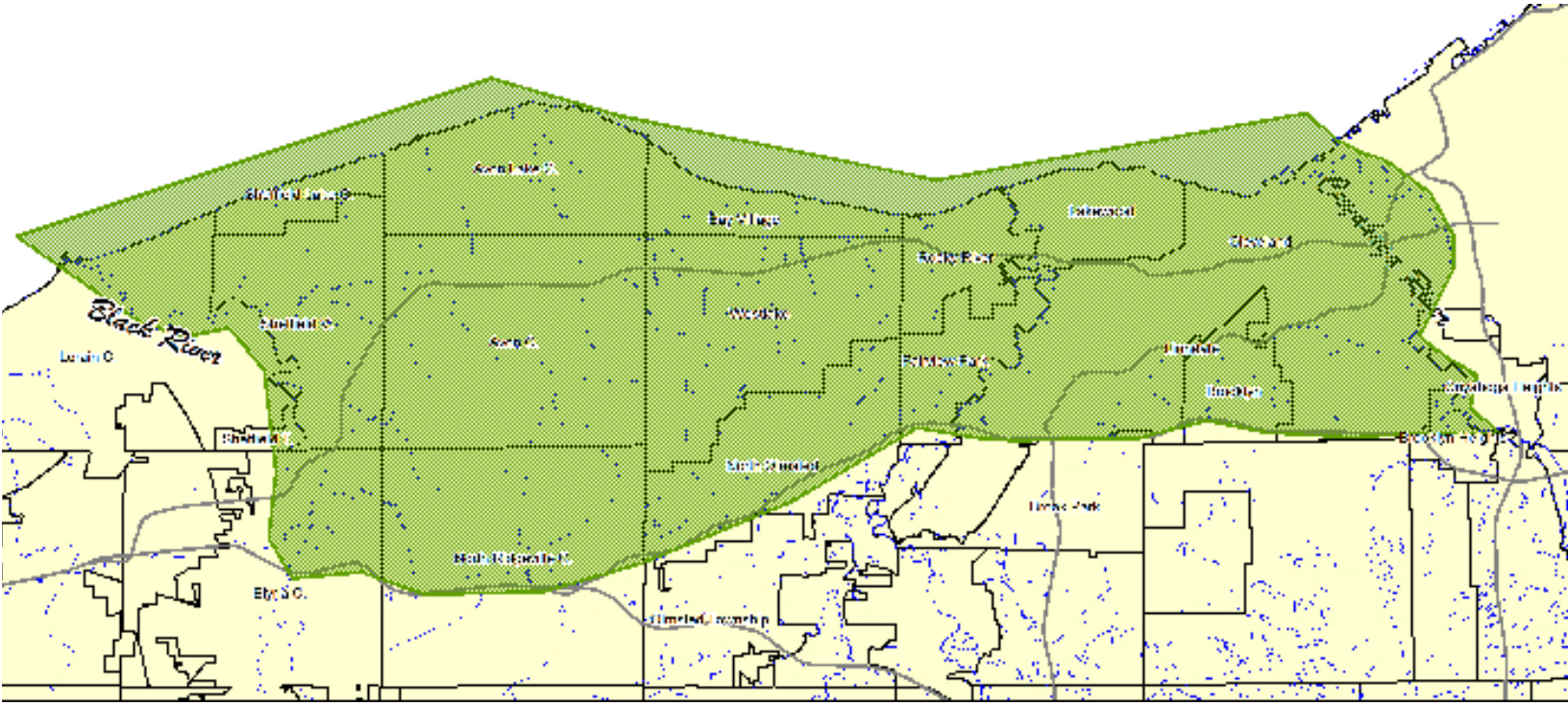
BALANCED GROWTH

SCENARIO 2



Cuyahoga River to the Black River

2008 – 2030

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Spring 2008

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Scenario 2 Table of Contents

Introduction

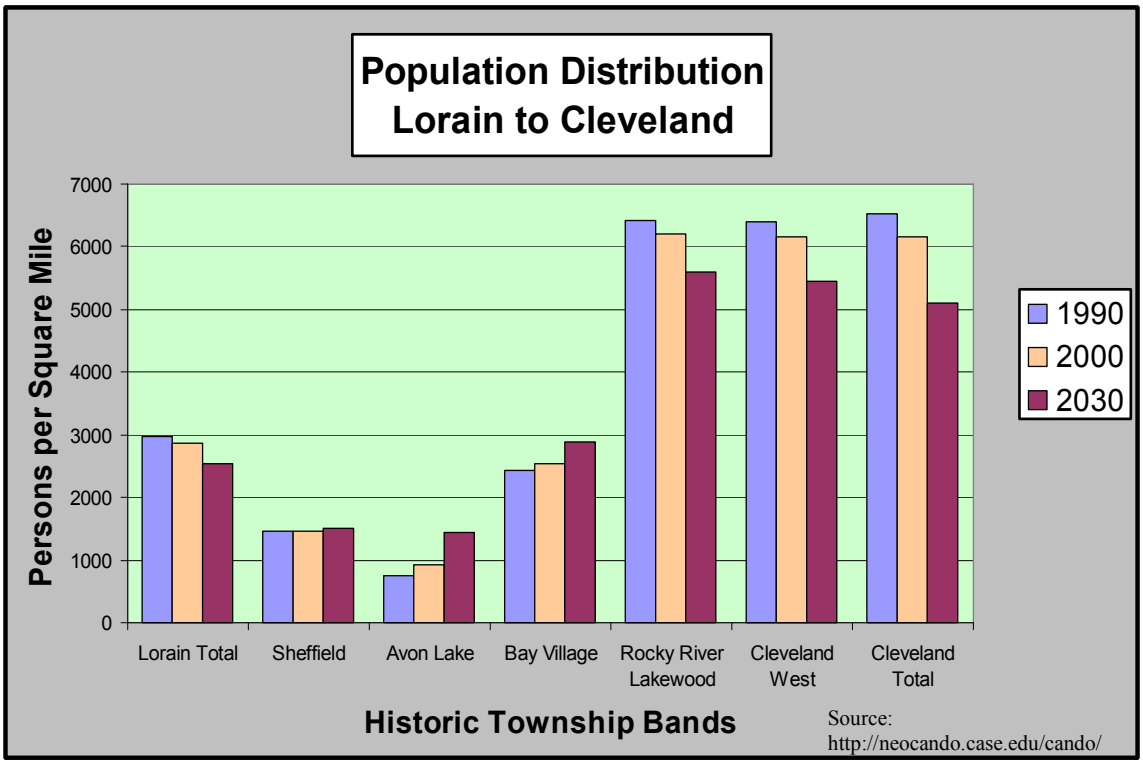
Regionalism has been a popular topic in the media and many are aware of the benefits that can be obtained from cooperation and planning on a regional level. One of the greatest benefits is the efficiencies that are realized through economies of scale for public services. Providing services at a regional level can be much more efficient than at the city level. This is present in public infrastructure systems such as transportation, water, and wastewater treatment. These systems are usually regionalized at some level because of necessity, providing services to a group of cities. Other areas of planning, such as land use, are not regionalized even though there would be a great benefit in doing so.

In addition to economies of scale, there is also the issue of externalities that are present between adjacent communities. Both negative and positive externalities affect cities within a region. If a neighboring city is not successful in providing a desirable, livable community then this will affect the value and desirability of the adjacent cities at some level. Conversely, the successes of a neighboring city will spill over to adjacent areas. There is also the fact that suburban cities rely on the central city and other urban nodes to provide employment for many of their residents. Cities should acknowledge the economic links that exist between themselves within the region.

Another area of concern that requires a regional perspective is sprawl. The population base in northeast Ohio is declining, and yet development and population continue to shift away from the central cities of Cleveland and Lorain. Exhibit 1 demonstrates this by showing the population densities and how they are distributed within our study region. This profile approach can be used because of the linear nature of

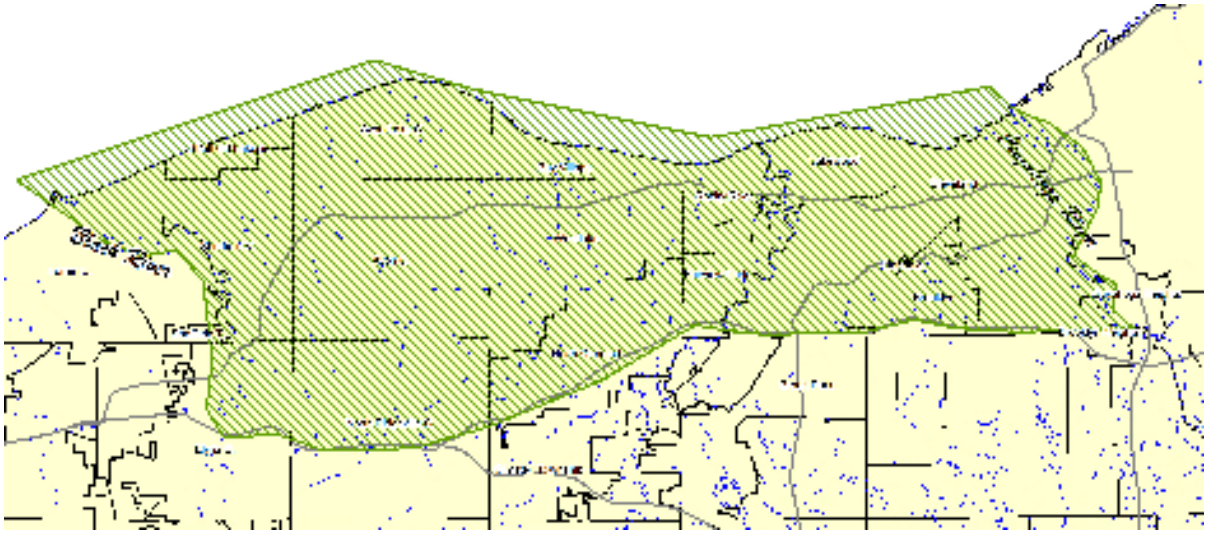
our study area and the boundary created by Lake Erie. The results illustrate how sprawl is progressing in the region. The Y axis is simply the total population per square mile. The X axis represents an area land of cities that follow the original 5-mile wide township boundaries. Current municipality boundaries still closely conform to these limits. The population band includes all of the cities in the study area to the south of the lakefront city identified on the X axis of the graph. The data for "Lorain Total" and "Cleveland Total" include the entire city population density for comparison. Refer to the map of our regional study area for visual clarity of the township bands. (Exhibit 2) The data for 1990 and 2000 are compiled census data. The 2030 projection is based on the 10 year trend between 1990 and 2000 extrapolated over 30 years. This assumes that the factors that influenced population distribution in this decade continue in the future.

