



Phase I Executive Summary

2009

Miami Valley Regional Planning Commission

Welcome

Phase I Executive Summary

On behalf of the Miami Valley Regional Planning Commission (MVRPC), I am delighted to announce the release of the *Phase I Executive Summary* of “Going Places: An Integrated Land Use Vision for the Miami Valley Region.”

Since 1964, MVRPC has been serving the Miami Valley Region as a regional steward working to create a vibrant community, vigorous economy, and healthy environment through a regional planning process founded upon the core values of regional collaboration, cooperation, and consensus building.

Over the last 45 years, MVRPC has responded to many regional issues and challenges by developing public policies and collaborative strategies to address them. As we continue to position our Region for a prosperous future, there are still many new challenges ahead. These are largely due to the transformation and reshaping of our society, our Region and the way we carry out our daily lives. It's imperative, in a global society, that our Region be prominently positioned to compete on all levels – economically, socially, politically, and environmentally.

In our effort to be better prepared, the MVRPC Board of Directors initiated a regional land use planning effort, now known as “Going Places: An Integrated Land Use Vision for the Miami Valley Region” in 2007. This initiative will serve as a guide to help the Region maintain a “sense of place”, to grow in a logical manner and to sustain a good quality of life – now and for future generations. By building a regional consensus on desired future land use, the Region will be able to make better and smarter future investment decisions. This is especially important where regional land use and transportation decisions can be made concurrently and where the two complement each other.

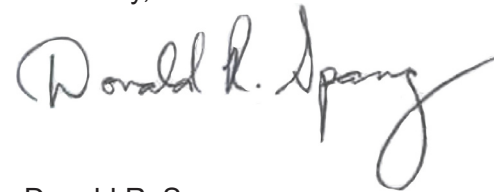
This *Executive Summary* is a brief summary of the work that MVRPC staff completed during 2007 & 2008. It provides a comprehensive overview of the current condition of our Region. The reports are a result of not only hard work by our staff, but also the cooperation of the Going Places Steering Committee and Planning Advisory Committee members, as well as MVRPC's Board of Directors and Technical Advisory Committee members.

Over the next two years, MVRPC staff will be bringing this report's results to the people in the Miami Valley. This effort will be the next phase of our extensive public outreach effort that has resulted in nearly 60 presentations made to over 1,200 people across the Miami Valley Region from the inception of this new initiative.

The Going Places initiative would not be successful without your participation. Therefore, as we move into the next phase of exploring our future options, I ask you to stay connected by visiting our website at www.mvrpc.org/rlu and hope you're able to participate during the coming months.

Thank you for continuing to serve the Region.

Sincerely,



Donald R. Spang
Executive Director, MVRPC

MVRPC Board of Directors

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Cities	Townships	Non-Governments
City of Beavercreek City of Bellbrook City of Brookville City of Carlisle City of Centerville City of Clayton City of Dayton City of Englewood City of Fairborn City of Franklin City of Huber Heights City of Kettering City of Miamisburg City of Moraine City of Oakwood City of Piqua City of Riverside City of Springboro City of Tipp City City of Trotwood City of Troy City of Union City of Vandalia City of West Carrollton City of Xenia	Beavercreek Township Bethel Township in Miami County Butler Township in Montgomery County Clay Township Concord Township Franklin Township in Warren County German Township in Montgomery County Harrison Township in Montgomery County Miami Township in Greene County Miami Township in Montgomery County Monroe Township in Miami County Perry Township Sugarcreek Township Washington Township in Montgomery County Xenia Township <p style="text-align: center;">Counties</p> Clinton County Darke County Greene County Miami County Montgomery County Preble County <p style="text-align: center;">Villages</p> Village of Farmersville Village of Germantown Village of New Lebanon Village of Phillipsburg Village of West Milton Village of Yellow Springs	AT&T Ohio Dayton Area Chamber of Commerce Dayton Metro Library Dayton Power & Light Company General Motors Corporation Greater Dayton Area Hospital Association National City Bank South Metro Regional Chamber of Commerce Time Warner Cable Troy Area Chamber of Commerce University of Dayton Vectren Energy Delivery of Ohio <p style="text-align: center;">Other Governmental</p> Five Rivers MetroParks Greater Dayton RTA Greene County Engineer Greene County Transit Board Miami Conservancy District Miami County Engineer Miami County Park District Miami County Transit Montgomery County Engineer Montgomery County TID ODOT District 7 ODOT District 8 Sinclair Community College Wright Patterson Air Force Base Wright State University



Going Places Steering Committee and Planning Advisory Committee Members

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Steering Committee Members

Michael Beamish – City of Troy
Janet Bly – Miami Conservancy District
Dick Church, Jr. – City of Miamisburg
Johnie Doan – City of Riverside
Mark Donaghy – Greater Dayton Regional Transit Authority
Dawn Falleur – Green Environmental Coalition
Dan Foley – Montgomery County
Dolores Gillis – City of Tipp City
Arthur Haddad – Troy Area Chamber of Commerce
Rap Hankins – City of Trotwood
Robert Hickey – Wright State University
Jerry Hirt – Bethel Township
Jack Jensen – First Suburbs Consortium of Dayton
Matthew Joseph – City of Dayton
Rick Kolmin – State Farm Insurance
David Meckstroth – Upper Valley Medical Center
J. Scott Myers – Miami County Park District
William O'Brien – Union Township
Randy Parker – Wright-Patterson Air Force Base
Don Patterson – City of Kettering
Denise Percival – Greenwood Manor
Gerald Peters – Perry Township
Diane Phillips – City of Beavercreek
Howard Poston – Greene County
Robert Preston – New Jasper Township
Mike Ratcliff – Greater Dayton Mayors and Managers
Harold Robinson – City of West Carrollton
Charles Shoemaker – Five Rivers MetroParks
Robert Shook – Concord Township
Aaron Sorrell – MVOPC
Jan Vargo – City of Huber Heights
Donald Weckstein
B. Ronald Widener – Miami County
Karl Wilson – Upper Valley JVS
Roland Winburn – Harrison Township
Karen Wintrow – Village of Yellow Springs
Gary Woodward – City of Fairborn

Planning Advisory Committee Members

Rob Anderson – City of Vandalia
Stephen Anderson – Greene County Regional Planning Commission
Jared Barnett – Mills Morgan Development, Inc.
Randy Bukas – Village of Germantown
Nathan Cahill – City of Huber Heights
Doug Christian – Miami County
Bill Cochensparger – ODOT District 7
Chuck Cochran – Troy Development Council
Donna Cook – Home Builders Association of Miami County
Sean Creighton – SOCHE
Chris Duval – Miller Valentine Group
Steve Finke – City of Dayton
Walt Hibner – Home Builders Association of Dayton
Patricia Higgins – City of Fairborn
Jacob Hoover – Miami County
David Kell – Greene County
Victoria Long – Beavercreek Township
James A. McGarry – Miami County
Jeffrey McGrath – City of Beavercreek
Randy Mott – Miami County
David Nolin – Five Rivers MetroParks
James Phipps – Village of Cedarville
Tom Robillard – City of Kettering
Chris Schmiesing – City of Piqua
Jeffrey Sewert – City of Brookville
Nimfa Simpson – City of Xenia
Ronald Thuma – Monroe Township
Patrick Titterington – City of Troy
Michael Thompson – City of Dayton
Larry Weissman – Montgomery County
Bill Whidden – Concord Township
Don Woods – City of Franklin



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For More Information

Please visit www.mvrpc.org/rlu for a copy of this report. Questions or comments should be directed to Martin Kim, Director of Regional Planning, at mkim@mvrpc.org

Miami Valley Regional Planning Commission (MVRPC) is a voluntary association of governmental and non-governmental organizations serving as a forum and resource where regional partners identify priorities, develop public policy, and implement strategies to improve the quality of life and economic vitality throughout the Miami Valley Region.

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What is MVRPC?

The Miami Valley Regional Planning Commission (MVRPC), formed in 1964, is a forum and a resource where regional partners identify priorities, develop public policy, and implement collaborative strategies to improve the quality of life and economic vitality of the Miami Valley Region. MVRPC performs various regional planning activities, including air quality, water quality, transportation, and land use planning. As the designated Metropolitan Planning Organization (MPO), MVRPC is responsible for transportation planning in Greene, Miami, and Montgomery counties and parts of Warren County.

MVRPC and Land Use Planning

When MVRPC began, it was largely concerned with issues related to land use and land use planning. Over time it evolved into more of a transportation planning organization, however the organization does have a history of not only examining land use issues but also completing regional land use plans.

The following is a list of the major land use studies and plans completed by MVRPC in the past:

- State of the Region – 1966
- 1972 Regional Comprehensive Plan
 - A Time for Decision
 - State of the Region
 - Alternatives for the Future
 - Guidelines for Action
- Framework for Change: The Regional Plan – 1978

What is Going Places?

While MVRPC coordinates transportation planning in the Region, there is no regional mediator in terms of land use. “Going Places – An Integrated Land Use Vision for the Miami Valley Region” is a four-year regional land use planning initiative aimed at bringing the Miami Valley Region together to discuss how the Region could become a better place to live, work, and play.

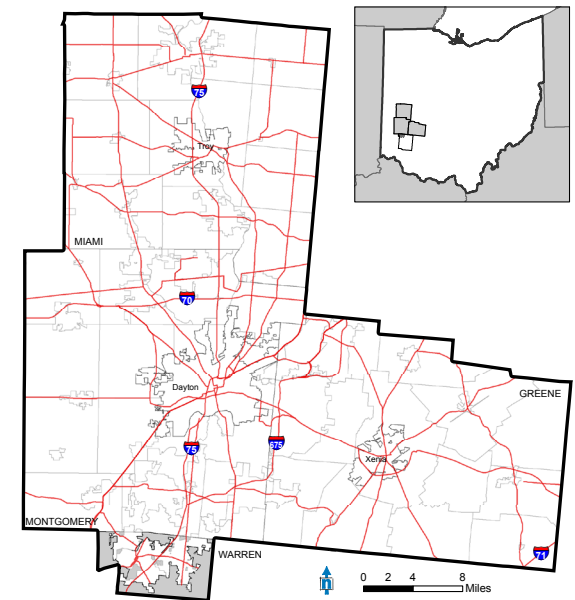
The Going Places initiative began in July 2007 and is expected to be completed by June 2010. The goal is to work through a cooperative land use planning process in order to develop a conceptual region-based growth framework for the Region. MVRPC, working with regional stakeholders, is following a three-phase process to develop a growth framework in order to better achieve consistency between future transportation infrastructure investment and land development, while also protecting environmental resources.

The phases are organized as follows:

- **Phase I** – Existing Condition Assessment: Physical and Non-Physical Condition Evaluation
- **Phase II** – Future Landscapes Exploration: Future Land Use Scenario Development and Assessment
- **Phase III** – Building a Clear and Shared Regional Land Use Framework

The study area for the initiative covers a three-county Region in the Dayton Metropolitan area, along with three cities in northern Warren County, located in southwest Ohio. It includes Greene, Miami, and Montgomery counties along with the cities of Carlisle, Franklin, and Springboro in Warren County, covering approximately 1,313 square miles with three interstates, I-70, I-75, and I-675.

Figure 1. Study Area



Introduction

Phase I Executive Summary

The Going Places initiative is organized around a set of specific planning principles:

- Incorporate sound technical analysis of good quality data throughout the process
- Facilitate meaningful discussions and build a regional consensus
- Seek extensive regional stakeholder engagement so that the outcome reflects a collective vision of regional stakeholders
- Build a partnership with local jurisdictions and work closely with their staff
- Foster strong support from regional leaders in both public and private sectors
- Better integrate the Going Places planning process into MVRPC's current regional transportation planning process

Phase I – Exisitio[n] Condition Assessment: Physical and Non-Physical Condition Evaluation

The purpose of the first phase of the Going Places initiative is to answer the question of where we are. More specifically, the purpose of this phase is to evaluate the Region's physical landscape and to identify various socio-economic trends in the Miami Valley Region. As the map of the urbanization trends in the Region from 1950 to 2000 shows, the Region has changed quite a bit in the last 50 to 60 years in terms of its physical development. In order to better predict, and plan for, where the Region may be headed in the future, it is important to understand the trends that underlie this expansion in urbanized areas and to be able to characterize the current state of physical development in the Region.

