MASTERS PROJECT

An Urban Conservation Strategy to
Preserve Cuyahoga County’s Eco-Valued Landscapes

By

Lynn M. Garrity

May, 2007

Duke Environmental Leadership Masters of Environmental Management

Masters Project Approved by:

Dr. Norman Christensen – Advisor
Nicholas School of the Environment and Earth Sciences
Acknowledgements
I would like to thank my advisor Dr. Norman Christensen, Nicholas School of Environment and Earth Sciences, Duke University for his support and guidance in the development of this project. I would also like to thank the numerous organizations and individuals who provided information and insight in the development of this project and are recognized in the reference section of this report.

Comments, questions, concerns or errors should be directed to:

Lynn Garrity
Nicholas School of Environmental & Earth Sciences
Duke University
P.O. Box 90328
Durham, NC 27708 – 0328

Or

lynn.garrity@duke.edu
ABSTRACT

The land conservancy movement in the United States has increased significantly over the past twenty years. The increased number and activity of local land trusts is especially notable. Rural and suburban land has been the most important conservation targets for these groups. However, there is growing interest in the conservation of urban land, and interest in the values and viability of natural areas in urban environments. To assess these values and viability, Cuyahoga County, Ohio is evaluated on its present and future potential for an urban land conservation program.

Cuyahoga County’s human population has declined the past ten years but land development continues to increase. Loss of valuable ecological areas including riparian lands, wetlands and diverse plant communities continues at an alarming pace. An urban land conservation strategy that targets small parcels (<10 acre) is needed to combat the loss of the ecological resources and to provide natural areas to an urbanizing county as a social and economic benefit.

To determine the viability of an urban land conservation effort in Cuyahoga County, the following activities were evaluated.

1. The success and challenges of current urban land conservation efforts throughout the country and within Cuyahoga County;
2. The similarities and differences of approaches to rural land conservation and urban land conservation;
3. Defining eco-valued landscapes and their presence for conservation opportunities in Cuyahoga County; and
4. Organizational structures in Cuyahoga County that could institute an urban land conservation program.

As our human population continues to move into and transform metropolitan areas, an urban land conservation strategy will provide an opportunity to establish natural areas where it is most needed and to lessen the pressure of the unwavering desire to live outside of the City.
# Table of Contents

Acknowledgements ...........................................................................................................2  

Abstract ............................................................................................................................3  

Section 1: Introduction ......................................................................................................5  
  1.1 Overview of Land Conservation .................................................................................6  
  1.2 Importance of Land Conservation in Urban Areas .....................................................7  
  1.3 Cuyahoga County, Ohio .............................................................................................10  

Section 2: Objectives ......................................................................................................10  

Section 3: Materials & Methods .....................................................................................11  
  3.1 Organizational .............................................................................................................11  
  3.2 Socio-economic .........................................................................................................16  
  3.3 Biological ..................................................................................................................20  
  3.4 Programmatic .............................................................................................................23  
  3.5 Application ................................................................................................................26  

Section 4: Results ............................................................................................................28  
  4.1 Findings and Observations .........................................................................................29  
  4.2 Establishing an Urban Land Conservation Strategy in Cuyahoga County .................31  
  4.3 Applying Urban Land Conservation-Case Study Scenarios ......................................33  
  4.4 Evaluation of Existing Organizations to Establish and Urban Land .........................37  
     Conservation Program  

Section 5: Discussion & Conclusion ...............................................................................41  

Section 6: References .....................................................................................................47  

Tables  
  1 Current Primary Land Conservation Organizations in Cuyahoga County .................12  
  2 Sample Poverty Rates in Cleveland and Inner-Ring Suburbs of Cuyahoga County ....19  
  3 Sample Analysis of Current and Potential Protected Areas .........................................22  

Figures  
  1 Cuyahoga County ........................................................................................................8  
  2 Western Reserve Land Conservancy Service Area .......................................................13  
  3 Protected Areas by Cleveland Metroparks and Western Reserve Land Conservancy in Cuyahoga County, 2006 .................................................................15  
  4 Cuyahoga County Riparian Owners .............................................................................24  
  5 Euclid Creek Corridor of Potential Land Conservation in South Euclid ....................35  
  6 West Creek Acquisition Restoration Site .......................................................................37  

Appendix A: Cuyahoga County Conservation Organizations, Evaluation of Suitability to Establish Urban Land Conservancy Program
1. Introduction

Each year, land conservancies protect over 1 million acres of ecologically, culturally and socially significant land in the United States.\(^1\) Nevertheless, over two million acres of land is consumed each year for development in the country.\(^2\) As increased pressures on metropolitan regions continue to grow, the importance of natural areas within cities continues to be recognized. Establishing an urban land conservation strategy within metropolitan areas is one approach to addressing this continuing need. This masters project examines this need at a County level as well as opportunities and challenges for its implementation.

1.1 An Overview of Land Conservation

Land Conservation is typically conducted by a private land trust, where land is placed in a protected condition under a legal agreement. The agreement is typically a conservation easement that places restrictions on the land to retain its conservation values. Land conservation is also conducted through acquisition by land trusts or another recognized program such as government agencies. Today, there are 1,667 land conservation trusts in the United States that have conserved 37 million acres of land in the past five years\(^3\) In comparison, there were only 53 land trusts in the country in 1950.\(^4\) Land Conservation through the purchase or use of conservation easements by land trusts has proven to be a viable strategy to reduce the pace of loss of our natural areas.

Local and state trusts are among the fastest growing segments of the land trust movement. They have tripled the pace of land conservation from 337,937 acres per year from 1995-2000 soaring to 1,167,697 acres per year from 2000-2005. Ohio ranks 17\(^{th}\) in the country in the percentage of
increase (150%) of land conserved since 2000 for a total of 50,000 acres through the work of the 44 established land trusts.\textsuperscript{5}

Urban land conservation occurs in metropolitan regions where human population density is high and small parcels, typically less than ten acres, are the predominant land structure. The concept of urban land conservation was initialized by groups such as the Trust for Public Land over twenty years ago recognizing the benefit of public parks and natural areas in cities. But the idea of additional urban natural areas solely for conservation purposes continues to emerge as a recognized need. Urban land conservation aims to establish greenspace and natural areas through a cumulative approach of small parcels, that may be marginal by themselves but collectively, provide conservation benefits.

1. 2 The Importance of Land Conservation in Urban Areas

Today, in the United States, nearly 80\% of the country’s total population is located within metropolitan regions.\textsuperscript{6} Urban areas have tripled in the country from what existed in 1950.\textsuperscript{7} This trend has diminished the daily access to nature to a large part of the United States population. It has also posed questions on health and social impacts due to the lack of nature in urban and suburban societies. This is most prevalent in children. During the same time of these population shifts from rural to urban areas, childhood obesity has increased. One example is an increase of 36\% of childhood obesity in ages 2-5 from 1989-1999.\textsuperscript{8} Similarly, an increase of 24\% of cases of Attention Deficit Disorder (ADHD) from 1997-2002 occurred.\textsuperscript{9} While many social and economic factors may influence these health risks, studies have demonstrated exposure to nature decreases hyperactivity in ADHD cases and increased cognitive and creative thinking,
independent decision making and problem solving in school age children. The viability of urban natural areas could play an integral role in the health and sustainability of the metropolitan regions in the country.

In the past, land trusts have predominantly focused their efforts outside of urban areas. Urban land conservation is emerging as a sector among local land conservation groups to serve as a strategy to prevent development pressure in rural areas by providing natural areas in the City. While urban land conservation is being recognized as a need, the challenges are distinctive in comparison to traditional rural land conservation.