Exhibit 1 Population Distribution



This visually demonstrates two things. First, it shows the population distribution as a function of distance from the core cities. The density of the population is greater in the core cities and decreases as you move away from them towards the county line where the lowest population density exists. Second, population loss is occurring over time in the core cities and is being redistributed in less dense areas in both Lorain and Cuyahoga Counties. Land consumption is greater near the county line where there are more Greenfield development opportunities. Land continues to be consumed while developed areas with existing infrastructure become underutilized. This is the major issue that must be addressed at a regional level.

Exhibit 2 Study Area



Land is a limited resource that should be developed with careful planning. The environmental systems that exist are not limited to man-made political boundaries. For example, watersheds are defined by the topography that is present. The water in streams, lakes, and aquifers is a shared resource that moves across properties. This leaves many serious environmental issues that can only be properly addressed on a regional level.

There is a perceived contradiction between environmental sustainability and development. The amount of the built environment within an area competes with the amount of the natural environment to be preserved. Cities require development to provide jobs, homes, and amenities for the population, but the built environment is created at the expense of the natural environment. So, how do we promote development to create jobs and economic vitality without compromising the long-term health of the existing eco-systems? This question is very difficult to answer when there is a spatial disconnect between the required planning authorities.

We have found through study and surveys that one of the main factors hindering regionalism has been the Home Rule provision of the Ohio Constitution[1] and the Ohio Revised Code.[2] Competition between cities to attract tax base is counterproductive at the regional level. This competitive environment between the local governments does not promote the positive externalities discussed previously. The area would be better served by some form of regional governance, but it is fractured into multiple autonomous local jurisdictions.[3] Currently, policy decision-making occurs at the local level from an insular perspective, yet opportunities and economic advantages often require a regional perspective.

[1] OHIO CONST., art. XVIII.
[2] *See generally* Ohio Revised Code, Chapters 1 through 7.
[3] OHIO CONST., art. XVIII, § 3 states that "[m]unicipalities shall have authority to exercise all powers of local self-government and to adopt and enforce within their limits such local police, sanitary and other similar regulations, as are not in conflict with general laws." Accordingly, preemption or relaxation of Home Rule provisions would require the State of Ohio to enact a "general law" enabling the regionalization of land use or other plans.

Assumptions and Approach

This scenario investigates mid-level initiatives for a regional development plan. The intent is to recommend approaches that are reasonable in terms of implementation. The following assumptions were made towards this approach:

- Little or no change to the existing political structure in the region.
- Growth rate trends continue essentially unchanged.
- Growth is shifted within the region according to balanced growth principles

There are different methods that could be used to promote regionalism between local governments. Our fundamental approach is divided into three major categories:

- Cooperation
- Coordination
- Government Policy

Cooperation between cities is needed to create a unified region that is working toward the same end. Cooperative agreements are needed to create the economies of scale that make public services more affordable. This can be done in two ways. First, cities can create voluntary service agreements between one another, sharing the cost of the service that is provided. Second, cities can transfer a service to another city, district, county government, or state agency. This requires compensation to the provider or some form of in-kind exchange. Exhibit 3 demonstrates how service transfers occur in Transportation. Federal law requires regional transportation planning. The planning maintenance and construction of the infrastructure is not constrained by municipal boundaries. Through agreements, the Ohio Department of Transportation will perform routine maintenance and snow removal on interstate freeways that pass through cities.

Coordination is needed to make a regional plan inclusive of the various goals that the cities and other organizations have. First, the land use and zoning plans that the

individual cities have should be consistent in form and purpose. Second, there are many organizations that have an interest in how and where development proceeds within the city and region. Integrating planning between the different agencies, commissions, committees, and governmental agencies would promote balanced growth by prioritizing the needs of the region. Coordination also aims to offset the fiscal impact of growth management, in an effort to render growth management land use decisions neutral, in terms of tax base and revenue.[4] Exhibit 4 shows some of the existing organizations that would be included in this coordination effort and a description of the role that they play.

While the two previous approaches operate on some level of collaboration, government policy will be needed to ensure that the intent of the regional efforts is carried out. Two types of public policies have been considered: regulation and economic incentives. Regulation would mandate that the cities operate in some way towards the collective interests of the region. Law may be required to be implemented this change but it is beyond the scope of this analysis. It is our intent to implement change without making major change in law or to the existing political structure. The second form of governmental intervention is through economic incentives. Our approach is to promote efficiencies by subsidizing behavior that is beneficial on a regional level. This would be funded through the Ohio Department of Economic Development which currently has programs that fund planning tools that we will propose.

[4] For example, see the discussion of TDRs, *infra.* Municipalities in designated conservation areas should receive a portion of the tax proceeds resulting from the transfer of development rights to another jurisdiction.

Exhibit 3 Transportation Planning

<table>
<tr><th colspan="5">Hierarchy of Ohio Transportation Infrastructure Responsibility</th></tr>
<tr><td>State - Federal</td><td colspan="4">The Ohio Department of Transportation (ODOT) oversees the National Highway System which includes State routes, U.S. routes, and the Interstate routes for the Federal Highway Administration (FHWA). Any Interstate that passes through a municipality is maintained by ODOT per agreement. ODOT oversees all construction projects that are on the Federal Aid System and include federal funding. This includes, but is not limited to the State Highway System.</td></tr>
<tr><td rowspan="2">Regional</td><td colspan="4">The Northeast Ohio Areawide Coordinating Agency (NOACA) is the Metropolitan Planning Organization (MPO) for Lorain, Cuyahoga, Medina, Geauga, and Lake counties. The agency performs regional planning studies and acts as a funding clearinghouse per federal requirements.</td></tr>
<tr><td colspan="4">The Counties have construction responsibility for the County Roadway System within their boundaries. The Counties <u>may</u> participate in funding any roadway construction project within their boundaries. The Counties have maintenance and construction responsibility for certain major bridges within municipalities.</td></tr>
<tr><td rowspan="3">Local</td><td rowspan="3"><u>Municipalities</u>
Cities and Villages have maintenance responsibility for <u>all</u> public roads within their boundaries regardless of the roadway system (<u>home rule</u>). Villages may request that ODOT perform routine maintenance on the National Highway System within their boundaries and ODOT is obligated. Construction responsibility is dependent upon the road system and the funding sources for the project.</td><td colspan="3"><u>Townships</u></td></tr>
<tr><td>Local Responsibility</td><td>County Responsibility</td><td>State Responsibility</td></tr>
<tr><td>Townships have maintenance and construction responsibility for the Township Roadway System within their boundaries.</td><td>The County has maintenance and construction responsibility for the County Roadway System and bridges on the Township Roadway System within townships of the county.</td><td>The ODOT has maintenance and construction responsibility for the National Highway System within townships of the state.</td></tr>
</table>

Exhibit 4 Existing Regional Organizations

Organizations to Coordinate	Interest
City Planning Departments	Local Planning
City Economic Development Departments	Local Economic Developoment
Cuyahoga and Lorain County Planning Commisions	Comprehensive Planning
Northeast Ohio Areawide Coordinating Agency, NOACA	Transportation Environmental
Ohio Department of Transportation, ODOT	Transportaton
Greater Cleveland Regional Transit Authority	Transportaton
Ohio Environmental Protection Agency, OEPA	Environmental
Ohio Department of Natural Resources	Environmental
Ohio Lake Erie Commission	Environmental
Northeast Ohio Mayors and City Managers Association	Economic Development
Lorain County Growth Partnership	Economic Development
Greater Cleveland Partnership	Economic Development
US Army Corp of Engineers	Environmental
Cleveland and Lorain Port Authorities	Transportation Economic Development
Northeast Ohio Regional Sewer District, NEORSD	Environmental
Ohio Department of Development	Economic Development
Cuyahoga River Remedial Action Plan	Environmental
Metroparks	Environmental
First Suburbs Consortium	Economic Development
Soil and Water Conservation District	Environmental
Western Reserve Land Conservancy	Environmental
Western Reserve Resource Conservation & Development Council	Environmental
Trust for Public Land	Environmental
Senior Transportation Connection of Cuyahoga County	Transportaton

Proposal

After studying materials and discussing alternatives, our group has identified the need for a Regional Planning and Development Authority (RPDA). There is a necessity to create a regional planning and development authority that will address the issues of urban sprawl, environmental conservation and preservation, land consumption, and economic development. The RPDA will use economic incentives to influence land development towards balanced growth throughout the region. This will be done by coordinating the many private, public, quasi-public, and non-profit organizations that have an interest and are involved in regional planning. The intent is to identify the needs and strengths of the region through the work of the many organizations. To identify and make regional plans that consider the different geographic requirements that are inherent to environmental, land use, and transportation planning. The organization will create a master regional plan that identifies priority conservation areas (PCAs) and priority development areas (PDAs). The RPDA will do this without the constraint of political boundaries that are mismatched to the goals of these organizations and work towards consistency in local land use plans. The RPDA will promote cooperation between cities, counties, and state governments and assisting them in the creation of voluntary agreements that encourages efficiencies and economies of scale in the region. Finally, the RPDA will coordinate economic development activities and assist in promoting the region.