Figure 2. Urbanization Trends from 1950 to 2000

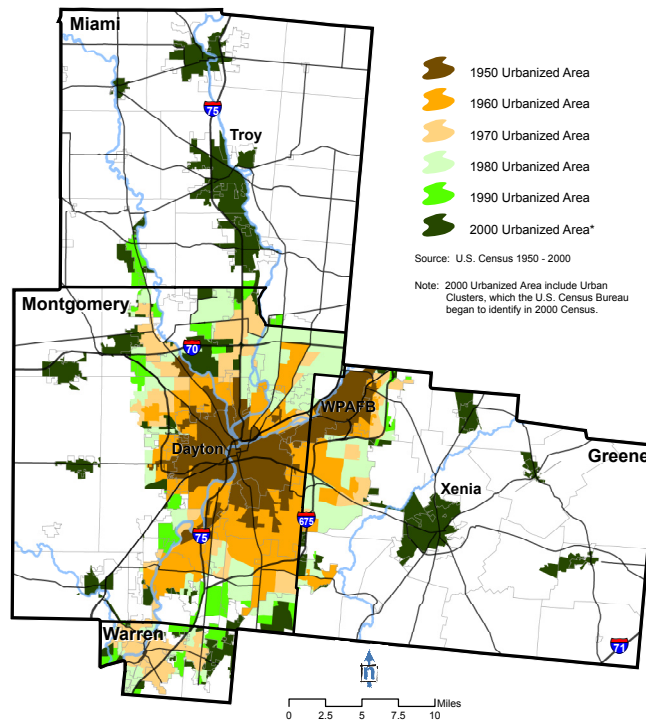
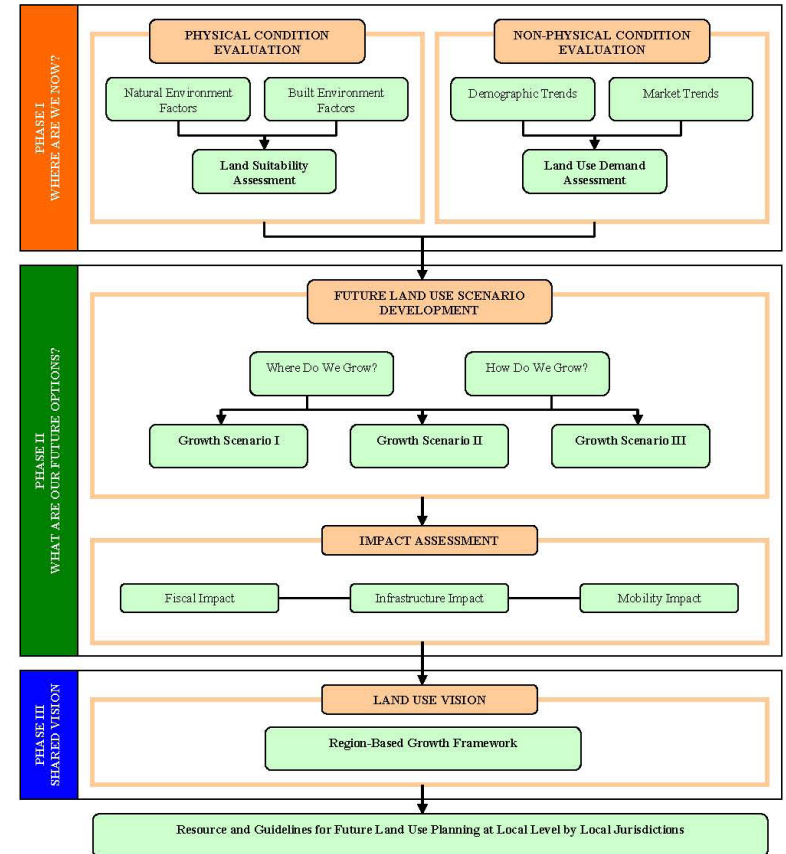


Figure 3. Going Places Process Diagram



Various studies have been conducted under Phase I in order to evaluate the two dimensions of the existing condition of the Region: land supply and land demand. For the Physical Condition Evaluation, the land supply dimension, there were three main goals:

- To evaluate the Region’s land development suitability based on both natural and built environment factors
- To examine the existing uses of land, including land use intensities in the Region
- To identify developable land in the Region for potential future development.

Likewise for the Non-Physical Condition Evaluation, the land demand dimension, there were also three main goals:

- To identify how much land is devoted to different types of land uses
- To identify socio-economic trends and develop socio-economic projections
- To translate these projections into future land demand

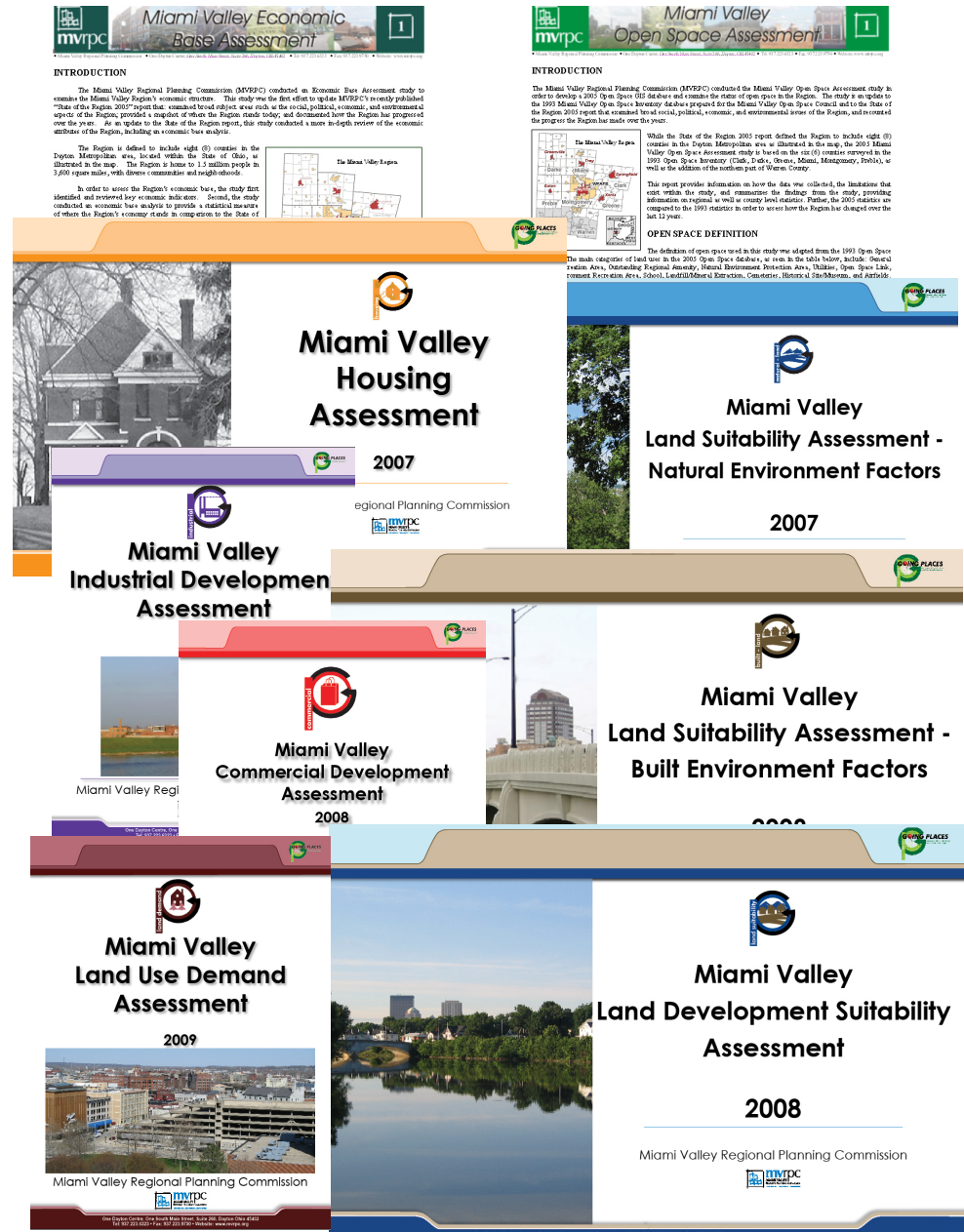
The following is a list of the studies completed in Phase I:

Physical Condition Evaluation: Land Supply

- Miami Valley Open Space Assessment
- Miami Valley Land Suitability Assessment – Natural Environment Factors
- Miami Valley Land Suitability Assessment – Built Environment Factors
- Miami Valley Land Development Suitability Assessment

Non-Physical Condition Evaluation: Land Demand

- Miami Valley Economic Base Assessment
- Miami Valley Housing Assessment
- Miami Valley Industrial Development Assessment
- Miami Valley Commercial Development Assessment
- Miami Valley Land Use Demand Assessment



Physical Condition Assessment Introduction

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The purpose of the physical conditions assessment portion of Phase I is to provide a comprehensive overview of both the natural and built environment characteristics of the Region and to use this knowledge to determine where future physical development in the Region may be most appropriate.

Studies conducted under the physical conditions assessment portion of Phase I include:

- *The Miami Valley Open Space Assessment*
- *The Miami Valley Land Suitability Assessment - Natural Environment Factors*
- *The Miami Valley Land Suitability Assessment - Built Environment Factors*
- *The Miami Valley Land Development Suitability Assessment*

Before moving on to a discussion of the Region's current development condition, however, it is important to understand how development patterns in the Region have changed over time. At the regional level, land for residential, commercial, and industrial uses all increased, while agricultural/open space land decreased.

In 2007, over 60% of the Region's land was classified as agricultural or open space. Residential land constituted the next largest percentage (24.2%), followed by institutional and commercial land (3.7% and 3.3%, respectively).

Figure 4. Regional Land Use/Land Cover Map - 2007

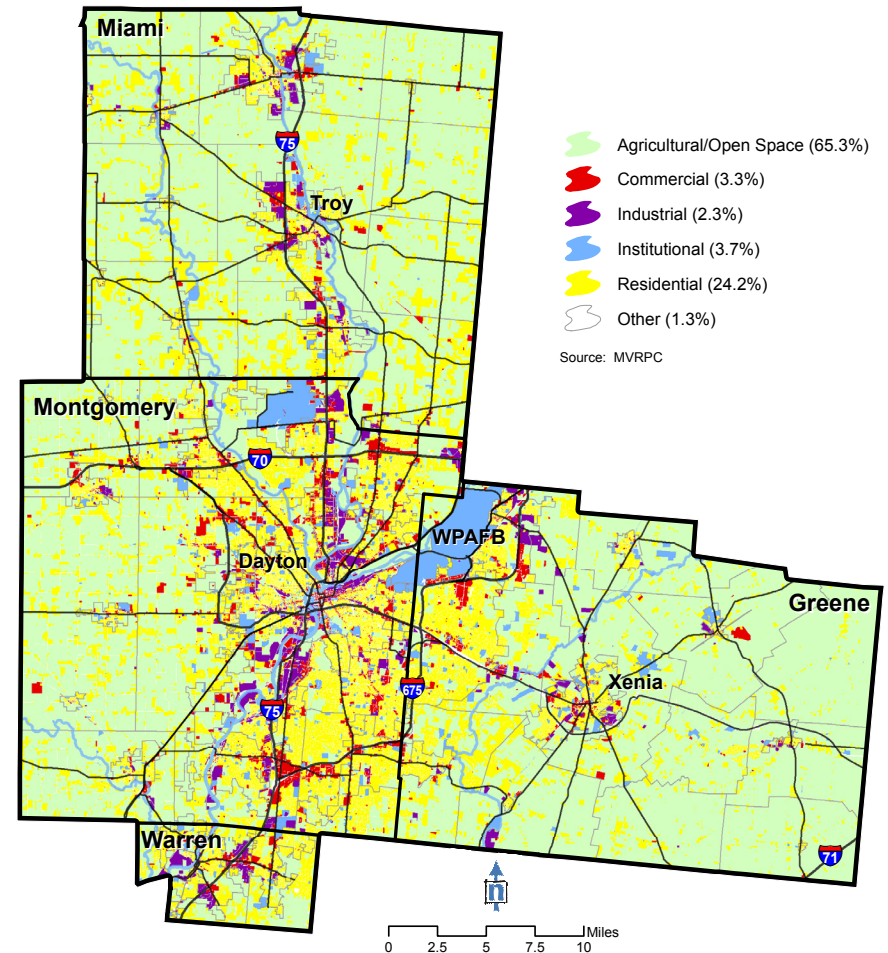


Table 1. Regional Land Development Trends by Land Use Type: 1975-2000

	Residential	Commercial	Industrial	Agricultural/ Open Space
Region	36.3%	148.1%	22.0%	-9.3%
- Greene	30.2%	85.9%	-10.7%	-4.4%
- Miami	123.8%	183.3%	81.7%	-5.9%
- Montgomery	25.6%	161.1%	20.3%	-17.9%

Source: MVRPC
Note: Warren County data are not shown because they are not available

Physical Condition Assessment Open Space

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MVRPC conducted the *Miami Valley Open Space Assessment* study in order to develop a 2005 open space inventory and examine the status of open space in the Region.

