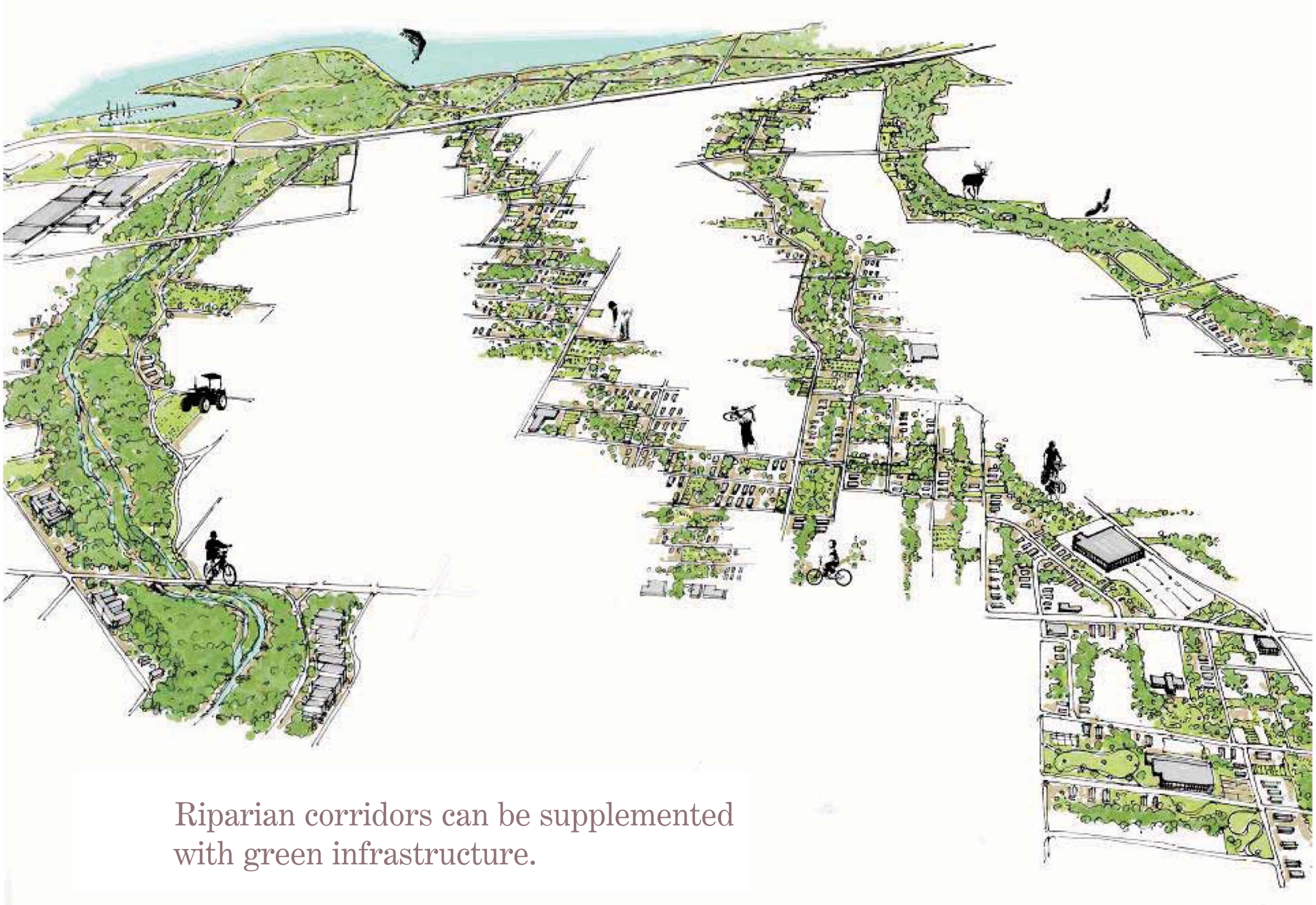


Green Infrastructure

Restoration of Natural Systems

Green infrastructure systems can include urban forestry, permeable surfaces, water harvesting, and infiltration practices. This illustration shows the potential development of green infrastructure within Cleveland. Each of these processes have environmental and economic benefits.

Neighborhood-scale riparian strategy



Riparian corridors can be supplemented with green infrastructure.