1.3 Cuyahoga County, Ohio

To examine these opportunities and challenges of urban land conservation, I use Cuyahoga County, Ohio as a case study. Given the competing interests of social, economic and land conservation goals within metropolitan regions, can urban land conservation play an integral role to all of these interests? And if so, what is the best strategy to serve this role and complement the natural, social and economic characteristics that exist in Cuyahoga County?

Cuyahoga County is located in northeastern Ohio along the shores of Lake Erie. The County includes 58 inner ring suburban and suburban municipalities and its central city, Cleveland as shown in Figure 1. It is the most urban county in Ohio and contains one of the highest human population densities within the Lake Erie basin and the Great Lakes region. In 2005, the population was estimated at 1,393,845, the highest within any Ohio county and the second highest in the Lake Erie basin outside of Detroit. This population also places Cuyahoga County
Cuyahoga County is nearly 90% developed with residential, commercial, industrial, institutional, transportation and utility land uses. Despite this highly developed state, the final 10% of land remaining is being consumed at an alarming rate. Paradoxically, Cuyahoga County’s human population continues to decline. Cuyahoga County has lost over 58,000 residents from 2000 to 2005. Yet over the same period of time an average of 15 acres of wetlands per year and thousands of linear feet of streams were removed in the County. This continuing pattern of land consumption has put a burden on the distinctive landscape features and functions of the watersheds that drain to Lake Erie. These significant features include: coastal plains, rocky bluffs and ravines, and forested uplands and palustrine meadows, including streams and wetlands.
Although Cuyahoga county accounts for a little over 2% of the Lake Erie watershed land area, it poses a significant impact to the ecosystem due to its extent of development\textsuperscript{14}. Impacts include continuing loss of wetlands, alteration and removal of streams resulting in reduced habitat, and continuing contribution of sediment into the lake system due to erosion and land disturbance. Development can be defined here by any activity that disturbs or alters the land to reduce its ecological functions that benefit Lake Erie. Cuyahoga County continues to diminish its physical contribution to the viability of Lake Erie while increasing its contribution of stressors that the Lake is experiencing.

Natural landscapes such as wetlands and stream buffers within a county like Cuyahoga serve multiple benefits. First, as federal and state requirements to improve the water quality of Lake Erie continue to increase, demonstration of maintaining ecologically valued functions is being directed as a deliverable result at the local level. Second, natural areas in an urban county provide a net benefit to the quality of life to residents especially to populations that are unable, because of income or access, to explore nature in other parts of the state. Last, natural areas provide functions for storm water management such as flood control to improve water quality, reduce water volume, and improve ecological functions.

In 2000, the Cuyahoga Greenspace Plan cited an Open Space inventory conducted in the 1990’s that found nearly 32,000 acres of land privately or publicly protected from development through the establishment of conservation easements, held by a land conservancy or managed under a park district or local municipality. Based upon opportunities developed through the County Greenspace Plan, a goal of preserving and restoring an additional 20,000 acres in the county was
recommended. This would establish a conservation network of land covering 6.6% of the County’s total land cover. The Greenspace Plan recommended that the county’s streams and rivers form the backbone of the network for future land conservation.\textsuperscript{15}

To implement this goal, the plan recommended watershed planning, inventory efforts and policy and organizational development activities. One recommendation was to establish an urban land conservancy to foster land conservation. Since these recommendations have been developed, no implementation or organization has come forth to implement the land conservation goals in the plan. Hence, this project begins to evaluate the past and current land conservation efforts, need for an organized urban land conservation strategy, and how best to implement it.

2. Objectives

For the master’s project, I examine an urban land conservation strategy in Cuyahoga County, Ohio with the following objectives:

- What is the need and feasibility of an urban land conservancy in Cuyahoga County that focuses on small parcels that preserve and restore distinctive landscape features of the region and link larger conservation areas within the County?

- What are the present trends of urban land conservation throughout the United States that are applicable to Cuyahoga County conditions?

- What are the organizational opportunities to implement an urban land conservation program?
3. Materials & Methods

In order to answer these questions, I carried out the following activities using five key factors to evaluate the viability of an urban land conservation program;

- **Organizational:** A review of current land conservation being conducted in Cuyahoga County and evaluation of current organizations on small parcel land conservation in urban areas;
- **Socio-economic:** A review of socio-economic and land use conditions in both policy and practice, which do or may impact land conservation activities in Cuyahoga County;
- **Biological:** Identification and quantification of priority landscape areas in the County to determine if natural areas with conservation value exist, but currently are not protected.
- **Programmatic:** Comparison of urban and rural land conservation methods, priorities and conditions to inform current limitations in conserving natural areas within an urbanized County.
- **Application:** A review of urban land conservation program models in the United States that could be applied and meet the needs of Cuyahoga County.

3.1 Organizational: Current Land Conservation in Cuyahoga County

To examine the current organizational structure of urban land conservation in the County, a review of current land conservation efforts was conducted.

Historically, land has been conserved in Cuyahoga County by regional and state park systems. However, today, local and regional land conservation groups are playing an increasingly important role. The current land conservation effort in Cuyahoga County is being conducted by
four key organizations. These include the Western Reserve Land Conservancy, Cleveland Metroparks, Cuyahoga Soil & Water Conservation District, and West Creek Preservation Committee. Table 1 shows current land acreage that each of these organizations own or hold under a conservation easement within Cuyahoga County. The Ohio Chapter Trust for Public Land works on transactions and financing for land conservation projects, but they do not hold or own land for long-term conservation and are not evaluated as a land conservation holder. While municipalities or other smaller organizations may hold deed restrictions on property for conservation, these were not included in this analysis due to lack of data and small percentage of land. Additionally, these areas stand the risk of being converted from conserved areas if local administrations change and economic development opportunities arise for these areas that could change the conservation status of these properties.

Table 1: Current Primary Land Conservation Organizations in Cuyahoga County

<table>
<thead>
<tr>
<th>Organization</th>
<th>Land Protected in Acres in Cuyahoga County (2006)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Reserve Land Conservancy (In Cuyahoga County Only)</td>
<td>1,200 Acres</td>
</tr>
<tr>
<td>Cleveland Metroparks (In Cuyahoga County only)</td>
<td>16,839 Acres</td>
</tr>
<tr>
<td>Cuyahoga SWCD</td>
<td>191 Acres</td>
</tr>
<tr>
<td>West Creek Preservation Committee</td>
<td>250 Acres</td>
</tr>
<tr>
<td><strong>Total Protected by these Entities</strong></td>
<td><strong>18,479 Acres</strong></td>
</tr>
</tbody>
</table>

*does not include other easements or protected areas by private companies, other non-profit organizations and the local municipalities City Parks or other greenspace protection initiatives. Source: Cleveland Metroparks, Cuyahoga SWCD and West Creek Preservation Committee, 2006

**Western Reserve Land Conservancy**

In January of 2006, the Western Reserve Land Conservancy was formed through the merger of six local land conservancies serving 14 counties in northeast Ohio, including Cuyahoga County, encompassing 4 million acres of land area. The formation of Western Reserve was the largest land trust merger in the country and is now one of the largest local land trusts (in terms of land
area coverage) in the nation. As of 2006, the newly merged conservancy held 8,400 acres in its service area.\textsuperscript{16}

Although this newly formed conservancy includes Cuyahoga County, its focus is on parcels which are greater than 10 acres on the outer rural fringes and coastal areas of the county. While the Conservancy currently holds 1,200 acres of land for conservation purposes within Cuyahoga County, none of this acreage is in the City of Cleveland or inner-ring suburbs with the exception of a 12 acre coastal forest property in City of Bratenahl, an economically affluent low density inner-ring community. Thus, even though development pressures continue within the urban areas of the County on remaining forested areas, inner-ring conservation is for the most part not occurring. Figure 2 shows Western Reserve’s service area.