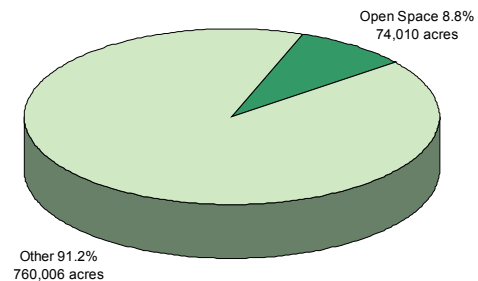
The 2005 open space inventory was developed based on a regional open space inventory first created in 1993. MVRPC staff conducted a comprehensive update of this inventory in 2005, followed by a one-day workshop with representatives from local governments, state agencies, and non-profit special interest groups in the Region to gather more information in order to finalize the inventory.

The Region overall possesses 74,010 acres of open space. Open spaces cover approximately 9% of the Region, which averages 88.3 acres of open space per 1,000 residents.

The main categories of land uses in the 2005 Open Space inventory include:

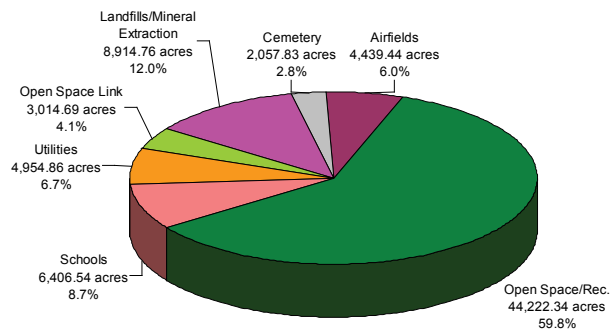
- General Outdoor Recreation Area
- Natural Environment Protection Area
- Open Space Link
- Landfill/Mineral Extraction
- Historical Site/Museum
- Schools
- Outstanding Regional Amenity
- Utilities
- Natural Environment Recreation Area
- Cemeteries
- Airfields

Figure 5. Open Space as a Percentage of Total Land in the Region



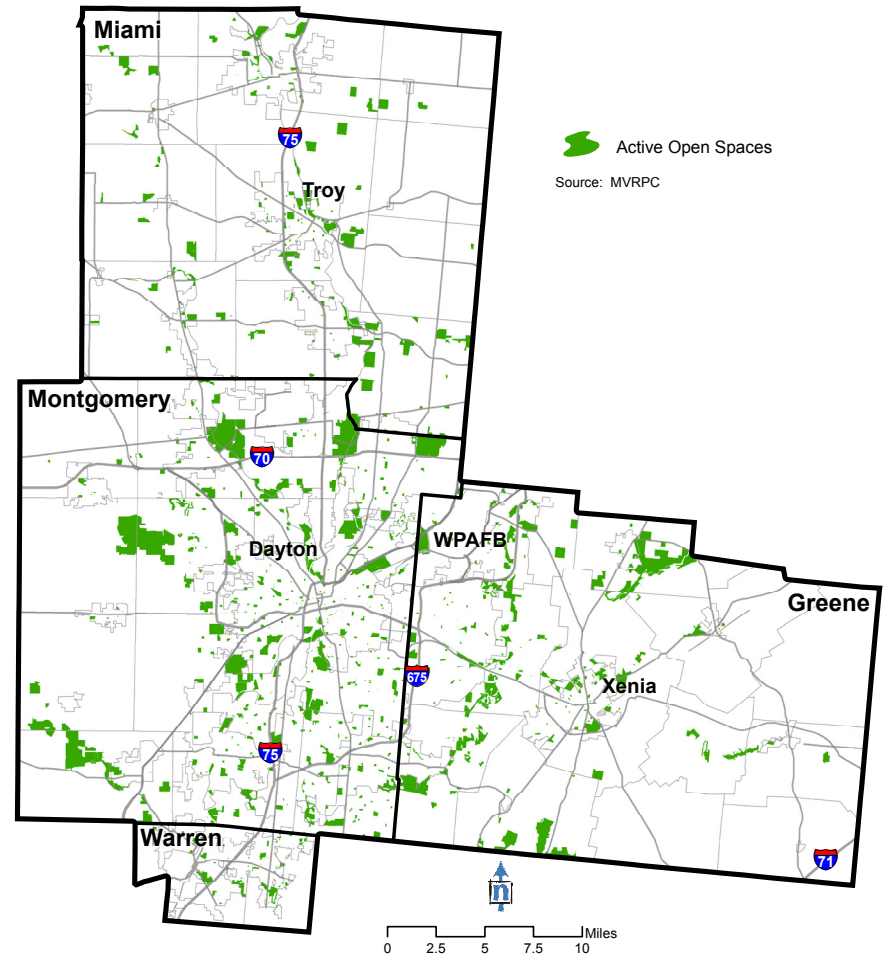
Source: MVRPC

Figure 6. Open Space by Type in the Region



Source: MVRPC

Figure 7. Miami Valley Active Open Spaces



Physical Condition Assessment Natural Environment Factors

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The *Miami Valley Land Suitability Assessment – Natural Environment Factors* provides a comprehensive overview of the Region’s natural landscape. Fifteen natural environment factors were analyzed, both individually and in relation to one another, in order to identify locations within the Region that are better suited for further physical development.

- Having flat or gently rolling slopes
- Outside floodplains, inundation areas, surface waters, sole source aquifers, wetlands, and well field protection areas
- Outside forested areas and prime farmland

The fifteen Natural Environment Suitability factors can be grouped into three categories as follows:

Resources

- Forested Areas
- Mineral Resources
- Prime Farmland
- Sole Source Aquifer
- Wetlands
- Ground Water Pollution Potential
- Ground Water Yield
- Well Field Protection Areas

Hazards

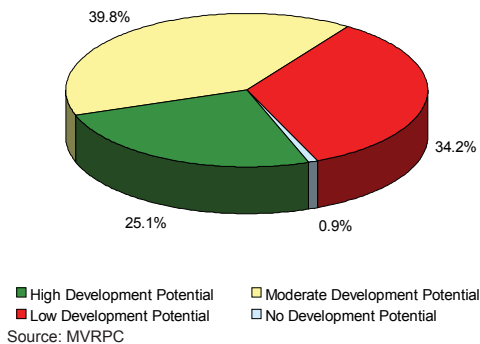
- Flood Plains
- Inundation Areas

Physical Impediments

- Depth to Bedrock
- Slope
- Soil Drainage
- Surface Water
- Load Bearing Strength

This assessment showed that over 60% of regional land is highly or moderately suited to accommodate future land development and that the areas that are least suited for future development are located adjacent to the major river corridors in the Region.

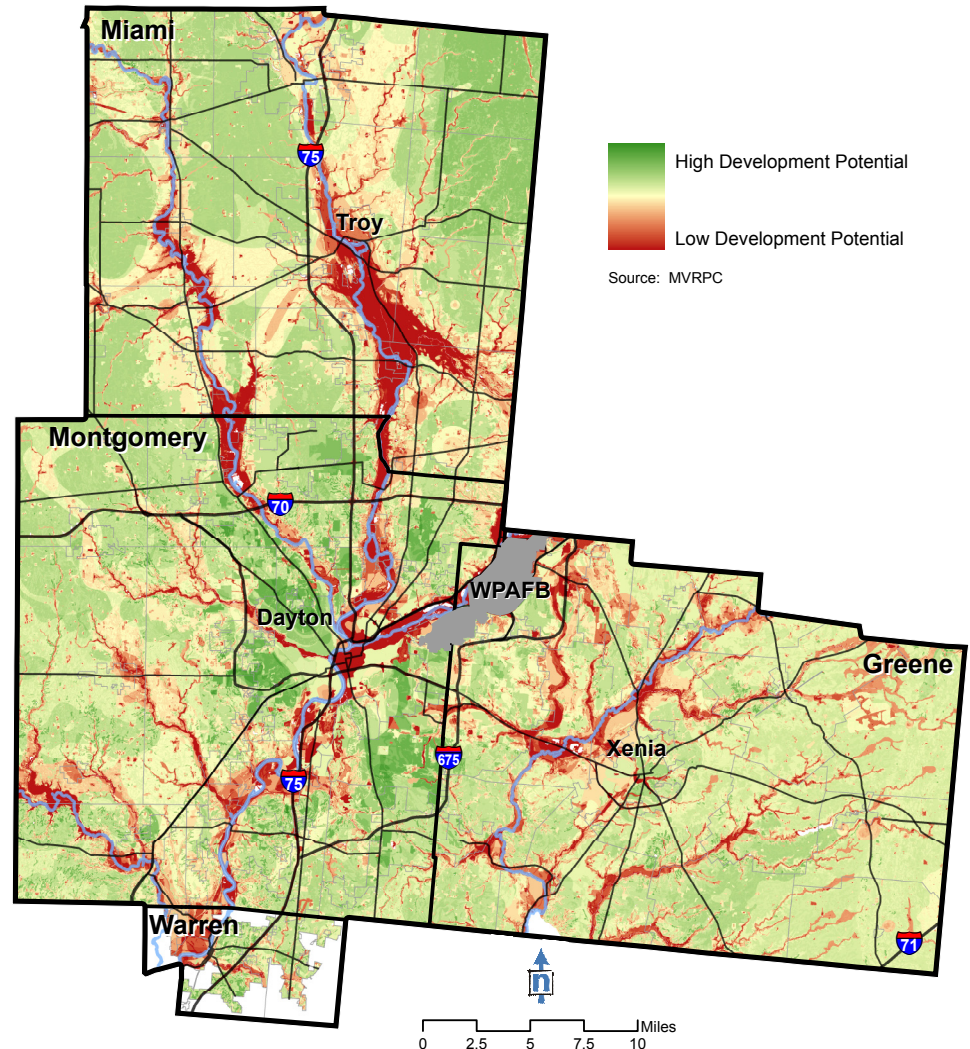
Figure 8. Regional Land by Development Potential Classification



In general, land with high development potential is characterized as:

- Having soils that are well drained, adequate depth to bedrock, adequate load bearing strength, and no mineral resources
- Having high ground water yields

Figure 9. Natural Environment Suitability Composite Map



Physical Condition Assessment Built Environment Factors

Phase I Executive Summary

The *Miami Valley Land Suitability Assessment – Built Environment Factors* provides a comprehensive overview of the Region’s constructed landscape. Fifteen built environment factors were analyzed, both individually and in relation to one another, in order to identify locations within the Region that are better suited for further physical development.

The fifteen Built Environment factors can be grouped into four categories as follows:

Public Infrastructure Provisions	Accessibility	Existing Land Use	Limitations
<ul style="list-style-type: none"> • Fire Protection Services • Transportation Network Connectivity • Public Wastewater Services • Public Water Services 	<ul style="list-style-type: none"> • Educational Amenities • Major Thoroughfare Access • Public Transportation Services • Recreational Amenities • Other Amenities • Retail Clusters 	<ul style="list-style-type: none"> • Industrial Clusters • Job Clusters 	<ul style="list-style-type: none"> • Potential Environmental Hazards • Restricted Development Lands • Airport Noise

Separate Suitability Composite Maps were created for residential and non-residential development considerations because of the subtle differences in the way that the built environment suitability factors affect development potential for residential and non-residential development.

This assessment showed that over 55% of regional land is highly or moderately suited to accommodate residential or non-residential development. It is important to note, however, that these results include both land that is and is not currently developed. More specifically, approximately 62% of the Region’s land is highly or moderately suited for residential development, and approximately 58% is highly or moderately suited for non-residential development.

In general, land with high development potential for residential development is characterized as:

- Being located outside airport noise affected areas, potential environmental hazard sites, industrial clusters, and restricted development lands
- Having good access to the Region’s educational, recreational, and other amenities
- Having adequate public wastewater, water, and fire protection services
- Having certain levels of transportation network connectivity and access to major thoroughfares, public transportation services, and job clusters.

