



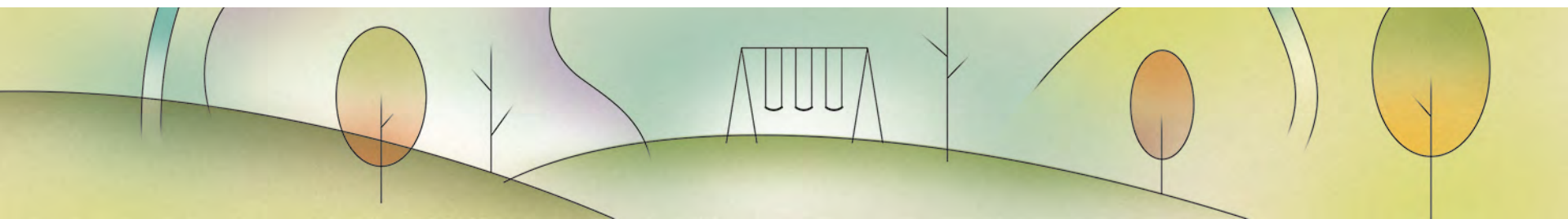
The Economic Benefits of Greenspace

OHIO LAND BANK CONFERENCE

SEPTEMBER 11, 2014

JAMES KASTELIC, PROGRAM DIRECTOR, TRUST FOR PUBLIC LAND

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for
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LAND



Land Conservation Makes Good Economic Sense

Every \$1 invested in land conservation returns between **\$4 and \$11** in natural goods and services



Economic Benefits of Greenspace

1. Increases property values and attracts development
2. Serves as economic development tool
3. Provides for neighborhood linkages
4. Reduces cost of municipal services
5. Increases tourism potential
6. Improves quality of life
7. Improves health of local residents
8. Provides ecosystem services
9. Strengthens community cohesion
10. Provides community gathering space



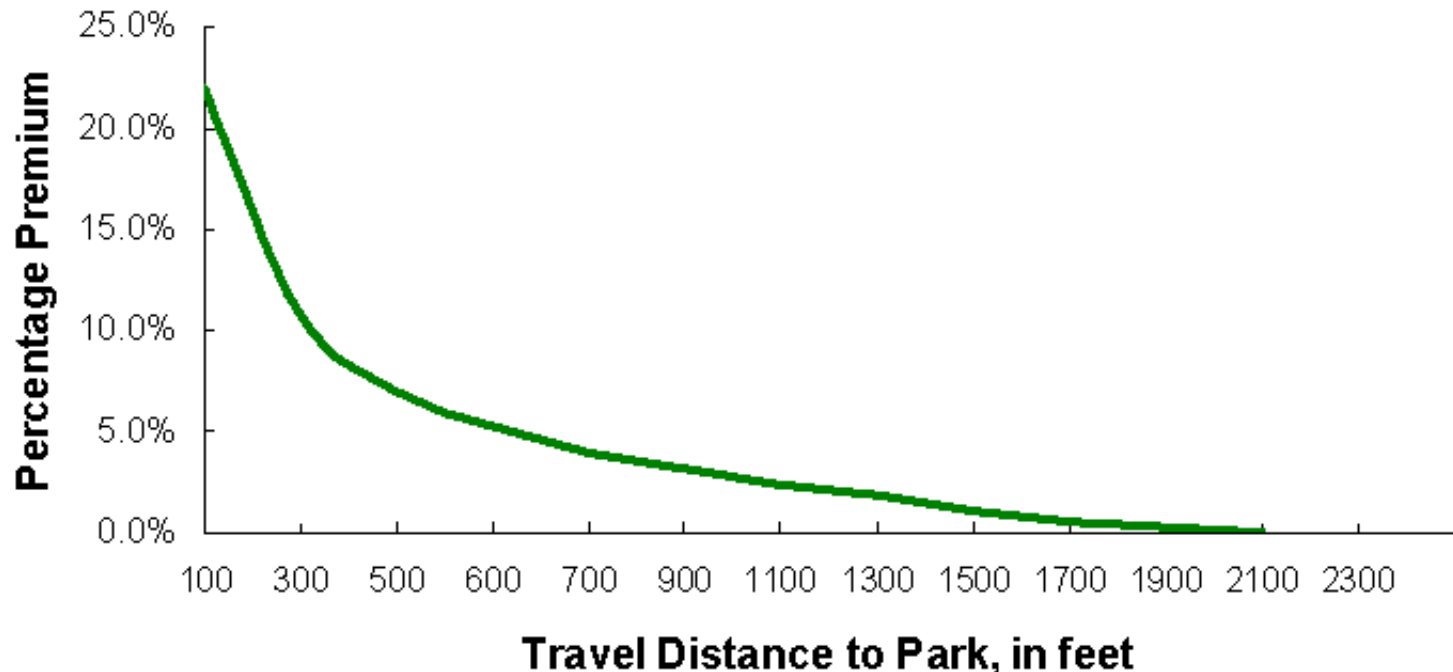
1. Green space increases property values

- People pay higher prices for houses near parks
- Parks increase commercial rents and demand for space
- Higher property taxes can be used to pay to build and maintain the park
- A potential increase in property tax revenue alone can recover the initial cost of acquisition in a few years