\textbf{Figure 2: Western Land Conservancy Service Area Source: Western Reserve Land Conservancy}
Since its merger, the Conservancy has been developing a priority protection list within its service area based upon its anchor strategy. The anchor strategy focuses on three goals; identifying areas for expansion of existing preserved lands, identifying large unprotected lands for conservation and identifying land that create corridors to link the larger protected areas. The priority protection list is to be completed by end of 2007. Because they contain mostly small and developed parcels, it is anticipated that most of the inner-ring and areas of the outer ring portion of the county will not be a priority.

**Cleveland Metroparks**

The Cleveland Metroparks, established in 1918, has been a significant landmark to Cuyahoga County and the creation of an “emerald necklace” of greenspace along its river and stream corridors. It holds over 16,000 acres of land in Cuyahoga County within its 16 park reservations. The Metroparks, is a primary land conservation agency in the county whose mission is to provide natural areas for recreational purposes and public access. These two objectives can have conflicting interests with a variety of stakeholders with land conservation for preservation purposes not always being the primary priority. The other challenge with Metroparks is its focus on connection of current parks within their system and lack of ability to assemble small parcels to establish new corridors. Hence, their focus is upon pursuit of larger land parcels adjacent to existing parklands. Thus, a limited service area is pursued within the Metroparks land conservation program. Figure 3 shows the current land protected by Cleveland Metroparks and the Western Reserve Land Conservancy.
Cuyahoga Soil & Water Conservation District

The Cuyahoga Soil & Water Conservation District, a government organization, established a land conservation program in 1999 to be a recognized conservation easement holder. Today, the District holds easements on over 190 acres across the county. The Cuyahoga SWCD is unique among these groups in its ability and willingness to hold small parcels and acreage. The District faces two specific challenges as an urban land conservation organization. First, its current staffing and program priorities to actively pursue conservation easements are limited except where they are directly involved such as development projects during storm water plan reviews.
or watershed management programs. The second challenge for the District is their current inability to own land. They can only hold conservation easements.

**West Creek Preservation Committee**

The West Creek Preservation Committee established in 1995 has been the most active and accomplished watershed groups in Cuyahoga County. This non-profit organization is a model grass-roots effort for the purchase and preservation of land in a highly developed region of the County and within inner-ring suburbs. To date they have preserved over 250 acres, and additionally transferred another 350 acres to the Cleveland Metroparks as their newest park reservation. The challenges of the West Creek Preservation Committee are their current focus on a small area of the County and its lack of financial and staff capacity to expand larger.

Without these four organizations working on land conservation in the County, many natural areas would be lost to development. However, due to the variety of geographic focus, lack of a comprehensive strategy to work concurrently, and absence of activity in portions of the county, the organizations are inefficient and less effective in maximizing land conservation opportunities in the County, particularly related to small parcels.

**3.2 Socio-Economic: Current Socio-economic and Land use Policies and Practice that Impact Land Conservation efforts in Cuyahoga County**

The geopolitical structure, development patterns, land use policies and social conditions of the county play a role on how land conservation is currently being conducted and how an urban land conservancy would potentially work as a result of these conditions.
Cuyahoga County Political and Geographical Structure

Cuyahoga County contains 59 municipalities with the City of Cleveland as the central urban metropolitan district. As a home rule state, the municipalities hold their own land use policies and comprehensive planning approaches individually. Hence, the county lacks a comprehensive policy for land conservation at a regional level. This creates a fragmented and inconsistent method to protecting natural areas for the County and its continuing loss of land to development. Along with these separate municipal jurisdictional boundaries, the county is part of nearly 14 watersheds contributing to the Lake Erie Basin. These watersheds contain three big river systems, the Cuyahoga, the Rocky and Chagrin, direct coastal tributary watersheds and sub-watersheds of the Cuyahoga River system. The conditions of these watersheds vary from highly altered, with limited ecological value to relatively undisturbed with many habitat features (e.g., streamside buffers, etc.) in place and various watershed groups.

Development Patterns

Although Cleveland and the inner-ring suburbs continue to lose population, land consumption and alteration continues at an alarming pace. Land development is occurring in three forms. 1) Traditional development continues on undisturbed sites. This includes clearing of forests, soil compaction, and alteration or removal of wetlands and streams. 2) Redevelopment of existing developed sites at a higher density is being done in some areas. For example, many sites contained a single family home with a deep back lot of forest or undisturbed land. Developers are purchasing a tract of homes, tear down the existing homes and rebuild at an even higher density. Where historically, there were two homes, 15 homes are being developed on the same
acreage. 3) Redevelopment is occurring of lands on existing disturbed sites, within the very urban areas of the county including brownfield sites.

**Lack of Protection Ordinances/Planning Process includes maximum conservation areas.**

The County in partnership with regional agencies, has embarked on establishing Riparian and Wetland Setback ordinances within local communities. As of 2006, six communities in the County had adopted these ordinances. Communities continue to resist this ordinance for the perception of liability and property rights issues. In addition, even with the adoption of these ordinances, variances can be permitted and new administrations can overturn the ordinance. Hence permanent protection should be pursued through land conservation.

**Mitigation Trends of Cuyahoga County for 401 and 404 wetland and stream permits.**

Cuyahoga County continues to experience a net loss of streams and wetlands due to the continuing trend of realizing mitigation impact requirements outside of the County. Over the past five years, Cuyahoga County has had the highest number of wetland permit requests in the State of Ohio. From 2001 through April, 2005, this accounted to the loss of 73 acres of wetlands. In addition, the majority of these permitted impact sites were mitigated outside of Cuyahoga County. Hence, an ecological loss to the County has been occurring the past twenty years within the regulatory system. An organized approach for developers such as mitigation banking to provide a return value of these impacts back into the County for restoration and preservation sites is currently not in place and sets the County at a disadvantage to retain these impacts more effectively.
**Linking Poverty to Lack of Greenspace**

The City of Cleveland has been ranked nationally for the past three years as one of the cities in the nation with a high percentage of its population living in poverty. Such poverty is increasing in other inner-ring suburbs adjacent to Cleveland. Table 2 shows the current poverty rate of a sample of inner-ring communities in Cuyahoga County and their associated watershed. Affluent populations continue to out-migrate to the rural open spaces of the outlying suburbs and adjacent counties. Data and analysis was not available to determine the relation of poverty rates with the amount of greenspace or natural areas present within the community.

<table>
<thead>
<tr>
<th>City</th>
<th>Poverty Rate (1999)</th>
<th>Watershed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleveland</td>
<td>26.27</td>
<td>Lake Erie Tribs/Cuyahoga</td>
</tr>
<tr>
<td>Euclid</td>
<td>9.7</td>
<td>Lake Erie Tribs/Euclid</td>
</tr>
<tr>
<td>South Euclid</td>
<td>4.55</td>
<td>Euclid/Nine Mile</td>
</tr>
<tr>
<td>Brooklyn</td>
<td>6.61</td>
<td>Big Creek</td>
</tr>
<tr>
<td>East Cleveland</td>
<td>31.97</td>
<td>Lake Erie Tribs</td>
</tr>
<tr>
<td>Cleveland Heights</td>
<td>10.64</td>
<td>Lake Erie Tribs</td>
</tr>
<tr>
<td>Maple Heights</td>
<td>5.92</td>
<td>Mill Creek</td>
</tr>
<tr>
<td>Bedford Heights</td>
<td>7.59</td>
<td>Tinkers Creek</td>
</tr>
<tr>
<td>Garfield Heights</td>
<td>8.54</td>
<td>Mill Creek</td>
</tr>
</tbody>
</table>

*Source: Case Western Reserve University, Urban Poverty Center and Social Change*

The City of Cleveland, through its neighborhood development corporation model, contains a high number of community city parks. However, many of these parks serve a recreational purpose, and less emphasis or none at all at of natural areas in place to experience. The Metroparks Euclid Creek Reservation is an example of the demand for natural areas within urbanized areas of the County; it is among the smallest within the Cleveland Metroparks reservations, but it is also among the top three most visited reservations within the entire Metroparks system.19
The County’s lack of a comprehensive land conservation strategy, multiple jurisdictions of land use control, lack of a mitigation strategy, and increase of human populations in poverty raises challenges in a comprehensive urban land conservation program to work effectively across the county in its present state.