State Balanced Growth Initiatives

The state or a regional planning agency could incentivize development entitlements through a balanced growth approach that encourages density and growth in

areas that already have the infrastructure to support development. This result could be achieved through several policies. In addition to instituting a program of transferable development rights, the Regional Planning and Development Authority (RPDA) could establish priority development areas (PDAs). The state could incentivize development in PDAs based on a measurable criterion of current development patterns, such as existing density and infrastructure.[5] This practice would support the revitalization of existing cities. In conjunction with PDAs, the state or RPDA could establish priority conservation areas (PCAs). PCAs target areas for preservation, restoration, recreational, agricultural, and other public uses. Other benefits derived from this shift in development patterns could promote transit-oriented development around existing transit infrastructure, reduce impervious surfaces that contribute to poor water quality and threat Lake Erie, and improve both existing green space and the physical condition of existing urban areas.

Tax Policy

Current state tax law restricts the usage of funds generated from the gas tax. The state could support transit-oriented development and other balanced growth initiatives through its spending power, rather than merely restricting development through its police power, by enabling a broader range of uses for these tax funds. Ohio Revised Code § 5735.27 explicitly enumerates the particular permissible uses of gas tax funds.

> The amount [of gas tax fund] received by each municipal corporation shall be used to plan, construct, reconstruct, repave, widen, maintain, repair, clear, and clean public highways, roads, and streets; to maintain and repair bridges and viaducts; to purchase, erect, and maintain street and traffic signs and markers; to pay the costs apportioned to the municipal corporation under section 4907.47 of the

[5] A methodology derived from these principles was the basis for the projections used in the Balanced Growth Scenario.

> Revised Code; to purchase, erect, and maintain traffic lights and signals; to pay the principal, interest, and charges on bonds and other obligations issued pursuant to Chapter 133 of the Revised Code or incurred pursuant to section 5531.09 of the Revised Code for the purpose of acquiring or constructing roads, highways, bridges, or viaducts or acquiring or making other highway improvements for which the municipal corporation may issue bonds; and to supplement revenue already available for these purposes.

Mass transit projects and transit-oriented projects are obviously missing from the list of permissible uses. Tax reform policies generally fall outside of the balanced growth scenario's stated goal of implementing policies that do not require radical changes in state law. However, some people would not consider this change in the statute to be major. This change also makes more funds available for public transportation without raising taxes, so it is generally tax neutral.

Incentives

Incentives must be provided in order to achieve more balanced growth within the region. Initiatives will provide cities with a large stock of formerly occupied lands, including brownfields, as well as vacant or abandoned former residential or commercial properties, the ability to compete financially with outlying cities with green field development opportunities. We recommend the following policies be implemented: Density Bonuses, Land Bank coordination, and Brownfield remediation.

Density Bonus

Density bonuses will include Transit Oriented Development (TOD) and Transfer of Development Rights (TDR). Transit Oriented Development can be incentivised along existing bus and rail transit lines, as well as proposed rail transit expansion.
Transfer of development rights can be instituted within the region by allowing TDR's to cross municipal boundaries.

Transit Oriented Development can be encouraged through regional rezoning efforts that will encourage redevelopment of areas adjacent to bus and rail lines. As energy cost continue to increase residents will be searching for a way to live in a comfortable safe community while still having access to employment and retail centers.

Through regional zoning specifications areas within a half to three quarters of a mile of a major transit hub or rail stop can revitalize these areas, increasing the local tax base while increasing ridership on transit. The recommended shift in gas tax to help subsidize transit opportunities can provide incentives for TOD's. The redirected tax dollars can provide low interest financing to developers in the form of a TIF. These incentives will provide the funds necessary to make the necessary infrastructure

improvements in order to accommodate increase densities. The redirected tax revenues will also provide the necessary upgrades and expansion of transit systems which can provide a greater demand for TOD developments.

Transfer of Development Rights provides a developer the opportunity to develop a higher density than is currently allowed by zoning in exchange for the title and a conservation easement on open space which the developer owns or has a purchase option on. The municipality receives the deed and the easement for the property, through the conservation easement the property is retained as open space. TDRs allow the developer to increase revenue on the developed parcel as a result of higher densities. The higher densities offset the lost revenue of the deeded parcel. TDRs have additional externalities that can assist in community building. Higher densities in urban or suburban areas can create a sense of community, and the addition of open space can create a sense of openness within a community, providing recreational or tranquil settings. A TDR agreement would be needed in order to apply this principle across municipal boundaries.

The municipality receiving the deed for the open space would receive the income tax generated by the additional residents that would occupy the additional units allowed by the increased in density. This agreement would offset the loss of income tax revenue by the municipality receiving the conservation easement.

Additional density bonuses can be implemented in the form of a readily available Tax Increment Financing Bonds or Density Bonds. If a developer chooses to increase the density of a project beyond the initial proposal or beyond zoning standards the municipality can offer a standardized TIF to assist with infrastructure costs. Density

Bonds will offset the additional costs accrued by the developers and will allow them to increase the density beyond what would have initially been financially feasible.

The readily available TIF would require the overseeing body to have a trained staff person to thoroughly evaluate the developers' cost analysis. This analysis would be required in order to limit what the developer says is feasible and what is actually feasible. Limitations on the Density Bonds must include mandates that a percentage of new residents or businesses occupying the additional square footage must consist of a defined percentage from outside the municipality issuing the bond. This would be necessary in order to pay off the bond with new income tax generated by those occupants, rather than simply a shift within the city. A shift within the city would result in a net loss of income tax revenues due to the required payment of the bonds.

Land Bank

The City of Cleveland currently has an extensive Land Bank program which was initially proposed by Planning Director Norman Krumholtz in the mid 1970s. The Land Bank program takes title to formerly occupied now vacant parcels within the city. The City of Cleveland has recently undergone an analysis of its Land Bank policies and is in process of making the purchase of these properties more accessible to interested parties. The city has several programs to handle the large inventory of parcels within the Land Bank. One city program has identified specific areas to focus on for land assembly. Land assembly is the process of acquiring parcels with quick claim deed, purchase or other means within a targeted area. The assembled land will not be offered as individual parcels. Instead, once all targeted parcels have been acquired, the city will issue a request for proposal to developers and offer the land at a reasonable rate, well below market

value or even free of charge. Title to the property will be given to the developer as a single parcel with a clear title. The transfer of the land would be contingent upon the developer completing the development. If the development is not completed, the assembled land reverts back to the city land bank.

A second use for a land bank is for individuals or home builders to acquire a land bank parcel to build an infill home in a more stable neighborhood, a neighborhood where land assembly is not considered an option within the foreseeable future. These lots are sold to an individual or builder for construction of new homes to create infill housing within city neighborhoods. The goal of this project is to attempt to bring additional residents into city neighborhoods in order to make them more economically competitive.

The third land bank program offers land bank parcels to neighboring property owners for expansion. Expansion can include the addition of a garage, an expanded yard or additional acreage to remodel or rebuild a home. Land Bank parcels in this program are offered to financially stable neighbors at $1. This program is intended to create the ability for home owners to have large yards, which is perceived as a desirable trait among the newer homes in the suburbs.

The Land Bank program should be expanded throughout the region and managed by the RPDA in order to provide any or all of the above advantages to all municipalities within the region. The Land Bank program should be marketed on a regional basis in order to provide a more broad range of development opportunities through land assembly. The Land Bank program, if marketed correctly with a vast array of potential properties, can be a catalyst for providing developers with sites in existing cities that have the potential for redevelopment.

Brownfields

Older industrial cities have a large number of brownfields. Brownfields are former industrial sites that have a host of environmental issues, resulting in potentially costly and difficult redevelopment. Brownfields are especially an issue in Northeast Ohio because of our history of being a center for manufacturing and industry.

Brownfield incentives should be expanded further to encourage the redevelopment of urbanized areas. A portion of the money that is currently used for infrastructure expansion, such as new roads, sewer lines and water lines, should be transferred to the clean-up of brownfields. Reallocating these dollars to brownfield clean-up can increase the overall tax base of municipalities and the region. Redevelopment of brownfield sites reduces the need for new infrastructure and relies on the existing infrastructure that is being underutilized. The redevelopment of these sites will also increase the property, income, and sales tax base for the city, county and region. The reallocation of these funds would simply support existing infrastructure rather than create new infrastructure, and the cost-savings could potential be offsetting, depending on the extent of the contamination. Reallocation of funds combined with funds presently available for brownfield remediation will make these sites suitable for redevelopment within the region.

Density Bonuses, Land Bank policies and Brownfield funding can be combined to offer developers a greater incentive to redevelop vacant and abandoned properties. Applying Density Bonuses to Land Bank or Brownfield parcels allows a developer to build substantially greater densities and allow for a substantially greater amount of preserved open space. These policies working in conjunction with one another, will

encourage infill and redevelopment of the those cities that are currently in decline, will utilize the existing infrastructure system, and will provide greater housing and commercial options within area of the region in which options have been limited.

Current economic and market conditions do not provide the demand necessary for Transfer of Development Rights to work as descried. As energy costs continue to rise, as lifestyle choices change for baby boomers, and current trends towards repopulating urban cores, it is anticipated that the demand for density will increase. The increase in market demand combined with providing TOD and brownfield incentives, promotion of Land Bank parcels, the demand for density will increase and TDRs will be a feasible density bonus tool to be used within the region.