In general, land with high development potential for non-residential development is characterized as:

- Being located outside potential environmental hazard sites and restricted development lands
- Having good access to major thoroughfares and adequate public wastewater and water supply systems
- Being in close proximity to existing industrial clusters, job clusters, and retail clusters with good transportation network connectivity
- Having certain levels of access to educational and recreational amenities and public transportation and fire protection services

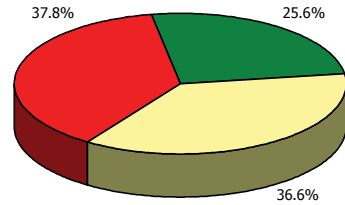


Physical Condition Assessment Built Environment Factors

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An estimated 25.6% of the Region has high development potential for future residential development.

Figure 10. Regional Land by Residential Development Potential Classification



An estimated 25.5% of the Region has high development potential for future non-residential development.

Figure 12. Regional Land by Non-Residential Development Potential Classification

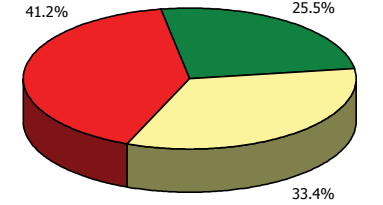


Figure 11. Built Environment Residential Suitability Composite Map

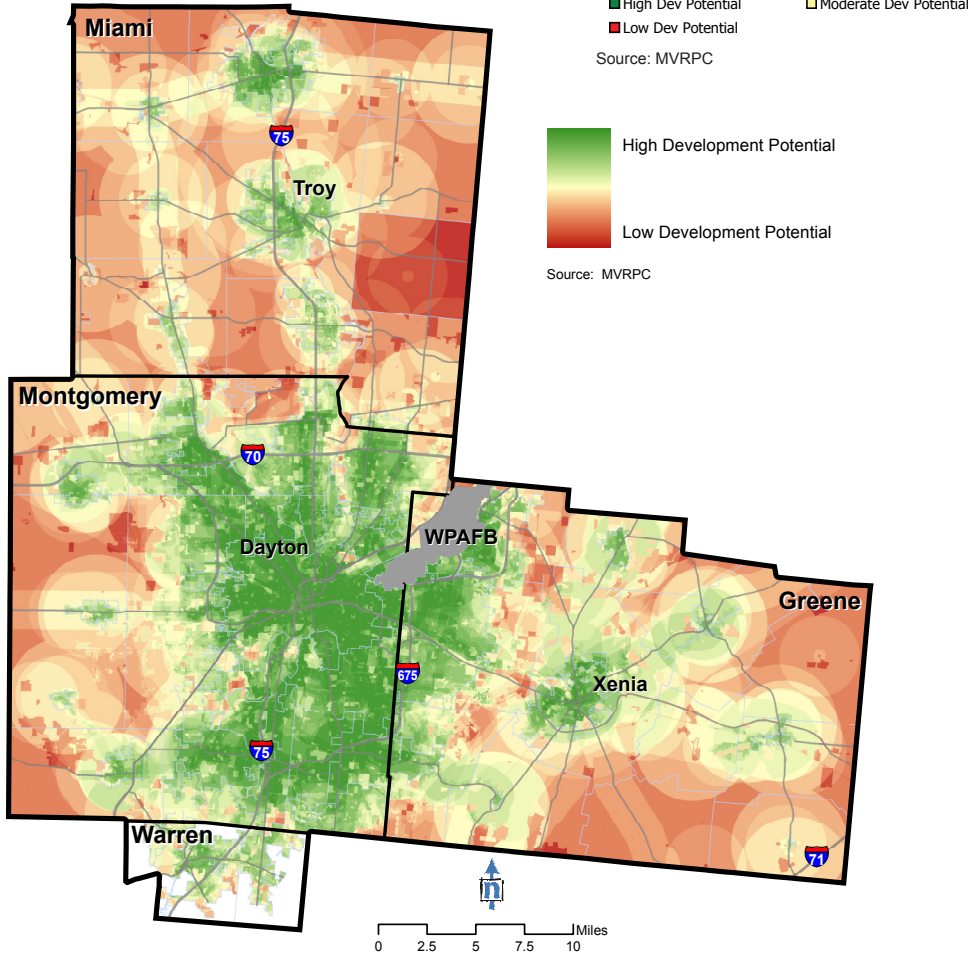
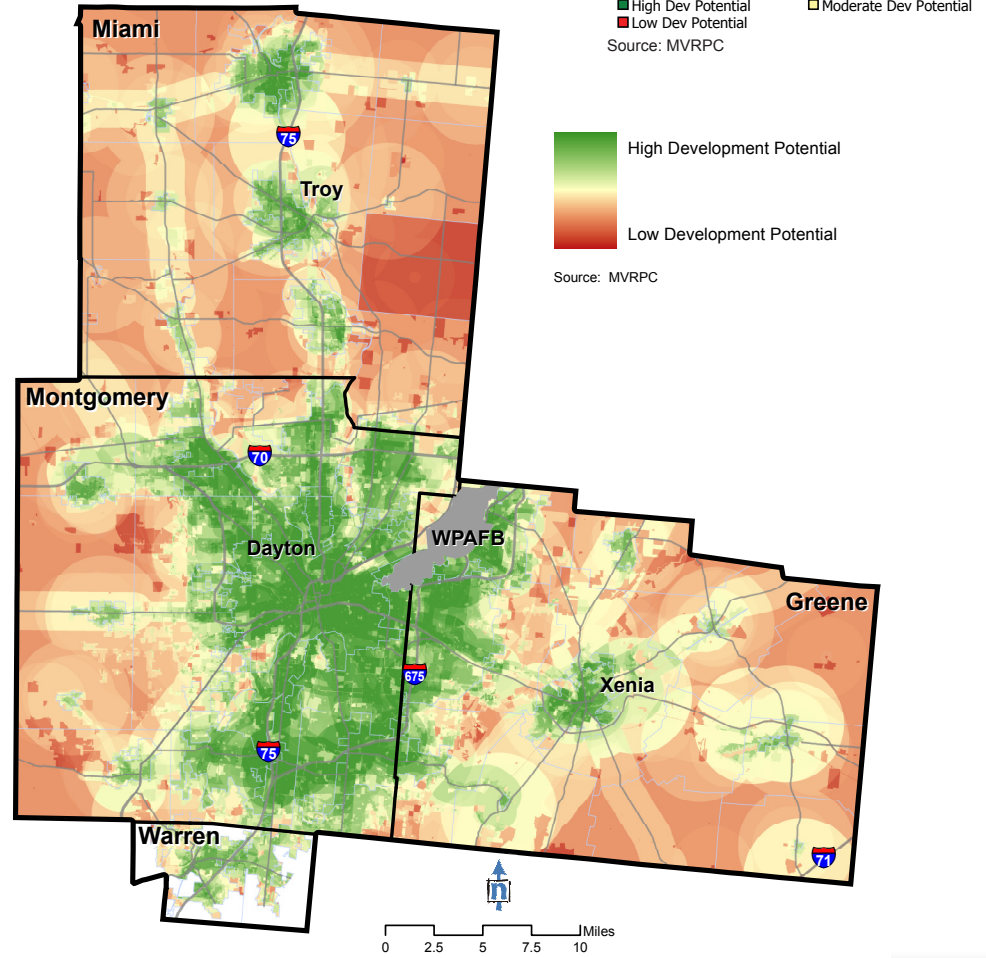


Figure 13. Built Environment Non-Residential Suitability Composite Map



Physical Condition Assessment Land Development Suitability Assessment

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MVRPC conducted the *Miami Valley Land Development Suitability Assessment* as the final portion of the physical existing conditions evaluation. Not all locations are equal in terms of their potential for physical development. Therefore, the main purpose of this assessment was to examine the regional landscape in a comprehensive manner and to identify developable land that is not currently fully developed and/or protected.

There were three steps to this analysis:

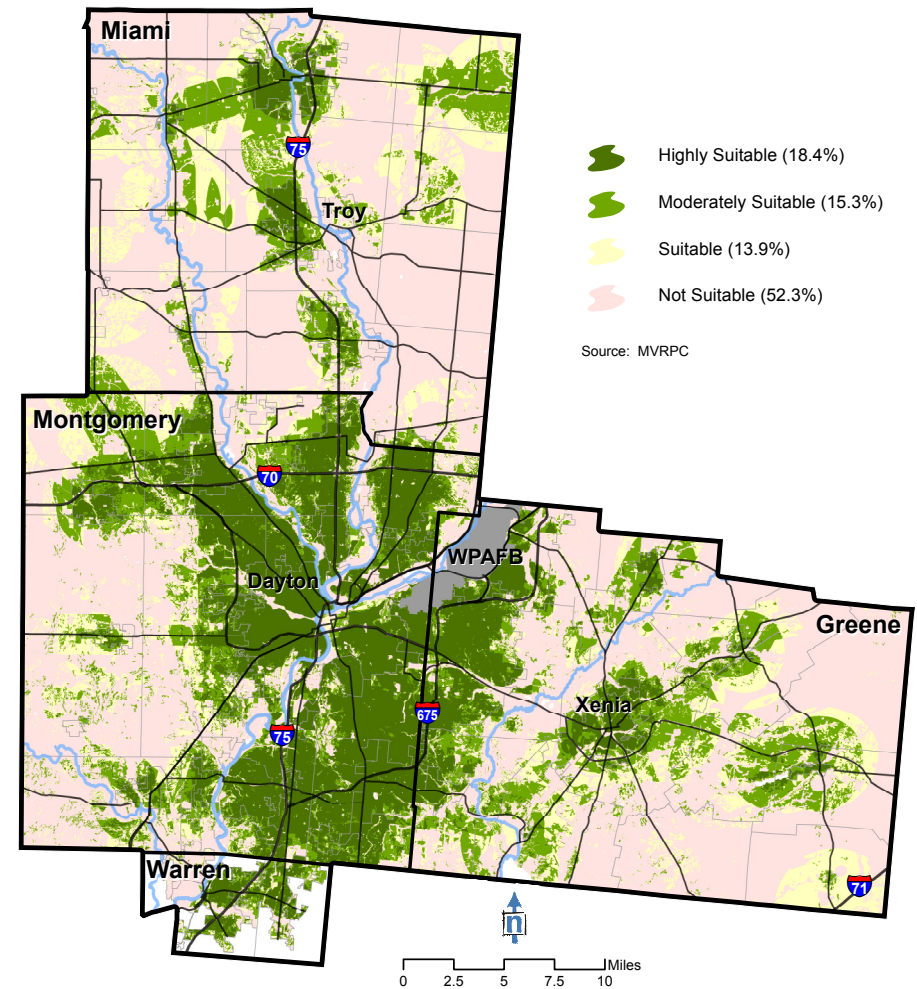
- Combine the results from the two Land Suitability Assessments to create a comprehensive Land Suitability Measure.
- Create the Land Development Condition Measure to determine where land is available for future development.
- Combine these two measures in order to determine where land is developable or not developable.

Table 2. Developability Analysis Framework

			Land Suitability Measure	
			Suitable	Not Suitable
Land Development Condition Measure	Developed	Fully Developed	NA	NA
		Partially Developed	Developable	Not Developable
	Undeveloped		Developable	Not Developable
	Protected		Not Developable	Not Developable

The analysis of the Land Suitability Measure revealed that 33.7% of the Region's land is either highly or moderately suitable for development. These areas tend to be located in or near areas that are already developed and along major transportation corridors. Areas that are identified as not suitable for development (52.3% of the Region's land) tend to be located along the Region's major river corridors and in many of the areas that are currently more rural in terms of development.

Figure 14. Regional Land Suitability Measure Map



Physical Condition Assessment Land Development Suitability Assessment

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The analysis of the Land Development Condition Measure showed that 29.1% of the Region's land is either fully or partially developed and 66.0% of the Region's land is undeveloped. Most of the Region's fully developed land is located in the eastern portion of Montgomery County and the western portion of Greene County. Fully developed land in Miami County is centered along I-75. In Warren County, most of the land is fully developed since the study area includes only the cities of Carlisle, Franklin, and Springboro.