3.4 Biological: Identifying Priority Landscapes in Cuyahoga County for Targeted Conservation

An urban conservation program is only effective if there is land available to conserve or the land has the potential to provide biological and physical benefits to the County. Do natural areas exist in the County that are not protected and if so how much? I examined this first by identifying priority landscapes where land conservation could occur with ecological benefits. For the purposes of my Masters Project, I define eco-valued landscapes in the County to include riparian corridors, wetlands and coastal estuarine areas, upland forest areas and potential restoration areas.

Priority Landscapes

Riparian Corridors: Riparian corridors are defined by current ordinances with riparian buffers between 25’ on each side of the stream for areas draining less than ½ mile up to 120 for areas draining greater than 300 square miles. Typically in Cuyahoga County and the targeted watersheds, the riparian buffers will range from 25-75’ on each side of the stream with the exception of the Cuyahoga River mainstem. Riparian corridors are a key component in linking areas together within a watershed and the county.
Wetlands/Coastal Estuarine Zones: The Cuyahoga Soil & Water Conservation District is nearing completion of a general wetland inventory of the County as well as a previous inventory for the Cuyahoga River watershed. This data set provides a baseline of prioritizing wetland sites for protection. Additionally the quality of the wetlands can also be a factor in prioritizing sites to aim for conservation protection.

Connecting Upland Forested Fragments/Existing Protected Natural Areas: Remaining forest stands that provide a linkage to other areas that can increase and maintain habitat migration patterns is a priority for the County. These landscapes provide unique biodiversity elements in the County and help reduce increased runoff to the stream corridors downstream.

Restoration Area: Increasing fish and aquatic habitats is a key factor in protecting landscapes in Cuyahoga County. Sites where restoration has a demonstrable effect on ecosystem function should be a priority for urban land conservation. The cumulative effect of these sites can bear a significant impact on the functions of riparian areas and their coastal nearshore habitats.

Current Presence of Eco-Valued Landscapes in Cuyahoga County that are Unprotected
To determine the presence of these landscape features and their protection status, I evaluated sample watersheds to identify if natural areas remain but are not currently protected. The Western Reserve Land Conservancy currently works actively within the rural and larger river systems of Cuyahoga County that include the Chagrin River, Rocky River, Tinkers Creek and Chippewa Creek. Because of their current work in these watersheds, the examination of land preservation is aimed toward projected underserved watersheds. These include Euclid Creek,
West Creek, Lake Erie Tributaries (Nine Mile, Doan Brook, Dugway, Porter, Cahoon and other smaller unnamed tributaries), main stem of Cuyahoga River, Big Creek, and Mill Creek. These watersheds cover 306 square miles of the County or 67% of its total land area.\textsuperscript{20}

Analysis of existing protected property and potential protected property was conducted on a sample of these watersheds to determine availability of land conservation opportunities. The analysis, conducted through a GIS system, used existing stream corridors within these watersheds as the defining feature to determine existing and potential protection. The results of this sample analysis are shown in Table 3. These results are approximate and do not reflect definitive acreage due to the limitation of data and analysis capability of this report.

### Table 3: Sample Analysis of Current and Potential Protected Areas

<table>
<thead>
<tr>
<th>Watershed</th>
<th>Protected (Acres and %)</th>
<th>Potential for Additional Protection (in Acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Euclid Creek</td>
<td>643 (4% of total watershed)</td>
<td>600 acres (6% of watershed land area)</td>
</tr>
<tr>
<td>West Creek</td>
<td>500 acres 50% of riparian corridor</td>
<td>150 acres (estimated)</td>
</tr>
<tr>
<td>Porter Creek</td>
<td>103 acres</td>
<td>50 acres (estimated)</td>
</tr>
<tr>
<td>Mill Creek</td>
<td>75 acres (estimate)</td>
<td>75 acres (estimated)</td>
</tr>
<tr>
<td>Big Creek</td>
<td>698 acres</td>
<td>300 acres (estimated)</td>
</tr>
</tbody>
</table>

The table demonstrates that eco-valued landscapes exist within the urban watersheds of the County but are currently not protected. Many of these potential areas exist on small parcels.
3.4 Programmatic: Distinction of Urban Land Conservation from Rural Landscapes

Conservation

It is important to distinguish between the needs of rural and urban land conservation to better understand why urban land conservation is not occurring at the same pace as rural and suburban land conservation. Four factors, parcel size, risk due to development proximity, land value, and transactions were examined. Collectively these factors can play a significant role in understanding the lack of urban land conservation today and what approach is best suited for urban land conditions.

Small vs Large Parcels: One of the most distinguishing differences between rural and urban land conservation is parcel size. Because of its large geographic coverage and its recent origins, the Western Reserve Land Conservancy has been highly strategic in its acquisitions. Its focus for the next five years will likely be large parcels of 15 acres or greater in the rural and coastal areas of the region. This focus was justified by the fact that time and effort required for large parcels versus small parcels are the same, thus the transaction costs per acre increase with decreasing parcel size.

The benefit of land conservation in urban settings does not come from individual parcels but from the cumulative effects of many parcels that establish conservation corridors. In Cuyahoga County, parcels less than 10 acres are the predominant land structure. A review of the Cuyahoga County parcels in 2004 adjacent or with a stream or river channel on it or within 50 feet was conducted to determine the predominant parcel size. This analysis of streamside properties found 524 parcels were greater than 10 acres and 14,755 parcels were less than 10
acres. Hence, a singular focus on large parcels for land conservation would limit land conservation in Cuyahoga County. Figure 4 shows all of the parcels within 50 feet of a stream corridor used for this analysis.

Figure 4. Cuyahoga County Riparian Owners in dark red, Source, Cuyahoga Soil & Water Conservation District, 2004

Risk of development proximity and preservation of easement.

Proximity to developed property is a significant risk to land conservation. This risk can pose higher liability on the conservancy especially related to easement agreements and response to funders’ requirements. This risk can, however, be reduced through the education of adjacent homeowners and the community on the value of these protected properties.
Land Value

The value of land can pose a significant challenge in urban land conservation when prioritizing parcels to purchase especially comparing a similar investment in rural properties. Due to its dense population and existing infrastructure, Cuyahoga County has a high land value compared to its rural adjacent counties. Although development continues to be directed towards areas outside of Cuyahoga County, the County still has the highest real estate value per acre in the region, due to its proximity to the central city and historic land values. Market value in Cuyahoga County can sometimes be $25,000 to $50,000 per acre more than its rural counterparts in the adjacent counties.