Scenario 2 proposes that the RPDA will oversee overarching planning guidelines within the region. We understand that each community desires a different mix of land uses and lot sizes, along with various other requirements and restrictions. RPDA will be responsible for managing what types of restrictions and regulations are requested by the communities within the region. The regional land use agency would establish a master plan for the region, based on input from stakeholder communities. Individual communities would be required to align their own master plans and zoning to reflect the plan for the region. The overarching principles would also include a baseline for design and building guidelines that each community must meet or exceed. These guidelines would reflect the most appropriate land uses for particular neighborhoods across the region. Implementation of program could be achieved through a comprehensive package of the incentives and programs listed herein.

Policy Recommendations

To achieve balanced growth within a region, it is necessary to implement principals of Smart Growth. These principals must guide land use in each municipality and guide development projects throughout the region. We recommend that the following policies be implemented by the Regional Planning and Development Authority. Each of these policies would be implemented at a regional level, with each community having the ability to implement addition policies that comply with regional policies. This scenario recommends the implementation of all or part of the following policies. These are policies recommended by the Victoria Transport Policy Institute and the United States Environmental Protection Agency.

- *Strategic planning.* Establish a comprehensive community vision that individual land use and transportation decisions should support.

- *Create more self-contained communities/Mixed Land Use* Locate compatible land uses within proximity of each other. For example, develop schools, shops and recreation facilities in or adjacent to residential areas. Mix land uses at the finest grain feasible.

- *Foster distinctive, attractive communities with a strong sense of place.* Encourage urban development that creates a sense of civic pride and community cohesion, including attractive public spaces, high-quality design and maintenance standards, preservation of special cultural and environmental resources, and activities that highlight a community's unique features.

- *Encourage "village development" Encourage infill development.* Locate new development within already developed areas. Encourage redevelopment of older facilities and brownfields. Establish well-defined "urban villages," walkable centers that contain an appropriate mixture of land uses (residential, commercial, institutional, and recreational) with distinct names and characters. Reduce minimum lot sizes, building setbacks, minimum parking requirements, and minimum street size particularly around transit and commercial centers.

- *Concentrate activities*. Concentrate commercial activities in these areas. Retain strong downtowns and central business districts. Use access management to discourage arterial strip commercial development.

- *Reform tax and utility rates.* Structure property taxes, development fees and utility rates to reflect the lower public service costs of clustered, infill development, and focus economic development incentives to encourage businesses to locate in more accessible locations.

- *Manage parking for efficiency.* Encourage shared parking, parking maximums, and other parking management strategies. Reserve the most convenient parking for rideshare vehicles.

- *Avoid overly-restrictive zoning.* Reduce excessive and inflexible parking and road capacity requirements. Limit undesirable impacts (noise, smells and traffic) rather than broad categories of activities.

- *Create a network of interconnected streets.* Keep streets as narrow as possible, particularly in residential areas and commercial centers. Use traffic management and traffic calming to control vehicle impacts rather than dead ends and cul de sacs.

- *Site design, building orientation and compact building design.* Encourage buildings to be oriented toward city streets, rather than set back behind large parking lots. Avoid large areas of parking or other unattractive land uses in commercial areas.

- *Improve non-motorized travel conditions*. Encourage walking and cycling by improving sidewalks, paths, crosswalks, protection from fast vehicular traffic, and providing street amenities (trees, awnings, benches, pedestrian-oriented lighting, etc.).

- *Implement mobility management.* Use mobility management to reduce total vehicle traffic and encourage the use of efficient modes.

- *Encourage mixed housing types and prices.* Develop affordable housing near employment, commercial and transport centers. Encourage secondary suites, apartments over shops, lofts, location-efficient mortgages and other affordable housing innovations.

- *Preserve open space, farmland, natural beauty, and critical Environmental Areas.* Preservation of these land uses will benefit the region by providing clean air and water. Watershed areas will be projected and preserved and a variety of economic activities will be available within the region.

- *Make development decisions predictable, fair and cost effective.* Set consistent guidelines that all developments must adhere to, eliminating last minute surprises. Incentives must be available to all qualifying developments.

- *Encourage community and stakeholder collaboration in development decisions.* Community residents and local stakeholders are the soul of the community. These residents and stakeholders know what they need and want in their community and have strong opinions on how those needs can be met.

Surveys

Our research team created and administered surveys to three groups of stakeholders in regional development plans: residents, public officials, and real estate developers. The surveys aimed to gather data on people's preferences regarding regional issues. The surveys ultimately formed the basis for the weighing matrix used to compare the three scenarios being proposed by our research teams.

After creating our survey instruments, we submitted our proposals along with supporting documentation to the Institutional Review Board (IRB) for approval of human subjects' research, as required by law. We received IRB approval and conducted the survey over several weeks.

The residential surveys were partly randomized, picked blindly from the phonebook according to telephone area codes and extensions, which are assigned geographically.[6] Some survey respondents were friends or family of the research team. There were a total of 76 survey respondents. Although the research team endeavored to collect surveys from respondents in the study area, there were 4 responses from within the region but not in our defined study area. Survey responses were distributed relatively evenly across the jurisdictions in our study area, with the largest amount or responses from Cleveland, Lorain, and Lakewood. (Exhibit 5) About two thirds of the respondents were from Cuyahoga County and one third of respondents were from Lorain County. (Exhibit 6) All quantitative assessments were collected on a 5 point ranking scale, ranging from +2 to -2. Residents generally indicated that they had a negative perception of living near low-income housing and that quality of public schools and the natural

[6] Geographic associations of telephone area codes and extensions were determined by reference to http://www.telcodata.us/.

appearance of the property were the most desirable attributes when making a home purchase decision. (Exhibit 7) Residents were also asked to rate various amenities in their current city of residence. Quality of neighborhoods ranked highest and income tax bill ranked lowest. The respondents were then asked about their perception of those same amenities under regionalism. City recreation centers ranked lowest and income tax bill ranked highest. Examining the difference between the responses for perceptions under their current city of residence and under regionalism, quality of neighborhoods appeared to rank lowest, meaning that people's perceptions showed the greatest negative change under a switch to regionalization of the listed amenities. Income tax bill showed the positive change. (Exhibit 8 & Exhibit 9)

Exhibit 5 Survey Respondents by municipality

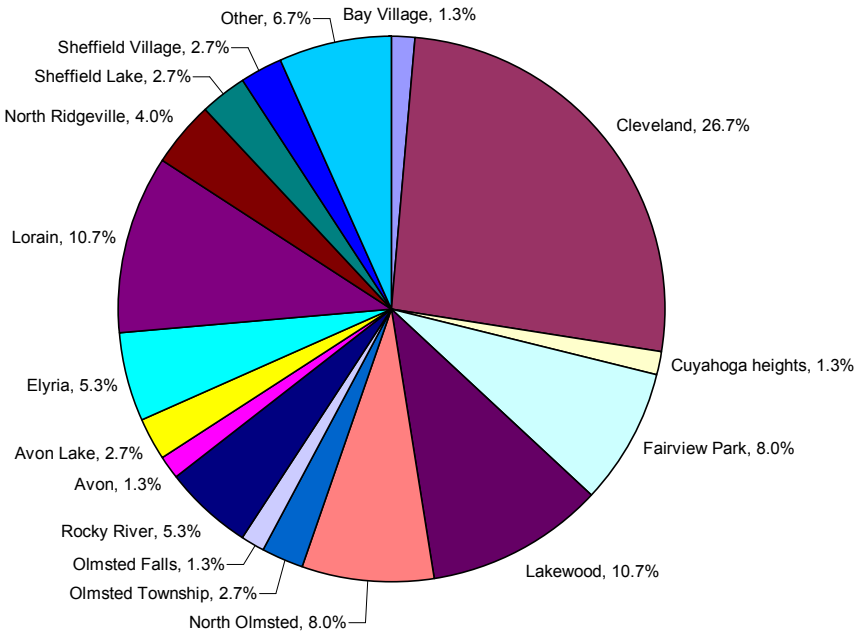
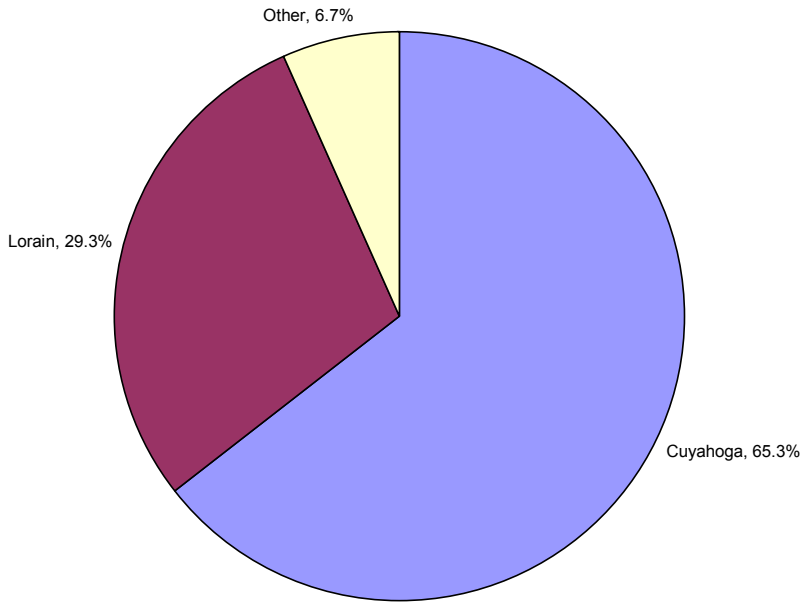


Exhibit 6 Survey Respondents by County



We also gathered responses from public officials. Sixteen public officials, from communities in our study area, including Lakewood, North Ridgeville, Westlake, Bay Village, Cleveland, Brooklyn Heights, North Olmsted, and Sheffield Lake, responded to our survey. Public officials were asked about their perceptions of the local economy, their knowledge of cooperative agreements between their community and other communities, policies regarding the preservation of green space, and their perceptions of smart growth and regional collaboration. Answers were generally scored on a 1 to 5 scale. Public officials responded most positively to the concept of New Urbanism, with an average score of 4.5. Both the concept that the local economy depends on the core city and the concept of regional land use regulation ranked the lowest, receiving scores in the middle of the scale, receiving average scores of 3.5 and 3.8 respectively. Public officials also

indicated that term limits are an impediment to establishing and implementing long-term land use plans because learning the job takes time, and with the constant pressure to run for re-election and constant turnover from elections, there is not a consistent group of people working together to pursue regional issues.