For the Land Developability Measure, undeveloped land and partially developed land were examined against the Land Suitability Measure in order to determine whether a particular tract of land is developable or not. The analysis of this measure indicated that 26.9% of the Region's land is developable, meaning that it is both either undeveloped or partially developed and deemed to be suitable for future development.

Figure 15. Regional Land Development Condition Measure Map

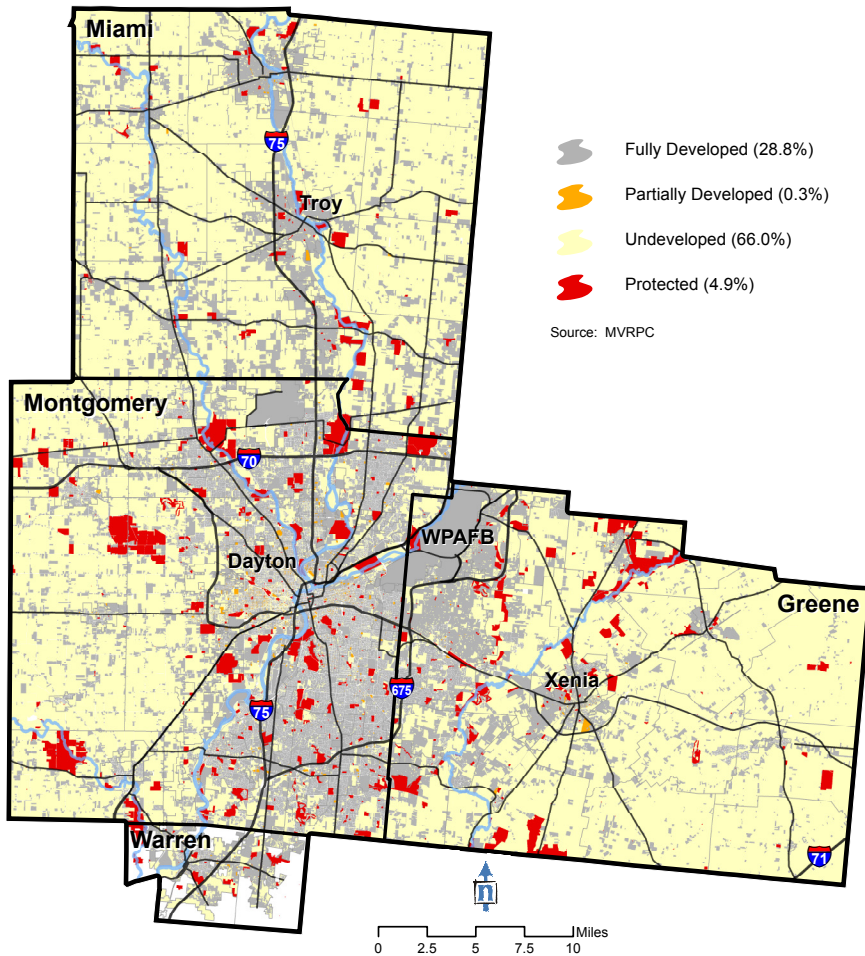
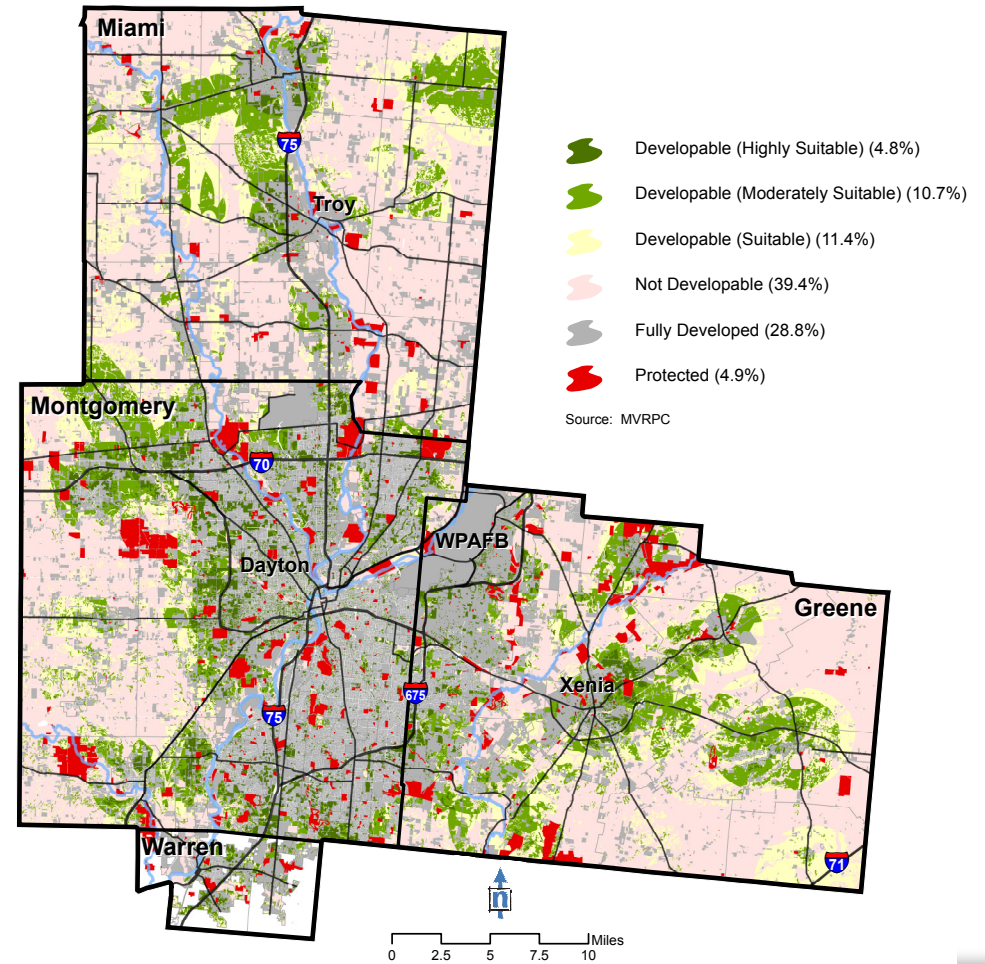


Figure 16. Regional Land Developability Measure Map



Non-Physical Condition Assessment Introduction

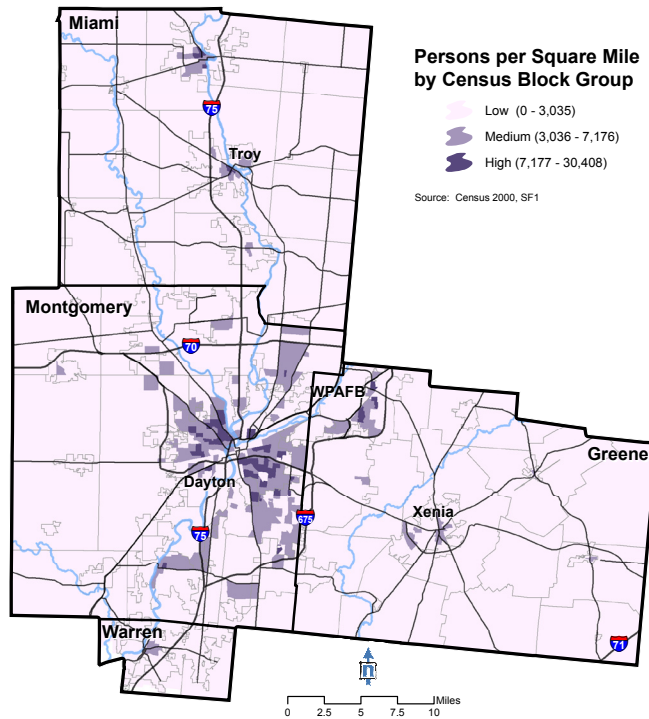
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The non-physical condition assessment portion of Phase I focused on two main aspects of the Region – the economy and the people. What emerged is a portrait of a Region in flux, where economic and demographic patterns are changing rather than maintaining a steady course.

Studies conducted under the non-physical conditions assessment portion of Phase I include:

- *The Miami Valley Economic Base Assessment*
- *The Miami Valley Housing Assessment*
- *The Miami Valley Industrial Development Assessment*
- *The Miami Valley Commercial Development Assessment*
- *The Miami Valley Land Use Demand Assessment*

Figure 17. Population Density Distribution for 2000



Population decreased overall between 1970 and 2000, although it has increased slightly since 1980. Population density also decreased overall between 1970 and 2000 and the number of households has seen a steady increase. The population density map shows that in 2000, population was largely concentrated in the Region's major cities.

Total employment in the Region increased by about 20% from 1970 to 2000 and the unemployment rate decreased by almost half between 1980 and 2000.

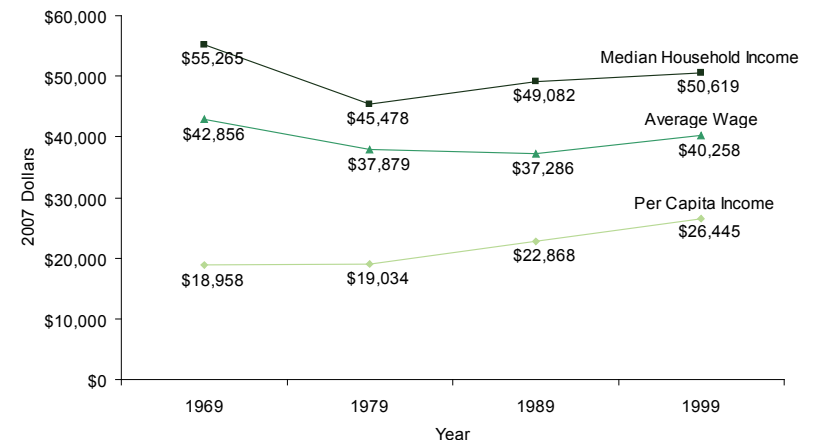
Median household income and average wages have followed the same trend as population and population density: falling dramatically between 1970 and 1980, then rising again through 2000. Per capita income, however, increased steadily throughout the study period.

Table 3. Basic Demographics: 1970 – 2000

	1970	1980	1990	2000
Total Population	815,547	791,847	803,722	805,816
Percent Change in Population	-	-2.91%	1.50%	0.26%
Population Density (persons per acre)	637	617	626	628
Total Households	261,416	286,903	309,102	322,978
Percent Change in Households	-	9.75%	7.74%	4.49%
Persons Per Household	3.05	2.70	2.54	2.42
Median Age	26.78	30.08	33.29	36.40
Total Employment	276,683	354,070	410,462	436,929
Unemployment Rate	-	7.49	5.07	3.85

Source: U.S. Census Bureau 1970, 1980, 1990, 2000; MVRPC; ODJFS
Note: Only data from Greene, Miami, and Montgomery counties are shown

Figure 18. Median Household Income vs. Average Wage vs. Per Capita Income



Source: U.S. Census Bureau 1970, 1980, 1990, 2000; Regional Economic Information System (REIS)
Note: Only data from Greene, Miami, and Montgomery counties are shown

Non-Physical Condition Assessment Economic Base Assessment

Phase I Executive Summary

MVRPC conducted the *Miami Valley Economic Base Assessment* to study the Region's economic structure. This assessment examined the Region's economic attributes, particularly regarding employment and the relative strength of the regional economy. Generally, the Region is shifting away from a production-based economy to a service-based economy, and the regional economy is not very strong compared to the State and the Nation.

The top three sectors in terms of growth in employment from 1980 to 2000 were Services; Transportation, Communications, and Utilities; and Wholesale Trade. The three sectors that lost employment between 1980 and 2000 were Mining, Public Service, and Manufacturing.