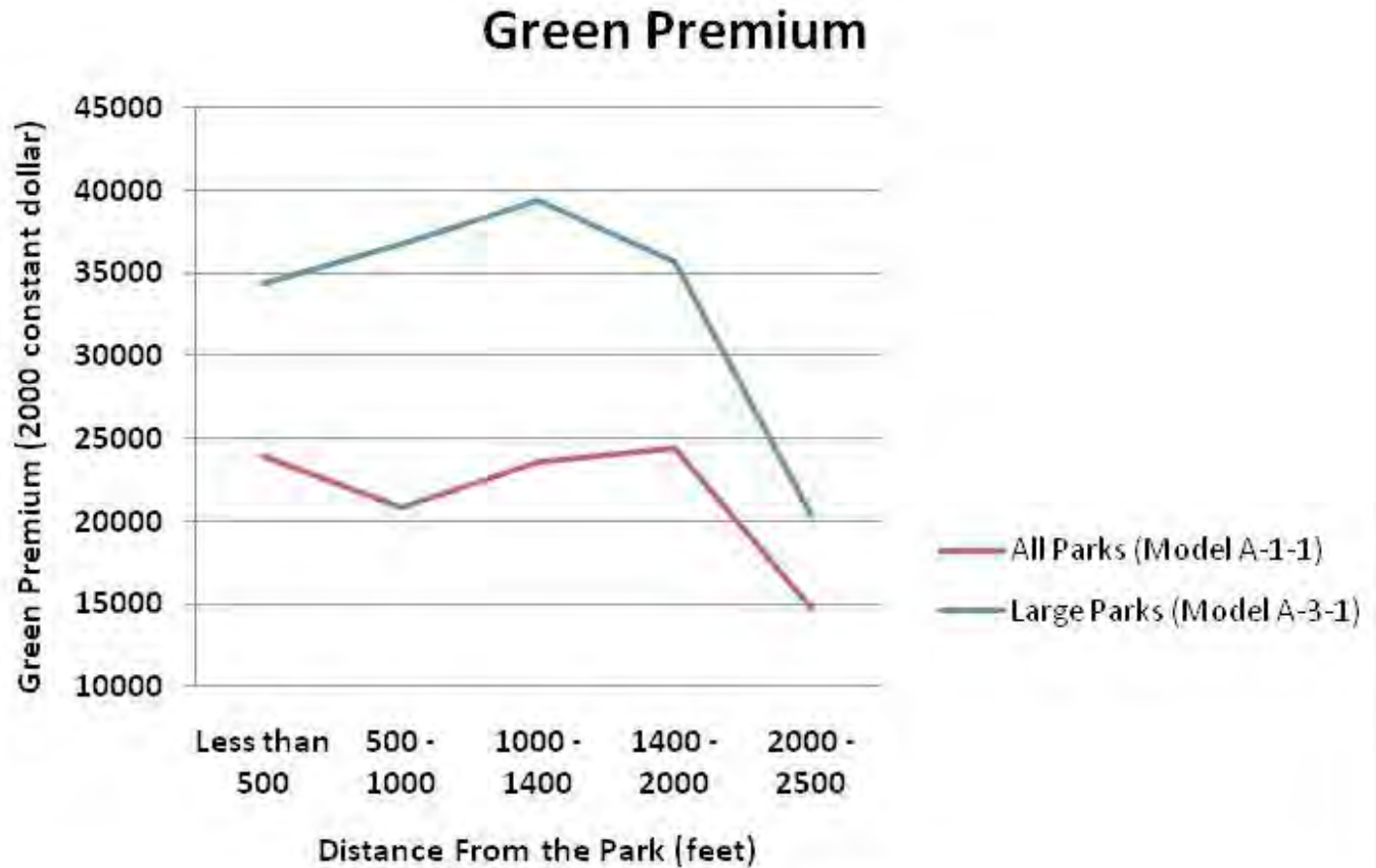
Measuring the economic impact of green space in Dallas-Fort Worth

Impact of Park Proximity on Property Values



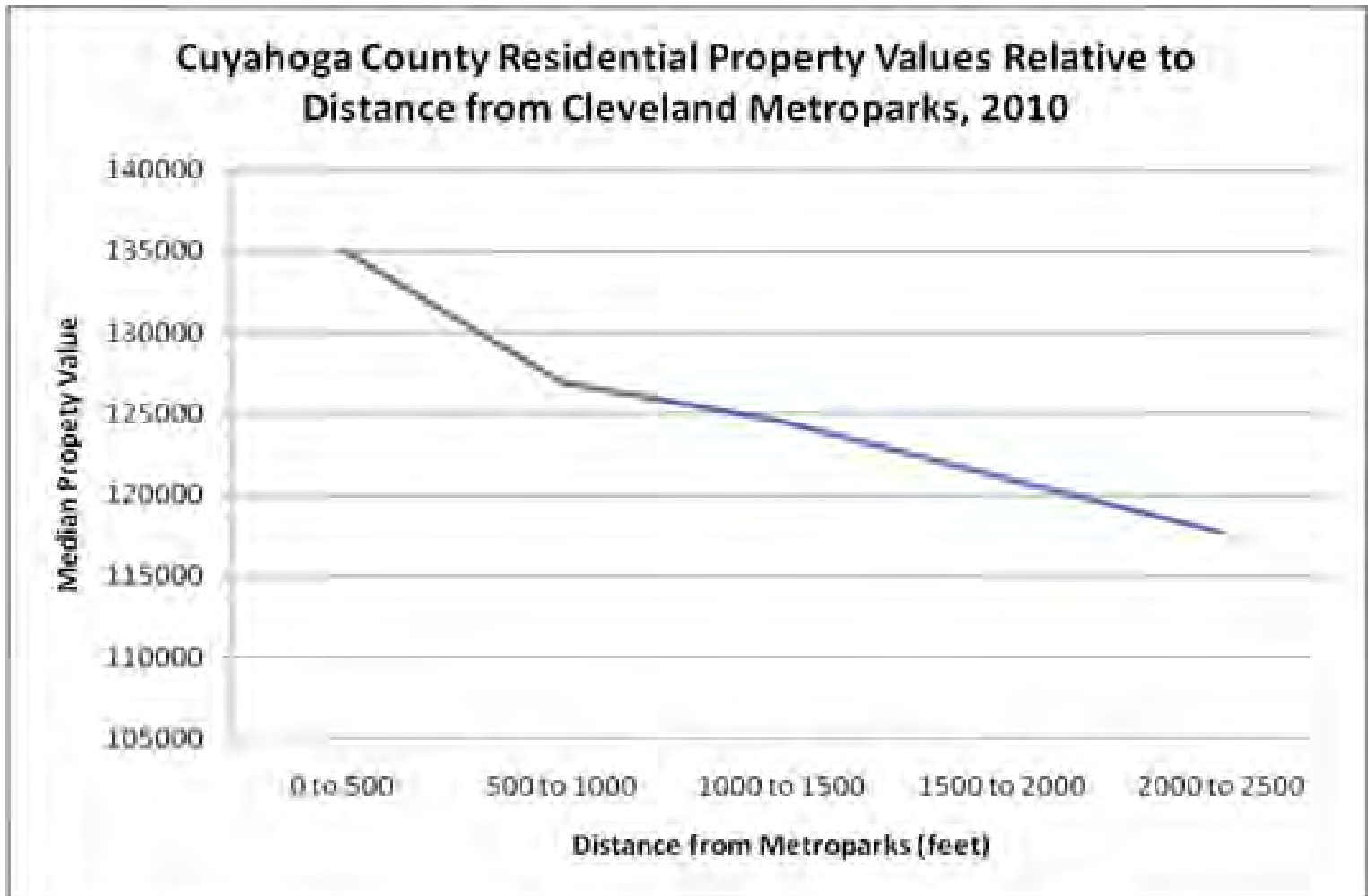
Source: Crompton 2004, 14 Neighborhood Parks, Dallas-Fort Worth Metroplex