Transactions for Conservation Purposes

Conservation transactions in Northeast Ohio have used four main approaches; conservation easements, fee simple acquisition, transfer of property to a municipality or park district, and transfer to individual owners with established conservation areas in place. The setting of conservation easements of donation of land has been very successful in the less developed rural areas of the Western Reserve service area. In the urban areas, homeowners have been less inclined to donate their property. This can be due to income differences within the different service areas. In West Creek, an inner-ring suburb watershed, the West Creek Preservation Committee predominantly acquires property through a fee simple acquisition process which has proven more successful than conservation easement donations. This approach has also reduced liability risks of co-ownership that conservation easements rely on. This removes the owner from the land and reduces the risk of encroachment onto the property.
Applying the traditional rural land conservation model within an urban area like Cuyahoga County will prove to be challenging to establish natural areas in a timely and cost-effective manner.

### 3.5 Application: Applying Land Conservation in Urban Areas

The land trust trend has become an influential tool in establishing significant land conservation across the country. Using the land trust model, what are the best approaches to conserve land in urban areas?

Four models of urban land conservation have emerged in the United States, and are presented as examples below. These models include a state-wide effort focused solely on urban greenspace and small parcels, a regional land conservancy model with an urban conservation program, an urban community development approach in conjunction with housing and redevelopment, and establishing a land conservation program for regional floodplain and storm water management purposes.

**Statewide Model: Urban Land Foundation** The Foundation, a non-profit organization, is located in Wisconsin and focuses on purchasing and providing stewardship to small parcels and is an advocate for greenspace connections within the urban areas of Wisconsin. Although their land holdings are few, their emphasis on urban greenspace is unique. This approach solely focuses on small urban land conservation and extension of greenspace for public use.
Regional Land Conservancy Model: Cascade Land Conservancy  
The Cascade Land Conservancy is located in the Seattle region and is one of the largest in the country. It covers over four counties in the region. In 2006, the Conservancy established its blueprint for land conservation for the next 100 years, the Cascade Agenda. In that blueprint, the Conservancy recognized the importance of urban greenspace equal to the protection of rural greenspace. “If we are to preserve large areas of land outside our cities and towns, we have an obligation to make our cities and towns as livable as possible” (Cascade Agenda) In 2006, the Conservancy initiated an urban conservation program with the hiring of a staff person to coordinate the program and through funding by King County, the urbanized county of Seattle proper. This approach establishes an urban program within a larger regional conservancy.

Conservation Development Model: Overtown, Miami Urban Redevelopment :  
In 2003, the Knight Foundation provided over $3 million to the Overtown Neighborhood in Miami to assist in redeveloping properties and establishing greenspace and parks simultaneously. One of the key tasks for this funding was to establish the institutions and strategy for it implementation. This included the involvement of the Trust for Public Land, Collins Center of Policy and the establishment of the Overtown Community Land Trust. In addition, Habitat for Humanity and other neighborhood development groups have been involved in this work. Today, the greenprint plan developed is being implemented and the partnership between greenspace professionals and community development organizations is proving to be an effective approach in revitalizing the Overtown neighborhood. This approach works concurrently with the housing and community development programs to integrate land conservation within projects.
Storm Water Management Model: The Milwaukee Metropolitan Sewer District’s GreenSeams program is a partnership with the Conservation Fund to purchase land to protect floodplains for storm water management. The District has established this program as an integral piece to maintaining their floodplain management infrastructure. Another program that is focusing on purchasing land for floodplain and water quality management is the Minnehaha Watershed District in Minnesota. This program is a voluntary purchasing program for property owners through the Watershed District’s Land Conservation Program.

These models, although different, exemplify successful efforts and organizational structures to conserve urban land.

4. Results

With the evaluation of the organizational, socio-economic, biological, programmatic and application conditions within Cuyahoga County for urban land conservation, results and findings of these conditions are presented to determine if urban land conservation is needed and if so, what elements need to be in place for its implementation. While this project focused on urban land conservation in Cuyahoga County, the results can be utilized to evaluate similar metropolitan areas of the United States that lack an urban land conservation strategy and the benefits and organizations to implement such a strategy.
4.1 Findings and Observations

My research identified four significant observations on the current and future direction of land conservation in Cuyahoga County;

- Small parcels are not being addressed in a pro-active and strategic county-wide manner, particularly in the City of Cleveland and the inner-ring suburbs;
- Urban land conservation will require a different approach due to perceived risk of nearby developments, multiple property owners, and focus on acquisition;
- Linking urban land conservation exclusively with affordable housing will not fit with Cuyahoga County’s conservation priorities, diversity of community housing types, and competitiveness of inner-ring communities to offer higher value housing;
- Land with a high ecological value exists but is not protected which cumulatively can provide a network of natural areas providing biological and water management functions to the County and Lake Erie;

These observations are described further below.

Small Parcels Land Conservation Currently at a County-wide Scale

The analysis of current land conservation organizations and approach of traditional land conservation demonstrates that land conservation of small parcels less than ten acres in Cuyahoga County is currently not being addressed. Reasons for this lack of focus on small parcels is due to the transaction process, high risk of protection due to adjacent development and multiple owners. For these reasons, small parcels have low conservation priority for the conservation entities that currently work on land conservation in the County. While the West Creek Preservation Committee and Cuyahoga SWCD work on small parcels, their work is
limited to specific geographic regions in the case of West Creek or are limited in programming and staff for pro-active land conservation in the case of Cuyahoga SWCD. The absence of a recognized county-wide entity has severely limited the effectiveness of the concept of an urban land conservancy that was incepted in the County Greenspace Plan. An organization that can focus on small parcels will meet a significant need that the current structure lacks.

**Urban Land Conservation will require a different approach to Land Conservation**

Due to a diversity of populations, income of residents and a strong neighborhood basis for community efforts, Cuyahoga County will need to address land conservation at a neighborhood scale with a focus on partnerships with specifically Community Development Corporations and neighborhood groups. Additionally the use of acquisition or market-based strategies will need to be the predominant transaction approach rather than the reliance on donations of conservation easements.

**Linking Exclusively with Affordable Housing is not the Solution**

Because of the diversity of communities both in income, greenspace acreage available and current housing stock, using land conservation exclusively in conjunction with affordable housing will only serve a limited amount of conservation priority areas in the County. In addition as aging inner-ring suburbs re-invent themselves, they are moving away from providing affordable housing as indicated by a local official. These communities want to be competitive with the next ring of suburbs adjacent to them. While they have an interest in establishing greenspace, the affordable housing model is not as enticing.
Natural Areas Exist within Cuyahoga County that Cumulatively Provide a Net Worth of Ecological Value

Taken together, land conservation on small parcels can provide a net benefit to the County in infrastructure costs, property values and increased green space within a built urban environment. It also can provide natural areas in the City of Cleveland and inner-ring suburbs where it is needed the most. Ranking sites based upon riparian existence, diverse plant communities, wetlands and proximity to existing protected areas will further assist in prioritizing sites for purchase.

4.2. Establishing an Urban Land Conservation Strategy for Cuyahoga County

Based upon the findings and evaluation of current conditions, a need for urban land conservation on small parcels has been identified. Determining the best approach to address the need is equally important. Two key strategies have been identified; establishment of the service area and methods to conduct urban land conservation effectively.

Establishing the Urban Conservation Service Area

The emphasis of an urban land conservation program is not intended to duplicate the efforts of the regional land conservation organizations, but rather provide additional service to areas that are not being addressed within the County. A proposed service area would include potentially Big Creek, West Creek, Euclid Creek, Main stem of the Cuyahoga River, Mill Creek and the small parcels of the Lake Erie tributaries. Within the County, WRLC and the urban land conservation program may overlap where WRLC will not pursue the smaller parcels and the two organizations will complement each others work.
Key Methods to Implement an Urban Land Conservation Strategy

To implement urban land conservation in Cuyahoga County, three primary methods are identified; traditional land conservation, acquisition of potential restoration areas, and linking conservation with housing.