Exhibit 7 Home Purchase Decision Factors

Importance	Characteristic	
1.03	Quality of public schools	**1.03**
0.85	Property taxes	**0.85**
0.44	Location of property in relation to shopping	**0.44**
0.76	Location of property in relation to work	**0.76**
1.18	Natural beauty of the property	**1.18**
0.11	Living in an urban setting	**0.11**
0.58	Having a large lot size	**0.58**
-0.43	Living in a mixed-use development	**-0.43**
-0.84	Living in or near below-market-rate housing	**-0.84**

Values adjusted for valid N		
x2.5		
2.57	Quality of public schools	
2.13	Property taxes	
1.10	Location of property in relation to shopping	
1.90	Location of property in relation to work	
2.94	Natural beauty of the property	
0.26	Living in an urban setting	
1.44	Having a large lot size	
-1.07	Living in a mixed-use development	
-2.11	Living in or near below-market-rate housing	

Exhibit 8 Changes due to Regionalism	Current City	Under Regionalism	**Difference**	**x 2.5**	
The quality of your neighborhood	1.11	0.57	**-0.54**	-1.35	Comparatively, regionalism will have the most **negative** local effect
Water & Sewer Rates & Service	1.01	0.53	**-0.48**	-1.20	
City Recreation Center	0.28	-0.07	**-0.35**	-0.88	
Parks	0.51	0.42	**-0.09**	-0.23	
Public transportation	0.41	0.35	**-0.06**	-0.14	
Highway access	0.95	0.83	**-0.12**	-0.30	
Building Code Enforcement	0.68	0.64	**-0.03**	-0.08	**Least important**
Your Property Tax Bill	-0.05	0.13	**0.19**	0.47	
Your Income Tax Bill	0.27	0.99	**0.72**	1.79	Comparatively, regionalism will have the most **positive** local effect

Values adjusted for valid N

			x 2.5		
Your Income Tax Bill	-0.05	x	-0.14	**Currently perceived worst in local jurisdiction**	
Public transportation	0.27	x	0.67		
Your Property Tax Bill	0.28	x	0.71		
Building Code Enforcement	0.41	x	1.02		
Water & Sewer Rates & Service	0.51	x	1.28		
City Recreation Center	0.68	x	1.69		
Parks	0.95	x	2.37		
The quality of your neighborhood	1.01	x	2.53		
Highway access	1.11	x	2.77	**Currently perceived best in local jurisdiction**	

Exhibit 9 Changes due to Regionalism **x 2.5**

Your Property Tax Bill	x	-0.07	-0.17	**Perceived as worst under regionalism**	
Your Income Tax Bill	x	0.13	0.33		
Building Code Enforcement	x	0.40	1.00		
Water & Sewer Rates & Service	x	0.42	1.05		
The quality of your neighborhood	x	0.53	1.33		
Highway access	x	0.57	1.42		
City Recreation Center	x	0.64	1.61		
Parks	x	0.83	2.07		
Public transportation	x	0.99	2.47	**Perceived as best under regionalism**	

Our research team also collected responses from 10 local real estate developers. Responses from developers were generally not quantitative, but rather qualitative and anecdotal. The developers' responses were used by our three teams to formulate appropriate policies for each scenario. Among other responses, developers consistently indicated that demographics and population are important to developers when deciding where to develop a new piece of real estate. Developers also indicated that urban real estate deals are often less attractive because brownfields increase the cost of redevelopment. When asked about how long until on average a building becomes functionally obsolete, developers responded that it depends on the type of building, the market, and the possibility to renovate or restore the building.

Modeled Outcomes

Our Balanced Growth Scenario attempted to examine the potential economic base growth under balanced growth land use incentives and regulatory controls. Our team modeled outcomes for various land uses under assumptions that attempted to project possible shifts in development resulting from the implementation of balanced growth principles.

Since the principles of balanced growth focus on regional cooperation to achieve well-planned region, focusing on organizing land uses in a manner that is the most appropriate for a region.

Our team began the modeling process by examining the projections from the shift-share analysis for four basic land uses. Residential development was modeled by using housing permit data for the jurisdictions in our study area. The housing permit data, gathered from the U.S. Census Bureau, includes information about number of units. Commercial data represents office-based and other commercial establishments. Retail and industrial data tracks those land uses. Institutional land uses, including museums, schools, hospitals, and libraries were also modeled and analyzed.

Our baseline projections were based on the average growth trend for each land use. The baseline projected average growth trends for the growth of commercial, industrial, institutional, and retail establishments were calculated using the average growth trends from 1997 to 2004. The baseline projected average growth trend for residential unit growth was calculated using the average growth trend from 1996 to 2005. Our baseline projections showed an average net growth trend of 97 residential units per year across all jurisdictions in our study area. For commercial establishments, our

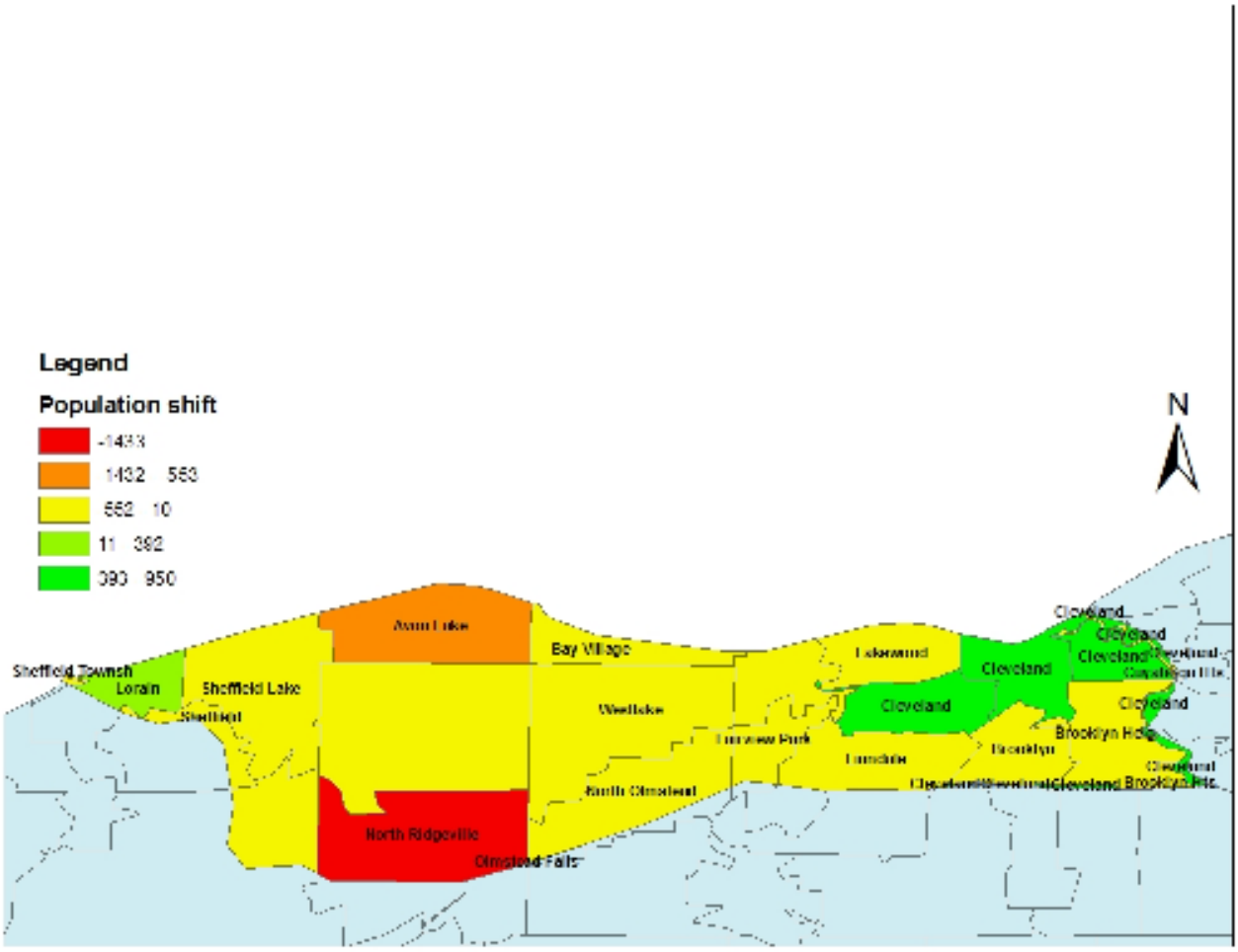
baseline projections showed an average net annual growth trend of 40 establishments. For industrial establishments, our baseline projections showed an average annual net loss of 40 industrial establishments per year. Our baseline projections showed an average negative growth trend of 56 retail establishments per year across jurisdictions in the study area. Institutional land uses showed a small net growth of 20 establishments per year.

