SUSTAINABLE EVANSVILLE
AREA COALITION
Henderson · Vanderburgh · Warrick

SEAC

the **Metro Area Today**

Volume 1

*A Regional Plan for Sustainable Development
for Henderson, Vanderburgh, and Warrick Counties*

April 2014

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EVANSVILLE

MPO

A RESOLUTION OF THE EVANSVILLE METROPOLITAN PLANNING ORGANIZATION
ADOPTING THE *MILLENNIAL PLAN FOR 2040: A Regional Plan for Sustainable Development for*
Henderson, Vanderburgh, and Warrick Counties

WHEREAS, the Evansville Metropolitan Planning Organization (EMPO) is the organization designated by the Governor as the Metropolitan Planning Organization responsible, together with the State, for carrying out the provisions of 23 U.S.C. 134 (Federal-Aid Highway planning requirements), and capable of meeting the requirements of 49 U.S.C. 1603(a) (Federal Transit planning requirements) in the Evansville-Henderson Urbanized Area; and

WHEREAS, the Evansville Metropolitan Planning Organization has established a region-wide, cooperative, comprehensive, and continuing planning process to develop the unified planning work program, long range transportation plan, and transportation improvement program. The Evansville Metropolitan Planning Organization enacts the plans and programs to facilitate federal, state, and local funding for surface transportation improvements carried out by the Indiana Department of Transportation, the Kentucky Transportation Cabinet, the region's communities and counties, and transit operators, and provides technical assistance and expertise to regional transportation interests; and

WHEREAS, the Evansville Metropolitan Planning Organization conducted the planning process for the *Millennial Plan for 2040* in an open, participatory manner, as required by the 2010 Regional Sustainable Communities Grant Program funded by the Office of Sustainable Housing and Communities (OSHC) of the U.S. HUD;

WHEREAS, the *Millennial Plan for 2040* includes goals, objectives and recommendations to achieve the regional vision related to Transportation and Infrastructure Development, Housing and Neighborhood Development, Workforce and Economic Development, Environment and Healthy Communities, Arts and Cultural Development, and Building and Land Development;
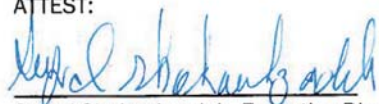
WHEREAS, the Evansville Metropolitan Planning Organization has complied with HUD OSHC Terms and Conditions for FY 2010 NOFA;

WHEREAS, the consultant for the Evansville Metropolitan Planning Organization presented the draft *Millennial Plan for 2040* to the Sustainable Evansville Area Coalition (SEAC), at the SEAC Steering and Technical committees, the Evansville MPO Technical and Policy Committees public meetings, and made the draft Plan open to public review and comment online at www.SEACplan.org; and

NOW, THEREFORE, BE IT RESOLVED that the Evansville Metropolitan Planning Organization Policy Committee at the regular meeting of April 3rd, 2014 adopts the *Millennial Plan 2040*.

Duly adopted by the Evansville Metropolitan Planning Organization Policy Committee on this third day of April, 2014.

Jack Corn, Chairman

ATTEST:

Seyed Shokouhzadeh, Executive Director

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Acknowledgements

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The **Millennial Plan for 2040: A Regional Plan for Sustainable Development** is not meant for the faint hearted or for those who are only interested in maintaining the status quo. Due to changes in the economic climate in America, along with rapid advances in digital technology, it is incumbent on local communities to take stock of their strengths and weaknesses and embark on a visioning and planning journey that can lead to more and better choices for their citizenry. The need to upgrade and improve housing and infrastructure to serve all income levels has never been greater than it is today, and this need will only grow as urban housing and utility infrastructure continue to age.

Research of national trends on housing supply and demand indicates the demand for attached, multi-family housing units, as well as for smaller lot single-family housing currently exceeds supply by nearly 10%. [1] This can be attributed in part to housing preferences of Millennials, as well as Baby Boomers looking at more appropriate housing options to age-in-place.

In Table 1, examining the Evansville metro region population and developed land area data, an alarming trend has emerged whereby population density on a square mile basis has decreased from 3,800 persons per square mile in 1990 to 1,800 persons per square mile in 2010. Projecting this growth trend into the future has devastating consequences on land consumption in the region. And, much of the land consumed is currently farmland which is a major economic driver in southwest Indiana. [2]

This rate of land consumption alone would suggest the need to undertake a development strategy that emphasizes infill investment to reduce urban sprawl. Land consumption has not traditionally been identified as a major concern throughout the Midwest because population growth has tended to be steady but minimal. However, when looking well into the future even steady growth demonstrates that land consumption could be a Midwest problem too.

Table 1: Regional Population Density

	Population	Developed Land Area	Density
1990	253,082	70 miles^2	3,800
2000	269,134	110 miles^2	2,400
2010	285,652	160 miles^2	1,800
2050?	360,000	336 miles^2	1,000

As evidenced in Figure 1, many Midwest metropolitan regions of similar or larger size to the Evansville region have made a concerted effort to commit resources and energy into developing an infill growth and development strategy. U.S. Census Data from 2000 to 2009 tracking infill development shows that the Evansville region has fallen well behind even some of its Indiana counterparts in infill development.

1 New Urban News, from Housing preference data of Arthur C Nelson (2006), Robert Charles Lesser & Co. (2008), and National Association of Realtors (2011); and Housing supply data of American Housing Survey (2009)
2 National Land Cover Database & U.S. Census Bureau

It is time to commit to a long-term growth and development strategy that acknowledges the region simply cannot afford to continue with business as usual. A strategy that lays the groundwork for necessary policy changes, promotes wise investment of limited public dollars, capitalizes on the many existing assets in the region, and enhances the overall quality of life for the people of this region, while attracting additional population growth is required. Implementing this type of strategy now is the key to ensuring the Evansville metro area will become a more vibrant and prosperous region for years to come.

Figure 1: Percent of Infill Development

Infill % (2000-2009)

Metro	Infill %
Chicago-Joliet-Naperville, IL-IN-WI	41.1%
South Bend-Mishawaka, IN-MI	38.0%
Detroit-Warren-Livonia, MI	34.5%
Saginaw-Saginaw Township...	31.2%
Ann Arbor, MI	30.0%
Champaign-Urbana, IL	29.4%
Dayton, OH	27.7%
Cleveland-Elyria-Mentor, OH	27.7%
Canton-Massillon, OH	24.8%
Toledo, OH	22.9%
Rockford, IL	22.1%
Knoxville, TN	20.9%
St. Louis, MO-IL	19.2%
Holland-Grand Haven, MI	18.8%
Indianapolis-Carmel, IN	18.3%
Springfield, MO	18.2%
Akron, OH	18.2%
Flint, MI	17.6%
Fort Wayne, IN	17.2%
Kalamazoo-Portage, MI	16.1%
Memphis, TN-MS-AR	15.9%
Lafayette, IN	15.7%
Columbus, OH	14.9%
Lansing-East Lansing, MI	14.2%
Lexington-Fayette, KY	14.0%
Springfield, IL	13.2%
Kansas City, MO-KS	13.1%
Grand Rapids-Wyoming, MI	13.0%
Chattanooga, TN-GA	10.6%
Cincinnati-Middletown, OH-KY-IN	9.9%
Peoria, IL	9.1%
Louisville/Jefferson County, KY-IN	9.1%
Evansville, IN-KY	6.4%
Kingsport-Bristol-Bristol, TN-VA	3.5%
Clarksville, TN-KY	2.8%

Illinois, Indiana, Kentucky, Michigan, Missouri, Ohio, & Tennessee Metros Over 200,000 population

The Millennial Plan for 2040 will serve as the primary policy and planning document for the three-county region of Vanderburgh, Warrick and Henderson counties. The Plan is being funded by the federal Housing and Urban Development administration; the federal Department of Transportation; and the federal Environmental Protection Agency. As financing for future development shifts from federal and state coffers to local private sources and local taxpayers, a Regional Plan can be used as a tool to optimize finances and resources to the best advantage of the Metro Region.

The key findings and recommendations of the RPSD are summarized as follows:

- **Vision for 2040**: The tri-county area needs to cooperate in a regional effort to establish a vision of its future. The Vision for 2040 must be a blueprint for attracting and keeping young adults in the Millennial generation by offering a wide range of job opportunities, a variety of arts and cultural venues and activities, and neighborhoods with family amenities that can be accessed by walking, biking and autos.

- **Travel Modes**: Costs for transporting people and goods will continue to rise as fossil fuels become scarcer and new modes of transportation are developed. Therefore, it makes sense to plan and develop all viable modes of travel, while improving fuel efficiency of predominant existing modes of freight hauling and travel. Vehicle miles traveled (VMT) by automobiles in the United States has leveled off after decades of increase. Developing streets and highways for all modes of transport including walking, bus rapid transit, and bicycling provides paybacks in health, wealth, safety and livability.

- **Resource Protection:** Respect for both private property and the "public good" must be in balance in a resource-savvy community. Protection of prime agricultural land, restoration and sensible re-use of previously strip-mined lands, and sensitive oversight of managed land in state and federal preserves will assure that

descendants in future generations will be able to enjoy the bounty of the earth as past generations have done.

- **Housing Options:** Opportunity and choice are the mainstays of a free nation. The highest calling for local communities in the region is to provide economic opportunity, good-paying jobs, safe and functioning infrastructure, food security, and choices in selection of housing type and housing cost. The Growth and Revitalization Plan and the Affordable Workforce Housing Plan of the RPSD seek to outline methodologies for private development and public programming that provide a robust range of housing options that are near employment centers.

- **Compact Development:** Being resource efficient through 2040 means making wise decisions concerning the use of real estate and raw land. Compact development efficiently optimizes infrastructure extensions while saving rural agricultural resources. When land development is provided at densities between eight and sixteen dwelling units per acre (net, not counting streets), bus rapid transit becomes possible.

- **Livable Neighborhoods:** Preserving historic neighborhoods while fostering conditions that are conducive to the development of new residential neighborhoods having highly "livable" centers made up of mixed uses, mixed incomes, and diverse activities, strengthens the fabric of the region, keeps young people from moving away, and attracts new residents from outside the area. Urban neighborhoods in the City of Evansville and the City of Henderson contain a high percentage of vacant or deteriorating housing that will need serious attention in the coming decades.

- **Arts and Culture:** A vibrant and robust region provides a unique culture where arts, education, sports, entertainment, worship, and group activities flourish. In diversified local economies that can adapt to change, where jobs are plentiful, opportunities are abundant, and wide ranges of choice prevail,

the population is well-served and heavily involved in creating their personal and joint destinies.

- **Revisions of Zoning Ordinances:** Stakeholders in all three counties have referred to the present zoning ordinances in their jurisdictions as major stumbling blocks to providing creative, quality compact development. Revisions to zoning ordinances in Warrick, Henderson, and Vanderburgh will be required in order to implement the housing and land use changes outlined in this document. Land use regulations should be structured to give developers the impetus, inspiration, and incentives to build creative quality projects.

As the region moves toward 2040, game-changing forces are at work presenting both peril and opportunity. The three county area – Vanderburgh, Warrick and Henderson, must move with unified resolve and intention to undertake the following Economic Development Initiatives:

- **US 41 Multi-Modal Corridor:** Redesigning and greening the US 41 corridor as a complete transportation artery including facilities for transit, bicycles, and pedestrians.

- **Epworth Road Health Care Park:** Facilitating and expanding the growing healthcare facilities along Epworth Road in Warrick County into a Regional Healthcare Park.

- **Research and Development Park Along University Parkway:** In conjunction with USI, GAGE and the Southwestern Indiana Chamber of Commerce, developing a Friendly "Founder Town" Research Park on Evansville's west side.

- **Henderson Convention and Entertainment Zone:** Surrounding the site of the old coal-fired power plant in downtown Henderson, developing a Convention and Entertainment Zone, in conjunction with the River City Renaissance team and the Henderson County Chamber of Commerce.

- **Downtown Evansville Riverfront Conversion:** At the site of the sand and gravel yard, developing a new mixed use district with boardwalks, restaurants and housing.

- **Regional Food Hubs:** Partnering with Welborn Foundation in creating centralized locations for local food marketing, sales and management in Henderson's East End, along Highway 41 North, and in downtown Evansville.

- **Industrial Legacy Districts:** Rediscovering urban areas in Evansville and Henderson that, in their heyday, housed viable manufacturing companies, foundries, tool and die shops, assembly plants, and a variety of other industrial concerns.

- **Village Earth:** Envisioning and developing a sustainable new community that houses a Midwest Acquarium, Natural History Interpretive Center, and Center for Sustainable Living.

Chapter 1: Introduction

As the Evansville metropolitan region develops in the 21st century, a growing number of people recognize the need to protect the area's natural resources, provide access to opportunities for every resident, and ensure economic vitality.

These efforts will not only benefit current citizens, they are vital to the future viability of the region. Successful collaboration between elected officials, non-profit organizations, and the business community will be critical to ensuring the future productivity and livability of the area. The Regional Plan for Sustainable Development seeks to unify community stakeholders in a common purpose, fostering a more competitive, resilient regional environment, capable of adapting to changing natural and economic forces. The Plan seeks to engage and organize the region with policies and programs that create a long term, sustainable future for each person.

The word sustainability has a variety of meanings depending on the context. For example, a sustainable business uses green technologies, environmentally friendly products, and generates minimal pollution. Sustainability means that the business has eliminated or substantially decreased its harm to the environment from the production and consumption of its products. Being sustainable at home means that families are living within their means, using energy efficient products, and limiting the amount of waste they create. In the final analysis, sustainability is about using resources wisely, conserving, recycling and being responsible stewards of the world and its people, places and assets. A distinction between sustainability and sustainable development should be made. The broadest definition of sustainability involves the capacity of natural systems to evolve and endure while remaining diverse and productive. Sustainable development is the practice of human beings achieving a level of economic and social development that does not endanger or jeopardize the ecological balance.

In this Regional Plan for Sustainable Development, the word sustainability will refer to how the land in this region is developed. The most widely accepted definition of sustainable development originated in 1987 at a United Nations conference entitled "The World Commission on Environment and Development" (WCED), also known as the Brundtland Commission. During this conference the following definition of sustainable development was developed:

"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

At the 2005 World Summit, the United Nations noted that in order to be sustainable there must be an appropriate balance when approaching social equity, economic demands, and environmental concerns. These are considered the "three pillars" of sustainability. These three aspects overlap and interface to form a balanced, sustainable community.

At the dawn of the Industrial Revolution the world's population was estimated to be 750 million. The economy was marked by plentiful resources and scarce labor. The word sustainability was not widely used because managing resources was not an issue and there were no expectations of ever depleting them. Today, with a world population of over seven billion, labor is plentiful while resources are rapidly being depleted, either directly for use in manufacturing or by contamination as by-products. As a result, individuals, organizations, and businesses throughout the world are recognizing that a fundamental shift in the way resources are utilized must now occur.

Several large worldwide corporations are beginning to realize the importance of being sustainable. Exxon Mobil, General Electric, Schlumberger, and Toyota are just a few of the many companies that are sponsoring the Global Climate and Energy Project at Stanford University. These four corporations have collectively committed over $150 million toward a project that seeks to identify new technologies to meet the changing needs of a growing world population in a way that protects the environment.

Figure 1-1: Sustainable Development

Environmental
A Viable Natural Environment

Sustainable Natural and Built Environments

Sustainable Economic Development

Sustainable Development

Social
Nurturing Community

Equitable Social Environment

Economic
Sufficient Economy

Sustainable Development

HUD Livability Principles

The United States Federal Government is responding with its own emphasis on sustainability. The Partnership for Sustainable Communities is an inter-agency partnership between the federal departments of Housing and Urban Development (HUD), the Department of Transportation (DOT), and the Environmental Protection Agency (EPA). The goal of the partnership is to help communities across the United States develop in more environmentally friendly and economically sustainable ways.

The partnership defines a sustainable community as a place that has a variety of housing and transportation choices, with destinations close to home. These communities tend to have lower transportation and infrastructure costs, plus reduced air pollution and stormwater runoff. They preserve historic properties, prime farmland, and environmentally sensitive areas while reducing the time people spend in their cars. Such communities are more economically resilient and meet the market demand for different types of housing in a variety of locations at different price points. Rural, suburban, and urban communities can all benefit from sustainable community strategies and techniques to develop healthier, safer, and more walkable neighborhoods. However, these strategies will look different in each place they are applied, depending on the community's character, context and needs.

Strategies for the Evansville region will differ from those of New York City; Portland, Oregon; and Indianapolis. Within this region, strategies will be different for the more urban communities of Evansville and Henderson, the suburban areas of Ohio Township in Warrick County, and the rural communities of Lynnville, Tennyson, Corydon, and Robards.

"By working together, [HUD, DOT, and EPA] can make sure that when it comes to development—housing, transportation, energy efficiency—these things aren't mutually exclusive; they go hand in hand. And that means making sure that affordable housing exists in close proximity to jobs and transportation. That means encouraging shorter travel times and lower travel costs. It means safer, greener, more livable communities."

– President Barack Obama

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Developing more sustainable communities is important in reaching national goals of a strengthened economy, creating more jobs now while providing a foundation for lasting prosperity, using energy more efficiently to secure energy independence, and protecting the natural environment and human health. The partnership agencies have developed **six livability principles** to guide their work and the work of communities across the country.

These principles include:

1.   **Provide more transportation choices.**

2.   **Promote equitable, affordable housing.**

3.   **Enhance economic competitiveness.**

4.   **Support existing communities.**

5.   **Coordinate and leverage federal policies and investment.**

6.   **Value communities and neighborhoods.**

Sustainable Communities Regional Planning Grant

In order to achieve the goal of developing sustainable communities across the country, the Sustainable Communities Planning Grant Program was developed. The program is funded through HUD's Office of Sustainable Housing and Communities, in close coordination with the US DOT and the US EPA. The program provides two grant opportunities: the Sustainable Communities Regional Planning Grant and the Community Challenge Planning Grant.

The Sustainable Communities Regional Planning Grant supports metropolitan and multijurisdictional areas in their development of a Regional Plan for Sustainable Development. These plans are intended to help develop partnerships and integrate planning for housing, land use, economic and workforce development, transportation, and infrastructure across regions that do not typically work together.