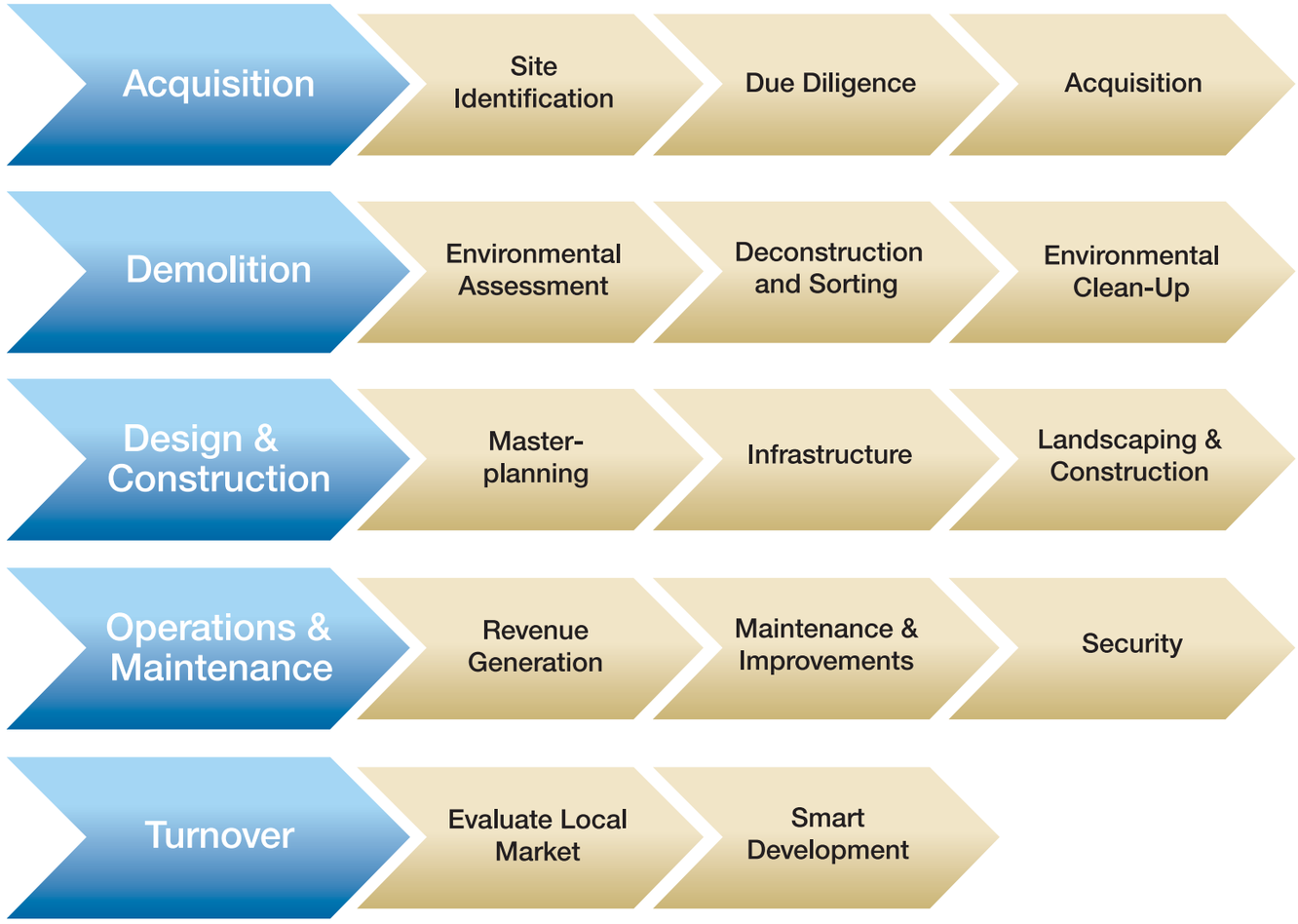
What if we invest $2 billion in Cleveland to convert Red Fields to Green Fields?


14

We could reduce the oversupply of non-performing commercial real estate.

Process

Looking at the scope of this project from an engineering perspective, turning Red Fields to Green Fields is a fundamental part of the profession. From the pre-acquisition phase to park creation to operation and maintenance activities, public/private partnerships provide the impetus for job creation and sustained economic development. Through smart development, bad assets can be turned over, property values can climb and a sufficient return on investment is generated to ensure a safe, vibrant recreation site.



Benefits of Green Infrastructure

Green infrastructure, using natural systems to manage stormwater by retaining and filtering rain where it falls, can reduce runoff and flooding and remove pollutants. The Center of Neighborhood Technology and the University of Illinois in 2010 completed a study for the Illinois Environmental Protection Agency that outlined the benefits of the following infrastructure practices:

- Bioinfiltration systems (vegetated systems to remove pollutants, such as bioretention areas or swales)
- Permeable pavement that allows stormwater infiltration
- Constructed wetlands to intercept runoff and reduce stormwater treatment costs
- Urban forests that can replace derelict structures and decrease urban heat island impacts
- Green roofs for facilities to reduce runoff and evaporation.

In April 2010, the US Environmental Protection Agency announced an Urban Waters Initiative, a small grant program to provide urban watershed technical services to help disadvantaged communities. Further, as of August 2010, the US Senate is considering a national Green Infrastructure policy, with introduction of the Green Infrastructure for Clean Water Act. The Act would fund the US EPA to finance federal cost-share grants for planning and implementation of community Green Infrastructure, and would establish “centers of excellence” for Green Infrastructure training and research. Green infrastructure practices and features are a perfect fit for potential Redfields to Greenfield sites in Cleveland.

Source: www.cnt.org, June 2010.