By implementing our balanced growth proposals, population and new development should gradually shift back toward areas of higher population, density, and infrastructure. By preserving green space in outer ring suburbs of Cleveland and Lorain, development should move away from wetland and rural areas and towards the core cities. However, under a system that does not include strict regulations, mandates, and oversight, development will continue in positive direction in almost all jurisdictions. Accordingly, we redistributed growth across jurisdictions based on population statistics from our baseline year. This did not limit growth in any jurisdiction, but rather shifted the rate of growth in various land uses to a higher rate in more populous jurisdictions and slowed growth in rural areas. (Exhibit 10) For example, when we mapped the projected shift in new residential housing units from baseline, we noticed the largest net decreases in growth rates along the border of Cuyahoga County and Lorain County. Likewise, the largest increases in growth rates occurred in both Cleveland and the most urbanized areas of the Lorain County portion of our study area, including the cities of Lorain and Elyria. (Exhibit 11)

Exhibit 10 Residential Shift through Balanced Growth

City	Total Permits from 2007-2030 No BG	Total Permits from 2007-2030 BG	Shift Due to BG
Cleveland	10,125	11,075	950
Lorain	4,617	5,008	392
Elyria	3,100	3,275	175
North Olmstead	125	135	10
Lakewood	100	100	0
Westlake	-	-	0
Brook Park	-	-	0
Fairview Park	-	-	0
Brooklyn	-	-	0
Sheffield Lake	-	-	0
Brooklyn Heights	-	-	0
Cuyahoga Hts.	-	-	0
Linndale	-	-	0
Olmstead Township	-	-	0
Sheffield Township	542	517	(25)
Bay Village	508	473	(35)
Rocky River	1,625	1,535	(90)
Sheffield Village	1,825	1,660	(165)
Avon Lake	11,833	11,280	(553)
Avon	9,692	9,067	(625)
North Ridgeville	22,758	21,325	(1433)
Total	66,850	65,450	(1400)

Exhibit 11 Residential Shifts through Balanced Growth



Population Projection

The projected population for the region shows an overall decline based on current trends. This is not a good indicator for the region as a whole and the situation is worsened because of the shift in population away from the areas of current high density. This indicates a number of bad affects on the region. First, land consumption would continue in undeveloped area near the county line. Second, infrastructure and housing that is currently in place will be underutilized where it is already in place and functioning under current demand.

While it is the hope that the actions taken by the RPDA would begin attracting population base from outside the area, this will not be included in the population projection for the scenario groups. For comparative purposes, the overall population projections remain constant between the three groups. Scenario 2 proposes that, while the overall population loss for the region will be maintained, the shift in population to the growing cities would be hindered. In essence, the rate of development and growth in the outlying suburbs would slow and the population in the core cities and the inner ring suburbs would benefit from this. This is consistent with the intents of the proposal to manage land consumption and sprawl. The cities that are currently experiencing growth are Avon Lake, Avon, North Ridgeville, Sheffield Village, Sheffield Township, Westlake and Olmsted Township. These cities would require the aforementioned growth controls to experience the full benefit shown in the projection. Based on this assumption, the declining cities would experience an approximate 17% reduction in the rate of population loss. Table 7 refers shows how the population projection compares to NOACAs 2030 projection.

Affects of Policies on Weighted Measures

The following measures were used to compare the success of each scenario. The potential affects that would occur with the implementation of scenario 2 are explained below and how the calculation was determined. The raw scores for each measure are listed in Exhibit 12. These raw scores were compared to the other scenarios and ranked from one to three. The weight of importance of each measure was then applied to the rank to determine a score. This was totaled to give an overall score for each scenario group to see which approach is best. The final class matrix is shown in Tables Exhibit 13-15.

Exhibit 12 Population Projections

Population Projection		
Municipality	**NOACA 2030 Study Area Population**	**Scenario 2 Study Area Population**
Avon	20,735	15,555
Avon Lake	21,706	21,224
Bay Village	13,674	13,805
Brook Park	9,499	10,106
Brooklyn	558	588
Brooklyn Heights	610	620
Cleveland	153,007	165,087
Cuyahoga Heights	68	72
Elyria	13,822	13,736
Fairview Park	14,422	15,366
Lakewood	48,149	48,966
Linndale	101	101
Lorain	16,078	16,078
North Olmsted	27,273	27,273
North Ridgeville	18,077	14,137
Olmsted Township	60	49
Rocky River	20,310	21,548
Sheffield Lake	8,763	8,236
Sheffield Township	799	796
Sheffield Village	4,201	3,955
Westlake	41,807	36,420
Grand Total	**433,718**	**433,718**
Cities that would require growth controls		
Declining cities = 17% reduced rate of population loss		

Exhibit 13 Raw Scores

Scope of Impact Factors	Calculated Economic Values
Descriptions	*Medium Scenario Group*
building code	
coordinated land use plan	yes
city rec center	
percent who have community center	96.5%
water and sewer rates and service	
acres on septic tanks, weighted rate	186.2
tax bill	
income tax, weighted rate	1.76
acres per commercial establishment	10.90
public transit	
transit to work, weighted rate	6.70
parks	
acres of parkland	474.90
highway access	
drive to work	87.6%
neighborhood quality	
neighborhood sustainability	2

Exhibit 14 Final Weighted Matrix

Weighting Matrix for Impact Factors of Regional Development Plan Scenarios

Survey Results		Scope of Impact Factors	
Weight	*Sub-Weight*		*Descriptions*
0.0734		Importance Factor A	building code
	0.073		*coordinated land use plan*
0.0951		Importance Factor B	city rec center
	0.095		*percent who have community center*
0.1067		Importance Factor C	water and sewer rates and service
	0.107		*acres on septic tanks, weighted rate*
0.1717		Importance Factor D	tax bill
	0.065		*income tax, weighted rate*
	0.107		*acres per commercial establishment*
0.1121		Importance Factor E	public transit
	0.112		*transit to work, weighted rate*
0.1506		Importance Factor F	parks
	0.151		*acres of parkland*
0.1382		Importance Factor G	highway access
	0.138		*drive to work*
0.1521		Importance Factor H	neighborhood quality
	0.152		*neighborhood sustainability*
1.000	1.000		

Exhibit 15

Calculated Economic Values			Polarity of Values	Unweighted Ranks			
low	*med*	*hi*	And units	*low*	*med*	*hi*	*Sub-Weight*
no	yes	yes		0	1	1	0.073
81.7%	96.5%	100.0%	higher is better	1	2	3	0.095
236.65	186.22	151.42	lower is better	1	2	3	0.107
1.72	1.76	1.77	lower is better	3	2	1	0.065
11.46	10.90	10.60	lower is better	1	2	3	0.107
6.11	6.70	6.72	higher is better	1	2	3	0.112
441.46	474.90	476.55	higher is better	1	2	3	0.151
86.2%	87.6%	87.3%	lower is better	3	1	2	0.138
1	2	3	higher is better	1	2	3	0.152
							1.000

Exhibit 16

Weighted Ranks		
lo	*med*	*hi*
0.000	0.073	0.073
0.095	0.190	0.285
0.095	0.190	0.285
0.195	0.130	0.065
0.107	0.213	0.320
0.112	0.224	0.336
0.151	0.301	0.452
0.415	0.138	0.276
0.152	0.304	0.456
1.321	**1.765**	**2.550**
HIGHEST IS BEST		

Building code

Measure: Coordinated land use plan

Coordination is one of the fundamental approaches of our scenario group. Coordinated land use plans would be one of the primary purposes of the Regional Planning and Development Authority. This measure was scored based on whether this initiative was addressed and scenario 2 is affirmative.

City recreation center

Measure: Percent who have a community recreation center

Cooperation is another fundamental approach of our scenario group and the development of recreation centers would benefit from this. An area in Lorain County was identified that would benefit from the cooperation between cities in this category. Avon, Avon Lake, Sheffield Lake, and Sheffield Village are four connected communities that do not currently have recreation centers. A cooperative agreement would allow all of the residents of these cities to enjoy and share the facility. (Exhibit 17) It would be much more economically feasible for this area because of economies of scale that would result. This measure was applied to the weighted population which is the projected population per jurisdiction divided by the total projected population.

Water and sewer rates and service

Measure: Percent of acres on septic tanks

The existing septic tank inventory was examined and used to analyze how the different scenarios affect the water and sewer rates in the region. The correlation with septic tanks is that they are only used in low density areas to service individual

properties. If population densities increase in the rural area, which is the result of unrestrained sprawl, then septic tanks would have to be replaced by sanitary sewer systems. This would result in infrastructure cost that would be passed along to taxpayers. Scenario 2 suggests that there would be no change in the current septic tank inventory because growth in these areas will be dampened. The measure would be influenced by the population projections only. Therefore, the proposed affect of our policy was applied to the weighted population for comparison with the other scenarios.

Exhibit 17 Recreation Centers

Jurisdiction	Currentlly Have Recreation Center	Proposed Shared Use Recreation Center
Avon	NO	YES
Avon Lake	NO	YES
Elyria	YES	EXISTING
Lorain	YES	EXISTING
North Ridgeville	NO	NO
Sheffield Lake	NO	YES
Sheffield Twp	NO	NO
Sheffield Village	NO	YES

Tax bill

Measure: Income tax, weighted rate

The income tax rate was considered as a representation of how efficiencies would be passed on to residents of the community. While scenario 2 does believe that balanced growth will promote more efficient use of infrastructure, there was no tax sharing initiative proposed. This would go against the approach of moderate change for this scenario. Political structure was to remain in place. The proposed affect of our policy was

applied to the weighted population for comparison with the other scenarios. In this case, because there seems to be no clear correlation in city income tax rates and population, the results were not observed to be truly representative of the intended measure.