The Community Challenge Planning Grant provides funding for regions, communities, or neighborhoods that need support in implementing planning efforts to create a more sustainable community. This may include amending or replacing master plans, zoning codes, and building codes to promote mixed-use development, affordable housing, revitalization of depressed areas, or other activities that promote sustainability.

The Evansville Metropolitan Planning Organization (EMPO) applied for and was awarded a Sustainable Communities Regional Planning Grant. There were 363 regions in the United States that were eligible to apply for this grant, of which 225 applied. The Evansville MPO was one of 45 that were selected to receive this grant. Upon the award of the grant, the MPO established the Sustainable Evansville Area Coalition (SEAC) to bring non-profit organizations, businesses,

governmental agencies, and elected officials together to help guide the development of the plan and develop regional partnerships. Twenty-one organizations and agencies agreed to actively participate in this planning process and are identified as consortium members (see Appendix A for a list of these members). Each member signed an agreement committing to perform the following activities:

1. Participate in committee meetings dedicated to provide oversight of the regional plan, which includes the arts and cultural district plan and the regional housing plan.

2. Provide outreach within their organization to discuss and promote involvement in the project.

3. Encourage public participation in the visioning workshops, promote online surveys found on the project website, and initiate dialog between members of their organization and residents of their neighborhoods about sustainable ideas and concepts developed through the planning process.

4. Provide information upon request to support the regional sustainability planning effort.

Regional Study Area

The Regional Plan for Sustainable Development will address sustainable planning efforts in the Evansville region, including all of Vanderburgh, Warrick, and Henderson counties. This region includes the more urbanized areas of Evansville and Henderson; smaller cities and towns such as Boonville, Newburgh, and Chandler; suburban areas such as Ohio Township in Warrick County and northern Vanderburgh County; and rural areas surrounding smaller communities such as Darmstadt, Elberfeld, Lynnville, Tennyson, Corydon, and Robards.

An analysis of the current regional trends will help determine what the region will look like in 2040 if the same development patterns continue. Future scenarios will also be developed to determine what changes can be made to make the region more sustainable for future generations.

Figure 1-2: Regional Study Area

Regional Planning Horizon

In order to make a difference in development patterns and lifestyle changes, the Regional Plan for Sustainable Development must have a long-range focus. While some changes may take just a few years to implement, others require a much longer completion period. For example, the typical roadway project can take 10 to 15 years to complete, starting with environmental analysis through final construction. If the Plan only looks forward 5 to 10 years, the impact of all changes may not be noticed.

The planning horizon is the period of time in which all proposed implementation strategies identified in the plan should be complete. The Regional Plan for Sustainable Development includes a planning horizon of more than 25 years, to the year 2040. This provides an adequate length of time to see changes in development patterns, transportation, housing, and the local economy take place.

The Plan will identify population, housing, and transportation projections to the year 2040. Projections from a variety of sources will be analyzed to identify realistic goals for the future. Planning for a larger increase in population than what is likely to occur will lead to wasted resources in the future. However, not planning for an adequate population increase will lead to an insufficient housing stock and transportation network.

A planning horizon of 2040 involves taking a look at long-range implementation of the systems and subsystems of the region, such as bus transit systems and pedestrian trails. While some of the recommendations may not be feasible in the short-run, taking the longer view requires a sustained, consistent effort toward a shared vision of the future over the next 25 years. To achieve a coherent vision for the region, efforts must start today.

Courtesy of VPS Architecture

History of Growth and Development

The Evansville region was developed as part of the great westward movement that began in the 1800s. The following timeline shows major historic events in the three-county region, from the incorporation of Henderson in 1810 and Evansville in 1817, and the establishment of Warrick County in 1813, to the celebration of the City of Evansville's Bicentennial in 2012.

1778
Founder Richard Henderson obtained a 200,000 acre land grant which included the present day City of Henderson and Henderson County.

1797
General Samuel Hopkins, acting as an agent for Colonel Henderson, and Thomas Allin laid out plans for a town which was named Henderson.

1812
Founder Hugh McGary purchased 200 acres of land that eventually became the City of Evansville.

1853
The Wabash and Erie Canal was completed from Toledo, Ohio to Evansville, Indiana. The anticipated economic impact of this major transportation project was short-lived as a result of the development of the rail system in the 1850s.

1887
Transportation took a major step forward in the region with the construction of the Louisville and Nashville Railroad and the completion of a steel railroad bridge across the Ohio River linking Indiana and Kentucky.

1925
Evansville adopted the first city zoning ordinance and comprehensive plan element called "Plan for the Development of a System of Major Streets."

1911
The first flight occurred in the region at the old Tri-State Fairgrounds in Evansville.

1921
The Evansville Plan Commission was created under the authority of the Planning Act of Indiana.

1817
Evansville was incorporated and became the county seat in 1818 when Vanderburgh County became organized.

1922
Horse racing came to Henderson with the construction of Ellis Park by the Green River Jockey Club.

1810
Henderson was incorporated as a town.

1813
Warrick County was organized and formed by statute.

1937

The greatest flood in Evansville's history occurred with the cresting of the Ohio River at a record 53.47 feet. An estimated $30 million (1937 dollars) in property damage resulted from this natural disaster. Henderson, being located on a bluff, was spared much of the damage that Evansville suffered.

1955

The Evansville-Vanderburgh County Area Plan Commission was established with a joint city and county function. The plan commission was originally called the Evansville-Vanderburgh Regional Plan Commission and was given its present name in 1968.

1993

The most recent Comprehensive Plan was adopted by the Warrick County Area Plan Commission.

1940

The Vanderburgh County Plan Commission was established and five years later the first zoning code for the entire county was adopted.

1969

The Evansville Urban Transportation Study (the predecessor of EMPO) was certified as the transportation planning agency for the region.

1979

The first transportation plan for the region was prepared and adopted.

2004

The most recent Comprehensive Plan was adopted by the Evansville-Vanderburgh Area Plan Commission.

1957

The first Regional Comprehensive Plan was developed by the Regional Plan Commission.

1964

Warrick County adopted its first Comprehensive Plan.

2006

The most recent Comprehensive Plan was approved by the Henderson City-County Planning Commission and re-adopted in 2011.

2012

Evansville Bicentennial was celebrated, including a full year of activities in the new Ford Center in downtown Evansville.

When applying for the Sustainable Communities Regional Planning Grant, the Evansville MPO identified a number of agencies and organizations that expressed a desire to be part of the planning process. Upon notification of the grant being awarded, the Evansville MPO organized these groups into the Sustainable Evansville Area Coalition (SEAC). The Coalition consists of a consortium of 21 local organizations, businesses, and government agencies. The members of the Coalition are listed in Appendix A in the Appendices document.

Each SEAC member signed an agreement committing their agency to work with the Evansville MPO to carry out the development of the Regional Plan for Sustainable Development and to participate in the following activities:

- provide oversight to the planning process,
- provide outreach within their organization,
- encourage public participation, and
- carry the plan forward through implementation.

Members of the Coalition established a steering committee, three technical committees, and a public involvement committee to provide opportunities for greater participation of individuals within their organizations, local governments, business leaders, and citizens. The steering committee is comprised of elected officials from Henderson County, Vanderburgh County, Warrick County, the City of Boonville, the City of Evansville, the City of Henderson, and the town of Newburgh, as well as four Coalition members. The steering committee met initially on June 21, 2011 to get an overview of the project and discuss the kick-off event and the visioning workshops.

The three technical committees consisted of the Coalition members and other local organizations, agencies, and businesses that had an interest in developing the region with a more sustainable approach than in the past. Due to the number of organizations who indicated a desire to participate, the Coalition decided to form three separate technical committees. These committees – **live, work, and play** – were divided based on the current role of each organization.

The **live** technical committee consists of organizations that focus on housing and access to everyday necessities, including housing authorities, Habitat for Humanity, and realtors. The **work** technical committee consists of organizations that focus on the regional economy, including workforce development organizations, chambers of commerce, economic development organizations, and technical schools and universities. The **play** technical committee consists of organizations that focus on healthy lifestyles and entertainment opportunities, including parks departments, trail and greenway organizations, local hospitals, and tourism and entertainment organizations. The full membership list of each technical committee can be found in Appendix D in the Appendices document.

A public involvement committee was formed from local television, radio, and newspaper organizations interested in being involved. This committee helped to promote various public workshops, including the kick-off event, visioning workshops, public education programs, and other various events. More details about each of the organizations involved and the public workshops can be found in Chapter 4.

The key public involvement events included:

- **Regional Plan for Sustainable Development Kick-off Summit (August 3, 2011):**
  Guest speakers included –

  John Norquist – the former Mayor of Milwaukee and President of the Congress for New Urbanism and

  Robert Orr – award-winning architect/urban planner and native of Evansville.

- **Warrick County Visioning Workshops:**
  Afternoon Workshop – 1:00 PM, August 8, 2011 at Castle High School
  Evening Workshop – 6:30 PM, August 9, 2011 at Boonville High School

- **Henderson County Visioning Workshops:**
  Afternoon Workshop – 1:00 PM, August 17, 2011 at Henderson Community College
  Evening Workshop – 6:30 PM, August 16, 2011 at Henderson County High School

- **Spanish Visioning Workshop:**
  1:00 PM, August 22, 2011 at Juan Diego Center at Nativity Church

- **Vanderburgh County Visioning Workshops:**
  Afternoon Workshop – 1:00 PM, August 24, 2011 at Evansville Central Library
  Evening Workshop – 6:30 PM, August 23, 2011 at the University of Evansville
  Afternoon Workshop - 3:00 PM, October 10, 2011 at Kissel Community Center

Goals of the Regional Plan

The overall mission of the Regional Plan for Sustainable Development is to be a guide for future decision making in the three-county region. The six key goals below provide a summary of the anticipated outcomes of this document.

1. Through adoption by the Evansville Metropolitan Planning Organization (EMPO), the Regional Plan for Sustainable Development (RPSD) will serve as the primary policy document regarding sustainable growth for the three-county metropolitan area including Vanderburgh and Warrick counties in Indiana and Henderson County in Kentucky. The plan will encompass a 2040 time horizon.

2. The RPSD will be an instructional policy guide informing efforts in the three-county metropolitan area to update applicable regulations that promote economical, orderly growth, such as future revision of zoning ordinances and supplementing building and energy codes.

3. In order to promote fair and equitable housing choices and opportunities, the RPSD will summarize and coordinate the visions of public housing authorities operating in the three metropolitan counties, prescribing financing mechanisms for a ten-year timeframe.

4. The RPSD will strive to analyze key indicators and promote federal regional planning guidelines as promulgated by the planning grant funding consortium made up of the federal Housing and Urban Development department; the federal Department of Transportation; and the federal Environmental Protection Agency.

5. Key components of the RPSD will include alternative land use scenarios with financial impacts; general transportation improvements that coordinate the three counties, including multi-modal transit recommendations; infrastructure, drainage and wastewater considerations in a regional context; and guidelines for neighborhood design.

6. Deliverables of the RPSD include a digital regional transportation model and a separate digital land use model that will be delivered to EMPO along with training and instructions for ongoing updates. The two computer models will be calibrated to be supportive and interfaced with each other.

The Six "Watchwords"

The six **"Watchwords"** that drive the SEAC Regional Plan for Sustainable Development are as follows:

Livability:　　Enhancing neighborhood lifestyles, comforts, safety and convenience.

Diversity:　　Inclusion of the many ages, races, genders, beliefs and orientations.

Equity:　　Fostering elements of fairness and choice for individuals and families.

Connectivity:　　Building bridges and coordinating regional systems.

Prosperity:　　Offering jobs and the opportunity to build careers and businesses.

Unity:　　Working with a common vision of a better tomorrow for every person.

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Courtesy of VPS Architecture

Chapter 2: Who We Are

"We may rely too heavily on planning and forecasting and underestimate the importance of random factors. That reliance can lead to delusions of control."

– Hillel J. Einhorn

Creating a vision for future development, and implementation strategies to attain that vision, first requires an understanding of the socio-economic characteristics of the region. Comparing where the region has been in the past to current socio-economic trends will help determine what is anticipated for the future if these trends continue. This approach provides a foundation for determining the goals, objectives, and implementation strategies that will result in the most appropriate regional growth and development for the future.

The Evansville region, which includes Henderson County, Kentucky; Vanderburgh County, Indiana; and Warrick County, Indiana, covers approximately 1,094 square miles bisected by the Ohio River. According to the 2010 US Census, the total population of the region in 2010 was 285,642 persons. The largest communities in the region include Boonville, Evansville, and Henderson.

The City of Evansville, often referred to as the "River City," is the urban center of the region and has the region's largest population. Evansville is also the industrial and commercial center for a much larger region covering several counties in southwestern Indiana, northwestern Kentucky, and southeastern Illinois. The City of Henderson, the largest community on the Kentucky side of the Ohio River, has also had a long rich history with the river. The City of Boonville, the county seat of Warrick County, is centrally located in the county and has more of a small, rural community character than Evansville.

Total Population

According to US Census data, the region's population grew by approximately 6.5 percent between 1990 and 2000 and just over 6 percent between 2000 and 2010. Population statistics for all three counties and each of the communities within the region are shown in Table 2-1.

The three major trends revealed in the numbers are (1) Warrick County has a much higher growth rate than the other two counties, (2) Vanderburgh County continues to grow, and (3) the City of Evansville's population continues to decline. These trends reveal a shift in the population from the more urbanized areas of Evansville to suburban areas north and east of the city's boundary line.

Warrick County continues to have the highest growth in the region, growing in population by approximately 14 percent between 2000 and 2010. Much of this growth can be found in Ohio Township, which includes the Town of Newburgh, the Town of Chandler, and the area roughly bounded by the Vanderburgh County line on the west, Ohio River on the south, both sides of State Route (SR) 261 on the east, and SR 62 on the north. Figure 2-1 shows the population growth for the entire region and the three counties between 1960 and 2010, as well as projections to the year 2040. The region is projected to increase in population by about 15.5 percent between 2010 and 2040, with Vanderburgh County increasing by more than 27,000 people, Warrick County by more than 10,000 people, and Henderson County by more than 7,000 people. Figure 2-2 shows the population change from 2000 to 2010 for Vanderburgh, Warrick, and Henderson counties.

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Table 2-1: Population by City, Town, and County

	1990	2000	2010
Henderson County	43,044	44,829	46,250
Town of Corydon	790	744	720
City of Henderson	25,945	27,373	28,757
Town of Robards	N/A	564	515
Vanderburgh County	165,058	171,922	179,703
Town of Darmstadt	1,346	1,313	1,407
City of Evansville	126,272	121,582	117,429
Warrick County	44,920	52,383	59,689
City of Boonville	6,724	6,834	6,246
Town of Chandler	3,099	3,094	2,887
Town of Elberfeld	635	636	625
Town of Lynnville	640	781	888
Town of Newburgh	2,880	3,088	3,325
Town of Tennyson	267	290	279
Total Population	**253,022**	**269,134**	**285,642**

Note: Robards was incorporated in 1997

Source: 2010 U.S. Census

Figure 2-1: Regional Population Change

Regional Population Change

	1960	1970	1980	1990	2000	2010	2020	2030	2040
Region	222,890	232,775	249,838	253,022	269,134	285,642	300,381	315,120	329,859
Vanderburgh	165,794	168,772	167,515	165,058	171,922	179,703	188,711	197,720	206,728
Warrick	23,577	27,972	41,474	44,920	52,383	59,689	63,037	66,385	69,733
Henderson	33,519	36,031	40,849	43,044	44,829	46,250	48,633	51,015	53,398

Source: U.S. Census

Figure 2-2: Population Change (2000 - 2010)

1 dot = 20 people
- Growth
- Loss

Figure 2-3: Household and Group Quarter Population

Household and Group Quarter Population
Source: U.S. Census

2010 Regional Population

HH Pop
96.7%

GQ Pop
3.3%

2010 Vanderburgh Population

HH Pop
95.8%

GQ Pop
4.2%

2010 Henderson Population

HH Pop
97.5%

GQ Pop
2.5%

2010 Warrick Population

HH Pop
98.8%

GQ Pop
1.2%

Household Population

Household population refers to the population that is living in a household of any kind. A household includes all types of housing units, such as apartments, condos, mobile homes, and single-family homes. The population not living within a household, and therefore not included in household population, includes those living in correctional facilities, nursing homes, college dormitories, and other institutionalized and non-institutionalized group quarters.

The region's household population in 2010 was 96.7 percent of the total population, meaning 3.3 percent of the population lives in a group quarter of some type. Vanderburgh County has the lowest percentage of people living in households with 95.8 percent, due to the larger number of people living in group quarters. Warrick County has the highest percentage of people living in households with 98.8 percent, due to the low number of group quarters in the county. The pie charts in Figure 2-3 show the relationship between household population and group quarter population for the entire region and the three counties.

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Group Quarters Population

As mentioned in the previous section, group quarters population consists of all persons not living within a household. This population could be living in an institutionalized facility or a non-institutionalized facility. Institutionalized facilities include correctional facilities for adults, correctional facilities for juveniles, group homes and treatment centers for juveniles, nursing facilities, and mental health facilities. The largest category of these facilities in Vanderburgh County and Warrick County is nursing facilities including nursing homes and other skilled nursing facilities. In Henderson County, the adult correctional facility population is the highest, more than twice the population in nursing facilities. This is more than likely due to the Henderson County Detention Center that houses both city and county inmates and state inmates that have a low classification level.

Non-institutionalized facilities include college or university student housing, emergency and transitional shelters for the homeless, residential treatment centers, group homes, temporary housing for workers, and Job Corps centers. The greatest percentage of non-institutionalized population in the region is in the college or university housing category. Approximately 76 percent of Vanderburgh County's non-institutionalized group quarter population lives in housing on the University of Evansville or University of Southern Indiana campuses (see Figure 2-4). This category also makes up 70 percent of the non-institutionalized group quarters population in the entire region. Table 2-2 includes the breakdown of group quarters population for the region and the three counties.