Measuring the Economic Impact of Green Space in Pittsburgh



Source: Heinz College, Carnegie Mellon University, May, 2010

Measuring the Economic Impact of Green Space near Cleveland Metroparks



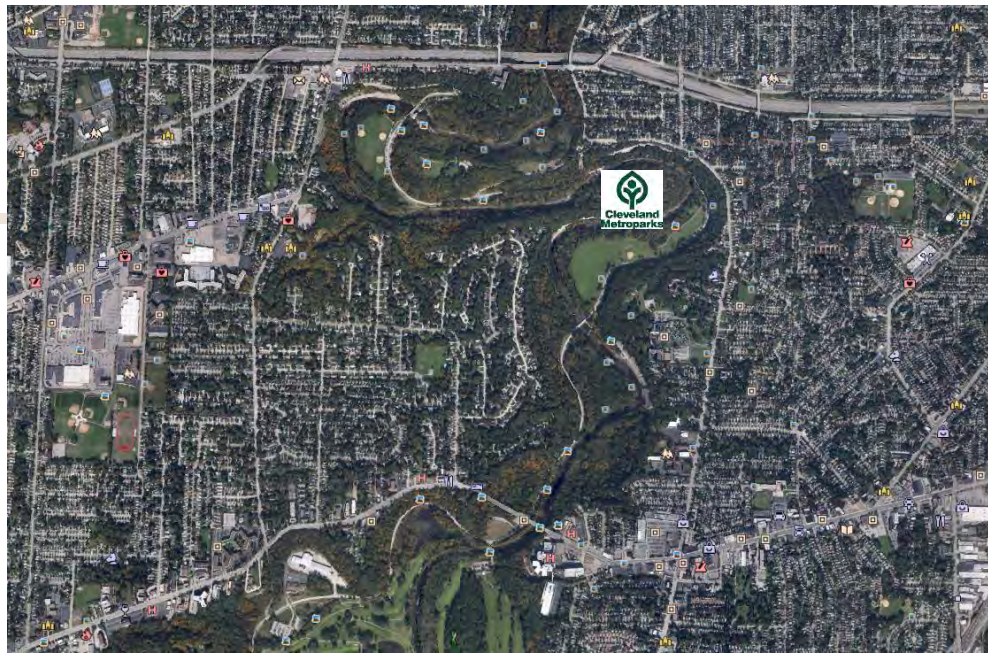
Source: The Economic Value of Cleveland Metroparks, 2011



Enhanced residential property value due to proximity to Metroparks trails and parks

	<i>Total Market Value</i>	<i>Market Premium</i>	<i>Added Market Value</i>	<i>Additional Annual Tax Revenue</i>
Parks	\$ 2,270,000,000	5 %	\$ 114,000,000	\$ 2,870,000
Trails	\$ 483,000,000	2 %	\$ 9,650,000	\$ 226,000
Total	\$ 2,760,000,000		\$ 123,000,000	\$ 3,090,000

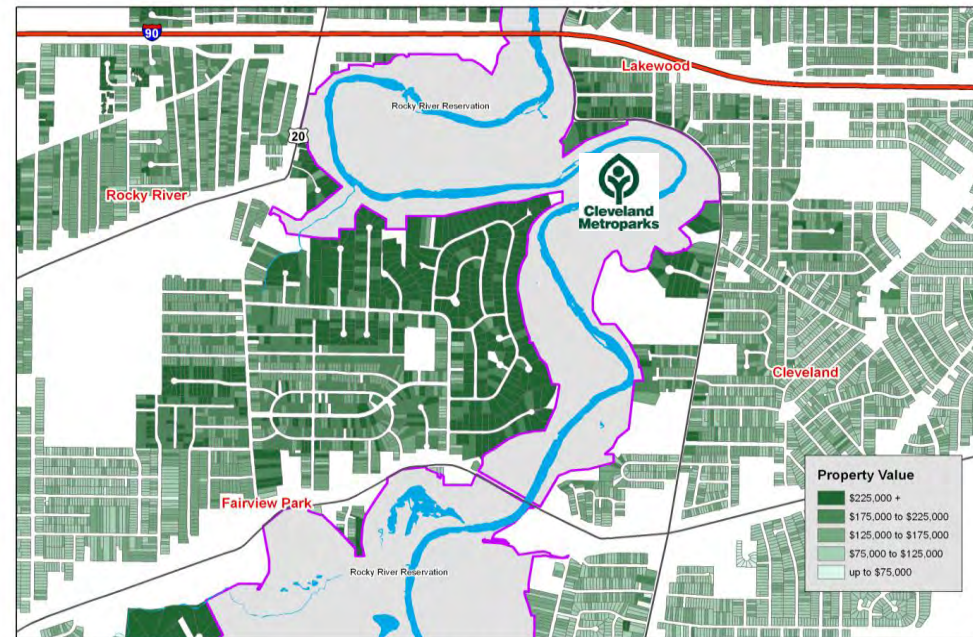
Source: The Economic Value of Cleveland Metroparks, Trust for Public Land, 2013



Case Study: Cleveland Metroparks

Rocky River Reservation

16.4% increase for abutting properties (Source: Cleveland Metroparks 2012 Hedonic Analysis)