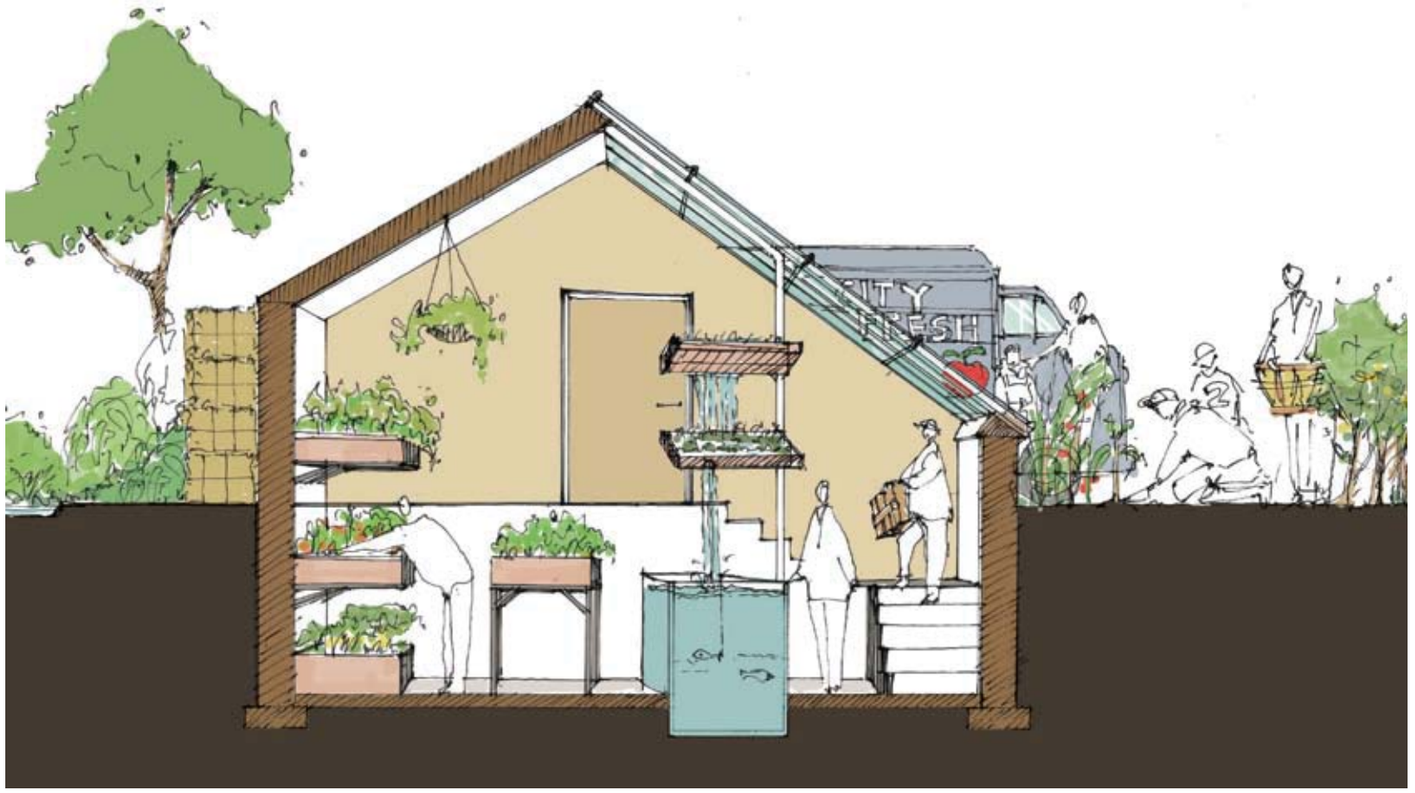
Water Harvesting*

A very effective type of green infrastructure, water harvesting provides a host of opportunities. Every inch of rainfall per 1,000 square feet diverts 623 gallons from drains and the associated sewage treatment costs. Additionally, water harvesting diverts the consumption of a large amount of potable water used in non-potable applications. These systems present great public education opportunities.

Infiltration Practices*

Ponds and removal of impervious surfaces removes pollutants naturally instead of using expensive sewage treatments. This could save an estimated $8.50 per pound for suspended solids and between $6.00 and $12.00 per pound for Phosphorous. Furthermore, infiltration practices avoid construction costs of $3,500 to $4,500 for every quarter to half acre sized residential lot. Infiltration practices reduce flood risks which can increase property value up to 5% for properties removed from the 100 year floodplain. Lastly, properties with pond frontage increase values from 10 to 25%.

*Wise, S, et al. (2010). Integrating Valuation Methods to Recognize Green Infrastructure’s Multiple Benefits. CNT, 1-21



BioCellars are a direct response to population loss and urban decline, but they also set a framework in place for future growth.

BioCellars

BioCellars are a direct response to population loss and urban decline, but they also set a framework in place for future growth by lowering energy costs in city neighborhoods and fostering new patterns of grassroots entrepreneurship.

BioCellars can be temporary or permanent, singular or clustered, striking in their architectural vocabulary or mild-mannered and inconspicuous. A BioCellar is infrastructure made legible — a window into the systems that give life to cities.

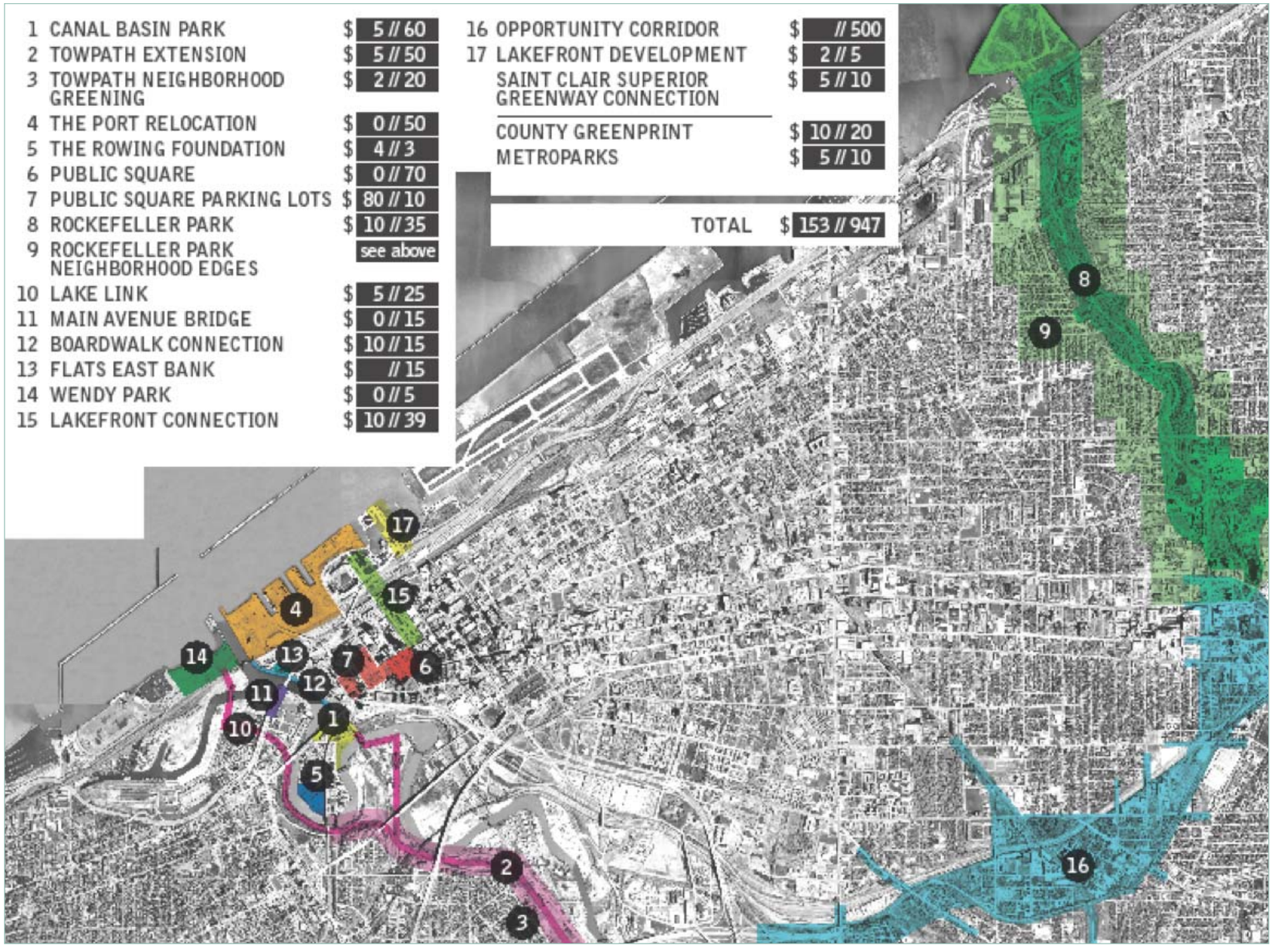
Source: The Erie Wire (www.eriewire.org)