Implementing Traditional Land Conservation. Use of traditional land conservation of acquiring land or purchasing or accepting donations of conservation easements will be a key component to approaching land conservation needs on small parcels. Once a prioritization of parcels is identified in each watershed, a traditional easement and acquisition program can be established in a strategic manner. The focus would be on high ecological valued parcels within the watersheds, emphasizing water resource value with a high potential of connectivity. The primary difference on this approach from traditional land conservation will be the dominant use of acquisition and purchase of land or easements at a market value due to the population demographics and high marketability for land development.

Meeting the Restoration & Water Management Potential: Acquiring land to restore natural areas and provide increased biological and storm water management benefits can be a key strategy in the County. Due to the developed nature of the County’s existing land use, sites that have been developed in the past, may pose a hazard from development (flooding), and continue to diminish the value of the stream corridors and the functions they can provide. Adding ecologically based conservation parcels with damaged parcels, which have potential to re-establish ecological benefits through restoration, can make a significant impact on the County’s ecosystem functions and connectivity of natural areas.
Linking Housing with Conservation: Although population continues to decline, Cuyahoga County will remain one of the top housing and commercial markets in the state with continuing pressure to build on remaining natural areas and redevelopment on existing disturbed sites. While many of the government agencies work with developers on housing projects and introduction of conservation minded practices, initializing these projects with developers as a development partner could reap both financial and conservation benefits to the organizations. This would include a conservation buyer program and the ability to partner with housing networks within the region. This includes the affordable housing groups such as Cuyahoga Community Land Trust and Neighborhood Progress Inc., where applicable. This potentially could include partnering with the County and City of Cleveland’s Brownfield and Land Bank programs. Being part of the Development Team or assembling land as a developer to lead conservation emphasis on these projects during the land assembly and concept phase will greatly increase the opportunities to establish natural areas in a strategic manner with developers.

4.3 Applying the Urban Conservation Program – Case Study Scenarios

To examine how an urban land conservation program would be applied using the three proposed methods, two case studies are presented. Each case is located within inner-ring or developed suburbs with small parcels remaining as the primary areas for conservation potential. The first scenario presents land conservation to preserve remaining natural areas. The second scenario presents land conservation to restore ecological functions and re-establish a natural area.
Case Study - South Euclid – Inner Ring Suburb – Land Preservation/Restoration

The City of South Euclid is an inner ring suburb within Cuyahoga County. It is a typical inner-ring suburb in that it boasts a high density of a variety of housing types, a commercial district and a changing demographic population. South Euclid seeks new development on its remaining available land as a manner in which to be competitive with its suburban counterparts. New housing is priced in the $200,000’s, plus or minus $30,000.

Euclid Creek’s main branch travels through the heart of the City where housing density is high. Although parcels remain undeveloped adjacent to the stream, these sites are now being considered developable since they are the only sites remaining in the City. To examine how an urban land conservancy using traditional land conservation could influence land preservation in a proactive, market-based manner, the following analysis was conducted for this neighborhood. Figure 5 presents the areas and parcels to potentially apply urban land conservation.
The initial parcels to target are the areas along the creek that are colored in green in Figure 5. These are natural areas, and have a high amount of forest cover or where floodplain functions exist. There are 8 parcels identified under this scenario with these characteristics. Cumulatively they total 15 acres with a total market value of $100,000. The goal would be to purchase these parcels through voluntary acquisition from the property owners to an established land conservancy entity that can own land. Once these parcels are established as protected natural areas, the second approach would be to purchase portions of land of owners on the smaller developed parcels to link the larger parcels together. This scenario would establish a contiguous corridor of protected natural areas of 25 acres within a densely populated community. The parcels in this scenario include 5 parcels greater than 3 acres but smaller than 10 acres and twenty parcels with less than ¼ acre of riparian area to acquire.
This case study demonstrates that a small parcel strategy can assemble a network of remaining natural areas and over time re-capture other natural areas to establish a natural corridor that is permanently protected.

Case Study: Independence – West Creek Project

The second case study examines the restoration component of an urban land conservation strategy within a built environment. This demonstrates the potential of linking existing natural areas with high valued restoration sites to establish a larger network of natural areas across the County. The West Creek Preservation Committee has been working with the City of Independence and the Trust for Public Land in purchasing the land where West Creek enters into the Cuyahoga River. This land, as shown in Figure 6, is currently developed with office and commercial buildings and has had flooding occurrences annually the past 10 years. The West Creek Preservation Committee is in the process of purchasing the property of 10 acres and to restore it back to a natural floodplain and stream channel. This provides less hazard and damage of infrastructure to the City and the property owners and restores the function of a critical influence of West Creek and the Cuyahoga River. The approach that West Creek developed for this project can be translated to other similar locations in the County. There are numerous areas across the County that can be acquired and restored to increase conservation areas. Due to the increased costs of these properties to acquire, an evaluation and prioritization of these areas at a watershed scale should be conducted to have a set of strategic locations for this work.
This case study demonstrates the use of acquisition of land on sites typically not viewed for natural area potential but can play a significant role in re-establishing natural areas and functions such as storm water management.

Figure 6: West Creek Acquisition Restoration Site

4.4 Evaluation of Existing Conservation Organizations to Implement Urban Land Conservation

An evaluation of key conservation groups in Cuyahoga County was conducted in order to explore opportunities to establish a small parcel conservation program. Appendix A provides the results of this evaluation based upon various criteria including, current mission, staffing, funding
and its current approach to land conservation. The results of this evaluation were then scored based upon the criteria to gauge which organization may best be suited to establish a County Urban Land Conservation Program. As a result of this evaluation, the Western Reserve Land Conservancy and the West Creek Preservation Committee ranked the highest as the best viable organizations to establish a county-wide urban land conservation program based upon current capacity and experience in urban land conservation. Based upon this analysis and the examination of national models that exist for urban land conservation, I evaluated four organizational options:

- Establish an Urban Land Conservation program within Western Reserve Land Conservancy
- Create Branch within West Creek Preservation Committee
- Establish a Program within Cuyahoga Soil & Water Conservation District
- Create a New Entity

Option 1: Establish an Urban Land Conservation Program within Western Reserve Land Conservancy

The Western Reserve Land Conservancy is a well recognized land conservation group across the region with a well-established network of supporters and a current staff of ten. Combining the regional land efforts with an urban conservation program under one roof would be beneficial to capture funding and integrate the goals of large parcel conservation with small parcel land conservation in urban areas. The challenge with this approach is the current focus on large parcels due to the extensive geographic region the conservancy recently merged into and the
overwhelming demands just within large parcel area needs. Because of this current workload, the Conservancy has no interest at this time to establish an urban conservation program.

**Option 2: Establish a Neighborhood Development Corporation Model for Urban Land Conservation**

This option would build upon the strengths of the West Creek Preservation Committee to create a local watershed development corporation in instituting an urban land conservation program. This can be created within the current West Creek Committee and an expansion of their service area. A second watershed corporation would be established on the east side of Cuyahoga County to serve the similar function. The two groups would work collaboratively on funding and staffing to implement the program, but land conservation decisions would be maintained by the local group. The strengths of this option is the existing experience and belief in the value of small parcel land conservation within West Creek that could be expanded throughout the County very quickly. West Creek has established the small parcel conservation model and the ability to take upon the associated higher risks. The challenge for this option is the expansion outside of West Creek would need Board support which has differing opinions on maintaining focus in West Creek or expanding to other areas of the County. Another challenge is that although West Creek has staff, it is limited in funding due to its current limited service area and lack of development staff.
Option 3: Establish and Urban Land Conservation Program within Cuyahoga Soil & Water Conservation District

The Cuyahoga Soil & Water Conservation District also has an understanding of the value of small parcel land conservation and has policies and standards established to embark on such transactions. The District as a government agency can also pose an opportunity to gain additional government funding from the County and State in which they are established within to institute a program. The two main challenges is the inability for Cuyahoga SWCD to own land presently and the absence of an established program with designated staff.