0 0.25 0.5 Miles

Property Values Relative to
Distance from Cleveland Metroparks



2. Greenspace serves as an economic development tool

Parks and trails attract and retain businesses and residents



Attracts residential development



*River South Eco-homes
Fairview Park, Ohio*





11 River - Rocky River, Ohio

Attracts commercial development



Emerald Necklace Inn

Inn at Brandywine Falls



Stimulates re-investment in urban areas



Helps reclaim brownfield areas



A PLACE WITH PURPOSE

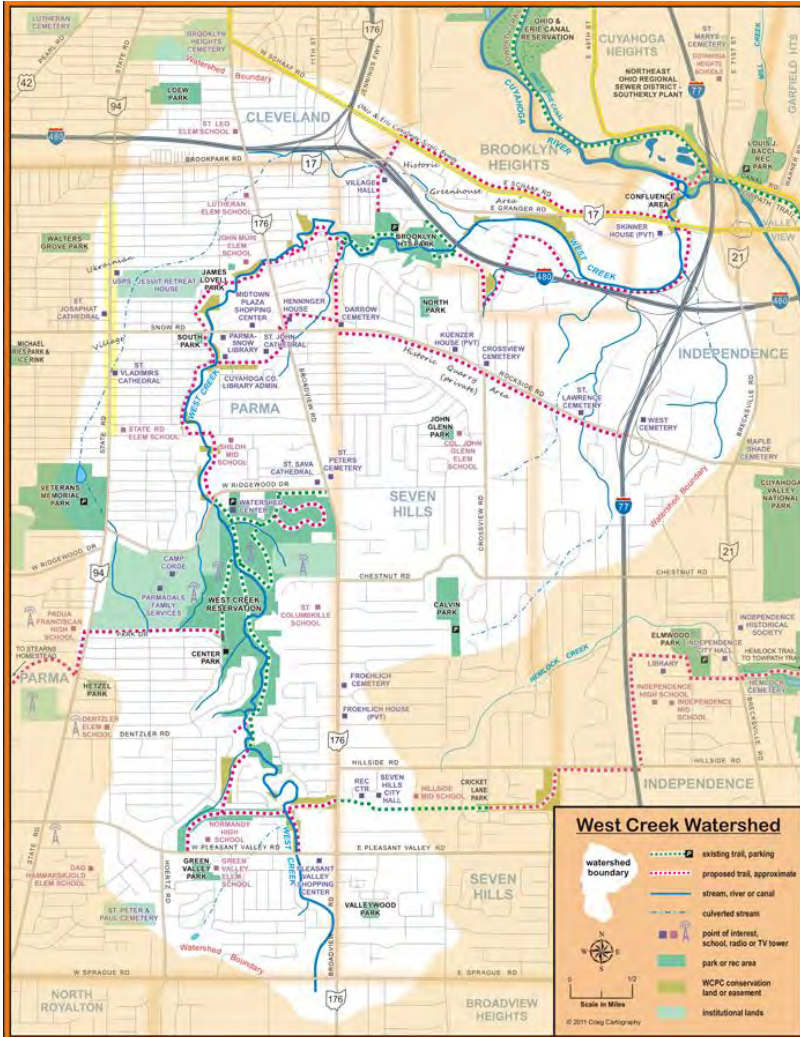
When Moses Clearland arrived in 1786 to survey this land, he saw a very different landscape than you see. As settlement progressed and streams removed, forests were rerouted to make way for mills, houses, railroads, highways and industry.

The place where you stand today was last used as a construction yard. Citizens reclaimed this valuable land in a show of community pride and responsibility to the land.

...as well as revitalize cities



3. Provides for neighborhood linkages



Connects neighborhoods with activity hubs



West Creek Connector

New York City High Line



Ohio & Erie Canal Towpath Trail

- 86 miles completed (2014)
- 15 miles to be constructed
- Will connect Cleveland to New Philadelphia
- Parallels Ohio & Erie Canalway National Scenic Byway
- Connects major park nodes, including Cleveland Metroparks, Stark Parks, Metroparks Serving Summit County and CVNP



Creating a Green Line Parks and Open Space System

- \$957 million public investment transit line linking Minneapolis and St. Paul
- Connects diverse residential neighborhoods, business districts and anchor institutions
- Will serve to catalyze economic development
- Will require a significant investment in a corridor-wide greenspace system to maximize redevelopment



Source: Greening the Green Line, City of Minneapolis, City of Saint Paul and The Trust for Public Land, August, 2014

Greening the Green Line: Public and private strategies to integrate parks & open space in Minneapolis' Green Line development



Source: Greening the Green Line, City of Minneapolis, City of Saint Paul and The Trust for Public Land, August, 2014

4. Reduces cost of municipal services

- Waste Collection
- Education
- Police protection
- Fire protection
- EMS services
- Utilities



Reduces mitigation costs

Greenspace provides much more of a reduction in adverse conditions than other types of development that may require costly mitigation. These include:

- Noise
- Pollution
- Traffic congestion
- Infrastructure deterioration



5. Increases tourism potential

- Outdoor recreation is an important subset of the tourism industry
- Parks and trails make a community an attractive place to visit
- Tourists' activities, the number of visitors, and tourist spending determine the contribution of parks and trails to the tourism economy
- Visitors may pay usage fees and spend money in the region



Tourism's Multiplier Effect

- Federal, state, and local parks in Ohio attract millions of visitors each year who spend money in the local economy and support local jobs
- These various levels of government each make contributions that are essential to the establishment and maintenance of park spaces and trails



6. Improves Quality of Life

Businesses and residents seek locations with high quality of life — including parks, open space and accessible outdoor recreation



Greenspace as an amenity

- Parks and trails attract and retain businesses and residents
- Open spaces contribute positively to the reputation of the area as a nice place to live, work and play



7. Improves health of local residents

- When people have access to trails and parks, they exercise more
- Exercise reduces illness in people of all ages
- There can be significant medical cost savings realized by those who are physically active



Current health issues

68.5% of adults are overweight or obese; 34.9% are obese.

31.8% of children and adolescents are overweight or obese; 16.9% are obese.