- BioCellars
  - » Remove properties from the City's books
  - » Turn properties into revenue machines
  - » Provide gardening alternatives
  - » Educate communities
  - » Provide work experience

- Job Creation from BioCellars
  - » Deconstruction
  - » Architects
  - » Construction
  - » Operation
  - » Maintenance
  - » Internships

The Erie Wire (www.eriewire.org)

Current Projects Land Acquisition



Riverfront/Lakefront Parcels

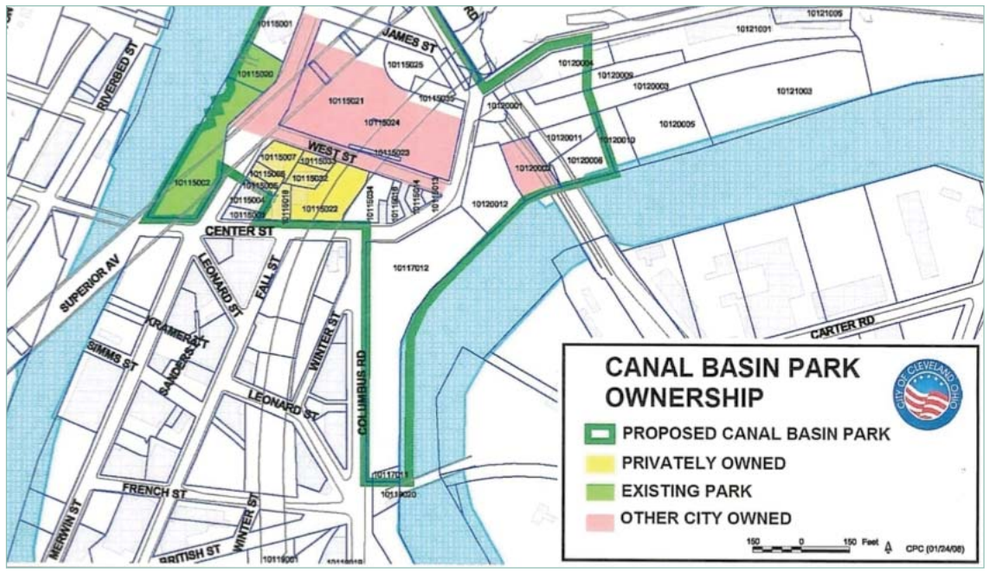
Canal Basin Park

The Canal Basin Park has the potential to develop several vacant parcels of parking lots and land into a new recreational area for the city of Cleveland. The Canal, completed in 1832, was an important shipping route, but, after nearly 200 years, this canal deserves a redefinition of its purpose.

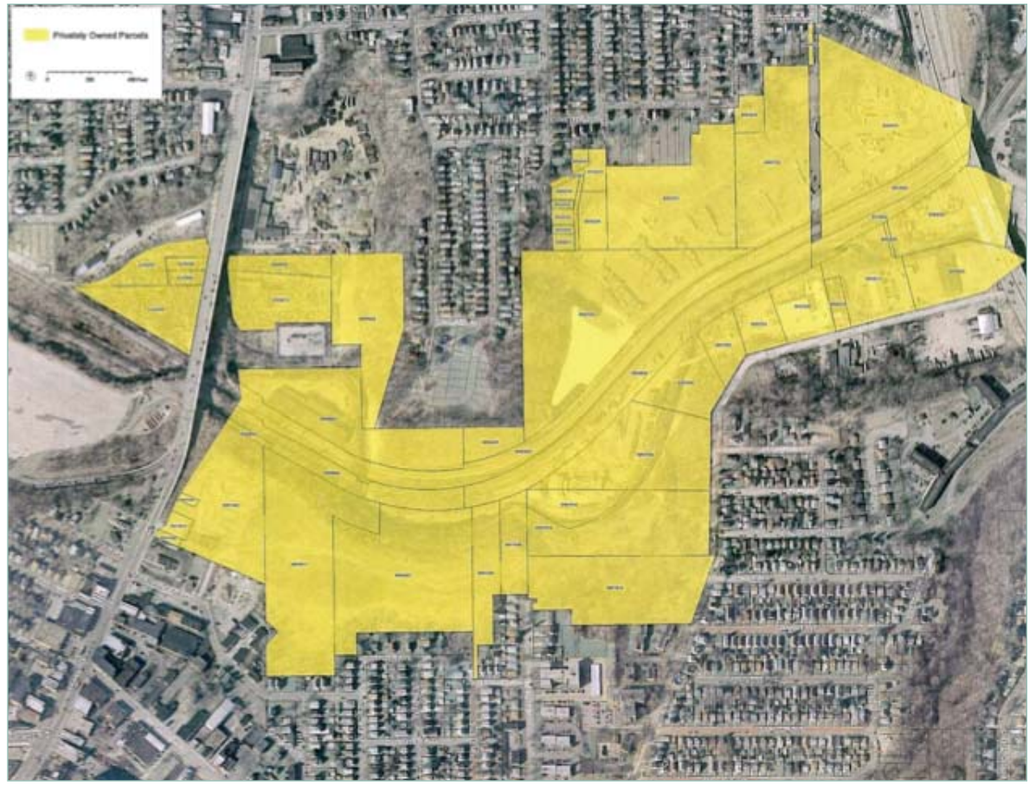
The Park will create a new base for the Western Reserve Rowing Foundation and tie the City to the Cuyahoga Valley National Park via the Towpath Trail and Cuyahoga Valley Historic Railroad. The intersection of the trails and the park will provide important amenities for visitors and residents of greater Cleveland.