Tax bill

Measure: Acres per commercial establishment

This measure attempted to make a correlation between the number of acres per commercial establishments in the cities to the tax situation. The higher density of establishments would result in higher tax revenue for the city. Therefore, a lower number of average acres per establishment would indicate a more vibrant economic base for the city. Once again, the proposed affect of our policy was applied to the weighted population for comparison with the other scenarios.

Public transit

Measure: Transit to work

Public transit would benefit from the reduced rate of sprawl that this group proposes. The highest rate of transit for commute to work is in Cleveland. Loss of population due to sprawl would result in loss of revenue for the Greater Cleveland Regional Transit Authority (GCRTA). The level of ridership in the outer ring suburbs is a much lower because of car ownership. Lower densities make public transit less efficient. Surprisingly, the Lorain and Elyria rates of transit use are very low. The population densities in these cities could efficiently support more transit. This scenario group proposes that an aggressive effort be made to make transit more available for the transit dependent residents of Lorain and Elyria. We estimate that at least 3% ridership can be

obtained within these cities. This is equivalent to the level of ridership in suburban areas served by the GCRTA. Once again, the proposed affect of our policy was applied to the weighted population for comparison with the other scenarios.

Parks

Measure: Acres of parkland

The conservation of land for public use is a fundamental goal of this scenario group. This is consistent with balanced growth and efforts to reduce urban sprawl. Our group investigated the current levels of persons per park acre to see how the cities compared. Surprisingly, we found that three cities in the outer ring suburbs ranked high in persons per park acre. These cities, Avon Lake, Avon, and Westlake are also cities that we proposed to work towards land conservation and a decreased rate of development. The future state of these cities is dependent on the additional parkland that is conserved now. Westlake would require the most aggressive measures towards parkland acquisition. Exhibit 18 shows that we have decided to pursue 100 additional acres for Westlake. More modest measures are needed in Avon and Avon Lake. The total acre of proposed parkland per city was applied to the weighted population for comparison with the other scenarios.

Exhibit 18 Park Land

Rank	Municipality	Acres of Parks Land	Proposed Increase Parkland Acres	New Acres Parkland	Population	Current Persons per park arces	Proposed Persons per park acres
12	Bay Village	211.81		211.8	15,448	73	72.93
13	Rocky River	226.24		226.2	20,963	93	92.66
14	Brooklyn	89.48		89.5	10,299	115	115.10
15	Avon Lake	171.98	30	202.0	20,300	118	100.51
16	Avon	119.73	20	139.7	14,322	120	102.50
17	Cleveland	777.17		777.2	184,355	237	237.21
18	Westlake	133.74	100	333.7	35,010	262	149.78
19	Elyria	37.50		37.5	14,099	376	375.99
20	Lorain	28.56		28.6	14,876	521	520.84
21	Lakewood	58.23		58.2	54,496	936	935.84
	Grand Total	**6,005.7**	**150.0**	**6255.70**	**458,340**	**76**	**73**

Highway access

Measure: Drive to work

The percent of persons who commute to work using their own vehicles was used as an indicator of convenience. This measure was also dependent on the population distributions that were projected in each scenario group. The raw data from the US Census Bureau was used to compare the three scenarios.

Neighborhood quality

Measure: neighborhood sustainability

The three groups applied a rank of one to three based on the approach that was used to promote the sustainability of existing neighborhoods. Our group ranked second because of the moderate approach that was used for this scenario. The other two groups ranked first and third.

Outcomes

We applied our projections to various land uses. Since industrial and retail showed net losses over our study period, we attempted several alternatives for redistributing these losses across the region. No one method showed any significant advantage to any other method. Distributing losses in retail in proportion to population does not necessarily make sense from a planning point of view because retail follows rooftops, so the most populous areas should actually realize a net increase, not decrease in retail. The overall loss in retail across the region corresponds with the decline in overall population.

Constraining industrial establishments to areas that are becoming more residential can make for inhospitable neighborhoods. Much of the Cleveland portion of our study area along Lake Erie is seeing brownfield sites being redeveloped as prime residential land, such as in Battery Park. In addition, this area is planned to become even more residential if and when the plan to convert the West Shoreway to a boulevard is completed. Industrial site selection has parameters different from residential, retail, commercial, and institutional. Firms select industrial sites based on the locations of their suppliers, the distance to their market, and access to transportation networks. All of these vary widely depending on the particular inputs and outputs of individual companies.

Accordingly, after trying to manipulate our projection methodology through many iterations of redistributing retail and industrial land uses, we decided that quantification of the shift in these land uses is not practicable by applying our balanced growth projection methodologies to the baseline growth trends. Generally, however, we would expect that if retail experiences any growth, it would follow the areas with the greatest

increase in residential establishments and, therefore, would shift back towards the urban core of both Cuyahoga and Lorain Counties. This may occur through either a reduction in the loss of retail in these areas or even through a possible net growth in retail in select urban jurisdictions of the study area. Similarly, industry may shift towards former brownfields or greyfields in urban areas, however, major industrial developments or redevelopments will largely depend on particular site selection decision criteria of individual companies. Moreover, in an area that is experiencing both significant losses in industrial establishments, with the largest losses in the core cities, and a shift away from the manufacturing sector and towards service industries, we cannot anticipate significant growth—and, in fact, expect continued decline—in industrial sectors. Since Cleveland has the largest share of industrial establishments with more than a third of the total industrial establishments in our study area, Cleveland will likely continue to experience a loss in industrial establishments, similar to our baseline projections.

Commercial office establishments are projected to grow by approximately 1,000 establishments by 2030. Exhibit 19 shows the shift in location of those establishments within the region. Through balanced growth all cities are affected with either a net gain or net loss among the additional establishments, the study region sustains no loss due to balance growth.

Exhibit 19 Commercial Establishments

City	Zip Code	2030 Projected # Establishments under SG	2030 Projected, No SG	**Effect of SG 2005-2030**
Cleveland	44114	1093	1079	**13**
Elyria	44035	2536	2582	**(46)**
Cleveland	44113	1145	1143	**2**
Brooklyn Hts	44131	1019	1013	**6**
Cleveland	44130	933	924	**9**
Westlake	44145	989	987	**2**
Cleveland	44115	337	318	**20**
Rocky River	44116	978	985	**(8)**
Lakewood	44107	555	548	**8**
North Olmstead	44070	570	564	**6**
Cleveland	44125	816	820	**(5)**
Cleveland	44111	372	367	**5**
Cleveland	44129	542	544	**(2)**
Brooklyn Heights	44109	351	345	**5**
Avon	44011	973	992	**(20)**
Cleveland	44134	421	418	**2**
Cleveland	44135	546	549	**(3)**
Cleveland	44102	258	251	**7**
North Ridgeville	44039	539	546	**(7)**
Cleveland	44105	192	186	**6**
Lorain	44052	292	290	**1**
Avon Lake	44012	421	425	**(4)**
Fairview Park	44126	332	333	**(2)**
Brooklyn	44144	401	406	**(5)**
Sheffield Township	44053	337	340	**(3)**
Olmstead Falls	44138	196	196	**0**
Bay Village	44140	31	24	**7**
Lorain	44055	74	70	**4**
Sheffield Lake	44054	174	175	**(2)**
Cuyahoga Hts	44127	74	73	**1**
Total Commercial Establishments		**17495**	**17495**	**0**

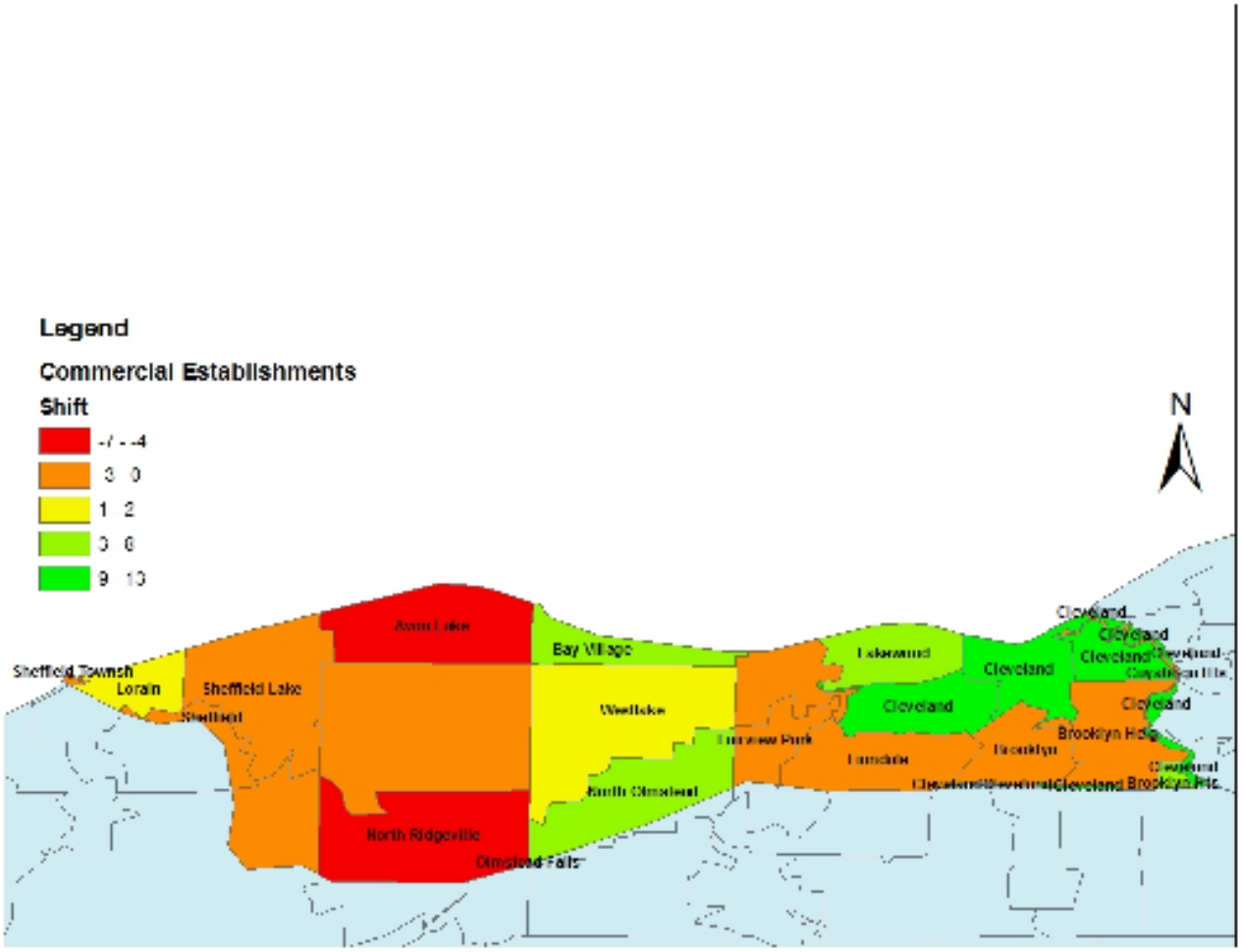
This growth represents a 6.3% growth in baseline number of commercial establishments. Interestingly, under a methodology that apportions the growth of commercial establishments proportionally according to our balanced growth policies, some areas of Cleveland experience loss while other areas experience growth.