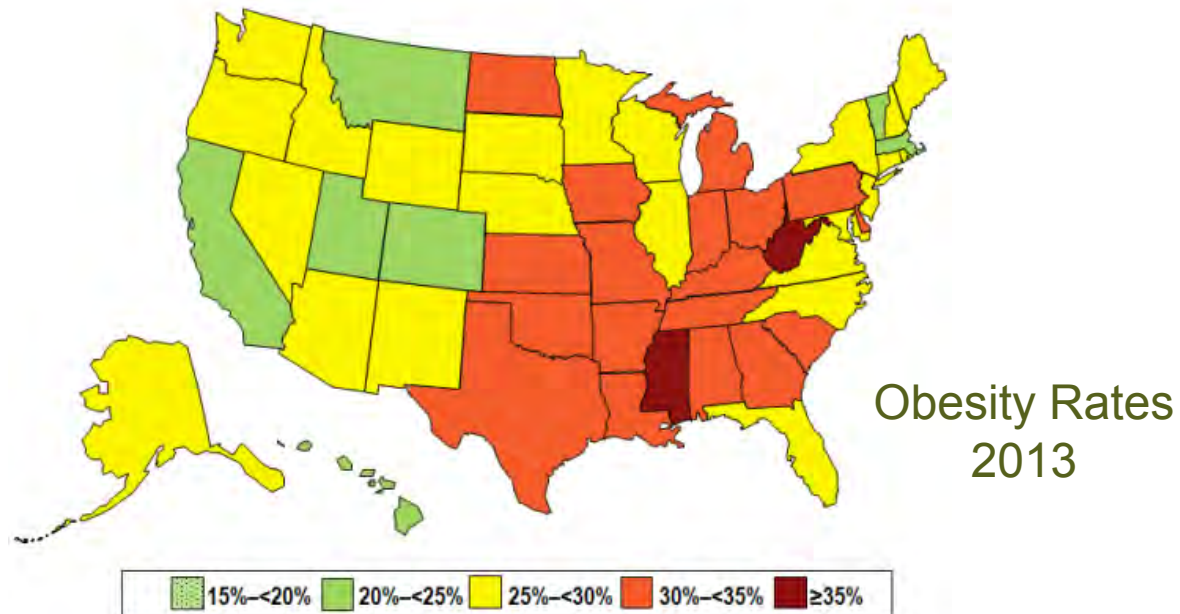


"Remember when we used to have to fatten the kids up first?"


Source: National Health and Nutrition Examination Survey, 2010

Health Trends

- For the first time in two centuries, the current generation of children in America will have shorter life expectancies than their parents.
- Cost to society = \$147 billion and 300,000 premature deaths per year.



Source: Center for Disease Control, 2013



Exercise is one of the easiest ways to stay healthy

Regular physical activity is one of the most important things that can be done to improve health. It can help:

- Control weight
- Reduce risk of cardiovascular disease
- Reduce the risk of type 2 diabetes
- Reduce the risk of certain cancers
- Strengthen bones and muscles
- Improve mental health
- Improve seniors' ability to do daily activities and prevent falls
- Increase chances of living longer

Exercise is beneficial to everyone's health



.....usually



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Parks provide recreational value

- Parks and trails afford value to residents by providing access to recreational opportunities at low or no cost
- Without parks and trails, residents would have to pay for similar recreational experiences privately



How Parks Improve Health



Parks are a great way to keep people active



Significant levels of exercise occur in parks



Parks are where people
GET THE KIND OF **EXERCISE**
their bodies need **most.**

Parks relieve anxiety and improve mental health



Park improvements foster increased usage



Trails and pathways invite a variety of users





Most popular activities on Cleveland Metroparks trails

<u>Activity</u>	<u>Annual Visits</u>
1. Walk or hike	3,040,000
2. Explore nature, view wildlife	2,260,000
3. Walk a dog	1,440,000
4. Use exercise stations	928,000
5. Run or jog	885,000
6. Bike on mountain bike trails	822,000
7. Bike on paved trails or paths	369,000

Source: Cleveland Metroparks, 2013

Programmed activities in parks are highly beneficial



Exercise is one of the easiest ways to stay healthy



Fitness Zones attract new users to parks



Fitness Zone® Program



Fitness Zones

- Free with access 24 / 7
- User-friendly and designed for all ages and abilities
- Sturdy, weather and vandalism resistant
- Typically 6 - 8 pieces



Fitness Zones: Benefits

- Increases access to fitness improvement opportunities
- Promotes wellness by building stronger bodies, improving heart rates, burning calories and relieving stress
- Promotes social ties and builds community
- Increases park usage





*Fitness Zones: Evaluation**

- ❑ Fitness Zone users reported coming to the park more frequently and engaging in more exercise sessions per week than other park users.
- ❑ People in Fitness Zones engaged in substantially more moderate to vigorous physical activity than those in other park activity areas.
- ❑ Additionally, the percentage of people engaging in moderate to vigorous physical activity increased, even in park areas excluding the Fitness Zone.

* Excerpts from presentation by Rand Corporation researchers at the 2011 Active Living Research Annual Conference

A 40-year Record of Success

- Working through 30 state offices, TPL has completed more than 5,000 park and conservation projects from the wilderness to the inner city.
- Recognizing that 80% of the population now lives in metropolitan areas, over the last 10 years TPL has refocused attention on urban parks.
- To date, TPL has installed 62 Fitness Zones[®] and is working on 23 more.



8. Provides ecosystem services

- Mitigates air pollution
- Absorbs carbon & cools the air
- Preserves water quality
- Reduces imperviousness
- Controls storm water runoff & flooding
- Provides habitat