The park will change the dynamics of the northern Cuyahoga Valley as it establishes waterfront access, footpaths, and bicycle paths to surrounding neighborhoods. Canal Basin Park would be established as a recreational, cultural, and historically important center for the region. For the area defined within the Canal Basin District Plan, significant acres of underutilized property will be revived, creating jobs, new enterprises, and amenities and transforming Cleveland into a more attractive destination for visitors and residents alike.

Source: http://www.gcbl.org/planning/canalway/canal-basin-park



Towpath Trail Extension



Towpath Trail Extension

Neighborhood Greening (Train Avenue)

The rediscovery of the towpath began with the establishment of the Cuyahoga Valley National Park in 1974. This plan offers to extend the Towpath Trail to over 100 miles as a continuous journey through the federally designated Ohio & Erie Canal National Heritage Canalway. In addition, the trail will serve as the northeast Ohio section of the planned Ohio to Erie Trail (Cincinnati to Columbus to Cleveland).

The current project will complete the Towpath Trail in Cuyahoga County by creating about six miles of trail and greenway from old Harvard Avenue to the proposed Canal Basin Park at downtown Cleveland.

Total Project Costs Overview

	Contracted Value ($)
Acquisition	$ 5,000,000
Design/Construction	$ 50,000,000
Total	**$ 55,000,000**

This plan offers to extend the Towpath Trail to over 100 miles as a continuous journey through the Ohio & Erie Canal National Heritage Canalway

Riverfront/Lakefront Parcels

The Port Relocation

The city of Cleveland has been cut off from its waterfront for decades, but a bold new plan promises to revitalize the shoreline. The City has the opportunity to reconnect Cleveland's neighborhoods to the lakefront, separated by heavy transit and industrial uses. Relocation of the port would open 135 acres of downtown lakefront and riverfront property for green space and sustainable urban redevelopment. Claimed as a site "with the most power to revitalize downtown," the relocation of the port promises to also create a projected 50,000 jobs.

The relocation of Cleveland's port would allow for more convenient transit access to industrial customers. A revitalized downtown would invite new and expanding companies to establish offices and headquarters. The City's thirst for economic revival would be quenched by the new opportunities presented by an opened waterfront.

Source: http://www.archpaper.com/e-board_rev.asp?News_ID=1699

Total Project Costs Overview

	Contracted Value ($)
Acquisition	$ 4,000,000
Design/Construction	$ 3,000,000
Total	**$ 7,000,000**

The Cleveland Rowing Foundation Relocation

The Cleveland Rowing Foundation has an opportunity to establish a new rowing and recreation venue called Rivergate Park on the banks of the Cuyahoga River near Columbus Road. The site is the former Commodore Club Marina, a 6.5 acre parcel of land with 1,100 feet of Cuyahoga river access.

Rivergate Park will serve as a centerpiece for the revitalization of the Cuyahoga River. In addition to being a permanent home for rowing, the vision of Rivergate Park will include biking, kayaking and dragon boat racing, as well as hiking and bird watching, making it a multi-faceted recreation destination along the Cuyahoga.

Rivergate Park facilities will complement and enhance surrounding public spaces such as Canal Basin Park, the Towpath Trail and a proposed state-of-the-art skateboard park.

CRF's prospective new home, provides a unique opportunity to reclaim a vacant and industrialized area and regenerate and revitalize it to an environmentally friendly public space in the Flats.

This project is unprecedented in its immediate effect in implementing Cleveland's vision to reposition the city as a Green City on a Blue Lake by providing access to Cleveland's waterfront.

Source: http://www.cleveland.org/rivergate_park.php

Total Project Costs Overview

	Contracted Value ($)
Acquisition	$ 4,000,000
Design/Construction	$ 3,000,000
Total	**$ 7,000,000**

Public Square Redesign

Public Square is Cleveland's famous public space and the center of our downtown. In its current design, the public square does not serve its intended function. It is devoid of the vitality and connectivity that a thriving public space should create.

The redesigned square would attract 3.9 million more visits, an increase of 50 percent. And if those new visitors spent $25 a visit, downtown businesses would reap almost $100 million more a year.

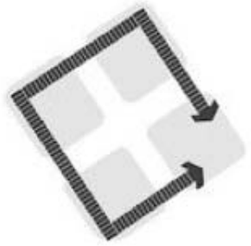
Cuyahoga County residents care about downtown revitalization and care about Public Square as the city's outdoor "living room." If residents were presented with a plausible plan to improve the square and were asked to approve the civic investment, they would likely say yes.

Source: http://www.gcbl.org/land/green-infrastructure/a-great-public-square-for-cleveland

Total Project Costs Overview

	Contracted Value ($)
Acquisition	$ 0
Design/Construction	$ 70,000,000
Total	**$ 70,000,000**

How do you make one square out of four?