Table 4. Employment by Industry for 1980 and 2000

	1980		2000	
	Total	Share	Total	Share
Agriculture	5,880	1.66%	6,447	1.48%
Construction	15,053	4.25%	19,017	4.35%
FIRE	21,705	6.13%	21,922	5.02%
Manufacturing	83,703	23.64%	79,831	18.27%
Mining	556	0.16%	143	0.03%
Public Service	67,089	18.95%	36,922	8.45%
Retail	56,371	15.92%	79,676	18.24%
Services	77,948	22.01%	149,482	34.21%
Trans, Com, Util.	12,232	3.45%	21,401	4.90%
Wholesale	13,534	3.82%	22,079	5.05%

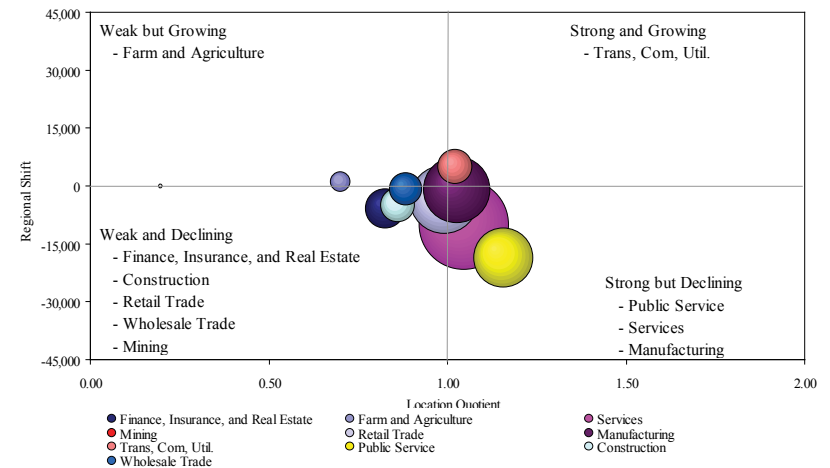
Source: MVRPC
Note: Only data from Greene, Miami, and Montgomery counties are shown

To measure the relative strength of the economy, the study applied two methods, location quotient (LQ) analysis and shift-share analysis. The results were combined to show the overall strength in the form of bubble charts. The size of the bubble reflects the total employment, the horizontal axis represent the location quotient, and the vertical axis represents the regional shift of the industry.

In comparison to Ohio, the only economic sector in the strong and growing category is Transportation, Communications, and Utilities. There are 5 economic sectors in the weak and declining category.

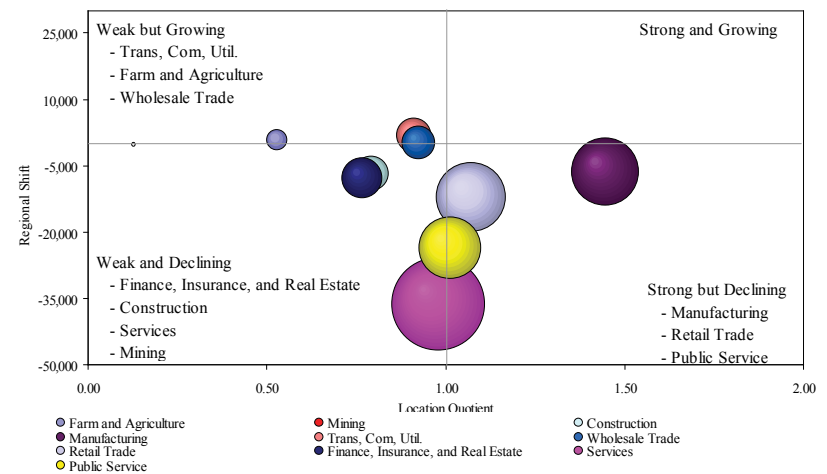
In comparison to the U.S., there are no economic sectors in the strong and growing category, and there are 4 economic sectors in the weak and declining category.

Figure 19. Regional Economy in Comparison to the State of Ohio



Source: MVRPC; Regional Economic Information System (REIS)

Figure 20. Regional Economy in Comparison to the U.S.



Source: MVRPC; Regional Economic Information System (REIS)

Non-Physical Condition Assessment Housing Assessment

Phase I Executive Summary

MVRPC conducted the *Miami Valley Housing Assessment* in order to examine the Region's housing status. This assessment examined the Region's housing issues from a wide-ranging perspective, providing a comprehensive overview of current housing conditions in the Region.

The total number of housing units increased substantially between 1970 and 2000. While population in the Region decreased, the number of housing units increased by 32.5%. The proportion of owner-occupied to renter-occupied housing units remained relatively stable between 1970 and 2000, although the percent of housing units that were vacant almost doubled. The proportion of single-family to multi-family housing units also remained relatively stable between 1990 and 2000.

The map of housing unit density resembles the map of population density in that most of the areas with higher densities are concentrated in the Region's most established cities.

The percent change in housing units map shows a distinct pattern. Areas exhibiting the largest increases in housing units are mostly concentrated directly to the south and east of I-675 in Montgomery, Warren, and Greene counties.

Table 5. Housing Units by Tenure from 1970 to 2000

	1970	1980	1990	2000
Total Housing Units	261,973	306,310	327,043	347,221
Owner-Occupied (% of Total Housing Units)	166,984 (63.7%)	191,906 (62.7%)	201,072 (61.5%)	214,582 (61.8%)
Renter-Occupied (% of Total Housing Units)	85,475 (32.6%)	94,997 (31.0%)	108,030 (33.0%)	108,396 (31.2%)
Vacant (% of Total Housing Units)	9,605 (3.7%)	19,407 (6.3%)	17,941 (5.5%)	24,243 (6.7%)

Source: U.S. Census Bureau 1970-2000, SF3
Note: Only data for Greene, Miami, and Montgomery counties are shown

Figure 21. Housing Unit Density Distribution for 2000

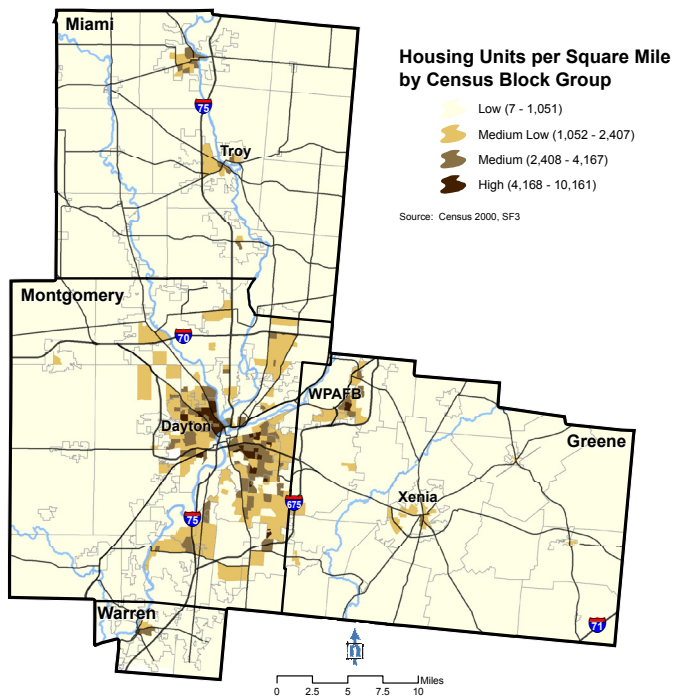


Figure 22. Change in Housing Units from 1990 to 2000

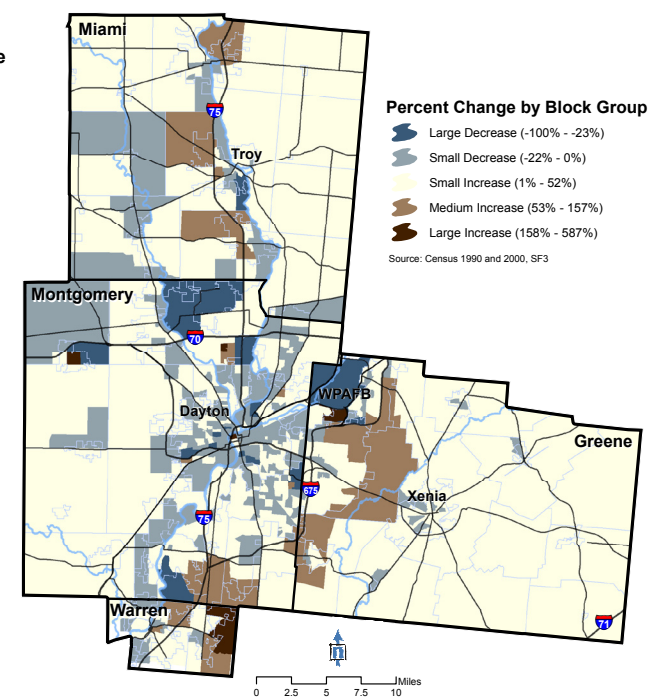


Table 6. Housing Units by Type from 1970 to 2000

	1990	2000
Single-Family (% of Total Housing Units)	236,347 (72.7%)	254,731 (73.4%)
Multi-Family (% of Total Housing Units)	82,253 (25.2%)	86,990 (25.1%)
Mobile Home/Other (% of Total Housing Units)	7,749 (2.4%)	4,873 (1.4%)

Source: U.S. Census Bureau 1990 and 2000, SF3
Note: Only data for Greene, Miami, and Montgomery counties are shown

Non-Physical Condition Assessment Housing Assessment

Phase I Executive Summary

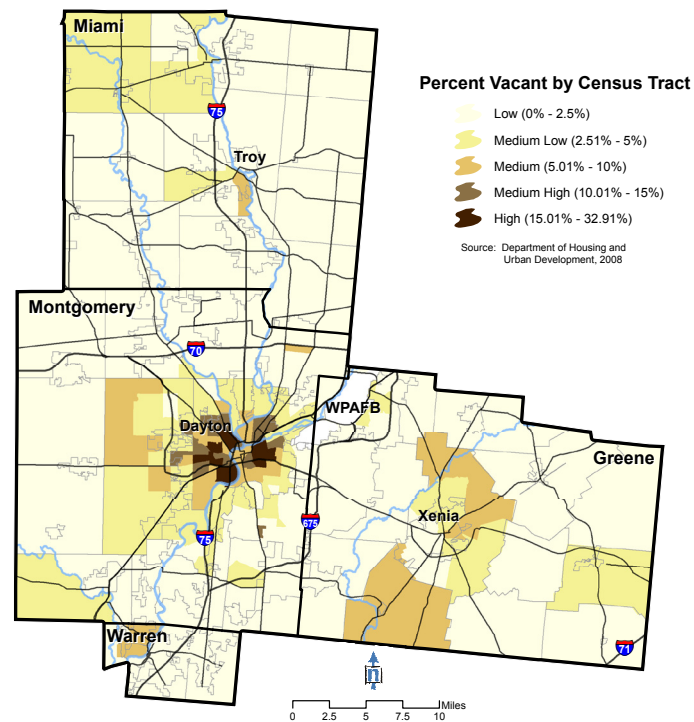
Growth in total housing units has been increasingly outpacing growth in total households. The ratio of single family permits to households in single family housing units shows that during both periods, more permits were issued for new housing than the number of new households formed. This has led to rising vacancy rates. The map of the distribution of vacant housing units for 2008 shows that the central cities, especially the City of Dayton, have been hit especially hard.

Table 7. New Permitted Units vs. New Households

	1980-1990	1990-2000
New Permitted Housing Units	26,403	29,279
Change in Households	22,199	13,876
Ratio of Permitted Housing Units to New Households	1.19	2.11

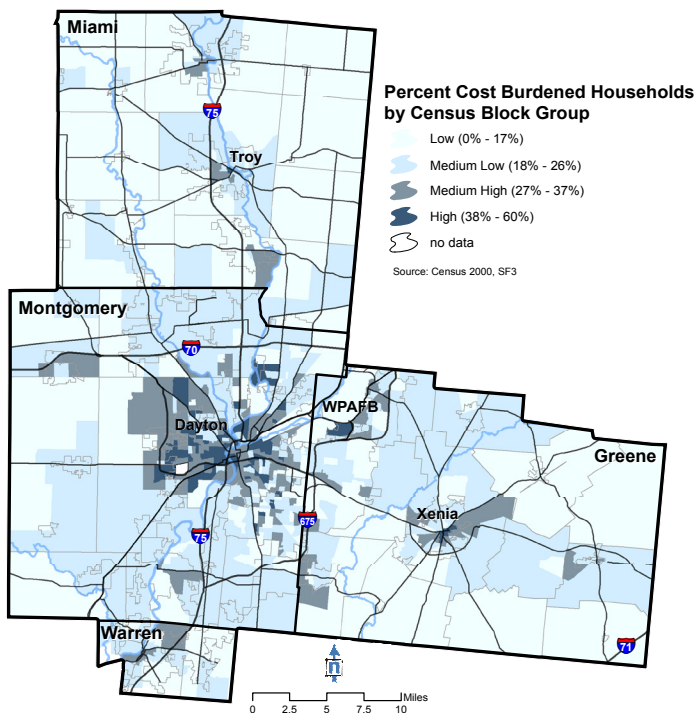
Source: U.S. Census Bureau, 1980, 1990, 2000, sf3; U.S. Census Bureau, Construction Division, 2006
Note: Only data for Greene, Miami, and Montgomery counties are shown

Figure 23. Distribution of Vacant Housing Units for 2008



According to the U.S. Census Bureau, a household is considered cost-burdened when they pay 30% or more of their monthly income for housing and related costs. Between 1990 and 2000, the number of owner households in the Region that were considered cost-burdened increased by over 50%. The map showing the distribution of cost-burdened households highlights the fact that the areas with the highest numbers of cost-burdened households are located in large part in and around the Region's cities.