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Figure 2-4: Non-Institutionalized Facilities

1 dot = 5 people

Source: Block Level Data from 2010 US Census

Table 2-2: Group Quarters Population

	Institutionalized			Non-Institutionalized
	Correctional	Nursing	Other	
Henderson County	544	262	0	359
Town of Corydon	0	0	0	0
City of Henderson	544	262	0	356
Town of Robards	0	0	0	0
Vanderburgh County	744	1,497	165	5,125
Town of Darmstadt	0	0	0	0
City of Evansville	744	1,194	165	2,624
Warrick County	67	598	0	61
City of Boonville	0	164	0	0
Town of Chandler	0	0	0	0
Town of Elberfeld	0	0	0	0
Town of Lynnville	0	0	0	9
Town of Newburgh	0	0	0	8
Town of Tennyson	0	0	0	0
Total Population	1,355	2,357	165	5,545

Figure 2-5: Age and Gender

Age and Gender

	Region		Vanderburgh County		Warrick County		Henderson County	
	Male	Female	Male	Female	Male	Female	Male	Female
65 & over	16,597	23,478	10,418	15,461	3,438	4,293	2,741	3,724
45 to 64	37,882	40,705	23,207	24,591	8,396	9,096	6,279	7,018
25 to 44	35,365	35,460	22,269	22,044	7,214	7,415	5,882	6,001
18 to 24	13,918	15,026	10,022	11,243	2,091	1,925	1,805	1,858
5 to 17	24,451	22,866	14,398	13,749	6,136	5,334	3,917	3,783
Under 5	9,284	9,212	5,848	5,710	1,975	1,843	1,461	1,659

Median Age: 37.4   Median Age: 39.6   Median Age: 39

Source: 2010 American Community Survey, U.S. Census

Age and Gender

Diversity can also be seen in the shape of the age groups for the counties in the region. Figure 2-5 shows the age groups by gender of the three counties in the region for 2010 as well as the median age. The population in all three counties is getting older. The median age for each county is higher than the national median. The Baby Boomers that comprised a significant part of the 25 to 44 year old age category in 1990 aged to the 45 to 64 year old age category in 2010. The 5 to 17 year old group has gotten smaller for each county over the 20 year span of 1990 to 2010.

Race and Ethnicity

In order for a region to be sustainable, development that is viable for future generations, equitable, and healthy must be provided. In order for development to be equitable, it must work toward reaching environmental justice goals. According to the US Environmental Protection Agency (USEPA), environmental justice is defined as "the fair treatment and meaningful involvement of all people regardless of race, color, culture, national origin, income, and educational levels with respect to the development, implementation, and enforcement of protective environmental laws, regulations, and policies." Therefore, it is important to identify areas of racial concentration and determine if each racial group has equal access to public goods and services, including parks, libraries, and other government buildings. It is also important to determine if any regulations or policies negatively constrain the type of development that can occur in these areas of concentration.

Data gathered from the 2010 US Census reveals that the Evansville region is much less racially diverse than the United States as a whole. While less than two-thirds of the US population is non-Hispanic white, more than 87 percent of the Evansville region is non-Hispanic white. This attribute can be seen in Table 2-3, which includes the racial breakdown of the US, the Evansville region, and each of the three counties in the region. Vanderburgh County, with almost 15 percent of its population being non-white, is the most diverse of the three counties. However, there is a lack of racial distribution in the county. Figure 2-6 shows the distribution of racial groups in the three-county area. The map shows a clustering of African-American and Hispanic/Latino populations in specific areas, revealing a lack of diversity in areas near downtown Evansville, portions of downtown Henderson, and in southeastern Vanderburgh County.

Table 2-3: Racial Distribution

	White Non-Hispanic	Black Non-Hispanic	Asian Non-Hispanic	Other Non-Hispanic	Hispanic or Latino	Total Population
Henderson County	88.2%	7.7%	0.4%	1.9%	1.9%	46,250
Vanderburgh County	85.2%	9.0%	1.1%	2.5%	2.2%	179,703
Warrick County	94.0%	1.3%	1.6%	1.5%	1.6%	59,689
Region Total	**87.5%**	**7.2%**	**1.1%**	**2.2%**	**2.0%**	**285,642**
United States	63.7%	12.2%	4.7%	3.0%	16.3%	308,745,538

Source: 2010 U.S. Census

Figure 2-6: Racial Distribution

1 dot = 50 people

White

1 dot = 50 people

Black

1 dot = 50 people

Hispanic

1 dot = 50 people

Source: Block Level Data from 2010 US Census

Language

In addition to providing equal opportunities for everyone regardless of their race, it is also important to ensure that individuals who do not speak English have access to public services in a language that they can comprehend. In Henderson County, 3.2 percent of the population speaks a language other than English according to the 2010 American Community Survey (ACS) five-year estimate. In Vanderburgh and Warrick counties, four percent of the population speaks a language other than English. For all three counties, the most common non-English language is Spanish. Table 2-4 shows the number of people who speak only English and who speak a language other than English.

The percentage of people who speak a language other than English includes those people who speak English very well and those who speak English less than well. Particular attention should be paid to those areas with high concentrations of people speaking English less than well. In Vanderburgh County, nearly two percent of the population speaks English less than well. This calculates to over 2,800 people in the county. In both Henderson and Warrick counties, the number of people who speak English less than well is a little under one percent, which is between 350 and 400 people in each county. Figure 2-7 shows the locations of people who speak a language other than English and how well they speak English. The largest concentration of people who speak English less than well is in southeastern Vanderburgh County. This correlates to the map of race distribution that shows a large concentration of Hispanic population in this area.

Table 2-4: Primary Language

| | Population 5 years and over | Speaks only English | Speaks a Language other than English | | |
			Total	Speaks English Very Well	Speaks English Less Than Very Well
Henderson County	42,848	96.80%	3.20%	2.30%	0.90%
Vanderburgh County	166,739	96.00%	4.00%	2.30%	1.70%
Warrick County	54,592	96.00%	4.00%	3.30%	0.70%
Region Total	264,179	96.10%	3.90%	2.50%	1.30%
United States	283,833,852	79.90%	20.10%	11.40%	8.70%

Source: 2010 U.S. Census

Figure 2-7: Distribution of Non-English Speaking Population

1 dot = 5 people

Speaks English Very Well

Speaks English Less Than Very Well

1 dot = 5 people

Note: Includes individuals that speak a language other than or in addition to English.

Source: Tract Level Data from 2006-2010 American Community Survey

Total Households

The total number of households in the region is growing at a faster rate than the region's population. This is due to the shrinking of the average household size from 2.49 people per household in 2000 to 2.39 in 2010. Table 2-5 shows the total number of households for the region, each of the three counties, and the communities within the region.

Households are defined by the US Census as a person or group of people who occupy a housing unit. A household can consist of a single person, a group of unrelated individuals, or a family. A family, by definition of the US Census, must include two or more persons all of which are related. Therefore, family size is always larger than household size.

Warrick County had the highest growth rate in households of the three counties between 2000 and 2010, increasing by 3,067 households or nearly 16 percent. As mentioned in the section regarding population, the majority of this growth was in Ohio Township between Newburgh and Chandler. Vanderburgh County saw an increase of 3,831 households between 2000 and 2010, which was an increase of 5.4 percent. Henderson County grew by 610 households, which was a 3.4 percent increase.

Table 2-5: Total Households

	1990	2000	2010
Henderson County	16,558	18,095	18,705
Town of Corydon	N/A	271	260
City of Henderson	10,548	11,693	12,091
Town of Robards	N/A	214	196
Vanderburgh County	66,780	70,623	74,454
Town of Darmstadt	472	490	544
City of Evansville	52,948	52,273	50,588
Warrick County	15,817	19,438	22,505
City of Boonville	2,621	2,688	2,549
Town of Chandler	1,110	1,178	1,101
Town of Elberfeld	N/A	261	251
Town of Lynnville	N/A	346	352
Town of Newburgh	1,197	1,369	1,455
Town of Tennyson	N/A	105	106
Total Households	99,155	108,156	115,664

Household Size

Average household size is decreasing throughout the United States. This is due to increases in the number of empty-nesters and increases in the number of young professionals waiting longer to start a family. This trend is true for the average household size in all three counties in the region, as shown in Table 2-6.

The 2010 average household size for both Vanderburgh County (2.31) and Henderson County (2.41) was below the national average (2.58). Warrick County's average household size (2.62), however, was higher than the national average. The City of Evansville's average household size of 2.23 was the lowest of any community in the region. This metric reveals that there are more multi-family housing units and fewer families in Vanderburgh County, especially in the city limits of Evansville, and in Henderson County than in Warrick County.

Table 2-6: Household Size

	1990	2000	2010
Henderson County	2.56	2.43	2.41
Town of Corydon	*	2.75	2.77
City of Henderson	*	2.27	2.28
Town of Robards	*	2.64	2.63
Vanderburgh County	2.40	2.33	2.31
Town of Darmstadt	*	2.68	2.59
City of Evansville	*	2.24	2.23
Warrick County	2.80	2.66	2.62
City of Boonville	*	2.45	2.39
Town of Chandler	*	2.63	2.62
Town of Elberfeld	*	2.44	2.49
Town of Lynnville	*	2.26	2.50
Town of Newburgh	*	2.24	2.28
Town of Tennyson	*	2.76	2.63
Region Household Size	2.49	2.41	2.39
United States Household Size	2.63	2.59	2.58

*Household size at Town and City level are not available from the 1990 U.S. Census

Source: U.S. Census

Total Families

The total number of families in the region has been decreasing over the past 20 years. In 1990, 69.9 percent of the households in the region were family households. By 2000 that had dropped to 66.7 percent; and by 2010 it had dropped to 64.6 percent. Therefore, the number of non-family households has been increasing, particularly men living alone. The number of married couple families has also been decreasing in the region from 56.5 percent of all households in 1990 to 47.8 percent of all households in 2010.

The numbers reveal that a higher percentage of families are living in Warrick County than the other two counties, and more singles are living in Vanderburgh County (see Table 2-7). In Warrick County, 75.6 percent of the households in 2010 were family households and 62.7 percent were married-couple households. In Vanderburgh County, 39.4 percent of the households were non-family households and 32.3 percent were singles living alone.

This regional trend of more people living alone and fewer married couple households is occurring throughout the United States. More people are choosing smaller homes or apartments as opposed to living alone in a two- to three-bedroom house. As these trends continue, more housing options will be needed than the typical single-family suburban home.

Table 2-7: Family and Non-Family Households

	Henderson	Vanderburgh	Warrick	Region
Family Households	12,537	45,118	17,009	74,664
Married Couple	9,252	31,973	14,107	55,332
Non-Family Households	6,168	29,336	5,496	41,000
Living Alone	5,238	24,020	4,650	33,908
Male	2,258	10,723	2,046	15,027
Female	2,980	13,297	2,604	18,881

Source: 2010 U.S. Census

Family Size

Families have become smaller over the past several decades in the United States and the Evansville region. However, this decrease has leveled out over the past ten years. In 1990, the average family size in the United States was 3.16 and in the region it was 3.02. The average family size for the United States dropped to 3.14 in 2000, but stayed at this number in 2010. Likewise, the average family size in the region dropped to 2.95 in 2000, and stayed at 2.95 through 2010. Warrick County had the highest average family size in 2010 with 3.02 people per family. Vanderburgh County and Henderson County both had an average family size of 2.93 in 2010. Although there are more singles and empty- nesters that will be looking for smaller houses or apartments in the future, the typical family is still in need of a two- to three-bedroom home.

Household and Family Income

One indicator of the region's well-being is median income. Table 2-8 and Table 2-9 show median household income and median family income for the three counties as well as the United States. Similar to family size and household size, the median income for families will always be higher than the median income for households. This is because households can include just a single person earning a single income while families, by definition, have at least two persons, and often earn two incomes. In order to compare income data from 1990 and 2000, a 2010 inflation adjusted dollar amount was calculated using the average consumer price index for those years.

By comparing median household and family income in the region between 1990 and 2010 to median household and family income in the United States, several trends become evident. First, both the median household income and median family income in Henderson County and Vanderburgh County were substantially lower than the United States average in 1990, 2000, and 2010. In 2010, the median household income for Vanderburgh County was 22.5 percent below the national average and the median family income was 10.3 percent below. Henderson County displays an even larger discrepancy, with median household income in 2010 being 28.4 percent below the national average and median family income being 19.3 percent below. The median household and median family income of Warrick County has been consistently higher than the national average. In 2010, the median household income was 16 percent higher than the national average and the median family income was 14.4 percent higher.

Comparing the national change in income between 2000 and 2010 to the change in the Evansville region also reveals how the recession affected our region. Between 2000 and 2010, the median household income for the United States dropped by 2.4 percent. In this same time period, the median household income dropped by 9.1 percent for Vanderburgh County, 11 percent for Henderson County, and increased by 0.9 percent for Warrick County. Between 1990 and 2000, all three counties had an increase in median household and family income that was equal to or greater than the national average.

The income statistics for the three counties reveal information similar to other data previously mentioned: (1) there is a higher percentage of families in Warrick County and (2) there is a higher percentage of households in Warrick County with higher incomes than the other two counties. This is related to the number of single-family, suburban type homes (especially in Ohio Township) and the lack of multi-family dwelling units when compared to Vanderburgh and Henderson counties.

Table 2-8: Median Household Income

	1990		2000		2010
	1990	2010*	2000	2010*	2010
Henderson County	$25,556	$42,637	$35,892	$45,450	$40,438
Vanderburgh County	$25,798	$43,041	$36,823	$46,629	$42,396
Warrick County	$34,069	$56,840	$48,814	$61,813	$62,354
United States	$30,056	$50,145	$41,994	$53,177	$51,914

* 2010 inflation adjusted dollar amount calculated by using the average consumer price index.

Source: 2010 U.S. Census

Table 2-9: Median Family Income

	1990		2000		2010
	1990	2010*	2000	2010*	2010
Henderson County	$30,231	$50,437	$44,703	$56,607	$52,775
Vanderburgh County	$32,558	$54,320	$47,416	$60,042	$57,076
Warrick County	$38,375	$64,025	$55,497	$70,275	$73,583
United States	$34,082	$56,862	$50,046	$63,373	$62,982

* 2010 inflation adjusted dollar amount calculated by using the average consumer price index.

Source: 2010 U.S. Census

Poverty

In addition to race, ethnicity, and language, locating concentrations of poverty is another key element in determining how equitable a region actually is. Figure 2-8 shows the percentage of families below poverty in the United States and each of the three counties for 1990, 2000, and 2010. The US Census determines poverty status of families by assigning each family to an income threshold based upon the size of the family and the age of the members. If a family's income falls below that threshold, then the family is considered to be in poverty.

Between 1990 and 2000, the percentage of families below the poverty level declined for the United States and all three counties. However, the 2008 recession changed that downward trend and poverty levels for the United States and all three counties in 2010 reached levels higher than the 2000 percentages. In Vanderburgh County, the percentage of families in poverty in 2010 reached levels higher than in 1990 as well. Both Henderson County and Vanderburgh County have a higher percentage of families in poverty than the United States average.

Concentrations of poverty are often located in urban areas. Figure 2-9 shows the population in poverty for the three counties based on Census Tract level data from the 2006-2010 American Community Survey. The figure shows heavy concentrations of poverty in the City of Evansville and the City of Henderson, particularly near the downtowns. Table 2-10 shows the percentage of families in poverty for each of the communities in the region and reveals that Evansville and Henderson have some of the highest rates of poverty. The Town of Corydon had the highest rate of poverty in 2010 with nearly 20 percent of the families in the community being below the poverty level.

Figure 2-8: Families in Poverty

Families in Poverty

Source: U.S. Census

Table 2-10: Families in Poverty

	1990	2000	2010
Henderson County	**12.5%**	**9.7%**	**11.5%**
Town of Corydon	14.2%	3.6%	19.7%
City of Henderson	14.9%	13.2%	15.6%
Town of Robards	N/A	4.5%	10.3%
Vanderburgh County	**9.1%**	**7.8%**	**10.7%**
Town of Darmstadt	1.3%	0.5%	2.3%
City of Evansville	11.2%	10.1%	14.2%
Warrick County	**5.0%**	**3.5%**	**3.9%**
City of Boonville	9.0%	6.5%	9.1%
Town of Chandler	10.0%	10.1%	10.1%
Town of Elberfeld	1.2%	4.3%	13.5%
Town of Lynnville	1.1%	5.3%	2.9%
Town of Newburgh	0.9%	0.0%	2.9%
Town of Tennyson	15.8%	13.7%	13.8%
Total Population	**10.0%**	**9.2%**	**10.0%**

Note: Robards was incorporated in 1997.

Source: U.S. Census

Figure 2-9: Distribution of Population in Poverty

1 dot = 50 people

1 dot = 50 people

Population Above Poverty

1 dot = 50 people

Population Below Poverty

1 dot = 50 people

Source: Tract Level Data from 2006-2010 American Community Survey

In addition to income, it is important to consider other aspects of the region's economic well-being such as labor force, industry mix, and unemployment levels. The labor force of an area is the area's population 16 years of age and older that is working or is seeking employment. This includes all individuals that are employed, all that are unemployed, and all in the Armed Forces. Those not in the labor force include students, retirees, stay-at-home parents, prisoners, etc. Table 2-11 shows the labor force participation rate for the counties and communities in the region over the past 20 years.

The labor force participation rate for all three counties is very close to that of the United States (64.5 percent), with only Henderson having a slightly lower rate. This simply means that there are more households with a single worker or there is a higher percentage of students or retirees. Boonville and Corydon have the lowest labor force participation rates of any of the communities. Newburgh has the highest participating rate, meaning more families and households have multiple workers.

Table 2-11: Labor Force

	1990		2000		2010	
	Total	%	Total	%	Total	%
Henderson County	2,148	65.3%	22,420	63.8%	23,132	63.8%
Town of Corydon	*	*	308	63.3%	284	57.0%
City of Henderson	12,821	63.9%	13,353	61.6%	13,877	61.6%
Town of Robards	NA	N/A	332	70.5%	325	67.0%
Vanderburgh County	83,887	64.7%	90,140	66.0%	93,434	65.4%
Town of Darmstadt	*	*	673	67.2%	653	62.0%
City of Evansville	63,078	68.8%	62,356	64.2%	60,711	64.5%
Warrick County	23,105	68.5%	27,875	69.7%	30,706	68.2%
City of Boonville	*	*	3,368	63.0%	3,187	69.9%
Town of Chandler	*	*	2,964	73.6%	1,289	62.2%
Town of Elberfeld	*	*	345	68.3%	372	67.6%
Town of Lynnville	*	*	352	60.2%	403	64.4%
Town of Newburgh	*	*	1,798	71.3%	1,839	72.2%
Town of Tennyson	*	*	130	67.0%	161	65.5%

Labor force for this community is not available from the 1990 U.S. Census
Source: U.S. Census

Unemployment

The unemployment rate of a region is the most widely recognized statistic for understanding how well a community is doing economically. The impact of the 2008 recession is most evident in the change in unemployment rates over the past 10 years, as can be seen in Figure 2-10. The chart shows the large increase in unemployment between 2008 and 2009 with Henderson County reaching rates above 10 percent in 2009. Henderson County and Warrick County made a slight recovery between 2009 and 2010, while the rates for Vanderburgh County and the United States continued to rise. The rate for the United States and all three counties in the region declined between 2010 and 2011.