FRAME IT

FOREST IT

THREAD IT

Rockefeller Park Strategic Plan

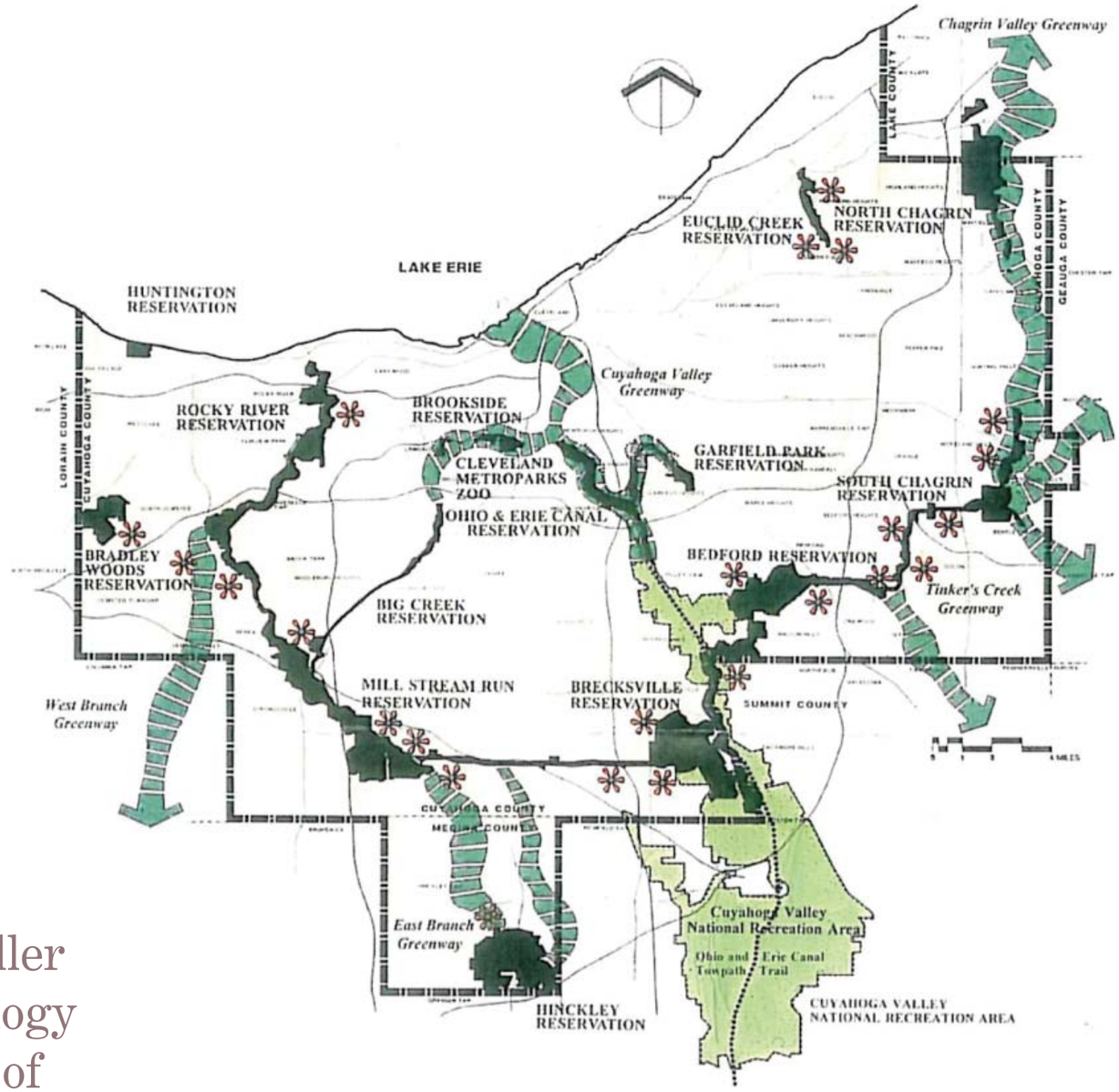
When implemented, the Rockefeller Park Plan could improve the ecology of the park and the environment of Cleveland. Secondly, it will improve the health of the watershed by addressing flooding, stormwater and stream restoration. This plan envisions sustainable design strategies for the Park and surrounding neighborhoods which would improve the connectivity within the park and the neighborhoods.

This plan promises to improve the physical state and functionality of the park for a contemporary community recognizes that creating memorable positive human experiences is paramount to the success of the park. The key strategies for this park will embrace the use of stream restoration, circulatory systems, remediation, reclamation and cultivation. This will also provide opportunities for environmental education and a gateway between the urban stream to the north and the more suburban and rural corridor to the south.

Total Project Costs Overview

	Contracted Value ($)
Acquisition	$ 10,000,000
Design/Construction	$ 35,000,000
Total	**$ 45,000,000**

Source: http://www.universitycircleinc.org/userfiles/file/RockPark-LtoL%20120908%20(Small).pdf



When implemented, the Rockefeller Park Plan could improve the ecology of the park and the environment of Cleveland.

Lake Link Trail

This project has involved coordinating a wide-ranging collaboration of public and private stakeholders to create public trails and green spaces that lead to the region's defining natural resources: Lake Erie and the Cuyahoga River. The centerpiece of the plan is the 1.5-mile Cleveland & Mahoning Railroad Trail, which will run through an abandoned rail right-of-way traversing the Flats. The trail will connect to the Towpath Trail on Scranton Peninsula, then skirt the Cuyahoga River at Irishtown Bend below the West Side Market before running north through the West Bank of the Flats. The trail would connect with the existing Willow Street Bridge, which will have widened sidewalks, and then siphon users onto a new pedestrian and Bicycle Bridge that would cross the lakefront railroad tracks to Lake Erie at Wendy Park.

The trail will not only give Clevelanders and visitors new access to the river and lake, but promote alternative transportation by providing a non-motorized connection between the neighborhoods of Tremont, Ohio City and the Flats. It will also serve as a stormwater demonstration project. Part of the trail right-of-way is a depressed former rail bed that will retain water, allowing particulates to settle out before being directed to the river.

Source: http://buildingcleveland.org/what-we-do/projects/urban-design/lake-link-trail/