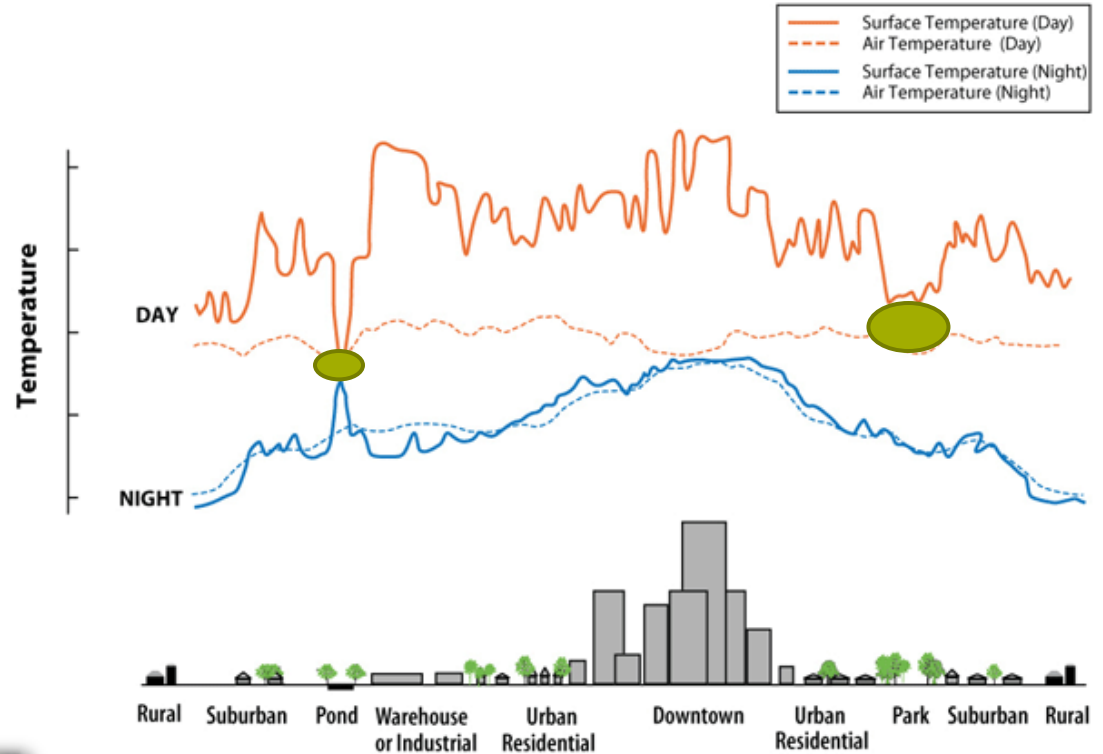


Improves air quality

- Air pollutants increase the need to clean and repair buildings and other infrastructure
- Trees and shrubs in parks and trails improve air quality by filtering out air pollutants
- This filtration cleans the air and helps communities avoid the costs associated with pollution



Absorbs carbon and reduces heat island effect



Improves water quality

- Open spaces filter surface water before it enters lakes, streams or groundwater recharge areas



Lake Erie Harmful Algal Blooms



August 2011

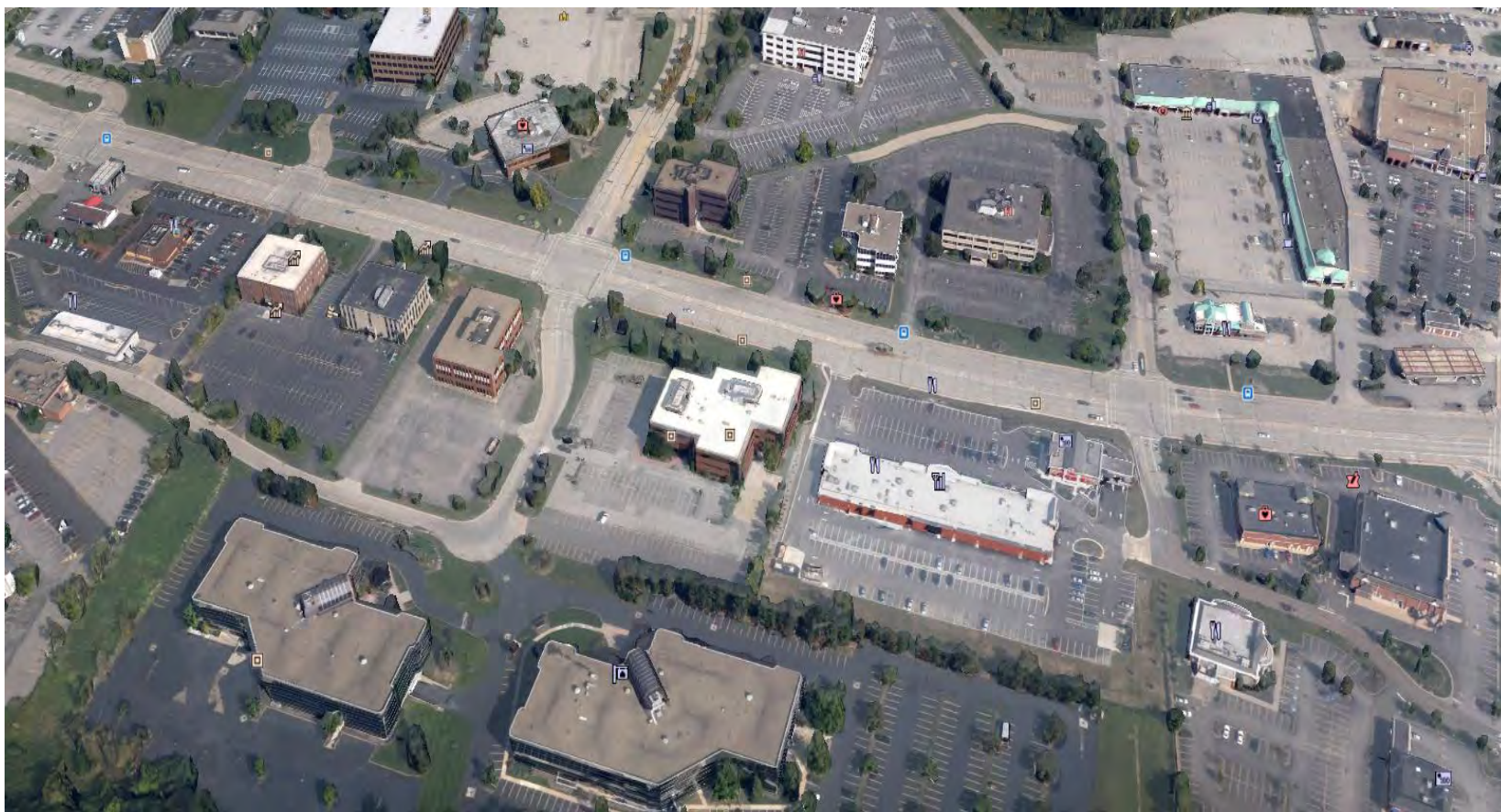


October 2011

Reduces imperviousness in cities...