Figure 2-10: Unemployment Rate

Unemployment Rate

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
U.S.	5.8	6.0	5.5	5.1	4.6	4.6	5.8	9.3	9.6	8.9
Henderson	5.4	5.6	4.8	5.5	5.3	5.2	6.3	10.6	10.0	8.7
Vanderburgh	4.5	4.7	4.9	5.1	4.8	4.7	5.2	8.3	8.7	7.8
Warrick	3.9	4.3	4.4	4.6	4.2	3.9	4.6	7.8	7.7	7.0

Source: Bureau of Labor Statistics

Note: See also unemployment rates compared to states of Indiana and Kentucky in Chapter 3, Table 3-9.

Education

Educational Attainment

The educational attainment of its individuals can often determine the relative prosperity and economic growth of a region. In the US, the share of population with a college degree, for example, is used to estimate the skill levels of a region. During the period of 1970 through 2000, the population of counties having more than 10 percent of their adult population with college degrees grew by 72 percent, while the population of areas with fewer than 5 percent of people with college degrees grew by only 37 percent.

Figure 2-11 shows the educational attainment of the population 25 years old and older in each of the three counties and the United States. All three counties are comparable to the United States in the percentage of the population with at least a high school degree. Only Henderson County with 83.5 percent falls below the national average of 85 percent. The county does, however, have a higher rate than the Commonwealth of Kentucky overall (81 percent).

A higher percentage of the population in the region opts for an associate's degree when compared to the United States. All three counties have a lower percentage of individuals with a bachelor's degree or graduate/professional degree than the United States. Several conclusions can be made from this information. First, there is a strong base for skilled labor within the region. The lower percentages of bachelor's and graduate/professional degrees could also reveal an issue with "brain drain" in the region. Areas such as Indianapolis, Bloomington, Lexington, and Louisville have much higher percentages of the population with at least a bachelor's degree.

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Figure 2-11: Educational Attainment

Educational Attainment

	U.S.	Henderson	Vanderburgh	Warrick
Graduate/Professional Degree	10.3%	6.5%	7.4%	9.3%
Bachelor's Degree	17.6%	9.6%	14.5%	16.3%
Associate's Degree	7.5%	9.1%	7.6%	10.4%
Some college (no degree)	20.6%	20.2%	23.1%	21.5%
High school graduate	29.0%	38.1%	34.7%	33.8%

Source: 2010 U.S. Census

Higher Education

Higher educational attainment can mean higher wages. For each worker, an extra year of schooling typically leads to approximately eight percent in higher earnings. [1] There are two major, four-year universities and four community colleges/technical schools within the three counties, offering a variety of degrees (see Figure 2-12).

The University of Evansville is a private university with a liberal arts and sciences base. The university is affiliated with the United Methodist Church and is located south of the Lloyd Expressway and west of Weinbach Avenue. The school offers both bachelor's and graduate degrees in more than 80 majors, with an enrollment of over 2,400 based on the university's website.

The University of Southern Indiana is located south of the Lloyd Expressway on the west side of Evansville. The public four-year university offers 70 undergraduate programs, 10 master's programs, and one doctoral program. Based on the school's website, there are more than 10,400 students currently enrolled.

Henderson Community College is located on US Highway 60 (Green Street) on the south side of the City of Henderson. The college is a two-year public school and part of the Kentucky Commonwealth and Technical College System. The school provides technical and transfer programs. Murray State University offers a regional campus with a variety of programs on the Henderson Community College Campus. Ivy Tech is two-year community college with campuses throughout Indiana. The main campus in the southwest region is located on First Avenue, north of SR 66 (Diamond Avenue). Classes are also available in the southwest region in Princeton and Tell City. The school offers associate and technical degrees and certificates.

ITT Tech is a two-year technical school with campuses throughout the United States. The Newburgh campus is one of six in Indiana and is located north of the Lloyd Expressway and east of I-164. The school offers both bachelor's and associate degrees.

Harrison College is a small college with campuses throughout Indiana and one in Columbus, Ohio. The school offers bachelor's degrees, associate degrees, and certificates. The Evansville campus is located on Theatre Drive, just west of Green River Road.

Figure 2-12: Colleges and Universities

1 *Triumph of the City* by Edward Glaeser, The Penguin Press, 2011.

Commuting

Means of Transportation to Work

The United States, in general, relies heavily on the personal automobile to get around. This is also the case in the Evansville region as is evident in the commuting to work data. Figure 2-13 shows the percentage of all commuters that drive to work or use another means of transportation to get to work.

All three counties are above the national average in the percent of commuters that drive alone to work, but fall well below the national average for commuters using public transportation. Vanderburgh County has only a slightly lower percentage of commuters that walk to work than the national average, but Henderson County and Warrick County fall well below. These statistics show a need for better public transportation and options for walking and bicycling, especially in Henderson and Warrick counties.

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Figure 2-13: Means of Transportation to Work

Means of Transportation to Work

	Drive Alone	Carpool	Public Transp.	Walk	Bicycle	Other	Worked at Home
United States	76.0%	10.4%	4.9%	2.8%	0.5%	1.2%	4.1%
Henderson County	86.2%	9.6%	0.4%	1.0%	0.2%	0.9%	1.7%
Vanderburgh County	83.4%	9.6%	1.3%	2.5%	0.3%	0.9%	2.2%
Warrick County	88.0%	7.5%	0.1%	0.7%	0.1%	0.8%	2.9%

Source: 2010 American Community Survey 5-Year Estimates

Vehicle Ownership

As mentioned in the previous section, the Evansville region relies heavily on the personal automobile to move around. Most people in the region prefer the convenience of their own personal vehicle to relying on public transportation, walking, or bicycling. Because of this tendency, vehicle ownership is vital for most households. Figure 2-14 shows the percentage of households with no vehicle, one vehicle, or multiple vehicles. More than 97 percent of the households in the region have at least one vehicle. In Warrick County more than 99 percent have at least one vehicle and almost 90 percent have at least two vehicles. Two possible assumptions could be made regarding this data. Either households in the region rely so heavily on the personal vehicle that improvements to the public transportation network or bike and pedestrian network are not necessary. The other assumption is that until improvements are made to these networks, individuals are required to use personal vehicles. With either assumption, improvements should be made for the approximately 2,700 households in the region without a vehicle that must rely on other forms of transportation. More than 2,000 households in Vanderburgh County alone do not have a personal vehicle. For these households, getting to work or shopping for food can be a real burden.

Figure 2-14: Vehicle Ownership

Vehicle Ownership
% of Households

	United States	Henderson County	Vanderburgh County	Warrick County
5 or more vehicles	3.4%	3.1%	2.8%	5.4%
4 vehicles	7.9%	7.0%	8.2%	11.4%
3 vehicles	20.8%	24.4%	20.7%	24.8%
2 vehicles	42.5%	43.6%	42.9%	47.0%
1 vehicle	21.1%	19.8%	22.6%	10.5%
No vehicle	4.3%	2.1%	2.8%	0.9%

Source: 2010 U.S. Census

Chapter 3: The Region Today

"Growth is inevitable. The question is not whether your part of the world is going to change, but how."

– Edward T. McMahon

Airports

Air travel in the Evansville MPO tri-county study area consists primarily of private and commercial passenger travel, while air freight service has traditionally been a secondary activity. Due to the recent surge in area economic development, the demand for air freight service is expected to increase. The region is served by four airports: the Evansville Regional Airport and Skylane Airport within the City of Evansville, the Henderson City-County Airport located in Henderson County, Kentucky, and Boonville Airport located in the City of Boonville (see Figure 3-1).

Evansville Regional Airport

The Evansville Regional Airport (Identifier EVV), the largest airport in the region, is located in the southeast quadrant of State Route (SR) 57 and US Highway 41, in the City of Evansville, Vanderburgh County. The operation of the 1,260 acre property is overseen by the Evansville-Vanderburgh Airport Authority District. The Federal Aviation Administration (FAA) classifies the airport as a Nonhub Primary facility. This means that the airport will serve as a departure point or a destination rather than an en route stopover for travelers to other destinations.

While both freight and passenger service are available at the airport, cargo has historically played a secondary role. There are two types of cargo demand that occur at the airport - airline cargo and all-cargo. The major commercial airlines and commuter airlines transport airline cargo in the storage space of passenger aircraft. Airline cargo typically includes small packages, express cargo and general mail.

Henderson City-County Airport

The Henderson City-County Airport (Identifier EHR) is located west of the City of Henderson in Henderson County, Kentucky on KY 136. The facility is owned and operated by the Henderson City-County Air Board. The airport has one paved runway and offers chartered passenger and freight service, flight training, maintenance, fueling, and hangar facilities.

Skylane Airport

Skylane Airport (Identifier 3EV), is located on the northwest side of Evansville on Allens Lane. This airport has one unpaved runway and offers fueling capabilities for smaller single engine planes.

Boonville Airport

Boonville Airport (Identifier I91), located west of Boonville, south of SR 62, is the fourth and smallest public airport serving this region.

There are also two private airfields that are located within the study area; J & S Field and Lockyear & Helper are located within Vanderburgh County.

Figure 3-1: Public Airports

Public Airports
- Evansville Regional Airport
- Skylane Airport
- Henderson City - County Airport
- Boonville Municipal Airport

Roads

Indiana Regional Facilities

There are ten major highways providing various levels of access and mobility to the study area in Indiana: State Routes 57, 61, 62, 65, 66, 68; Interstates 64, 69 and 164; and US Highway 41. These highways consist of two-lane roads, such as SR 57 and SR 65; four-lane divided highways, such as Interstates 64, 69 and 164, SR 62, SR 66 and US Highway 41; and six-lane divided highways, such as sections of SR 62, SR 66, and US Highway 41. These roads are essential for travel within the region, as well as for travel to cities outside of the region. A description of each of these facilities is presented in the following paragraphs. See also Volume 3, Metropolitan Transportation Plan 2040, for transportation recommendations.

Indiana State Route 57:
Indiana State Route 57 begins at US Highway 41 and continues northeast to Interstate 164, Interstate 64, Interstate 69 and beyond. State Route 57 provides a link between the Evansville Regional Airport and the tri-state region (Southwestern Indiana, Northwestern Kentucky, and Southeastern Illinois). The continued development of I-69 has begun to assume the role previously performed by SR 57 in providing a link to other Indiana highways, including access to Bloomington and Indianapolis.

Indiana State Route 61:
Indiana State Route 61 begins at SR 66 in Warrick County and continues north, providing access to Interstate 64 and points further north. This route is the major north-south corridor in central Warrick County, providing industrial sites near the Ohio River access to the City of Boonville and I-64.

Indiana State Route 65:
Indiana State Route 65 begins at SR 66 in Vanderburgh County, just northwest of the Evansville city limits. From that intersection the road continues in a northerly direction, providing the western portion of the study area with a link to Interstate 64 where it crosses into Posey County.

Indiana State Route 62 & State Route 66:
Indiana State Routes 62 and 66 offer a primary means of east-west travel through the study area. State Route 62 connects Evansville to Mount Vernon, Indiana and southern Illinois to the west and Boonville, Indiana to the east. State Route 66 provides access to New Harmony, Indiana and southern Illinois to the west and Newburgh, Indiana and US Highway 231 to the east. The Lloyd Expressway, comprised of the SR62/66 corridor, provides a continuous multi-lane divided highway through Vanderburgh County.

Indiana State Route 68:
Indiana State Route 68 begins at SR 65 in Posey County, just northwest of the Vanderburgh County line. From that intersection, the road continues to the east through southern Gibson County and into northern Warrick County. The facility provides access to US Highway 41 and I-69 for several small communities in northern Warrick County.

US Highway 41:
US Highway 41 is the principal arterial for north-south access into and out of Vanderburgh County. US Highway 41 provides direct access to other Indiana cities, including Princeton, Vincennes, Terre Haute, and Gary/Hammond. Additionally, US Highway 41 provides a route to Indianapolis when traveled in conjunction with Interstate 70. Developing I-69 will soon provide an alternative for traveling to Indianapolis. To the south, US Highway 41 provides access to Henderson, Kentucky and the Kentucky Parkway System.

Interstate 64:
Interstate 64 provides for east-west traffic flow along the Vanderburgh, Gibson, Posey, and Warrick county lines and also provides the area with an interstate connection to major cities; e.g., St. Louis, Missouri to the west and Louisville, Kentucky to the east.

Interstate 164:
From its terminus at US Highway 41 South, Interstate 164 proceeds east and then north to the SR 57/I-64 interchange. Its direct connection to Veterans Memorial Parkway makes a continuous connection to downtown Evansville. Interstate 164 provides Vanderburgh and Warrick counties with direct access to the interstate highway system. For vehicles traveling through the region, I-164 provides an alternative to the heavily traveled US Highway 41 corridor. Recently decommissioned, 164 is now officially Interstate 69.

Interstate 69:
Interstate 69 is being constructed as a new four-lane, limited access facility and will provide a direct connection between the study area and Indianapolis. The Indiana Department of Transportation (INDOT) has identified a chosen corridor between Evansville and Indianapolis. Construction is complete through Section 3 near the Crane Naval Depot and the intersection of US Highway 231 and IN 58/45 in Martin County. Section 4, which completes the project to IN 37 just south of Bloomington is currently under construction. Interstate 69, once fully completed, will begin in the State of Texas and extend through the State of Michigan. Interstate 69 will require a new bridge across the Ohio River connecting Henderson, Evansville, and Newburgh.

Local Facilities

Within the urbanized area of Evansville there is an extensive system of arterial and collector streets that serve vehicular traffic in the study area. In addition to the City of Evansville, the largest incorporated city within the study area, there are four smaller Indiana towns: Boonville, Chandler, Darmstadt, and Newburgh. Each of these municipalities has an established roadway system to accommodate travel demand. Many of the collector and arterial streets extend beyond the municipal boundaries into Vanderburgh County and Warrick County where they provide a connection between the cities and counties and serve the regional transportation needs. This street network includes:

Evansville, Indiana

The City of Evansville grid system consists of major east-west streets; i.e. Walnut Street, Lincoln Avenue, Washington Avenue, Covert Avenue, and Columbia Street. The major north-south streets in the grid system are St. Joseph Avenue, Fulton Avenue, First Avenue, Weinbach Avenue, Oak Hill Road, Boeke Road, Vann Avenue, Green River Road, and Burkhardt Road.

Darmstadt, Indiana

The Town of Darmstadt is served by several local collector roads that provide access to this community in northern Vanderburgh County. From the south, access is provided by Darmstadt Road and from the north, Princeton Road. Boonville-New Harmony Road is the primary east-west corridor through Darmstadt and extends to the county boundaries and offers interchange access at I-164. St. Joseph Avenue provides north-south access to the area.

Vanderburgh County, Indiana

Within Vanderburgh County, Lynch Road, Boonville New-Harmony Road and Baseline Road provide east-west travel. The County north-south transportation grid system consists of St. Joseph Avenue, Darmstadt Road/Old Princeton Road, Old State Road, Old Petersburg Road and Green River Road. University Parkway (previously Eickhoff-Koressel Road) will provide an alternative north-south route, with access to SR 62, SR 66 and I-64, for the residents on the west side of Evansville when completed. The first segment (SR 62 to Upper Mt. Vernon Road) was completed in January 2006. The second segment (Upper Mt. Vernon Road to SR 66) opened the corridor to SR 66 in 2012.

Newburgh, Indiana

The Town of Newburgh and surrounding area are served by several state roads, including SR 61, SR 66, SR 261, and SR 662. In addition to these facilities, there are several other collector streets, including Bell Road, Vann Road, Lincoln Avenue and Sharon Road to accommodate local travel demand.

Boonville, Indiana

The City of Boonville, the Warrick County seat, is located in northern Warrick County. The primary arterials providing access to Boonville are SR 62 and SR 61, which facilitate east-west and north-south traffic flow respectively. State Route 261 also provides access from the neighboring town of Newburgh to the south.

Chandler, Indiana

Chandler is located northeast of Evansville in Warrick County. The dominant arterial that provides access to Chandler is SR 62, which facilitates east-west traffic flow between Evansville and the City of Boonville. There are no north-south state roads in the Chandler area; the local streets accommodate all north-south traffic flow.

Warrick County, Indiana

State Routes 61, 62, 66, and 261 are an important part of the transportation network in Warrick County. Supplementing the state routes are the east-west facilities of Lincoln Avenue, Oak Grove Road, Telephone Road, Boonville-New Harmony Road and the newly extended Lynch Road.

Kentucky Regional Facilities

City of Henderson and Henderson County

Henderson lies at the crossroads of two old US Highway routes: US Highway 41 and US Highway 60. The north-south US Highway 41 runs from Canada to Miami, Florida, and the east-west US Highway 60 runs from Virginia Beach, Virginia to Los Angeles, California.

Two of the Kentucky Parkway System facilities provide access to Henderson from other parts of the state: Audubon Parkway, connecting to the Green River Parkway at Owensboro, Kentucky, and the Breathitt Parkway, which connects with the Western Kentucky Parkway to the south.

The secondary and rural Kentucky highways, which serve the City of Henderson, provide ingress and egress primarily from the City of Henderson to points within Henderson County.

Freight

Freight activity is a significant element of the state and regional economy, and has a major impact on the transportation system. Deregulation and competition have provided the flexibility for private businesses to better utilize the existing multi-modal transportation system elements to suit the needs of their individual companies and locations. The result has been new equipment operating in every mode to upgrade service-delivery, stabilize cost, shorten arrival time, and lessen the loss and damage of cargo.