Total Project Costs Overview

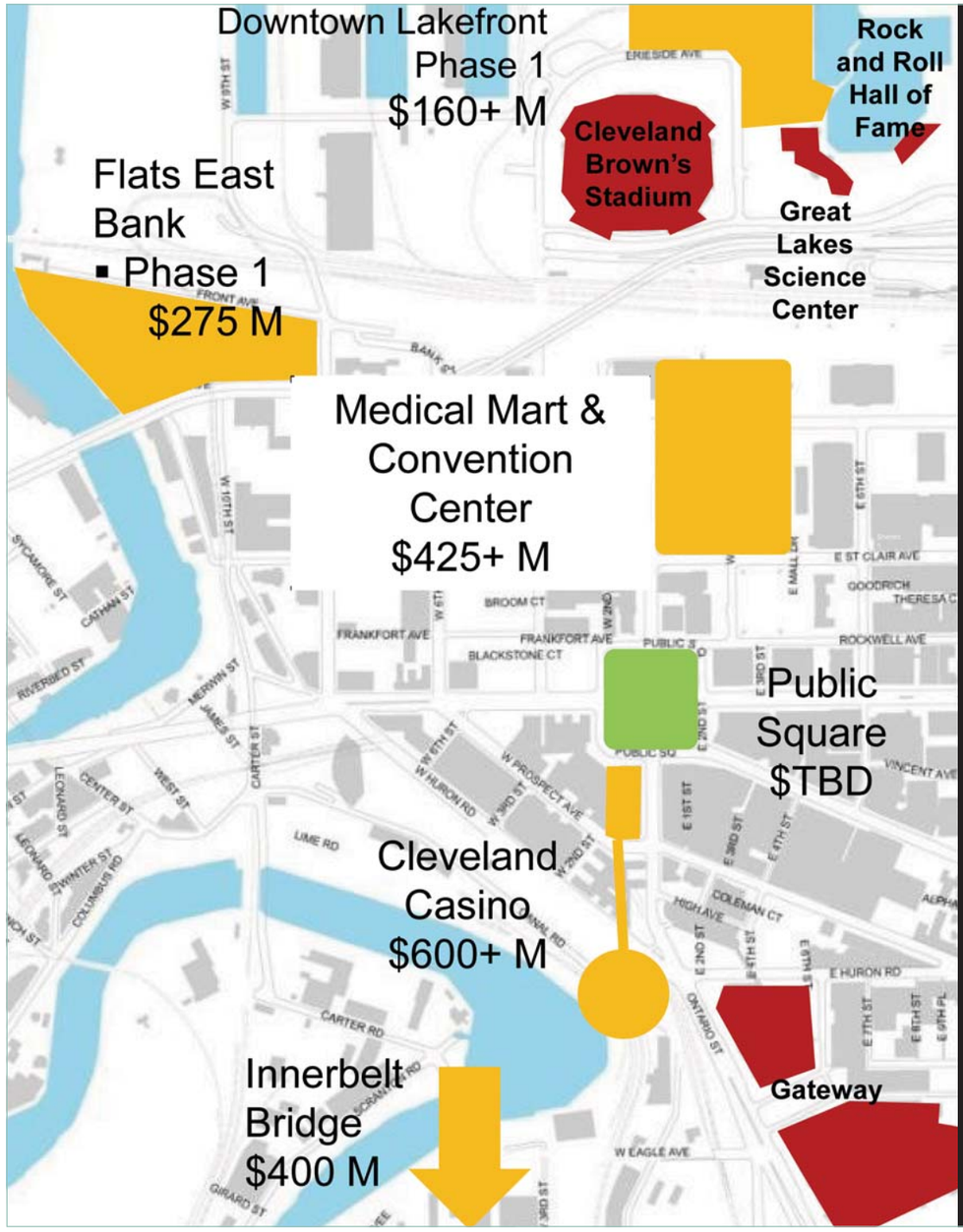
	Contracted Value ($)
Acquisition	$ 5,000,000
Design/Construction	$ 25,000,000
Total	**$ 30,000,000**

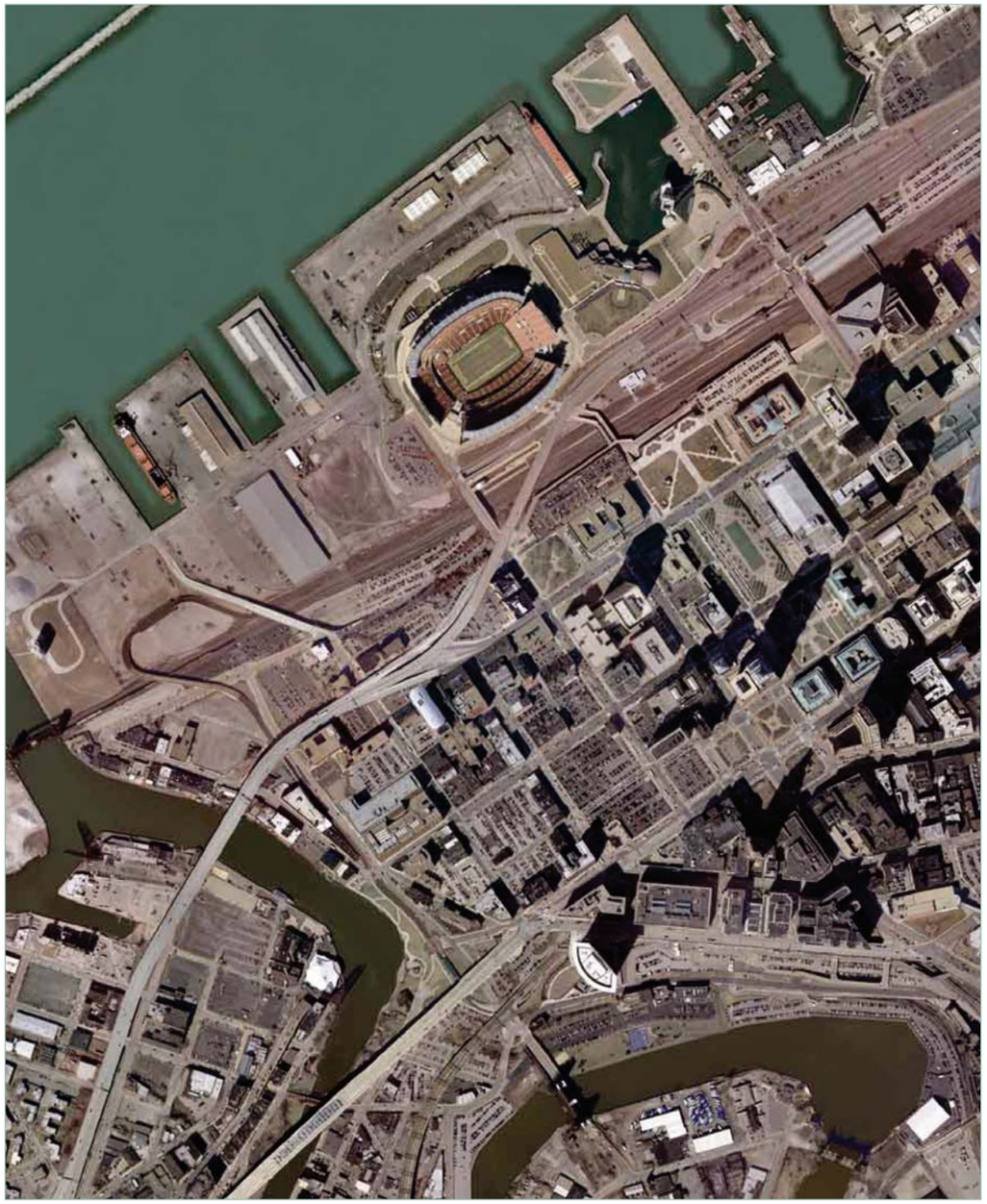
Before

After

Downtown Development

The City of Cleveland is in the midst of realizing a significant development agenda with projects that exceed $1.5 billion in the downtown core. Leaders are working to create a unified vision for downtown built around signature public spaces and the connections and opportunities that link the current catalytic development projects. Collectively, these projects have the potential to provide a continuous link from the Cuyahoga River, through and around the Cleveland Casino planned for downtown, across Public Square to Malls A·B·C and the new Medical Mart and Convention Center, and onward to the lakefront. Design consultants have been commissioned to work on each of these projects, but there is also a need to look at overlapping areas between these projects and the connectivity of the entire system. To that end, a working group of the Group Plan Commission charged with Planning + Urban Design has been established that will work with a design team to evaluate existing plans and make recommendations to the full Commission on additional project priorities.