Figure 24. Distribution of Cost-Burdened Households for 2000



Following the housing unit increases and the increases in cost-burdened households, the number of foreclosures in the Region has more than doubled between 1999 and 2007.

Figure 25. Cost-Burdened Households by Tenure

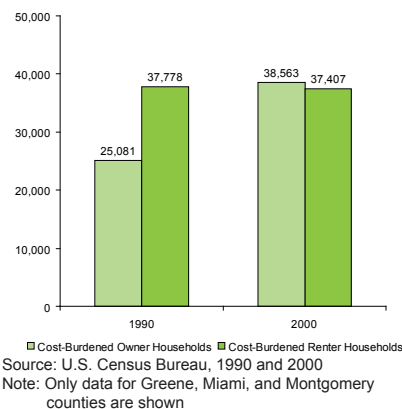
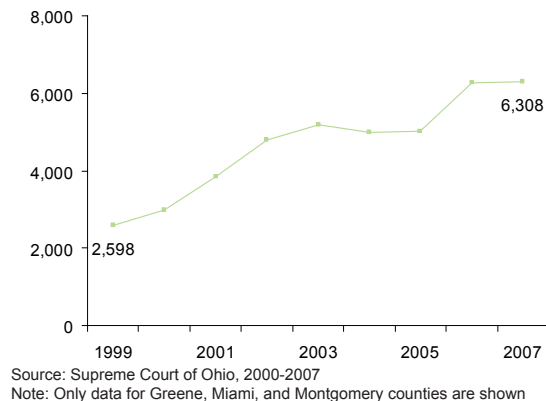


Figure 26. New Foreclosure Filings from 1999 to 2007



Non-Physical Condition Assessment Industrial Development Assessment

Phase I Executive Summary

MVRPC conducted the *Miami Valley Industrial Development Assessment* in order to evaluate the current status of industrial development in the Region and to gauge what the future may hold for this sector.

Only a small percentage – 1.7% – of the Region’s land was designated industrial land in 2007. Overall, the Region contains over 14,000 acres of industrial land, with almost 73,700,000 square feet of industrial gross floor area (GFA). Most of this land is concentrated within the Region’s larger cities and along its major highways.

Table 8. Industrial Land and GFA per Employee for 2007

Region	Employees	Land (acres)	Land Per Employee	GFA (sq. ft.)	GFA Per Employee
Region	75,836	14,096	0.19	73,689,637	971.70

Source: MVRPC

The largest industrial category in terms of land is Vacant-Unbuilt. The second largest is Light to Medium Manufacturing and Assembly plants.

Light to Medium Manufacturing and Assembly Plants make up the largest portion of regional industrial GFA. Industrial Warehouses and Truck Terminals is the second largest category.

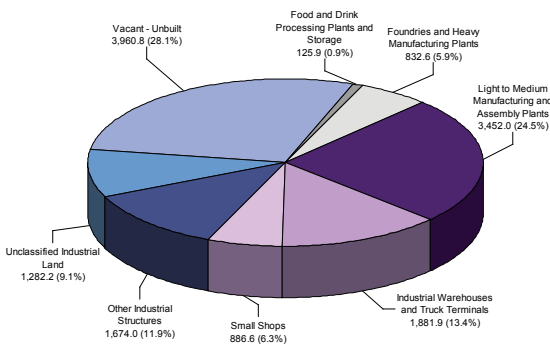
Table 9. Regional Estimate of Vacant Industrial Space (in square feet)

	Total GFA	Total Vacant GFA	Percent Vacant
Gem Survey	18,983,087	3,655,962	19.3%
MVRPC Estimate	73,689,637	14,191,923	19.3%

Source: Gem Real Estate Group, 2007; MVRPC

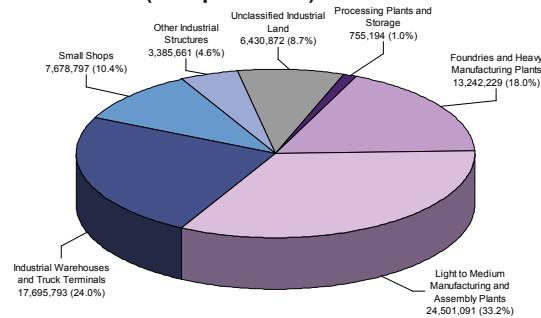
The best estimate of regional industrial vacancy for 2007 comes from a survey completed by the Gem Real Estate Group. Within their sample group of industrial properties, 19.3% of industrial building space (in square feet) was vacant.

Figure 27. Industrial Land by Category (in acres) for 2007



Source: MVRPC

Figure 28. Industrial GFA by Category (in square feet) for 2007



Source: MVRPC

Figure 29. Industrial Development Concentrations for 2007

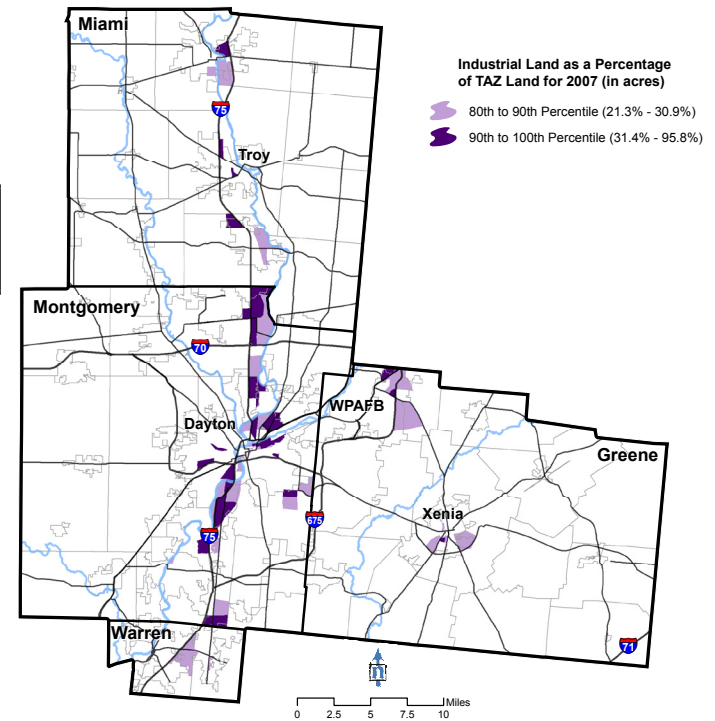
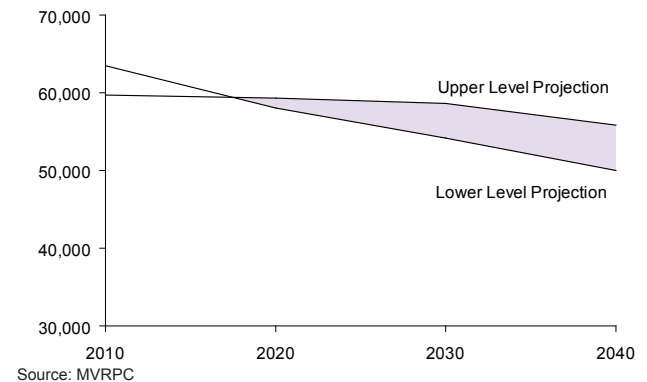


Figure 30. Manufacturing Employment Projections to 2040



Source: MVRPC

Manufacturing employment is expected to decrease through 2040, by approximately 44% for the lower-level projection and approximately 37% for the upper-level projection.

Non-Physical Condition Assessment Commercial Development Assessment

Phase I Executive Summary

MVRPC conducted the *Miami Valley Commercial Development Assessment* in order to measure the existing condition of commercial development throughout the Region by analyzing building space and land use.

Commercial land made up 3.3% of the total land in the Region in 2007. This translates to over 28,000 acres of commercial land and over 126,000,000 square feet of commercial gross leasable area (GLA).

Table 10. Commercial Land and GLA per Employee for 2007

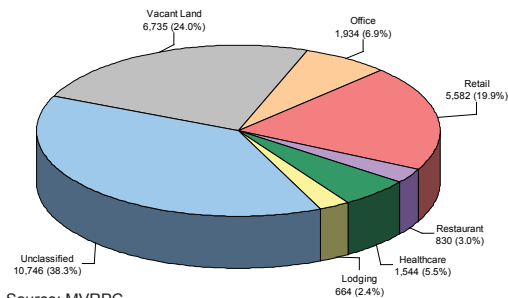
	Employees	Land (acres)	Land Per Employee	GLA (sq. ft.)	GLA Per Employee
Region	293,494	28,035	0.10	126,311,198	430.37

Source: MVRPC

Unclassified commercial land is the largest category in terms of commercial land, followed by Vacant commercial land and Retail land. In terms of GLA, Retail is by far the largest category, capturing over 40% of the Region's commercial GLA. Unclassified is the second largest category followed by Office.

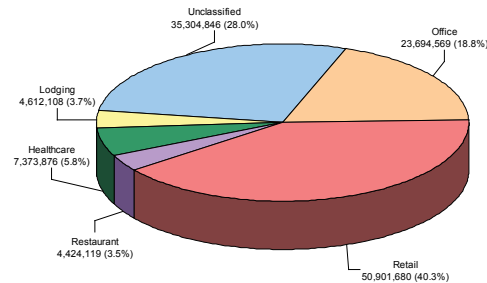
The majority of commercial GLA is found along the Region's major highways. There are clear concentrations along I-75, I-70, and I-675

Figure 31. Commercial Land by Category (in acres) for 2007



Source: MVRPC

Figure 32. Commercial GLA by Category (in square feet) for 2007



Source: MVRPC

Table 11. Regional Estimate of Vacant Commercial GLA (in square feet)

	Gem Survey	MVRPC Estimate
Retail GLA	21,532,864	55,325,799
Retail Vacant	2,744,533	7,026,376
Vacancy %	12.7%	12.7%
Office GLA	15,033,463	23,694,569
Office Vacant	2,736,411	4,312,412
Vacancy %	18.2%	18.2%
Other GLA	-	47,290,830
Other Vacant	-	7,093,625
Vacancy %	-	15.0%
Total Vacant	5,480,944	18,432,413

Source: Gem Real Estate Group, 2007; MVRPC

Figure 33. Commercial GLA Concentrations for 2007

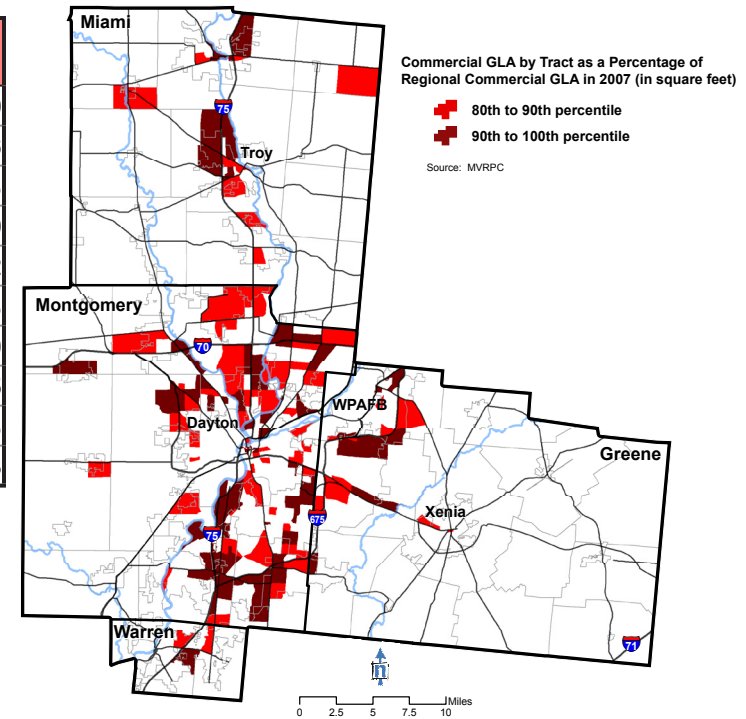
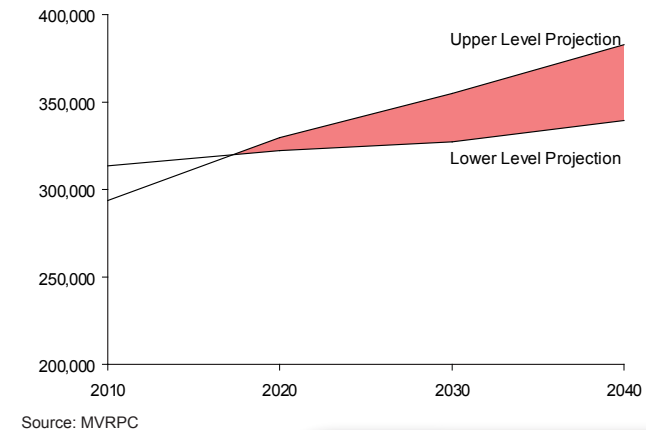


Figure 34. Commercial Employment Projections to 2040



Commercial employment is expected to increase through 2040, both for the lower and upper level projections. The upper level projection has a regional growth rate of 30.1%, while the lower level has a regional growth rate of 8.4%.