Rail Freight

Evansville and Henderson are located on one of three major railroad corridors in the region. Railroads are an integral part of the transportation system for the region (see Figure 3-2), and compete with water and truck-based services for the movement of bulk materials.

Class I Railroads (operating revenue over $262 million per year):

CSX Transportation (CSXT) is the primary railroad company in the region, and has the most extensive rail system within the study area. This system consists of two mainlines running north and south through the region, along CSX's Southeastern Corridor. The CSXT facilities through this region are primarily single-track lines. The vertical clearance on the CSXT lines meets the minimum requirements to accommodate double stacked containers. CSXT is the only rail company within the study area to have access to Kentucky through a channel-span rail bridge over the Ohio River. This bridge is owned and maintained by CSXT. Though the Norfolk Southern Railway has the largest share of the rail market in the State of Indiana per the Indiana Rail Plan, CSXT is the largest rail company in the State of Kentucky and the southwestern Indiana region. The CSX intermodal facility (CSXI) operates out of Howell Yard in Evansville.

Norfolk Southern Railway (NS) operates one mainline that originates in Evansville and runs east parallel to SR 62/Morgan Avenue, on the right-of-way of the old Wabash and Erie Canal, through Vanderburgh and Warrick counties. This route runs between Huntingburg, Indiana and Evansville with one train daily.

Class III Railroads (operating revenue below $21 million per year):

Indiana Southern Railroad (ISRR) operates one mainline between Indianapolis and Evansville where it converges with the CSXT lines. This is currently the only direct rail connection between the study area and Indianapolis. The primary commodity carried through this region is coal, but it also carries a significant amount of farm products and chemicals.

Indiana Southwestern Railway Company (ISW) (formerly listed as the Evansville Terminal Company) operates a route 23 miles in length from the northwest side of Evansville and terminates near Cynthiana, in Posey County. The Indiana Rail Plan states that in the year 2000, the ISW transported approximately 1,000 carloads of farm products, plastics, and rail equipment. The ISW has a direct connection to CSXT lines and a connection to NS lines through an intermediate switch.

Other Railroad Carriers

Evansville Western Railway (EVWR) operates 124.5 miles of CSX track (formerly Louisville and Nashville Railroad's St. Louis Subdivision route) from Evansville Howell Yard to Okawville, Illinois through Vanderburgh County and Posey County. The EVWR serves the Southwind Maritime Centre in Mt. Vernon and major industrial facilities in southern Posey County. The EVWR took over the line in December 2005 and interchanges with BNSF and Union Pacific in Illinois in addition to CSX at Howell Yard. The EVWR is based in Mt. Vernon, Indiana and is owned by Four Rivers Transportation.

Squaw Creek Southern (SCS) operates 21.3 miles on former Yankeetown Dock (YDC) track from Lynnville Mine to Yankeetown Dock on trackage rights obtained from Norfolk Southern (NS) when NS purchased the rail portion of YDC from Peabody in 2003. Squaw Creek Southern is based in the former YDC maintenance facility in Yankeetown and is a division of Respondek Railroad Corporation of Crossville, Illinois. Respondek also provides industrial switching services to a number of industrial, port, and mining facilities in the region and provides car repair, car storage and track maintenance services to other railroads and industrial customers. Squaw Creek Southern interchanges with Indiana Southern Railroad (ISRR) at Lynnville Mine.

Figure 3-2: Rail Lines

Rail Lines
-+-+- Abandoned
-+-+- Active

Ohio Valley Railroad (OVR) operates track connecting locomotive and car repair facility in Harwood Yard in Evansville to other carriers. Ohio Valley Railroad also provides contract car storage and interchanges with Indiana Southwestern Railroad at Harwood and indirectly with CSX at the same location.

Water Freight

Today, several industries located along the Ohio River utilize barge transportation for freight movement. There are three riverports that have an impact on the flow of commodities within the study area: the Port of Evansville, the Henderson County Riverport, and the Mount Vernon Riverport (outside of the study area). (See Figure 3-3.)

The Port of Evansville (POE) is located at milepost 792.3 on the Ohio River, directly west of downtown Evansville. The terminal handles the transfer of cargo between barge, rail (CSXT) and truck, and includes 130,000 square feet of temperature-controlled warehouse space and two 10-ton covered overhead cranes. A conveyor system and crawler crane are also available.

The Henderson County Riverport (HCR) is located at milepost 808 on the Ohio River, west of the City of Henderson, Kentucky. It is an all-commodities terminal offering full port facilities, coal loading, bulk and cargo handling, warehousing, yard storage, and intermodal transfers between barge, rail (CSXT) and truck. The site encompasses 395 acres including an industrial park which supports 11 industries with room to grow.

The Henderson County Riverport Authority website listing of services includes a loading capacity of 800 tons per hour, a 125-ton electric pedestal crane, 1000-HP towboat and 12,800 feet of railroad track. On-site storage options include transit warehouses, open-air storage yards, and bulk storage facilities. The HCR is also a designated foreign trade zone.

Highway Freight

Trucks are the most visible of all the freight modes in the region because they are required to share the same highway network as transit and passenger vehicles. According to the Federal Highway Administration's Freight Analysis Framework (FAF), the value of trucked goods is **expected to rise 168 percent** from the year 2002 to 2035, and truck volumes are expected to follow accordingly. Based on national statistics, trucks carry more freight in value and by weight than any other mode.

Pipeline and Freight

Pipelines are generally the lowest cost, highest volume and least flexible mode of goods transport. Natural gas and petroleum products are the primary commodities delivered by a local pipeline distribution network.

Intermodal Freight

Intermodal shipments move by a combination of two or more transportation modes. Unless a business is located along a dedicated rail siding, positioned within an airport, or has its own port, river dock, or pipeline connection, a transfer to another shipment mode will be necessary. Some known intermodal facilities in the area include CSX-Howell Yard in Evansville and Henderson County Riverport in Henderson.

> *According to the FHWA's Freight Analysis Framework (FAF), the value of trucked goods is expected to rise 168 percent from the year 2002 to 2035, and truck volumes are expected to follow accordingly.*

Figure 3-3: Riverports

Riverports

⭐ Henderson County Riverport

⭐ Port of Evansville

⭐ Port of Indiana - Mt. Vernon

Bikeways and Greenways

Vanderburgh, Henderson, and Warrick counties all strive to make bicycling and walking safer and more realistic modes of transportation for residents. Communities in the region have made great efforts to build accessible bicycle and pedestrian networks, and have made improvements to existing bicycle networks in the last several years. Improvements include greenway extensions, signing bike routes, designating bike lanes, and sidewalk and curb ramp repairs.

Bikeways

The City of Evansville has installed approximately 20 miles of urban signed bike routes. These routes are shared routes, meaning the bicyclists and motorists share the lane. Connections to the westside, downtown, eastside, and several neighborhoods to the north and south were created when these routes were established.

These bike routes include:

- **An eastside-to-downtown route** along Lincoln Avenue from the Vanderburgh/Warrick County line to Rotherwood Avenue, and along Bellemeade Avenue from Rotherwood to SE Eighth Street downtown. Much of the Lincoln Avenue section exists due to the road diet that reduced the travel lanes from four lanes to two with a center turn lane.

- **A westside-crosstown route** from Howell Park to West Franklin Street, where the route links to the Pigeon Creek Greenway Passage, and across town to Oak Hill Road using Michigan and Virginia Streets.

- **A downtown bike route** on Martin Luther King, Jr. Boulevard (from Mary Street to Cherry Street), with spurs on Cherry Street leading south to the riverfront and Pigeon Creek Greenway Passage, and north to the Bellemeade Avenue route and the downtown Central Library.

- **A bike route on East Franklin Street and Michigan Street**, linking Oak Hill Road and Wesselman Park.

Complete Streets and Trails

In 2011, Evansville completed its first Complete Streets project: a north-south route along Oak Hill Road, from US Highway 41 to Morgan Avenue. The finished street includes a dedicated bike lane, new sidewalks, and updated curb ramps. The next phase of this project will extend the bike lane to Lynch Road. Ultimately, Oak Hill Road will connect with the planned Hi-Rail Corridor segment of the Pigeon Creek Greenway Passage along US Highway 41.

In addition to the urban signed bike routes within the city, there are more than 32 miles of signed bike routes in Union Township, Vanderburgh County, that are part of the Burdette Park Discovery Trail. The Burdette Park Discovery Routes are comprised of four separate routes that connect to Burdette Park, where a trailhead with information, bicycle parking, and showers are available for cyclists' use. Implemented in the summer of 2006, this was Vanderburgh County's first comprehensive facility for recreational "road cyclists" in the region.

In 2011, Warrick County designated over 30 miles of rural roadways as bike routes near the Bluegrass Fish and Wildlife Area. Similar to the Burdette Park Discovery Trail routes in Vanderburgh County, these routes are composed of four connected routes with a trailhead located at New Harmony Road and Zoar Church Road. A route map, parking, and seating are provided at this trailhead.

In 2009, Henderson reconstructed a portion of US Highway 60 southwest of the downtown core. During the reconstruction process, a dedicated bike lane and sidewalks were installed on both sides of US Highway 60. The bike lanes and sidewalks are slightly over 1.5 miles in length and stretch from just west of Drury Lane to the Henderson Bypass (SR 425). Water Street in downtown Henderson is also marked as a bike route (shared lane markings as opposed to a dedicated lane). This route is marked from 7th Street to Powell Street, and connects the Henderson Riverwalk with downtown.

Greenway Systems

The Pigeon Creek Greenway Passage in Evansville has been under development since the early 1990s by the Department of Parks and Recreation. The Greenway provides a safe place for walking, jogging, bicycling, roller-skating, and other activities. Currently, almost seven miles of Greenway connect Sunset Park downtown to the Heidelbach Canoe Launch and Trailhead. Several trailheads with vehicle parking are located along the Greenway for easy access. These locations include Sunrise Park Trailhead; Shirley James Gateway Plaza and Mead Johnson Trailhead; Lamasco Park Trailhead; Ulhorn Trailhead; Garvin Park Trailhead; and Heidelbach Canoe Launch and Trailhead.

Vanderburgh County also has approximately three miles of trail, the Burdette Park – USI Nature Trail, that connects University of Southern Indiana to Burdette Park, as well as to the Burdette Park Discovery Trail bike routes. Trailheads are located at both USI and Burdette Park, with an additional trailhead at Broadway Avenue.

Newburgh's Rivertown Trail is approximately three miles long and extends from the Aurand Trailhead at the intersection of State Route 662 and Frame/Yorkshire Road to the Old Locks and Dam Park. Ultimately, the Rivertown Trail is envisioned to connect to Angel Mounds State Historic Park. Vanderburgh County is also planning to connect to Angel Mounds State Historic Park from the west to create a regional connection.

The Riverwalk in Henderson is a separated, multi-use trail that overlooks the Ohio River. The Riverwalk is just over 1.5 miles long and winds through Atkinson Park before running parallel to Merritt Drive. Currently, the Riverwalk stops at 7th Street where the bike route begins. Sidewalks are present on portions of Water Street where the Riverwalk ends. Recently, a separated path was constructed along a drainage ditch to connect Kimsey Lane to Barrett Boulevard and the Walmart shopping complex. The path is approximately 0.75 miles long, and provides an accessible way for residents west of the US Highway 41 and US Highway 60 interchange to travel to this shopping complex. Kimsey Lane crosses over US Highway 41 as an overpass, so residents do not have to cross US Highway 41 at grade or use the interchange ramps.

Figure 3-4: Trails/Greenways

Trails/Greenways
- —— Separated Path
- —— Bike Lane
- —— Signed Route
- --- Planned
- ★ Pedestrian Bridge
- ● Trail Head

Sidewalks

In Evansville, there are approximately 500 miles of sidewalks (including both sides of the street where applicable), and they are primarily located in the downtown area and in older, more established neighborhoods (see Figure 3-5). A majority of the city's sidewalks are located between First Avenue and Vann Avenue, and mostly south of Diamond Avenue. A solid network of sidewalks is also located throughout Howell neighborhood on the westside and surrounding the North Country Club neighborhood on north First Avenue. East of Vann Avenue, sidewalks are typically only present on major streets, such as Lincoln Avenue and Washington Avenue, and portions of Covert Avenue and Pollack Avenue. In Vanderburgh County, sidewalks are sparse, but can be found in several newer subdivisions. Several of these subdivisions are located on or around golf courses. There is an additional 75 miles of sidewalk located in the county.

In the Town of Newburgh, there are roughly six miles of sidewalks, and a majority of them are located along downtown streets. Streets between Gray Street and the Ohio River have portions of sidewalks, with some streets having sidewalks on only one side. State Street, the main north/south street through downtown, has sidewalks to Sharron Road. The Town of Chandler has very few sidewalks, approximately four miles, which are mostly located along SR 62. State Route 62 has sidewalks on both sides between Tennessee Street and Birkshire Avenue, which covers the length of the town boundary from east to west. Portions of State Street, Oak Street, Illinois Street, and Washington Street are the only other locations within the town limits that have sidewalks. The City of Boonville has sidewalks on a majority of the streets within the city boundary. The only area within

the city that does not have a constant network of sidewalks is located around Maple Grove Cemetery. There are only a few streets on the east side of the city near Park Lane Drive that do not have sidewalks, as well as a few streets on the northwest side of the city. In all, Boonville has approximately 27 miles of sidewalks. There are several subdivisions in Warrick County that have constructed sidewalks. Almost all of these subdivisions are located between Newburgh and Boonville along State Route 261.

Henderson County has approximately 100 miles of sidewalks. Nearly 90 percent of the county's sidewalks are located within Henderson's city boundary, most of which are in the downtown area. Several residential subdivisions located within the city also have sidewalks. In the county, a majority of the neighborhoods around the Henderson Country Club have sidewalks. In Corydon, approximately four blocks downtown on Main Street (US Highway 60) have segments of sidewalks.

Figure 3-5: Existing Sidewalks

Sidewalks

existing

Bus Routes

Metropolitan Evansville Transit System

Metropolitan Evansville Transit System (METS) provides public transportation to the City of Evansville, Indiana. METS provides both fixed route and on-demand paratransit services. Fixed route service is provided Monday through Saturday from 6:00 a.m. to Midnight. METS has eighteen fixed routes and a University of Southern Indiana shuttle. The fixed routes are:

- Covert
- East Connection
- First
- Fulton
- Howell
- Lincoln
- Lynch
- Mary Howell
- Mary Tekoppel
- N. Main Downtown
- Riverside
- Shopper Shuttle
- Stringtown
- Stringtown First
- Walnut
- Washington
- West Connection
- US Highway 41 Connection

METS recently began the US Highway 41 Connection which serves a large employment corridor on north US Highway 41 that was previously unserved. METS also recently established a transfer point with WATS in Warrick County. METS total ridership in 2011 was 2,439,505.

Warrick Area Transit System

Warrick Area Transit System (WATS) provides public transportation service in Warrick County. Service is provided Monday through Friday from 6:00 a.m. to 6:00 p.m. Service began on August 9, 2010 with the Newburgh Route and WATS has added three new routes since then. There are now four hourly routes: Newburgh East, Newburgh West, Chandler, and Boonville. WATS provides an hourly connection to METS at the METS/WATS transfer point located at the ITT Campus in Warrick County. WATS total ridership in 2012 was 27,030.

Henderson Area Rapid Transit

Henderson Area Rapid Transit (HART) provides public transportation service in the City of Henderson, Kentucky. HART provides both fixed route and on-demand paratransit services. Fixed route service is provided Monday through Saturday from 6:00 a.m. to 5:30 p.m. HART has five fixed routes and the College Shuttle. The College Shuttle makes three daily trips to Henderson Community College. The five fixed routes are:

- Shopper Shuttle
- East Gate
- Weaverton
- East End
- North

HART total ridership in 2011 was 151,454. See Figure 3-6 for bus routes.

Figure 3-6: Bus Routes

Bus Routes
- METS
- HART
- WATS

Utilities

Public and private utility companies use a large infrastructure to provide energy, handle potable water and storm water, recycle materials, dispose of solid waste, and enable the flow of information. These utilities must constantly adapt to changing technologies and consumer desires. Recent concerns over the depletion of natural resources have led to an emphasis on "green" technologies and energy conservation measures.

The utilities addressed in this section are water, storm sewer, sanitary sewer, electricity, and solid waste. There are other utilities that serve the region including cable TV/data, natural gas, and telephone, all privately owned.

Water

While much of the water for the region is drawn from the Ohio River, wells drilled into aquifers are also a source of water. This water is treated to potable standards for use by the citizens and pumped to users throughout the region.   The system providers include municipal facilities and private entities. While the supply of water is anticipated to accommodate the existing and future demand, improvements to this existing water supply system need to be regularly identified and constructed for conservation and efficiency purposes.

Storm Sewer

As the region has grown, storm sewers were designed and built to transfer rainfall away from built up areas. For the rural areas and some portions of communities in the region, storm water is controlled through other measures including streams, legal drains, and ditches. In order to reduce, mitigate, or eliminate flooding problems from storm water, the cities and counties in the region have established departments or boards that manage storm water drainage. Drainage ordinances are in place in Henderson, Vanderburgh and Warrick counties to control storm water runoff and soil erosion.

Figure 3-7: Water Service Area

Water Service Areas

Sanitary Sewer

Many of the sewer lines in the region were constructed over 100 years ago as a combined storm water and sanitary sewer. As a result, during heavy rainfall the capacity of these combined sewers can be exceeded resulting in combined sewer overflows (CSOs). To meet the standards in the Clean Water Act, cities must implement a Long Term Control Plan (LTCP) to address combined sewer overflows. In addition to the CSO issues, many of these older sewer lines suffer from inflow and infiltration problems. These problems will be addressed through replacement or rehabilitation in the future. Improvements and additions to the current systems need to be continually made to ensure that future sanitary sewer needs are met.

Solid Waste

Recycling conserves natural resources, saves energy, reduces the need for landfills, prevents pollution, and preserves the environment for future generations. Recycling programs exist throughout the region. The program in Vanderburgh County began in the late 1990s with a large public awareness campaign promoting curbside recycling. One of the most well-known recycle days is the "Tox Away Day." That program has been very successful in collecting various toxic wastes, including pesticides and other hazardous chemicals. Warrick County offers curbside recycling for Boonville, Chandler, and Newburgh city residents. Warrick County also offers eight permanent recycling drop-off centers. Henderson County offers curbside recycling to city residents. For Henderson County residents, there are two drop-off recycling centers.