Current Aerial View of Cleveland

The Future of Cleveland: Flats East Bank Project Phase 1, Downtown Lakefront Project Phase 1, Proposed Redesign of Public Square and the Public Greenspace of the Downtown Malls

SUMMARY OF PROJECTS

Project Name	Estimated Acquisition	Design/Construction
Canal Basin	$5 million	$60 million
Towpath Extension	$5 million	$50 million
Towpath Neighborhood Greening	$2 million	$20 million
The Port Relocation	$0	$50 million
The Rowing Foundation	$4 million	$3 million
Public Square	$0	$70 million
Public Square Parking Lots	$80 million	$10 million
Rockefeller Park	$10 million	$35 million
Rockefeller Park Neighborhood Edges	(see above)	(see above)
Lake Link	$5 million	$25 million
Main Avenue Bridge	$0	$15 million
Boardwalk Connection (River Walk; East & West Bank)	$10 million	$15 million
Flats East Bank	$0	$15 million
Wendy Park	$0	$5 million
Lakefront Connections (Malls and Convention Center)	$10 million	$39 million

SECONDARY PROJECTS		
Opportunity Corridor	$0	$500 million
Lakefront Development (East 9th Street, Dock 32)	$2 million	$5 million
Saint Clair Superior	$5 million	$10 million
Greenway Connection		
County Greenprint	$10 million	$20 million
Metroparks	$5 million	$10 million
TOTAL	**$153 million**	**$947 million**

Red Fields to Green Fields

Cleveland has a serious crisis involving underutilized commercial real estate properties, a decreasing population, and negatively impacted riparian areas. The City also has a need for optimal allocation of parks and green space to its citizens - with plans already moving forward to address this need.

$2 billion in aid would allow us to invest in this crisis of Red Fields in order to answer the need for Green Fields, thus transforming Cleveland and its struggling economy.

Key Impacts:

- Remove an estimated 1,850 acres of non-performing real estate from the market
- Create over 120 miles of interconnected greenways
- Restore a stressed hydrologic system to a more natural flow pattern
- Transform Cleveland's neighborhoods and waterfront, to attract a new generation of young professionals

Acknowledgements

Project Team Directors

Georgia Tech Research Institute

Contact: Kevin Caravati
Senior Research Scientist
404.407.8058
Kevin.Caravati@gtri.gatech.edu

Joseph Goodman
Matt Wren

Georgia Institute of Technology

Joseph Hughes, Ph.D., P.E., BCEE
Cade Strippelhoff
Erin Keller

City Parks Alliance

Catherine Nagel
Executive Director
nagelcatherine@cityparksalliance.org

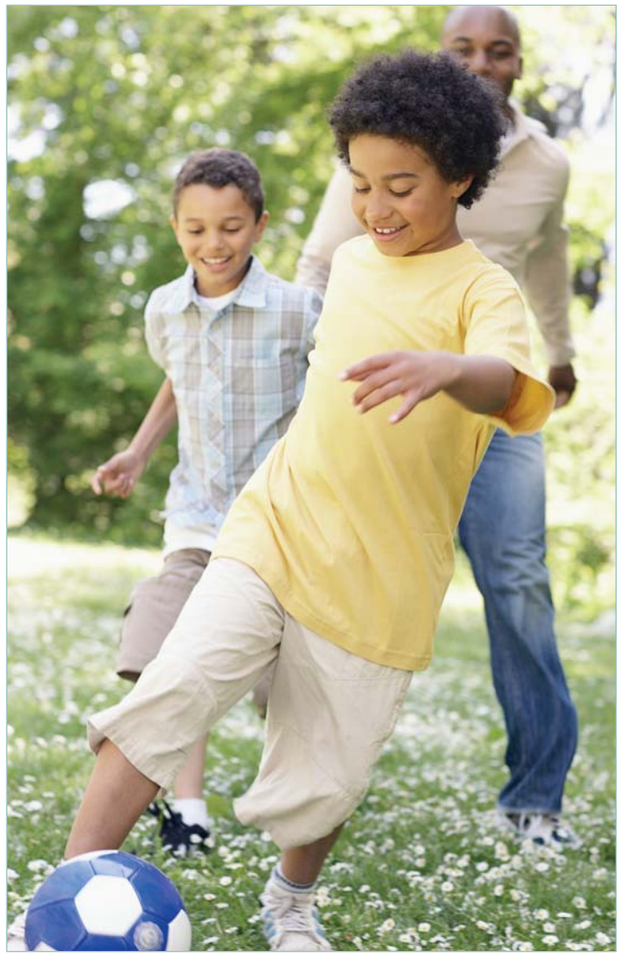
ParkWorks

Ann M. Zoller, Executive Director
ParkWorks
1422 Euclid Avenue
Suite 733
Cleveland, OH 44115
Phone: 216.696.2122, extension 111
www.ParkWorks.org

Nora Romanoff, Associate Director
ParkWorks
1422 Euclid Avenue
Suite 733
Cleveland, OH 44115
Phone: 216.696.2122, extension 124
www.ParkWorks.org

Kent State University
CUDC
Cleveland Urban Design Collaborative

Terry Schwarz
Cleveland Urban Design Collaborative
1309 Euclid Avenue
Suite 200
Cleveland, OH 44115
216.357.3426
www.cudc.kent.edu



www.Redfieldstogreenfields.org