Non-Physical Condition Assessment Land Use Demand Assessment

Phase I Executive Summary

The main purpose of the *Miami Valley Land Use Demand Assessment* was to project future land use demand based on the continuation of existing demographic, economic, and development trends.

The projections were calculated in two stages. First, population and employment projections were developed for the Region. Second, these two sets of projections were used to calculate future land use needs for the Region.

Socio-Economic Projections

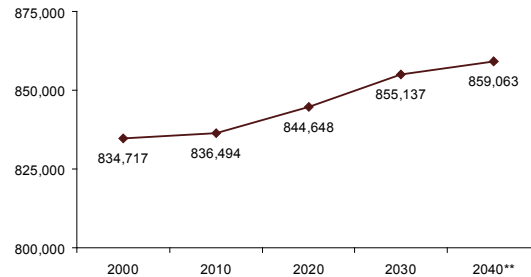
On a regional level, between 2000 and 2040, the Region's population is expected to grow by less than 3%.

Two different employment projections were developed, one high and one low, in order to provide a forecasted employment range. At the upper end of the range, regional employment could reach 519,182 by 2040, an increase of almost 19% from 2000. Alternatively, at the lower end of the range, employment could reach 458,384 by 2040, an increase of only 5%.

Land Use Demand Projections

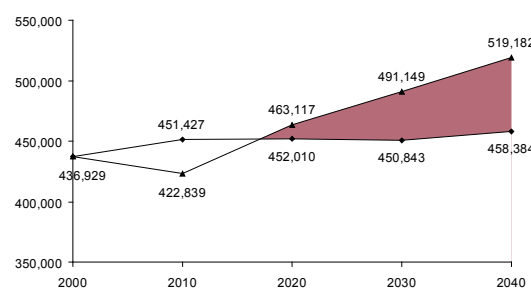
The land use demand projections were based on the assumption that the Region would continue to develop at the same densities and intensities that were present in 2007. It is important to note that only a selection of land use categories were projected, several were held constant to their 2007 acreages.

Figure 35. Regional Population Projections to 2040



Source: Ohio Department of Development; MVRPC
Note: **MVRPC projected

Figure 36. Regional Employment Projections to 2040



Source: MVRPC; OKI

In order to calculate the projections, 2007 land use data was divided into five land use categories:

- Residential
- Employment
- Public Facilities
- Education
- Water and Wastewater Facilities

For the Region as a whole, developed acreage may need to increase between 2.7% and 6.0%, or between 7,544 and 16,412 acres. For the lower level projection, the largest amount of additional acreage will be needed to accommodate residential development. However, for the upper level projection, the largest amount of additional acreage will be needed to accommodate employment-related development.

Table 12. Regional Land Use Projection Results by County to 2040

	Total Developed Acreage 2007	Lower Level Total Acreage Needed 2040	Percent Change 2007-2040	Upper Level Total Acreage Needed 2040	Percent Change 2007-2040
Region	275,709	283,253	2.7%	292,121	6.0%
Greene	73,696	77,799	5.6%	78,958	7.1%
Miami	63,512	67,080	5.6%	68,394	7.7%
Montgomery	130,715	130,956	0.2%	134,593	3.0%
Warren*	7,786	13,038	67.5%	13,038	67.5%

Note: *Warren County includes only the cities of Carlisle, Franklin, and Springboro

Table 13. Regional 2040 Land Use Projection Results by Land Use Category

	Lower Level Additional Acreage Needed 2040	Upper Level Additional Acreage Needed 2040
Residential	6,421	
Employment	0	8,859
Facilities	12	21
Education	1,111	
Water and Wastewater	0	
Total	7,544	16,412

Land Use Demand vs. Developable Land

Phase I Executive Summary

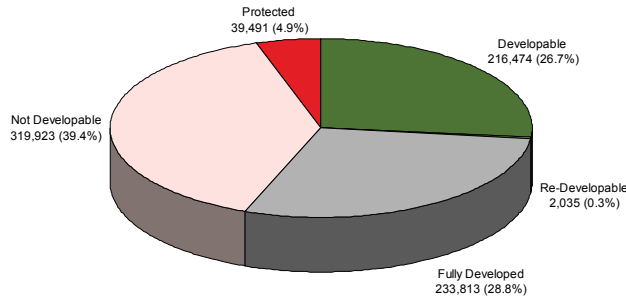
The final step in Phase I is to compare the results of the physical condition evaluation with the results of the non-physical condition evaluation – comparing the supply of land suitable for future development with the future demand for land.

The ultimate result of the physical condition evaluation was the Regional Land Developability Measure, which classified the Region’s land into one of four categories:

- Developable
- Not Developable
- Fully Developed
- Protected

Developable land is land that currently either has no structures (undeveloped) or contains a structure identified as vacant and has been determined to be suitable for future development. Approximately 27% of the Region’s land is considered developable. Breaking that down further, 26.7% of the Region’s land is currently undeveloped and considered developable and 0.3% of the Region’s land currently contains a vacant structure and is considered re-developable.

Figure 37. Regional Land by Developability Measure



The ultimate result of the non-physical condition evaluation was the land use demand projection, which quantified how much land the Region might need in order to accommodate future population and employment growth. The projections show that between approximately

Table 14. Land Use Demand Assessment Results

	Region
Total Developed Acreage 2007	275,709
Lower Level Additional Acreage Needed 2040	7,544
Upper Level Additional Acreage Needed 2040	16,412

7,500 and 16,400 additional developed acres may be needed by 2040. It is important to note that this additional land reflects future land use needs if current development patterns continue to 2040.

A comparison of the two results reveals that the Region has more than enough developable land to accommodate projected future needs. In the case of the lower level land use demand projection, only 3.45% of the Region’s developable land would be needed. For the upper level land use demand projection, only 7.51% would be needed. It is important to mention that not all if this need will necessarily be met by undeveloped land, but that it may also be partially met by using the Region’s approximately 2,000 acres of re-developable land.

Table 15. Comparison of Developable Land and 2040 Land Use Demand

	Region
Total Developable Land	218,509
Re-Developable Land	2,035
Lower Level Additional Acreage Needed 2040	7,544
Percent of Developable Land	3.45%
Upper Level Additional Acreage Needed 2040	16,412
Percent of Developable Land	7.51%

While the developability analysis will remain static, there are many ways in which the land use demand projections may change as the Going Places initiative moves into Phase II: Future Land Use Scenario Development and Assessment. This analysis is meant to provide a base from which to move forward into the scenario development process. Several elements of the land use demand projections, such as assumed vacancy rates, household sizes, and floor area ratios, could be altered, which would alter the projected land use demand. Currently, these elements are all assumed to remain the same between 2007 and 2040.

Conclusion

Phase I Executive Summary

Phase I, the Existing Condition Assessment phase, of Going Places – An Integrated Land Use Vision for the Miami Valley Region provides a comprehensive overview of where the Region stands in terms of physical development and socio-economic indicators. Through nine study reports, Phase I provides baseline information on land supply and demand for the Region, answering the questions of how much developable land is available and how much of that developable land may be required for future development.

The examination of the state of the natural and built environments presents detailed information on the presence and conditions of sensitive natural areas and the man-made landscape. The analysis of this information makes it possible to determine where opportunities for and constraints to future development exist and to identify the location and amount of developable land.

The analyses of economic, demographic, and market trends provide insight into how the Region has developed from a socio-economic perspective. The knowledge obtained through this analysis enables the projection of population and employment for the Region and allows for the estimation of how much more developed land might be needed to accommodate these projections.

Several key points can be distilled from the Existing Conditions Assessment phase:

The Miami Valley Region has become increasingly urbanized and this growth is characterized by decentralized, low density development patterns.

- Between 1950 and 2000, the Region’s urban area physically expanded by nearly 400%. However, the population of these urban areas increased at the much lower rate of 109%. As a result, population density in the urban areas has decreased by almost half over the last 50 years.

The Miami Valley Region is in the process of a major demographic and economic shift.

- The population is aging and household sizes have been decreasing.
- The Region is shifting from a production-based economy to a service-based economy.
- Household income has remained stagnant over the last 30 years and the number of households who pay more than 30% of their monthly income on housing-related costs has been increasing.

Increases in land development in the Miami Valley Region have not been tied to population change.

- Between 1970 and 2000, the Region’s population remained relatively unchanged. The total acreage of developed land, however, increased by over 60%.
- Between 1980 and 1990, 1.19 housing units were permitted for construction for every new household. Between 1990 and 2000, this ratio increased to 2.11 permitted housing units for every new household.
- This unbalance may be contributing to rising vacancy rates in the Region. The residential vacancy rate increased from 6% in 1980 to 7% in 2000, while nearly 15% of commercial space and over 19% of industrial space was estimated to be vacant in 2007.

Land development in the Miami Valley Region has been uneven geographically and has been shifting among land use types.

- The areas that have seen the largest increases in housing development are located to the east of I-675 and in the southern parts of the Region.
- Industrial land is highly concentrated along the Region’s major highways, especially along I-75. Commercial land is spread more widely throughout the Region, with concentrations being focused not only on the major highways, but also at the intersections of major roadways.
- Between 1975 and 2000, commercial land increased by almost 150%, while residential and industrial land increased by 36% and 22%, respectively. During the same period, the Region lost over 9% of its agricultural/open space land.

The current landscape of the Miami Valley Region contains varying degrees of potential for future land development.

- When analyzed from the perspective of the constraints and opportunities posed by the natural environment, over 60% of the Region's land can be considered suitable for development.
- When analyzed from the perspective of the constraints and opportunities posed by the man-made environment, 55% of the Region's land can be considered suitable for development.
- When both the natural and built environments are considered together, over 45% of the Region's land can be considered suitable for development.
- When the land that is considered suitable for development is compared with land that is already developed, the results show that 27% of the Region's land is both currently undeveloped and suitable for future development.

If current development trends continue, a moderate amount of additional developed land will be required to accommodate the needs of the Region in 2040.

- The population in the Region is expected to grow by less than 3% between 2000 and 2040, while employment is expected to grow between 5% and 19% during the same period.
- If the basic features of current development trends in the Region, such as vacancy rates, household sizes, and density patterns, remain as they were in 2007, between 7,544 and 16,412 additional developed acres will be needed in 2040.

The Region has more than enough developable land to accommodate future needs.

- There are 218,509 acres of developable land in the Region.
- Only between 3.5% and 7.5% of this developable land will be needed to accommodate the land use demand projected for 2040.
- Some of this demand may be met through the re-development of land containing vacant structures.

The entire Region will benefit if development is planned and executed in a manner that takes advantage of existing infrastructure before paying for new construction and if development takes advantage of the Region's natural resources without threatening their quality. Local planning efforts affect regional development, just as regional planning affects local development. The existing condition assessment provides a comprehensive, regional snapshot of current conditions that could assist local planning initiatives and regional decision makers consider a regional perspective in terms of development.

The next step in the Going Places initiative is to consider the question: Given projected land demand and considering the regional landscape, where and how should the Region develop in the future? Phase II of Going Places – Future Landscape Exploration: Future Land Use Scenario Development and Assessment – will explore the Region's future landscape options based on the knowledge obtained during Phase I so that desired development patterns can be identified and placed in appropriate areas.

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