Nevertheless, proportional apportioning of commercial establishments across the region results in overall growth of more than 1,000 establishments, with the majority of the growth focused back into Cleveland. Some of this growth could backfill some of the vacant office space in downtown Cleveland, provide opportunities for renovation of historic Cleveland office buildings, and provide possible tenants for currently proposed new construction. After accounting for shifts within cities,[7] the overall shift across jurisdictions is not radical. (Exhibit 20)

Using the same method of projecting shifts in growth by redistributing growth proportionally across the jurisdictions, we projected a shift in the growth of institutional establishments. (Exhibit 21) By 2030, the region is expected to experience an increase of 516 institutional establishments. Under our balanced growth principles, which do not place absolute restrictions on growth but rather shift the rate of growth towards urbanized areas. Among the areas seeing the largest gains would be Cleveland, Westlake, Elyria, Lakewood, and Lorain. This shift generally corresponds with the shift in population. Accordingly, school, libraries and medical facilities are focused around the shifting population, shifting towards areas that are already developed. (Exhibit 22) The increase in institutional establishments in Westlake would be counterbalanced by policies protecting parkland and green space in low density areas. Nevertheless, the increase of 46 establishments in Westlake under our balanced growth proposals is significantly lower than the projected growth of 115 establishments under baseline projections.

[7] Data on establishments was collected by zip code. Since some jurisdictions had multiple zip codes within their boundaries, we analyzed shifts both by zip code and by net shifts within municipal boundaries. Net shifts were less dramatic than shifts that occurred by zip code.

Exhibit 20 Commercial Shift

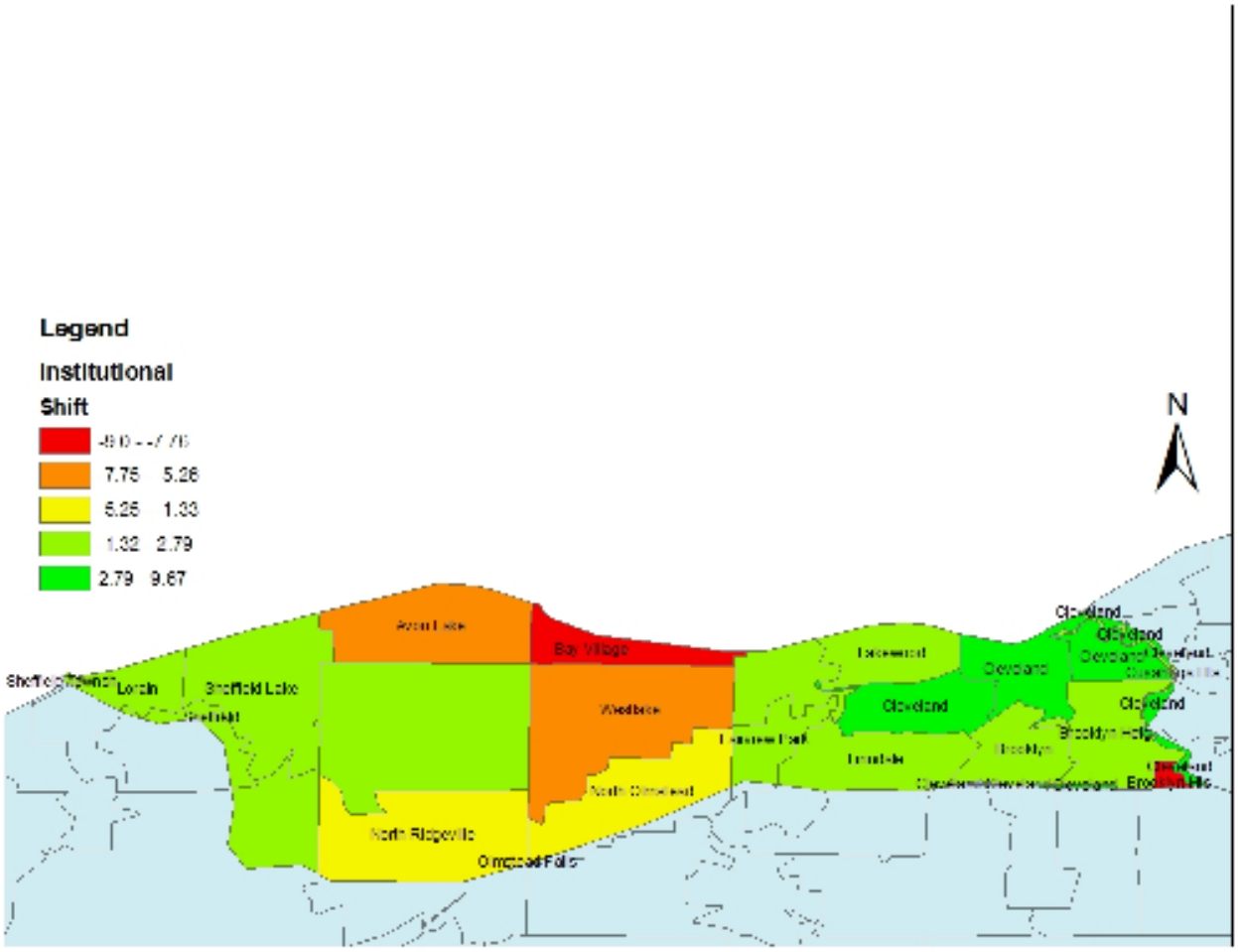


Overall, our balanced growth policies project a net gain in residential units, commercial establishments, and institutional establishments focused in areas which already have the greatest population and existing infrastructure. This satisfies our goal of maximizing efficiency of existing infrastructure and reducing the loss of efficiency by expanding infrastructure into low-density, rural, and wetland areas.

Exhibit 21 Institutional Establishments

	Baseline Projected	**BG Projected**	Shift Due to BGH
City	**2005 – 2030**	**2005 - 2030**	Shift Due to BGH
Avon	135.1	55.7	(79.4)
Avon Lake	113.1	60.6	(52.6)
Bay Village	38.4	37.5	(0.9)
Brooklyn Hts	186.6	109.0	(77.6)
Cleveland	31.7	128.4	96.7
Cleveland	133.1	179.3	46.1
Cleveland	76.4	115.1	38.6
Cleveland	103.1	111.4	8.3
Cleveland	284.6	290.7	6.1
Cleveland	106.9	111.4	4.6
Cleveland	60.1	59.3	(0.8)
Cleveland	93.7	77.5	(16.2)
Cleveland	73.7	53.3	(20.4)
Cleveland	146.7	78.7	(68.0)
Brooklyn	51.6	40.0	(11.6)
Cleveland	88.7	102.9	14.2
Cuyahoga Hts	0.0	30.3	30.3
Fairview Park	107.6	76.3	(31.3)
Cleveland	36.7	40.0	3.3
Elyria	189.1	215.6	26.4
Lakewood	69.9	192.6	122.7
Lorain	25.4	53.3	27.9
Lorain	0.7	27.9	27.1
Sheffield Lake	30.6	14.5	(16.0)
Sheffield Township	111.7	130.8	19.1
North Olmstead	134.9	113.8	(21.0)
North Ridgeville	61.0	42.4	(18.6)
Olmstead Falls	43.6	30.3	(13.3)
Rocky River	96.0	116.3	20.3
Westlake	335.1	266.5	(68.7)
	2966.0	2961.3	-4.7

Exhibit 22 Institutional Shift



Conclusion

As has been illustrated in the case the population, densities and parkland/open space will continue to decline in the study area between 2008 and 2030. With the decline in densities and open space the quality of life and quality of neighborhoods will continue to decline as well.

Through the creation of the Regional Planning and Development Authority balanced growth can occur in our study area. It will be necessary for the RPDA to establish incentives rather than regulations in order to provide the motivation necessary for municipalities, public officials, developers and citizens to support balanced growth. Through state supported initiatives and funding, programs including brownfield and Land Bank redevelopment and the promotion of Transit Oriented Development and Transfer of Development Rights can shift development in the study area back into municipalities that have the infrastructure capacity to manage the change in growth patterns.

With balanced growth initiatives in place RPDA will be able to begin the process of strategic park land acquisition throughout the study area. The increase in park lands and a re-densification of the area will provide a broader range of housing, transportation and amenity options for the residents of the study area. A broader range of options will provide a higher quality of life which will speak to the overall desire of neighborhood quality.