Option 4: Creation of New Organization

Creation of a new organization would clearly have the opportunity to establish all the program needs and board to have a comprehensive program for the County. It would allow for greater flexibility in establishing its practices and work approach to accomplishing its goals of small parcel land conservation. The challenge of a new entity lies in the fund development and start-up costs to get established. The establishment of another group competing for funding is not supportive among existing organizations and perception of duplication with existing conservation organizations would be a challenge in communicating the need for another entity.

Each of these options has strengths and challenges among them that would prove each able to establish and operate an urban land conservation program. Further evaluation with a collaboration of conservation professionals in the region is needed to make conclusive recommendations to assess the best approach in addressing the current gaps for urban land conservation.
5.0 Discussion & Conclusion

There are many excellent land conservation organizations in Northeast Ohio but none is currently focusing on small parcels in a pro-active manner, particularly within inner-ring suburbs at a county-wide or watershed-based scale consistently across the county. This absence will continue to place the City of Cleveland and its inner-ring counterparts at a disadvantage to its outlying suburban and rural communities in providing natural areas and access to greenspace for its residents and capacity to encourage new residents to live there. The pressures upon rural and outlying communities for development can be lessened if the urban areas provide the same amenities, including greenspace and natural areas. An urban land conservation strategy can help Cuyahoga County realize this potential and be an integral part of its revitalization.

Next Steps

Key activities can occur in the next two years to determine the viability of an urban land conservation program in Cuyahoga County. These activities include development of a strategy and defining a lead organization, establishing pilot areas to evaluate success of an urban land conservation program, and development of funding.

Develop a Working Group to Evaluate the Strategy and Organizational Framework.

Funding will need to be raised through local foundations to invite the Conservation Fund into Cuyahoga County to work with local partners to assess and assemble a pilot organization that is determined to be the most viable for success.
Target Pilot Watersheds – Euclid Creek and Big Creek to trial implementation.

Euclid Creek and Big Creek have active watershed programs and the highest amount of available land for conservation. It also involves watersheds in different geographic regions of the county. These two criteria provide a strong network to examine the feasibility of the program with an existing support framework.

The pilot watersheds should focus on projects that can examine the three main program areas and their effectiveness to preserve land. Hence identifying parcels for general land preservation, linking with affordable housing or other housing development, and restoration sites will assist in evaluating how effective these program areas are in preserving land in Cuyahoga County. Other tasks to conduct as part of the initial pilot period include:

• Target 25 parcels for initial work – Prioritize, rank and implement approach process.
• Target parcels for each program area (protection, restoration potential, housing linkage) to examine feasibility and extent of success.
• Establish markets and partners.
• Examine tools for establishing conservation areas, including Transfer Development Rights, Municipal Greenspace Plans, and serving as the lead developer for conservation development projects.
• Develop Advisory Board/Trustees
• Hire a Field Director to implement. Identify other staffing needs
• Provide financial support to determined organization as key partner for initialization stage.
Funding and Partnerships

Clearly, the largest barrier to establishing an urban land conservancy is funding. Initial funding will be needed to provide a staff person, legal fees, initial prioritization, and funding to conduct transactions. A start-up minimum of $200,000 for the first two years will be needed to cover these costs and to leverage other public funding. Funding will need to include a variety of sources of funding and policy changes at the state and federal level of allocation of funding for small parcel acquisitions. Funding sources will need to be raised through local and national foundations, public sources, use of market-based strategies, and through the establishment of a membership donor campaign both for individuals and corporations.

Local and National Foundations

Use of local and national foundations will serve as a key component for start-up and strategy support to examine the potential of an urban land conservation program. The Foundations recently completed a regional initiative Voices for Choices, on identifying priorities to strengthen the region, particularly economically. Two of the priorities identified through this comprehensive program can be transferred to the concept of a county-wide urban land conservation program;

1) Encourage local governments to work together or combine services to avoid duplication.
2) Plan for future growth and development in the region.26
Working with local foundations on how an urban land conservation program can assist to avoid duplication, manage growth and increase a quality of life to encourage employers to come to the regions will be essential to its funding.

Public Funding

Public support and coordination from Cuyahoga County and the regional government agencies will be critical to establish an urban land conservation program. Funding from governments in the case of the Cascade Urban Program and the Greenseams and Watershed District programs were critical to their establishment. Additionally, a review of a potential ballot issue for public support should be examined on its viability for support from the public to institute a program. Coordinating this review with the future of the Northeast Ohio Regional Sewer District’s potential of a Storm Water Utility poses an opportunity to integrate regional issues in an effective manner. Support from groups such as the Trust for Public Land and Conservation Fund with experience on these initiatives will be critical. Secondly, current state and federal grants do not recognize small parcel acquisition as a critical benefit to the investments spent. Communicating the benefits of this need and addressing policies that are restricting the competitiveness of these properties at the state and federal funding level should be reviewed.

Use of Market-Based Opportunities

Market based opportunities in Cuyahoga County may also prove beneficial to acquiring land and reverting it to greenspace for the community. Potential markets include use of the housing foreclosure market and establishing a competitive mitigation market.
Throughout the City of Cleveland and its inner-ring counterparts, many of the once natural areas have been removed or damaged to a large extent by development. Developing strategies in capturing previously disturbed areas and transforming them back to greenspace with providing ecological functions is critical to the quality of Cuyahoga County. One strategy is to utilize an opportunity that has become a major challenge in Cuyahoga County; housing foreclosures. The state of Ohio ranks 1st in the Country in the number of foreclosures. Cuyahoga County provided the highest number in the state with over 11,000 parcels in foreclosure in 2005, an increase of over 2,700 from 1995. These foreclosed sites or sites where delinquent taxes align with riparian or wetland parcels creates a restoration market to buy developed properties and reclaim them to greenspace. This approach will reduce the amount of foreclosed properties where the highest risk of flooding and water management and habitat degradation occurs.

Currently the market for mitigation credits in Cuyahoga County severely limits current organizations to capture these opportunities with a comprehensive approach. Establishing a mitigation bank for the County will provide better coordination with Ohio EPA and U.S. Army Corps for restoration and conservation acquisition opportunities. This can serve as a central repository that can be then transferred to the watershed groups where the impacts occur to reduce the net loss currently being experienced.

Partnerships will be a key to the success of this program. Similar to the Minneapolis Sewer District and other project areas around the country, utilizing support from the Conservation Fund in the initial phases of establishing a conservancy will be very beneficial. Also, partnering with the Western Reserve Land Conservancy, whether to house the pilot effort or support the pilot
program, will be critical to the success and media outreach of both organizations. If Western Reserve decides after five to ten years that this should be a key component in their conservation strategy, then potential transfer of functions into their organization could eventually evolve over time if deemed as an effective way to deliver services.

Benefits of an Urban Land Conservancy in Cuyahoga County

Cuyahoga County has a well established network of greenspace and natural areas due to past conservation leaders and visionaries of the region. Unfortunately, its expansion has been limited in the past 20 years due to the intensity of development that continues to occur and lack of a strategy to increase protected natural areas. Imposing a concerted urban land conservation strategy focused on small parcels will increase the opportunities to link large conservation areas within the County, provide greenspace where it is most needed for low and middle income populations, and re-establish natural areas to restore ecological value to the County. To capture these goals, an urban land conservation program would provide the following benefits:

- Enable a central resource for pro-active land transactions for small parcels.
- Establish an organized clearinghouse to capture mitigation.
- Set priorities both of restoration and land conservation on a watershed basis and a county-wide basis.
- Serve as an impetus to conservation development projects. Become a “conservation developer”
- Establish a central organization to capture funding and resources to increase recognition of public need and conduct operations efficiently across the county.