...and suburbs



Ecosystem services of trees



One tree in its lifetime:

- \$62K air pollution control
- \$37K water recycling
- \$31K oxygen
- \$31K soil erosion control

Controls storm water and flooding

Parks and trails can reduce the costs of stormwater management by capturing precipitation and/or slowing its runoff





Annual stormwater cost savings from Cleveland Metroparks trails and parks

	inches	amount
Annual rainfall	38.10	2,770,000,000 cu.ft.
Runoff with parks	4.39	319,000,000 cu.ft.
Runoff without parks	10.30	745,000,000 cu.ft.
Runoff reduction	5.88	427,000,000 cu.ft.
Runoff reduction rate	57 %	
Cost of treating stormwater (\$ per cu.ft.)		\$ 0.01
Total savings from parks		\$ 5,120,000

Provides habitat and biodiversity



9. Strengthens Community Cohesion

The economic value of social capital is not entirely identifiable and is in some ways priceless, but it is possible to tally up a proxy based on real numbers - the amount of time and money that residents donate to their parks. In 2011, 2,952 volunteers donated over 111,000 hours to Cleveland Metroparks.



Fosters a sense of community



and a place to learn about the natural environment



10. Provides community gathering space



Greenspace Has Never Been More Important

- As many as 2 out of 3 city residents do not have access today to a nearby park, playground, or open space



Even greening up small lots can make a difference



Pocket Parks



Neighboring Property Owner Option



Urban Gardens



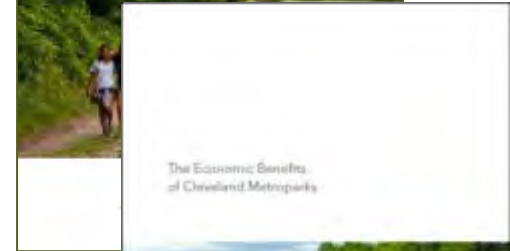
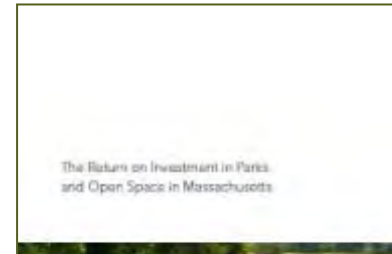
While vacant lots drag down the value of surrounding properties, community gardens have the opposite effect

The Trust for Public Land's Experience

TPL has a wealth of experience measuring the economic benefits of land conservation

Recent publications:

- New Hampshire's Return on Investment in Land Conservation (2014)
- Return on Investment in Parks and Open Space in Massachusetts (2013)
- The Economic Benefits of Clean Ohio Fund Conservation (2013)
- The Economic Benefits of Cleveland Metroparks (2013)



New Hampshire's ROI Report

- Land and Community Heritage Investment Program funds were being redirected to fill state budget gaps
- ROI: 11 to 1
- Released July 2014
- Plan to use in support of Legislative Committee to study the current status of land conservation in NH. Committee report to be released November 2014



Massachusetts ROI Report

- Environmental bond bill funds exhausted
- ROI: 4 to 1
- Released at State House media event September 2013
- Currently being used in support of new environmental bond bill



Clean Ohio Fund ROI Report

- 2008 Clean Ohio bond funds for land conservation and trails unspent
- ROI: 4 to 1
- Released during budget, March 2013
- Remaining \$52 million in bonds released for land conservation and trails



Case Study: Cleveland Metroparks

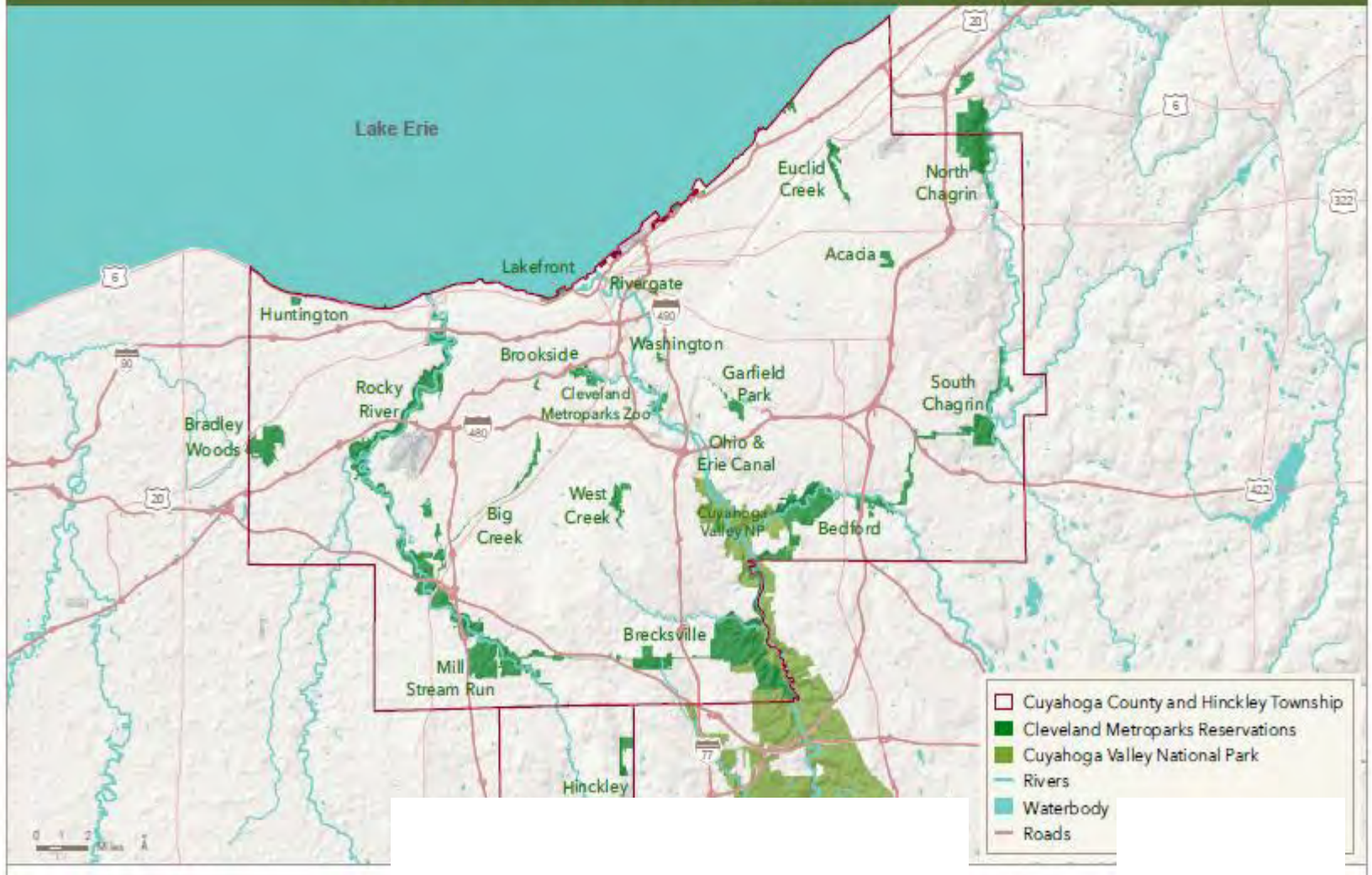
The Economic Benefits of Cleveland Metroparks