Figure 3-8: Sanitary Sewer Service Area

Sewer Service Areas

Power and Light

Power and light are served to Henderson residents by Henderson Municipal Power and Light. Henderson was the first city in the western Kentucky region to operate its own power-generating plant. The first electric streetlights in Henderson were lit on August 15, 1896. By 1950, the demand for electricity had grown to such a point that city leaders constructed Station One Power Plant in 1950-1951. Two diesel generators were moved to the new plant to join a pair of 5,000 kW coal-fired units. HMP&L charges its consumers an average of about three to four cents per kilowatt hour, among the lowest rates in the nation.

Vectren Corporation is an energy holding company headquartered in Evansville, Indiana. Vectren's energy delivery subsidiaries provide gas and/or electricity to more than one million customers in about two-thirds of Indiana, plus west central Ohio. Included in Vectren's southwest Indiana service area are 142,000 electric customers in Dubois, Gibson, Pike, Posey, Spencer, Vanderburgh, and Warrick counties. Vectren also provides gas service to 111,000 customers in a nine-county region that adds Knox and Daviess counties to the seven counties listed above. Vectren owns and operates two power plants in southwestern Indiana, A.B. Brown (in Posey County) and F.B. Culley (Warrick County), while also sharing ownership of a 150-megawatt unit (Warrick Unit 4) with Alcoa, also in Warrick County.

Public Safety

The cities and counties in the region have always had a commitment to the safety of their citizens. From fire protection to emergency response to law enforcement, the manpower, training, and equipment of these organizations has enabled the citizens of the region to receive excellent public safety services. As the region continues to grow, these organizations will need to be expanded so that this quality of service will be maintained.

General Housing Affordability in the Metropolitan Area

Prices for single-family homes are relatively affordable in the tri-county area, including Vanderburgh and Warrick counties in Indiana and Henderson County in Kentucky. The median price for a home in the United States in 2010 was $173,100 according to the National Association of Realtors; for Vanderburgh County, in 2010 the median price was $109,000 (IU Kelley School of Business); for Warrick County in 2010 the median price was $143,250 (IU Kelley School); and for Henderson County, the median housing price during the 2007-2011 period was $100,500 according to the United States Census Bureau.

In a 2011 study called "7th Annual *Demographia* International Housing Affordability Survey: 2011," the City of Evansville was rated as the fifth most affordable urban housing market in the developed world.

Courtesy of VPS Architecture

Elevated vacancy rates usually mean that a housing market is slightly over-built, or at the least, there is ample housing available in the marketplace. According to the Center for Urban and Regional Policy at Northeastern University, a normal or "healthy" vacancy rate is 2 percent for owner-occupied housing units and 6 percent for rental units. The 2010 census shows that Henderson (1.8 percent) and Vanderburgh (2.1 percent) fell into the healthy range for owned homes. Warrick County was slightly above them at 2.8 percent, reflecting higher priced homes in Warrick that were more difficult to sell after the 2008 housing recession. Likewise, in the rental market, Henderson (7.4 percent) and Vanderburgh (8.3 percent) were only slightly over-built. Warrick, on the other hand, showed a comparatively high rental vacancy rate of 11.3 percent.

Demand for home ownership opportunities in the three counties have usually been fulfilled by the private market for most age and income groups, with the exception of the lower income segments whose incomes are less than 50 percent of the area median income. While residential demand for rental apartments continues to grow, the market is often incapable of serving the lowest income quartiles without subsidies or public assistance. For example, according to Rick Moore, Director of the Public Housing Authority of the City of Evansville, for every family receiving a federal Section 8 Voucher, there is another family on the Public Housing Authority Section 8 Voucher waiting list, signifying that current appropriations only serve about half of those applying for vouchers.

Effects of the 2007 – 2009 Recession on Low- & Moderate-Income Residents

The Recession of 2007 – 2009 has impacted housing in a major way. The effects of this Recession on housing expectations have been significant. Many American families no longer consider owning a home to be their major investment as they approach retirement. Many have seen their home values plunge, leaving them "underwater," owning houses with mortgages that exceed their home's appraised value. Over 10 million American families have found themselves in very difficult situations. Loss of home value and prolonged unemployment have exacerbated an already acute housing affordability problem for low-income residents in the United States. In 2009, about 20 percent (one in five) of home mortgage holders in high poverty neighborhoods experienced "mortgage distress," defined as falling behind on mortgage payments in 2009 or reporting they were "very likely" to fall behind on mortgage payments in the next 12 months. Also, families who owned homes and initially lived (in 2007) in the poorest US neighborhoods were much less likely to remain homeowners by 2009. The proportion of families owning homes in both 2007 and 2009 in the poorest neighborhoods was 35.6 percent, only half the rate of families living in neighborhoods with less than 10 percent poverty (69.7).

Family Income and Housing Affordability

The US Department of Housing and Urban Development (HUD) publishes its Median Family Income (MFI) calculations utilizing figures from the Evansville-Henderson Standard Metropolitan Statistical Area (SMSA). The breakdown categorizes extremely low-, very low-, and low-income levels, cross indexed with household size as shown in Table 3-1.

The chart makes clear that low- and extremely low-income renters have less financial wherewithal than moderate and higher income families, causing more widespread housing cost burden, defined by HUD as housing that constitutes "a cost burden greater than 30 percent of income and/or overcrowding and/or units without complete kitchen or plumbing facilities." According to the Joint Center for Housing Studies at Harvard University, "Between 2007 and 2010, the number of US households paying more than half of their incomes for housing rose by an astounding 2.3 million, bringing the national total to 20.2 million." See Figure 3-9 and Figure 3-10 from the Harvard analysis showing (a) the national incidence of severe cost burden; and (b) the national share of home purchase loans with federal backing in 2010. Locally, the focus area identified by the Department of Metropolitan Development (DMD), using HUD guidelines, as the area of Evansville that is most vulnerable and challenged regarding housing affordability, housing cost burden, and concentration of poverty is the Pigeon Township area, roughly covering area code 47713.

Table 3-1: 2009 Evansville-Henderson MSA Median Family Income

Number in Household	30% of Median	50% of Median	60% of Median	80% of Median
1 person	$12,800	$21,300	$25,560	$34,100
2 persons	$14,600	$24,350	$29,220	$38,950
3 Persons	$16,450	$27,400	$32,880	$43,850
4 Persons	$18,250	$30,450	$36,540	$48,700
5 Persons	$19,750	$32,900	$39,480	$52,600
6 Persons	$21,150	$35,300	$42,360	$56,500
7 Persons	$22,650	$37,750	$45,300	$60,400
8 Persons	$24,100	$40,200	$48,240	$64,300

Source: U.S. Department of Housing and Urban Development

Figure 3-9: Households Paying More than Half of Pre-Tax Income for Housing

The Incidence of Severe Cost Burdens Has Risen Sharply in the Recession's Aftermath
Number of Households Paying More than Half of Pre-Tax Income for Housing (Millions)

■ Renters ■ Owners

Source: JCHS tabulations of US Census Bureau, American Community Surveys

Figure 3-10: Share of Home Purchase Loans with Federal Backing in 2010

Minorities and Lower-Income Homebuyers Rely Heavily on Government-Backed Loans
Share of Home Purchase Loans with Federal Backing in 2010 (Percent)

Notes: Federally backed loans include FHA/VA and USDA Ruaral Housing loans. Low income is defined as less than 80 percent of area median income (AMI), moderate income is 80 - 120 percent of AMI, and high income is above 120 percent of AMI. Black and white householders are non-hispanic; Hispanics may be of any race.

Source: JCHS tabulations of 2010 Home Mortgage Disclosure Act data.

It should be noted that while the MFI for the entire SMSA was calculated at an overall median of $60,900 in 2009, (including the three counties in the EMPO region of Vanderburgh, Warrick and Henderson counties; as well as Posey and Gibson counties, to the west and north of Vanderburgh respectively), the median income within the City of Evansville itself, calculated in 2007, was only $46,901. Converted to a 2013 equivalent, the MFI in Evansville is still only $51,367. The figure commonly used to depict median income in the SMSA is higher than the median income of residents of the City of Evansville or the City of Henderson, Kentucky solely, so the SMSA makes affordability challenges within the two cities seem smaller than it actually is. (See Henderson, discussed below.) *The Consolidated Housing and Community Development Plan for 2010-2014*, prepared for Evansville by the City of Evansville Department of Metropolitan Development, states that 74 percent of the households in the City of Evansville could afford to buy the median valued home in the city; and that 62 percent could afford the median rent. Median rent in the DMD Focus Area of Pigeon Township in 2000 was a very competitive $345. That rent amount was only $25 less than the $370 average for the overall City of Evansville at that time. By 2010, the median rent, according to the US Census, for zip code 47713 was $371 per month. It should be remembered that a person drawing the minimum wage, which amounts to $15,000 per year, can only afford a rent of approximately $375 per month.

Housing Conditions

Examining figures provided by the US Department of Housing and Urban Development for the City of Evansville only (where the majority of low- and moderate-income households within the SMSA reside), the amount of additional affordable housing that is required can be estimated. The following home affordability charts (Table 3-2 and Table 3-3), published by HUD from their Comprehensive Housing Affordability Strategy (CHAS) numbers in 2009, summarize home-owning and renter-occupied households within the City of Evansville.

In Henderson County, Kentucky, the majority of assisted housing units are located in the urban core of the City of Henderson itself. Census data from 2000 revealed an estimated total of 12,652 housing units in the City of Henderson. Of this total, there were 959 vacant houses and 57 that were used only occasionally or seasonally. As to tenure within the city, 4,997 of the total 12,652 housing units were renter-occupied, and the remaining 6,696 were owner-occupied. In Henderson census tracts 201-205, 65 percent of the housing stock is valued under $60,000.

Table 3-2: Comprehensive Housing Affordability Survey Numbers - 2008 to 2010: Owner-Occupied Households

	Elderly (1 to 2 Members)	Small Related (2 to 4 Members)	Large Related (5 or More Members)	All Other	Total Owners
Household Income <= 50 % MFI	1,443	2,649	348	6,060	10,500
Household Income <= 30 % MFI	293	1,094	144	2,430	3,961
% Cost Burden > 30%	90.4%	82.7%	93.1%	74.3%	78.5%
% Cost Burden > 50%	83.6%	60.8%	72.9%	49.2%	55.8%
Household Income > 30 to <= 50% MFI	1,150	1,555	204	3,630	6,539
% Cost Burden > 30%	33.0%	65.6%	53.9%	49.7%	50.7%
% Cost Burden > 50%	10.4%	39.9%	24.5%	23.3%	25.0%
Household Income > 50 to <=80% MFI	2,985	3,765	620	4,285	11,655
% Cost Burden > 30%	21.4%	44.5%	45.2%	34.9%	35.1%
% Cost Burden > 50%	5.2%	5.6%	8.1%	9.1%	6.9%
Household Income > 80% MFI	2,069	3,020	370	2,500	1,620
% Cost Burden > 30%	9.9%	21.4%	17.6%	2.8%	60.7%
% Cost Burden > 50%	2.2%	2.8%	0.0%	0.0%	8.0%
Total Households	13,831	39,534	5,628	20,160	79,153
% Cost Burden > 30%	13.3%	14.6%	15.5%	26.7%	17.5%
% Cost Burden > 50%	4.2%	4.3%	5.0%	12.1%	6.3%

Source: 2006 - 2008 CHAS numbers as provided by the US Department of Housing and Urban Development

Table 3-3: Comprehensive Housing Affordability Survey Numbers - 2008 to 2010: Renter-Occupied Households

	Elderly (1 to 2 Members)	Small Related (2 to 4 Members)	Large Related (5 or More Members)	All Other	Total Owners
Household Income <= 50 % MFI	445	5,495	845	10,055	16,840
Household Income <= 30 % MFI	130	3,210	405	5,900	9,645
% Cost Burden > 30%	65.4%	80.8%	92.6%	78.3%	79.6%
% Cost Burden > 50%	15.4%	73.2%	75.3%	65.8%	68.0%
Household Income > 30 to <= 50% MFI	315	2,285	440	4,155	7,195
% Cost Burden > 30%	90.5%	74.4%	83.0%	30.7%	24.0%
% Cost Burden > 50%	47.6%	24.3%	31.8%	24.8%	26.1%
Household Income > 50 to <=80% MFI	350	3,024	235	4,170	7,779
% Cost Burden > 30%	48.6%	32.0%	19.1%	35.3%	34.1%
% Cost Burden > 50%	2.9%	0.5%	0.0%	5.2%	3.1%
Household Income > 80% MFI	230	1,164	405	1,939	3,738
% Cost Burden > 30%	0.0%	5.9%	0.0%	2.1%	4.3%
% Cost Burden > 50%	0.0%	0.0%	0.0%	3.1%	1.6%
Total Households	1,300	12,733	1,925	19,474	35,432
% Cost Burden > 30%	43.1%	41.9%	40.8%	38.5%	40.0%
% Cost Burden > 50%	15.4%	22.9%	23.1%	26.9%	24.8%

Source: 2006 - 2008 CHAS numbers as provided by the US Department of Housing and Urban Development

In the 2000 Census, the City of Henderson's median household income is shown to be $30,417, well below the national median household income at that time. Around 41.7 percent (or 4,872) of Henderson's households earned less than $25,000 and 24.5 percent earned less than $15,000, which is also shown in the 2000 Census data. The 2000 Census also placed Henderson's poverty rate at 16.5 percent, which was 2.2 percent higher than the national average. Table 3-4 shows the percentage of poverty level by tract and race for Henderson. The median gross rent in the City of Henderson from 2000 data was $402, over 30 percent less than the national average at that time.

Table 3-4: Poverty Level by Tract and Race for Henderson County, Kentucky

Tract	Caucasian	African American	Other Minority	% Tract Pop Below Poverty
201	17.4%	42.3%	0.0%	21.5%
202	27.9%	12.0%	0.0%	25.4%
203	21.5%	21.8%	60.9%	22.0%
204	29.3%	29.4%	89.7%	29.7%
205	20.4%	8.8%	4.3%	18.5%
206.1	8.6%	15.6%	17.8%	9.4%
206.2	17.7%	43.8%	16.9%	20.6%
207.1	5.8%	20.0%	3.6%	6.1%
207.2	5.1%	31.2%	40.0%	5.8%
208	6.9%	0.0%	7.7%	6.8%
209	6.2%	24.9%	38.2%	7.2%

Note: Hispanic Population City-Wide is 13.8%

Source: US Census 2000

Age and Quality of Existing Housing Stock

The 2000 US Census shows that over 50 percent of the housing stock in the DMD Focus Area of the City of Evansville (Pigeon Township, zip code 47713) was built prior to 1949, compared to only 25 percent built pre-1949 in the City of Evansville overall. The 2000 Census also indicates there was a vacancy rate of 15 percent in the Pigeon Township Focus Area, compared to only eight percent city-wide in 2000. Housing built prior to 1949 often contains lead-based paint. Lead paint was commonly used until about 1978, but in declining quantities after 1949. The City of Evansville is well aware of the lead issue and has taken steps to educate contractors and the general public about, and mitigate, the health risks associated with lead-based paint, particularly for children. The Department of Metropolitan Development has done windshield surveys and mapped the housing conditions in its Focus Area (zip code 47713). The windshield surveys show that the housing condition in that area is average at best and more generally below average. Very few units are in good condition, and even fewer are in very good to excellent condition.

Within the city limits of Henderson, Kentucky about 13.7 percent of the housing stock was built prior to 1949, also increasing the likelihood of lead-based paint hazards. Another 33.8 percent of Henderson's housing stock was built before 1960. However, in the Focus Area of Henderson, census tracts 201-205 (defined by Henderson County using HUD guidelines), 72.4 percent of the housing stock was built prior to 1960.

Table 3-5: Population Projections

Henderson County Population Projection By Age Group

Age	2000	2010	2020	2030	2040
0-19	27.2%	25.8%	27.0%	26.9%	26.5%
20-44	35.7%	31.0%	29.1%	28.5%	30.2%
45-64	24.0%	29.0%	26.4%	23.6%	23.1%
65+	13.1%	14.2%	17.5%	21.0%	20.2%
Total	44,829	46,250	47,600	48,122	47,576

Source: University of Louisville, Urban Studies Institute, Projections of Total Resident Populations by Age and Sex and Components of Change: Middle Series

Warrick County Population Projection By Age Group

Age	2000	2010	2020	2030	2040
0-19	29.1%	28.2%	27.7%	26.6%	26.1%
20-44	34.4%	29.1%	27.0%	27.2%	28.2%
45-64	25.6%	29.4%	27.1%	23.8%	22.5%
65+	10.9%	13.3%	18.2%	22.4%	23.2%
Total	52,383	59,689	65,567	71,510	77,829

Source: STATS Indiana developed and maintained by the Indiana Business Research Center at Indiana University's Kelley School of Business

Vanderburgh County Population Projection By Age Group

Age	2000	2010	2020	2030	2040
0-19	26.7%	25.7%	26.9%	27.3%	27.0%
20-44	36.0%	33.1%	33.0%	32.7%	32.6%
45-64	22.1%	26.8%	23.7%	21.1%	22.9%
65+	15.3%	14.4%	16.5%	19.0%	17.5%
Total	171,922	179,703	185,521	191,491	197,906

Source: STATS Indiana developed and maintained by the Indiana Business Research Center at Indiana University's Kelley School of Business

Local and National Housing Trends

Table 3-5 shows population totals for years up to 2010 and, thereafter, projections for all three counties up to 2040. These projections, based on cohort survival models, show that there will be a substantial "graying" of the population through 2040. According to Harvard's Joint Center for Housing Studies, by 2020 there will be more single people over the age of 70 in the US than total singles between the ages of 20 and 50. Along with the graying of the population comes a shift in housing choices and preferences. The population projections are provided by the Indiana Business Research Center, IU Kelley School of Business, for Vanderburgh and Warrick counties; and by the University of Louisville Urban Studies Institute for Henderson.