Accomplishing these goals for urban land conservation will reap success of increasing natural areas where human population continues to rise and reside and serve as a model to cities across the United States.
References

Publications/Books/Websites

Benefits of Parks, Why America Needs More City Parks and Open Space, Trust for Public Land, 2006


Case Western Reserve University, Center on Urban Poverty and Social Change, povertycenter.case.edu/

Cascade Land Conservancy , Summer Newsletter, Cascade Land Conservancy, 2006


Cleveland Metroparks Reservation Concept Value Plans, 2000

Conservation Based Affordable Housing, Conservation Fund, Kendra Briechle, June 2006

Conservation Based Affordable Housing, Profiles, Conservation Fund, June, 2006


Land Trust Alliance Annual Report, Land Trust Alliance, 2005

Local Greenprinting for Growth, Overview, Volume 1. Trust for Public Land, National Association of Counties, 2002


Louv, Richard. Last Child in the Woods, Alogonquin Books of Chapel Hill, 2005


National Land Trust Census Report 2005 – Land Trust Alliance

No Place to Play, Comparative Analysis of Park Access in Seven Major Cities, Trust for Public Land, 2004


Pidot, Jeffrey, Reinventing Conservation Easements, Lincoln Institute of Land Policy, 2005

Responding to Foreclosures in Cuyahoga County, An Assessment of Progress, Weinstein, Hexter, Schnoke, Cleveland State University, November, 2006


U.S. Census Bureau, http://factfinder.census.gov


Western Reserve Land Conservancy Summer Newsletter, Western Reserve Land Conservancy, 2006

**Data Sources**
Cuyahoga Soil & Water Conservation District, GIS Data, 2003
Riparian Land Owners
Riparian Land Owners greater than 10 acres
Western Reserve Land Conservancy Parcels

Case Western Reserve University, NEO-CANDO http://neocando.case.edu/cando/index.jsp

Wetland Permits in Cuyahoga County, 2001-2006, Ohio EPA
Correspondence
Correspondence with the following individuals was conducted for this project through phone correspondence, and individual and group meetings. I appreciate their time and expertise on this subject.

Patty Stevens, Chief of Planning, Cleveland Metroparks
Jim Kastelic – Senior Planner, Cleveland Metroparks
Jan Rybka, Cuyahoga Soil & Water Conservation District
Jim Storer – Natural Resources Conservation Service, Cuyahoga County
Neal Hess- Watershed Coordinator, West Creek Preservation Committee
Dave Vaserhelyi – Trust for Public Land, Ohio
Charles Jordan – Conservation Fund
Kendra Briechle, –Conservation Fund
Mark Skowronski – Western Reserve Land Conservancy
Chris Soukup – Land Conservation Consulting, LLC, Attorney
Trustee, Hudson Land Conservancy
Chip Nevin, Cascade Land Conservancy

1 National Land Trust Census Report, 2005, Land Trust Alliance
2 National Land Trust Census Report, 2005, Land Trust Alliance
3 National Land Trust Census Report, 2005, Land Trust Alliance
4 National Land Trust Census Report, 2005, Land Trust Alliance
5 National Land Trust Census Report, 2005, Land Trust Alliance
6 USDA, Forest Service, Northern Research Station, http://www.nrs.fs.fed.us/urban/
7 USDA, Forest Service, Northern Research Station, http://www.nrs.fs.fed.us/urban/landscape_change/
8 Last Child in the Woods, Richard Louv, p. 47
9 http://www.childtrendsdatabank.org/tables/76_Table_1.htm
11 Ohio Coastal Atlas, 2006
12 Cuyahoga County Greenprint, http://www.planning.co.cuyahoga.oh.us/green/
15 Cuyahoga County Greenprint, http://www.planning.co.cuyahoga.oh.us/green/goals.html
18 Cuyahoga County Wetland Permits, 2001-April 2006, Ohio EPA
19 Cleveland Metroparks
21 Cuyahoga Soil & Water Conservation District, Riparian Owner Database, 2004
22 http://www.floridacdc.org/members/overtown/partners.htm
24 Cuyahoga County Auditor, Property Information, 2007
25 http://www.dnr.state.oh.us/coastal/regs/07rfp.htm#westcreek
26 Voices for Choices Report on Public Priorities in Northeast Ohio, 2006
27 Responding to Foreclosures in Cuyahoga County, An Assessment of Progress, Weinstein, Hexter, Schnoke, Cleveland State University, November, 2006
<table>
<thead>
<tr>
<th>Challenges</th>
<th>Strengths</th>
<th>Funding</th>
<th>Experience</th>
<th>Geographic Focus</th>
<th>Mission</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>(insert challenges)</td>
<td>(insert strengths)</td>
<td>(insert funding)</td>
<td>(insert experience)</td>
<td>(insert geographic focus)</td>
<td>(insert mission)</td>
<td>(insert organization)</td>
</tr>
</tbody>
</table>

- **Experience**: Consistent high-quality land conservation efforts that have secured numerous public lands and protected important natural areas.
- **Geographic Focus**: Emphasis on the Midwest, particularly Ohio and surrounding states.
- **Mission**: To conserve and protect key natural areas and biodiversity, ensuring sustainability for future generations.
- **Organization**: Regional body, working across multiple states, with local partners and communities.

- **Challenges**:
  - Limited resources due to budget constraints.
  - Difficulty in engaging new stakeholders.
  - Balancing conservation efforts with public needs.

- **Strengths**:
  - Strong partnerships with local and national organizations.
  - Successful track record of land conservation projects.
  - Innovative approaches to funding and community engagement.

- **Funding**:
  - Diverse sources, including government grants, donations, and private partnerships.
  - Emphasis on sustainability and long-term funding strategies.

- **Experience**:
  - More than 10 years of experience in land conservation.
  - Expertise in diverse ecosystems and habitats.
  - Strong network of professionals and volunteers.

- **Geographic Focus**:
  - Special emphasis on the Midwest, particularly Ohio and surrounding states.
  - Holistic approach to conservation, considering regional ecosystems.

- **Mission**:
  - To conserve and protect key natural areas and biodiversity, ensuring sustainability for future generations.
  - Focus on education and awareness building.

- **Organization**:
  - Regional body, working across multiple states, with local partners and communities.
  - Strong commitment to community engagement and partnerships.

- **Environmental**:
  - Focus on holistic conservation strategies.
  - Emphasis on building and maintaining healthy ecosystems.
  - Partnerships with local communities and organizations.

- **Mission**:
  - To conserve and protect key natural areas and biodiversity, ensuring sustainability for future generations.
  - Focus on education and awareness building.

- **Organization**:
  - Regional body, working across multiple states, with local partners and communities.
  - Strong commitment to community engagement and partnerships.

- **Environmental**:
  - Focus on holistic conservation strategies.
  - Emphasis on building and maintaining healthy ecosystems.
  - Partnerships with local communities and organizations.
<table>
<thead>
<tr>
<th>Rank</th>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>Water Quality Protection (WQDP)</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>535 - Cornell University, Ithaca, NY</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>535 - University of California, Berkeley, CA</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>535 - The Ohio State University, Columbus, OH</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>535 - Pennsylvania State University, University Park, PA</td>
</tr>
</tbody>
</table>

**Ranking of Organizations - Criteria: Score**