October, 2013

CLEVELAND METROPARKS

CUYAHOGA COUNTY AND HINCKLEY TOWNSHIP



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Estimated annual benefit of Cleveland Metroparks trails and parks is \$855 million

BENEFIT CATEGORY	BENEFIT SUBCATEGORY	LAND USE TYPE	TOTAL
Enhanced property values and government cost savings			
Enhanced property value	Additional property value*	Parks	\$ 114,000,000
		Trails	\$ 9,650,000
	Additional property tax	Parks	\$ 2,870,000
		Trails	\$ 226,000
Stormwater retention value		Parks and trails	\$ 5,120,000
Air pollution removal value		Parks and trails	\$ 14,400,000
Recreation and tourism			
Park tourism value	Tourism spending	Parks and trails	\$ 733,000,000
	Sales tax on tourist spending*	Parks and trails	\$ 50,500,000
Direct use value		Parks and trails	\$ 40,400,000
Human health value		Parks and trails	\$59,500,000
Summary			
Total annual value		Parks and trails	\$ 855,000,000

Cleveland Metroparks Levy Support

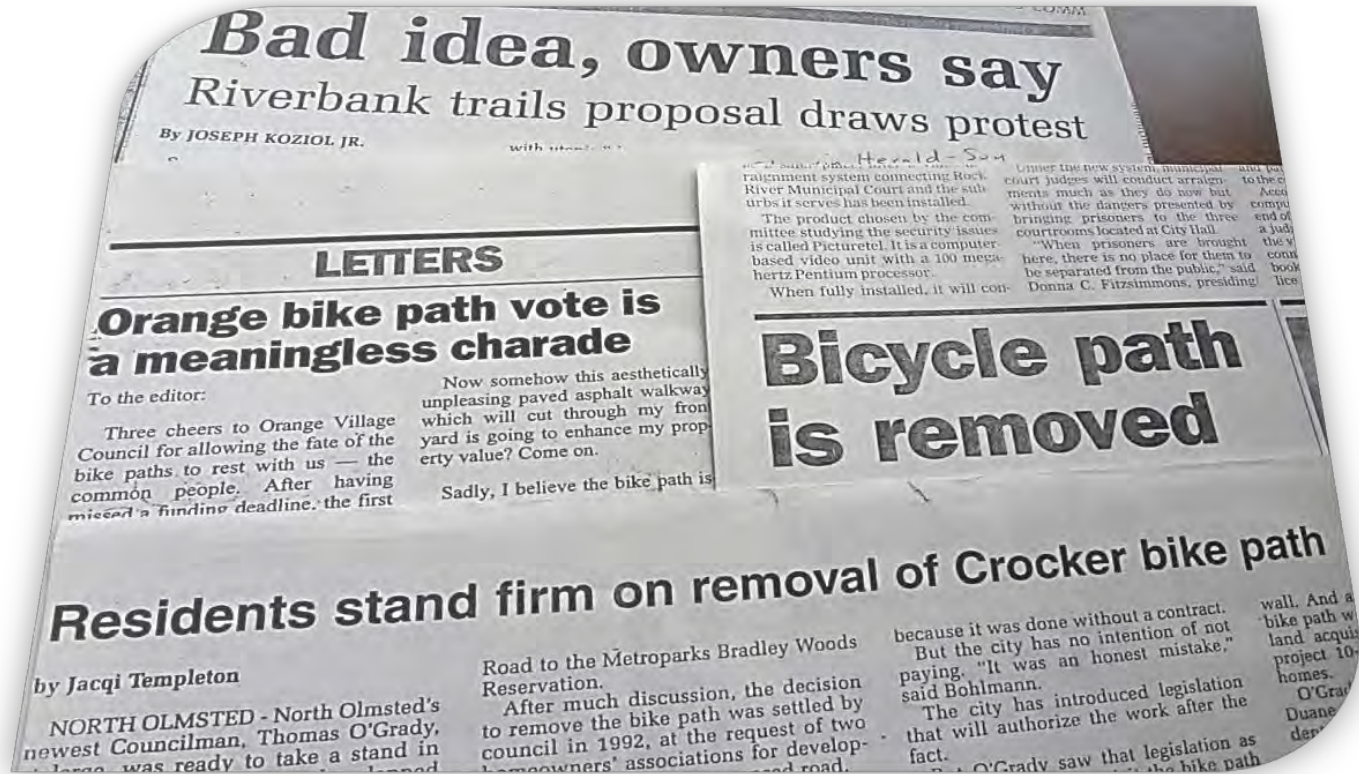
- In the November 2013 levy, voters were asked to approve a 10 year renewal of 1.8 mills and an increase of 0.9 mills
- Approval would generate 62% of an \$89 million annual budget
- Passed with 70% of the vote



Parks generally have limited public opposition



.....but it does happen



The Economic Benefits of Greenspace



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