In the 2011 Community Preference Survey published by the National Association of Realtors through their opinion research consultant, Belden, Russonello & Stewart, LLC, national trends were examined by means of opinion surveys conducted in all parts of the United States. After giving interviewees a detailed description of two different types of neighborhood communities, 56 percent of American respondents selected the "smart growth" neighborhood and 43 percent opted for the "sprawl" community. Other significant preferences discovered in the survey are:

- Two-thirds of respondents (66% very important or somewhat important) see being within an easy walk of places in their community as an important factor in deciding where to live. Specifically, being within an easy walk of a grocery store (75%), pharmacy (65%), hospital (61%), and restaurants (60%) is important to at least six in ten Americans.

- Americans saw improving existing communities (57%) and building new developments within existing communities (32%) as much higher priorities than building new developments in the countryside (7%).

- Preserving farms and open areas from development are a higher priority (53% extremely high or high priority) than creating new developments (24%).

- Younger people (31%, under 30), African Americans (26%), Latinos (29%), and singles (29%) are the groups most likely to prefer city living.

- More than four in ten Americans (45%) report currently living in a suburban community, including one-quarter (26%) in a suburb with a mix of housing and businesses and two in ten (19%) in areas with housing only. Looking at preferences, however, fewer people want to live in suburban neighborhoods that consist only of housing (12%) rather than a mix of housing, shops and other businesses (28%).

- Small town and rural communities appeal to many Americans. Three in ten (30%) currently describe their community as a small town (14%) or a rural area (16%); however, four in ten Americans (49%) would like to live in one of these types of communities (18%, small town; 22%, rural area).

- Americans consider many factors when choosing a neighborhood. The top factors include privacy from neighbors (87% important; 45% very important); being within a 30-minute or less commute to workplaces (78% important; 36% very important); having sidewalks and trails to take walks (77% important; 31% very important); and high quality public schools (75% important; 44% very important).

- Walkability is important to many in deciding where to live. Figure 3-11 outlines what destinations are more and less desirable to be reached by walking.

- The most attractive element of the "smart growth" community, for those who selected it, is the fact that amenities such as restaurants, stores, schools, and libraries are within a few blocks (60%).

- Facing limited resources, many home buyers need to decide between getting into a good neighborhood or having a larger home. For most Americans surveyed, neighborhood is the clear winner if there has to be a choice of one over the other. The neighborhood choice is the clear winner with more than seven times as many choosing a "good" neighborhood (88%) over a larger home (12%).

- Americans recognize several areas in which their communities need help. Nearly half say their communities do not have enough public transportation or housing for people with low incomes. Many say their communities also lack features that would make them more pleasant, like places to bike, walk or exercise. A majority prioritizes government making improvements to existing communities, such as **adding parks and sidewalks**, over supporting new developments. Investing in better public transportation is widely seen as the answer to traffic congestion (see Figure 3-12).

- In considering their current communities, Americans identify several unmet needs. Pluralities of Americans surveyed lack adequate public transportation (51%, too little) and low-income housing (47%). Figure 3-12 summarizes responses to what is needed most in American neighborhoods and communities.

Many of the housing location choice and proximity preferences outlined in the national survey are mirrored in the survey of the three local counties, Vanderburgh, Warrick and Henderson. See Chapter 4 of this report for survey results and the accompanying localized data in Appendix B and C of the Appendices document.

Figure 3-11: Importance of Walkability

Importance of Walkability

■ Very Important   ■ Somewhat Important

	Very Important	Somewhat Important	Total
Grocery Store	35%	40%	75%
Pharmacy	24%	41%	65%
Hospital	25%	36%	61%
Restaurants	18%	42%	60%
Cultural Resources	17%	42%	59%
Schools	26%	29%	55%
Doctor's Offices	19%	36%	55%
Public Transportation by Bus	21%	29%	50%
Recreational Facilities	12%	35%	47%
Place of Worship	17%	30%	47%
Public Transportation by Rail	14%	28%	42%

Q18. In deciding where to live, indicate how important it would be to you to have each of the following within an easy walk: very important, somewhat important, not very important, or not at all important. (Randomize) b. Grocery Store; c. Pharmacy or drug store; g. A hospital; i. Restaurants; e. Cultural resources like libraries or theaters; a. Schools; d. Doctors' offices; h_a/ (Split sample A, n=1,011) Public transportation by bus; f. Recreational facilities like swimming, golf, or tennis; j. Church, synagogue, or other place of worship; h_b. (Split sample b, n=1,060) Public transportation by rail.

Source: The 2011 Community Preference Survey, Belden Russonello & Stewart, LLC.

Figure 3-12: Community Needs

Community Needs
% saying too little in their current community

■ 2011   ■ 2004

	2011	2004
Public Transportation	51%	46%
Housing for Low Incomes	47%	49%
Shops or Restaurants Within Easy Walk of Home	46%	42%
Places to Bike	45%	46%
Housing for Moderate Incomes	42%	39%
Places to Walk or Exercise	41%	40%
Sidewalks	40%	36%
Parks and Playgrounds	36%	37%
New Stores and Offices Being Built	31%	23%
Large Discount/Warehouse Stores	28%	19%
New Houses and Apartments Being Built	23%	15%
Housing for High Incomes	10%	5%

Q3. Do you think there is too much, too little, or the right amount of each of the following in the area close to where you live: (Randomize) c. Public transportation within an easy walk (2004 wording "...within walking distance"); g. Housing for people with low incomes; a. Shops or restaurants within an easy walk of your house; f. Places to bike; h. Housing for people with moderate incomes; e. Places to walk or exercise for fun; b. Sidewalks; d. Parks and playgrounds; j. New stores and offices being built; l. Large discount or warehouse stores; k. New houses and apartments being built; i. Housing for people with incomes.

Source: The 2011 Community Preference Survey, Belden Russonello & Stewart, LLC.

Echo Boomers and Future Housing Markets

The Millennials Generation, otherwise called Generation Y, aged 16-34 in 2013 (born in the period from 1979-1997), is the largest population cohort since the Baby Boomers. Baby Boomers are swiftly reaching their retirement years, now aged 47-65 (born in the period of 1948-1966). Baby Boomers have given birth to children in the Millennials Generation, a subset of which is called "Echo Boomers." Echo Boomers are typically defined as the leading half of the Millennials Generation, aged 25-34 (born in the period from 1979-1988). Baby Boomers in the United States now count approximately 76 million, while Millennials count 79 million. By 2030, projections based on actuarial and public health factors, predict that Baby Boomers will count around 56 million, while their progeny, the Millennials, will survive in numbers approaching 78 million, according to the United Nations, Department of Economic and Social Affairs.

The Joint Center for Housing Studies at Harvard University in its analysis *The State of the Nation's Housing 2012*, states that …"rental markets have yet to benefit from the presence of the large echo-boom generation." The study explains that this young generation is either still in college, living with a parent, or doubling-up with friends and relatives. The Harvard study goes on to say that, "The recession helped dampen the rate at which young people begin to live independently, contributing to a decline in the number of households under age 25—the years when renting is most common. But once the economy recovers and the echo boomers increasingly strike out on their own, rental markets will receive another significant lift." Millennials Generation and its subset of Echo Boomers will be guiding major market decisions about housing type, size and configuration in the coming decades.

If decisions that will be made by the Millennials in the period from 2020-2040 resemble predilections displayed by today's Echo Boomers, a major shift in housing culture is imminent. Many of today's Echo Boomers have substantial student loan debt, combined with dampened employment opportunities. In 2010, student loan debt surpassed the level of national credit card debt, at a level of about $1 trillion. That figure continues to rise. Unemployment figures are among the worst for recent college graduates.

Many of the Echo Boomers have witnessed the toil and hard work of their parents end in layoffs or firings, while at the same time all too frequently observing their parents' home mortgages going "underwater." For these and other reasons, Echo Boomers who leave home are flocking to urban districts, occupying rental flats, townhouses, and lofts. They do not seem to be sold on the idea that a single family home on a half-acre lot is their American dream; not yet anyway. However, according to *The State of the Nation's Housing 2012*, by the Joint Center for Housing Studies at Harvard

University, the Echo Boomers' cohort "will be the primary driver of new household formation over the next two decades. Meanwhile, the Baby Boomers will continue to push up the number of senior households for years to come as they replace the much smaller pre-boom generation in the older age groups." In the meantime, most Echo Boomers seem destined to rent housing in compact, walkable, mixed-use urban neighborhoods, according to IBIS World Market Research Services in a Special Report from March of 2012.

In viewing preferences surveyed by the National Association of Realtors in their 2011 national opinion surveys, it is clear that life cycle housing options within a wide range of housing types, sizes, locations and configurations, all designed and delivered in a sustainable manner, will be the keys to creating the most successful communities and neighborhoods of the future.

Courtesy of VPS Architecture

The Preservation versus Mobility Debate

According to the National Housing Trust (NHT), the United States constructs approximately 100,000 affordable apartments each year, combining both private market and government subsidized programs. However, NHT also reports that for every new affordable apartment created annually, two are lost due to deterioration, abandonment or conversion to more expensive market-rate units. This fact alone suggests that we should increase projections for needed affordable housing units by at least 50 percent above levels prescribed by projected population figures, looking forward to 2030 and beyond. To illustrate the losses and gains, data from the 2010 American Community Survey (ACS) shows that between 2007 and 2010, the rental market lost nearly one million units priced under $500 per month, while gaining over two million units priced above $1250 per month. And nearly three out of ten housing units renting for less than $400 in 1999 were lost from the stock altogether a decade later (2009).This loss of affordable housing units has been widely documented. The Joint Center for Housing Studies at Harvard reports that 12 percent of the low-cost rental market was lost between 1999 and 2010. Quoting from *The State of the Nation's Housing 2012* by the Harvard Joint Center for Housing Studies:

"And contrary to popular wisdom, the filtering of properties from higher to lower rents (due to aging and depreciation) over time has not replenished the supply (of affordable units). In fact, losses due to rising rents are a major drain on the low-cost inventory: for every two units that moved down to the low-cost category between 1999 and 2009, three moved up to higher rent levels."

Courtesy of VPS Architecture

Due to the losses in units mentioned above, preserving existing affordable housing stock, particularly the units close to public transportation, is probably more critical than ever before. Programs such as the Low Income Housing Tax Credit (LIHTC) contain affordability restrictions for a period of fifteen years, but these types of restrictions are expiring in record numbers. And the recent improvements in rental housing market conditions have created incentives for owners of previously affordable rent properties to "opt out" of affordable programs and thereafter raise rent levels. Preserving existing affordable housing is far more cost effective than building new affordable rental units. Land use restrictions and increasing land values have made creating new affordable units more and more difficult. According to the National Housing Trust (NHT), rehabilitating an existing affordable unit can be anywhere from one third to one half less expensive than building an equivalent new affordable unit. Preservation is not only cost-effective, but far more environmentally sustainable, saving energy in a number of ways.

In their paper *Affordable Housing Dilemma: The Preservation versus Mobility Debate*, published in May of 2012 and prepared for the National Low Income Housing Coalition, Sheila Crowley, Ph.D. and Danilo Perriere, Ph.D. conducted interviews of persons having deep knowledge and varying perspectives on the preservation versus mobility debate; and they analyzed the data using qualitative research methods. The debate itself grapples with the question of whether federal housing policy should focus on preserving existing public and assisted housing, often located in low income, racially segregated neighborhoods, or focus on helping residents of this often inner-city, assisted housing to move to higher income, less racially segregated neighborhoods, which often tend to be closer to economic opportunities and higher paying jobs.

After a review of the pertinent literature and analysis of data from interviewees, the authors concluded the following:

- *"The shortage of affordable housing must be addressed.* The long term solution to maximizing choice is to increase the resources to such a level that the supply of housing that the lowest income people can afford is no longer constricted.

- *Policy should err on the side of preservation.* For the foreseeable future, public policy should have a preference for preservation and improving public and assisted housing in low income communities, with strictly enforced anti-displacement policies.

- *The voucher program should be improved.* Three policy changes, which will help vouchers offer more choice, should be passed immediately by Congress: (1) prohibition against discrimination in housing based on source of income; (2) regional and state administration of vouchers; and (3) implementation of small area fair market rents (FMRs) nationwide.

- *US housing policy should not be based on the belief that it is problematic for too many poor people or too many people of color to live near one another.* We should continue to strive for a greater measure of racial and economic residential diversity in the United States based on choice, but any and all policy prescriptions that involve involuntary displacement of low income people or people of color should be abandoned.

- *Schools must be equal.* Access to better schools is the primary motivation for mobility programs. We should invest in transforming schools in low income neighborhoods. Improving the opportunities of some poor children by moving them to better schools, while reducing the opportunities of the poor children left behind, is unacceptable."
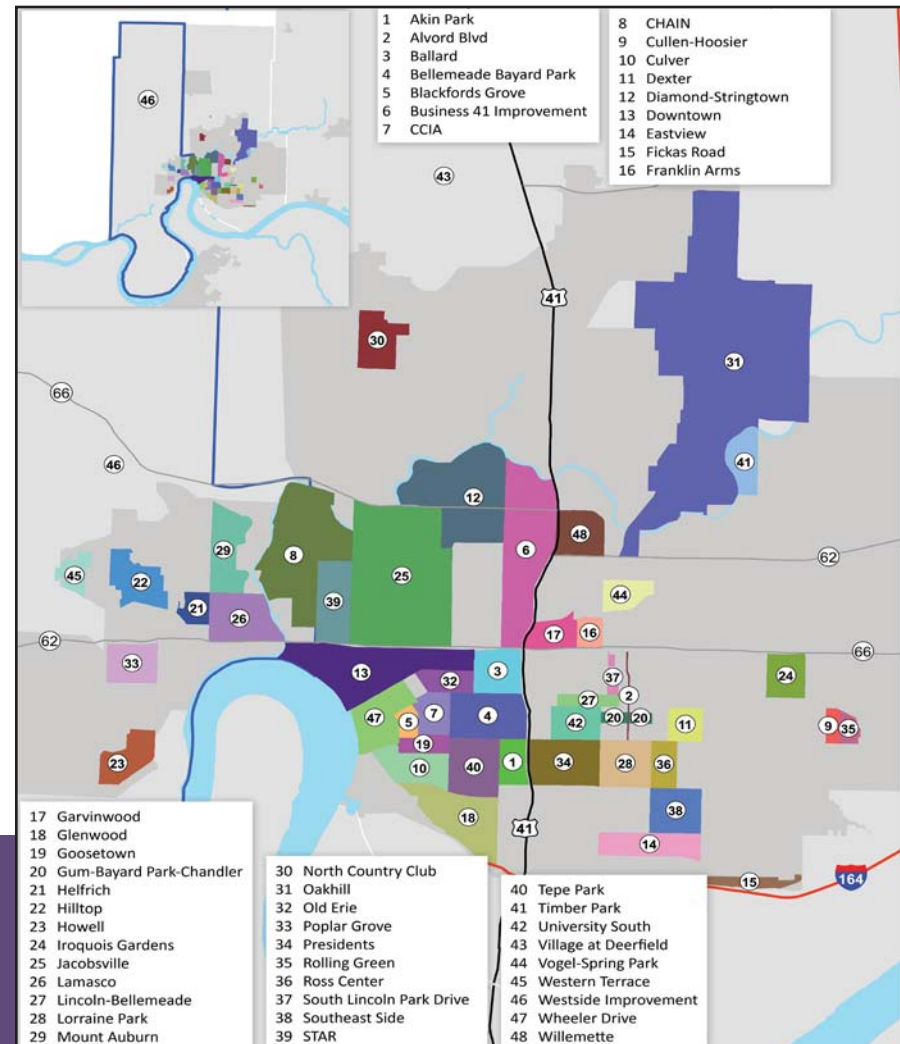
Neighborhood Associations and Targeted Areas

The following map shows the present neighborhood associations within the City of Evansville. Neighborhoods have typically served as the "basic building blocks" of civic municipalities since Americans began migrating from farms and congregating in urban settlements. Neighborhoods serve best when they have a defined "center of interest" that neighbors can identify with, such as a community school, library, community center, or municipal park. (Neighborhoods in Henderson, Kentucky have evolved and changed since the founding of the city. The diagrams showing this evolution indicate what is now called the greater "East End," the Regional Plan study area for public housing, historic homes, and moderate income residents. The East End is one of the focal areas for prototype planning and design in this Regional Plan for Sustainable Development.) Likewise, the Haynie's Corner Cultural District is the prototype neighborhood in Evansville for the Regional Plan. And the Chandler-Boonville Corridor is the defined focal area for increased housing choices in Warrick County.

Below is a quote from the 2010-2014 Consolidated Plan for Evansville, Indiana, prepared by the Department of Metropolitan Development:

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*"**Action**: In the next five years, the 2010-2014 Evansville Consolidated Plan will focus on the revitalization of declining neighborhoods in all eligible areas thus reinvigorating the central core while stabilizing our neighborhoods city-wide. CDBG and HOME funds will be used in-house and allocated to non-profit agencies, CBDOs, CHDOs, and local government entities through the City's budgeting process, where the….Neighborhood Pride initiatives are being implemented. These efforts will continue to improve the quality and appearance of neighborhoods, result in increases of the disposable household income of residents, maintain and improve the household wealth of residences,*

Figure 3-13: Evansville Neighborhood Associations

1	Akin Park	8	CHAIN
2	Alvord Blvd	9	Cullen-Hoosier
3	Ballard	10	Culver
4	Bellemeade Bayard Park	11	Dexter
5	Blackfords Grove	12	Diamond-Stringtown
6	Business 41 Improvement	13	Downtown
7	CCIA	14	Eastview
		15	Fickas Road
		16	Franklin Arms

17	Garvinwood	30	North Country Club	40	Tepe Park
18	Glenwood	31	Oakhill	41	Timber Park
19	Goosetown	32	Old Erie	42	University South
20	Gum-Bayard Park-Chandler	33	Poplar Grove	43	Village at Deerfield
21	Helfrich	34	Presidents	44	Vogel-Spring Park
22	Hilltop	35	Rolling Green	45	Western Terrace
23	Howell	36	Ross Center	46	Westside Improvement
24	Iroquois Gardens	37	South Lincoln Park Drive	47	Wheeler Drive
25	Jacobsville	38	Southeast Side	48	Willemette
26	Lamasco	39	STAR		
27	Lincoln-Bellemeade				
28	Lorraine Park				
29	Mount Auburn				

and create and maintain diverse mixed-income neighborhoods. The City of Evansville estimates there will be an investment of $54 million of private and public funds on housing and infrastructure improvements over the next five years."

Figure 3-14: Henderson East End

INITIAL TARGET AREA

SALVATION ARMY

CENTRAL LEARNING CENTER

SECOND

FIRST

CENTER

LETCHER

WASHINGTON

POWELL

CLAY

MARTIN LUTHER KING JR.

GREEN

ALVASIA

ALVES

ANNE

ELM

CHERRY

CHESTNUT

NORRIS

SAND

PRINGLE

BOMB

SOUTH HEIGHTS ELEM.

JFK

CEMETERY

NEWMAN BALLPARK

SOUTH JR. HIGH

SCALE: 1" = 0.1 MILE

Legend:

- EAST END NEIGHBORHOOD
- POSSIBLE POCKET PARK
- POSSIBLE COMMUNITY GARDEN
- EXISTING COMMUNITY GARDEN
- POSSIBLE COMMUNITY BUSINESS INCUBATOR
- POSSIBLE COMMUNITY FOOD HUB
- POSSIBLE COMMUNITY CENTER
  - BASKETBALL COURTS CLOSE SO KIDS CAN WALK TO THEM
  - MENTOR PROGRAMS FOR ADULTS
  - INDOOR FACILITY FOR RECREATION DURING COLD SEASONS
- LETCHER STREET ARTS DISTRICT DEVELOPMENT
  - CONNECTIVITY
  - NEIGHBORHOOD CAFES
  - MUSIC & ENTERTAINMENT
  - SKATE PARK
  - BANKS/RETAIL
  - SIMILAR TO PADUCAH MODEL
- THOROUGHFARES: NEW PEDESTRIAN TRAILS/OFF-STREET PARKING
  - SAFER DRIVING, WALKING, & BIKING
  - VACANT LOTS CAN BE USED FOR OFF-STREET PARKING
  - POSSIBLE 5K LOOP
- EXISTING PARK/ GREEN SPACE
- YOUTH/FAMILY CENTERS
  - UTILIZE EXISTING FACILITIES AS COMMUNITY CENTERS WITH PLAYGROUNDS, POOLS, COURTS
- MIXED USE REDEVELOPMENT CORRIDOR (SECOND STREET)
- POSSIBLE PORTALS TO EAST END
  - CREATE AN ESTABLISHED LANDMARK THAT IS EASILY IDENTIFIABLE
- BIKE PATH

ENGAGE HENDERSON | **EAST END** VISION PLAN

Energy Efficient Urban Growth

In the US, the total number of automobile commuters increased 13 percent in exurban locations (rural bedroom settlements or commuter villages) during the decade of the 2000s. The number of automobile commuters in core urban areas and suburbs of urban areas together increased at a rate of only 3 percent. More compact growth patterns, such as mixed-used developments with housing at **densities of 10-20 dwelling units per acre** have a major impact on vehicle miles traveled (VMT). The National Academy of Sciences estimates that if all future new housing were built at twice the current density levels on average, VMT would drop at a rate of about 5 percent to 12 percent by mid-21st century, providing (1) that viable forms of public transit opportunities are available; (2) that employment developments are clustered with denser housing; and (3) that local zoning laws become more flexible to allow creative mixed-use/denser designs. Beyond the improvements in travel time, denser housing and employment centers are capable of reducing residential energy consumption costs by up to 40 percent. (The average multi-family unit consumes 40 percent less energy per square foot than the average single-family detached home.) [1]
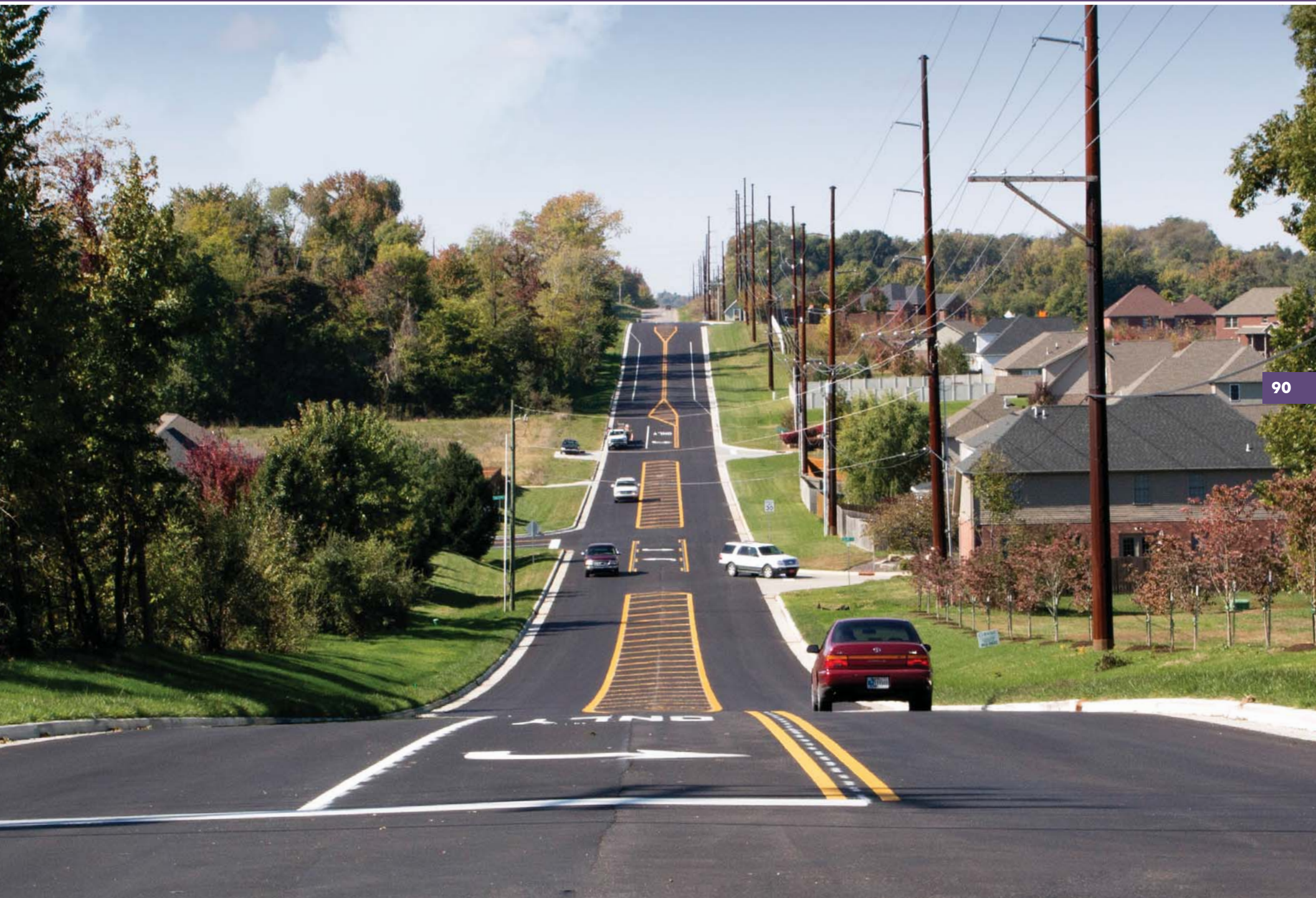
Hand in hand with providing more residential density in new construction projects, rehabilitating older homes and improving their energy efficiency holds promise for cutting energy consumption and costs even further, along with substantially decreasing the amount of greenhouse gas emissions. The Energy Information Administration estimates that making specific energy upgrades to older housing stock, to the level of the efficiencies of the average post-2000 home, would lower overall residential energy consumption in the US by 24 percent. Tax credits for energy-efficient homebuilding and remodeling have prompted strong consumer demand for energy-savings,

especially when backed with federal tax incentives. According to recent Internal Revenue Service (IRS) data, the number of filers for residential tax credits jumped from 162,000 in 2008 to 4.6 million in 2009. The 2009 filers comprised about 10 percent of all filers who itemize deductions. The actual increase in tax credits granted went from $166 million in 2008 to about $4.3 billion in 2009 – in just one year.

The American Council for an Energy Efficient Economy has reported that 10 percent of newly constructed homes in 2009 were eligible for the Energy Policy Act of 2005 Homebuilder Tax Credit (Note: This is a $2,000 credit for using 50 percent less energy than required under the International Energy Code). The US Department of Energy's Weatherization Assistance Program received an additional $5 billion in 2009, continuing to provide insulation, as well as energy efficient HVAC systems to low-income households. The DOE program, in its 33 years, has helped 6.4 million households by reducing their annual energy bills by an average of more than $400 per month.

1 Driving and the Built Environment: The Effects of Compact Development on Motorized Travel, Energy Use, and CO2 Emissions – Special Report 298, (2009), National Academy of Sciences, Committee for the Study of the Relationship Among Development Patterns, Vehicle Miles Traveled, and Energy Consumption, National Research Council, ISBN 978-0-309-14255-7.

Neighborhood Walkability Rankings Using Walk Score

Headquartered in Seattle, Washington, Walk Score is a private firm, founded in July of 2007, with a mission "to promote walkable neighborhoods." Walk Score states its belief that walkable neighborhoods are "one of the simplest and best solutions for the environment, our health, and our economy." The primary product that Walk Score offers is its public access walkability index. The index gives a numerical walkability score to addresses in the US, Canada, Australia and New Zealand. In addition to Walk Score, the company also offers two other products, Bike Score and Transit Score. The site's creators state that, "The Walk Score algorithm awards points based on the distance to the closest amenity in each category. If the closest amenity in a category is within 0.25 miles (or 0.4 km), we assign the maximum number of points."

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Table 3-6 shows some sample calculations. Neighborhood walkability is one of the key policy and planning goals of the SEAC Regional Plan for Sustainable Development. The Regional Plan for Sustainable Development (RPSD) and its executing agency, EMPO, is committed to enhancing walkability in all neighborhoods in its three-county area.

Table 3-6: Sample of National Walkability Ratings

Best	Worst
1. New York City 85.3 (2)	1. Jacksonville 32.6 (39)
2. San Francisco 84.9 (1)	2. Charlotte 34.3 (17)
3. Boston 79.2 (6)	3. Oklahoma City 35.6 (32)
4. Chicago 74.3 (24)	4. Indianapolis 37.4 (37)
5. Philadelphia 74.1 (27)	5. Kansas City 38.1 (34)

Sources: Walk Score, www.walkscore.com; Emerging Trends in Real Estate 2013 survey.

Note: On a scale of 0 to 100, with 100 representing a walker's paradise. List based on Emerging Trends markets only.

Number in parentheses represents Emerging Trends 2013 total market rank.

Meeting Affordable Housing Needs – Public and Private Initiatives

Again quoting the findings of the 2010-2014 Consolidated Plan for Evansville:

"The Target Area (Pigeon Township/Area Code 47713) is one of the most depressed real estate sub-markets in the city. The housing stock contains some of the oldest in town, the lowest home prices, some of the highest days on the market for the upper end homes, with the fewest number of lots for sale and some of the highest months' supply of homes in the county. The local government has purchased some vacant and neglected lots. Neighborhood churches have helped by developing some new housing units. Beyond that there is little to no private development in housing in the Target Area. The problem is the lack of demand in this sub-market. The risk of investment loss is too great.

The potential for new multi-family development (in the Target Area) is greater than single family construction. This is because there is demand for housing units in the Target Area and there is government assistance available through Section 8 (vouchers) and other agencies for renters. Investors can potentially achieve an adequate return on investment with subsidized rents and good demand. Care should be taken in locating any new project to insure safety for the residents, proximity to bus lines, shopping, schools, recreational facilities, jobs, etc."

The Regional Plan for Sustainable Development (RPSD) strives to identify neighborhood census tracts in which to pursue an "infill" strategy, utilizing various multi-family constructs. The need for a pipeline of affordable housing is currently being met, in part, by the following public and not-for-profit sources:

ECHO Housing Corporation – ECHO is a designated Community Housing Development Organization. The corporation has over 29 rental units in the downtown Evansville focus area, mostly single-family homes. Through ECHO Lucas Place and Lucas Place II the corporation provides apartments for homeless families and single homeless veterans.

Habitat for Humanity – Active in the downtown Evansville focus area, Habitat of Evansville is capable of delivering between 15-20 two, three and four bedroom homes for ownership annually. Habitat of Henderson is now organizing to be able to deliver more homes than ever before. Its target area is the Henderson East End.

Memorial Community Development Corporation (CDC) – Memorial is a faith-based Community Housing Development Organization (CHDO), which has extended its mission to empowering the inner city by addressing housing, family services, and economic development.

Aurora, Inc. – Aurora is dedicated to ending Homelessness in the Tri-State.

HOPE of Evansville Home Ownership Center – HOPE of Evansville is a HUD-trained and approved Certified Comprehensive Housing Counselor. HOPE's "Homes of Evansville" program is a low-income housing tax credit project that provides affordable housing to qualified households on a lease-purchase (rent to own) basis.

Community One – Community One is a faith-inspired, volunteer-based housing restoration nonprofit. This nonprofit specializes in restoring housing in under-served neighborhoods. More recently, Community One has been examining the possibility of becoming more broadly involved in larger community development efforts, acting as a lead convener of resources, programs, and volunteers.

Public Housing Authorities in the City of Henderson and City of Evansville – The Public Housing Authorities of both Henderson and Evansville are innovative, resourceful, and client-minded. The Housing Authority of Henderson is the recipient of the Sustained Financial Viability Award presented at the Kentucky Housing Association Mid-Year Meeting in Louisville, Kentucky. The HAH has recorded a perfect score of 100 points on the PHAS system two years in a row and has not lost one point under the financial subsystem indicator since 2007. The Henderson Housing Authority maintains 430 units located throughout Henderson, including scattered site single-family homes, townhouses, duplexes and apartments for families, individuals, seniors and persons with disabilities.

The Housing Authority of the City of Evansville has leased 1,716 rental units through its Section 8 Vouchers program, and maintains a waiting list of 2000 new applications. EHA also operates innovative programs such as its Home Buyer Program, Family Self-Sufficiency Program, and Resident Vocational Training Programs. Through collaboration with other social service providers and housing specialists in the region, the EHA optimizes its often scarce community federal housing funds, leveraging funding to get the most positive results and impacts on the most deserving families and individuals. Table 3-7 provides the unit inventories for each housing authority.

Table 3-7: Unit Inventory

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Unit Inventory
Evansville Housing Authority's Public Housing Complexes

Name	Type of Housing	0 Beds	1 Bed	2 Bed	3 Bed	4 Bed	Number of Units
Caldwell Terrace Gardens	Senior Citizen	6	8	N/A	N/A	N/A	14
John F. Kennedy Tower	Senior Citizen	51	43	6	N/A	N/A	100
George E. Buckner Tower	Senior Citizen	55	47	6	N/A	N/A	108
William G. Schnute Apts	Senior Citizen	92	22	1	N/A	N/A	115
White Oaks Manor	Senior Citizen	92	22	1	N/A	N/A	115
Bellemeade and Line Apts	Disabled	N/A	8	N/A	N/A	N/A	8
John M. Caldwell Homes	Family	N/A	28	76	45	23	172
Fulton Square	Family	N/A	N/A	59	38	12	109
Fulton Terrance Gardens	Senior Citizen	40	36	5	N/A	N/A	81
John Cable	Senior Citizen	0	20	4	N/A	N/A	24
						Unit Total	846

Henderson Housing Authority's Public Housing Complexes

Name	Type of Housing	0 Beds	1 Bed	2 Bed	3 Bed	4 Bed	5 Bed	Number of Units
Fagan Street Homes	Family/Disabled	N/A	N/A	2	N/A	N/A	N/A	2
Ingram Street Home	Family	N/A	N/A	N/A	1	N/A	N/A	1
Adam Street Homes (740-750)	Family/Disabled	*	*	*	*	*	*	49
Adam Street Apts	Senior Citizen	N/A	99	N/A	N/A	N/A	N/A	99
Dixon Apts	Family/Disabled	*	*	*	*	*	N/A	61
Eighth St and Eighth St. Court Apts	Family/Disabled	*	*	*	*	*	*	49
Fagan Square Apts	Senior Citizen	*	*	*	N/A	N/A	N/A	57
Lawndale Apts	Family	N/A	*	*	*	*	N/A	134
Madison Court Apts	Family/Disabled	N/A	*	*	*	*	N/A	22
							Unit Total	474

* Information not available.

The Jobs to Housing Ratio

To be economically viable for all residents, local communities must offer accessible jobs in a variety of locations, and at a variety of income levels. One measure of the balance of housing to jobs is the Jobs to Housing Ratio, which posits jobs as the numerator and housing units the denominator in the calculation. Table 3-8 shows jobs and housing units from the 1990, 2000, and 2010 US Census surveys.

It is desirable for most counties to achieve a jobs to housing ratio of approximately 1.5. This ratio accounts for the fact that many households have two wage earners. A ratio that is less than 1.0 usually means that there are not enough jobs in the community for all of the residents, signifying that residents must seek employment in other localities, outside the given county in question. This "less than one" ratio often means the county may be classified as a "bedroom community." Ratios that exceed 2.0 in a given county can likewise mean there are more jobs than residents to fill vacant positions and that businesses and government agencies must hire personnel from outside the county.

Figures shown in Table 3-8 indicate that Vanderburgh County has maintained a relatively healthy jobs to housing ratio, averaging around 1.56 since 1990 in its jobs to housing calculation. Warrick County shows signs of higher commuting, at an average of 0.94 jobs to housing, which will usually result in higher household transportation costs and gasoline use due to more commuting to work. Henderson shows an excess of jobs in the 1990 through 2000 calculations, but due to job losses during the Great Recession, its ratio plummeted from 2.14 in 2000 to 1.06 in 2010, meaning many Henderson residents have had to seek work outside of Henderson County since the 2007 downturn.

If the Jobs to Housing Ratio is calculated overall for the three-county EMPO area in 2010, an index of 1.31 is derived. This figure signifies that the available jobs for three-county residents is short by about 25,000 jobs toward achieving the desired 1.50 index.

Table 3-8: Jobs to Housing Unit Ratio

Jobs to Housing Unit Ratio

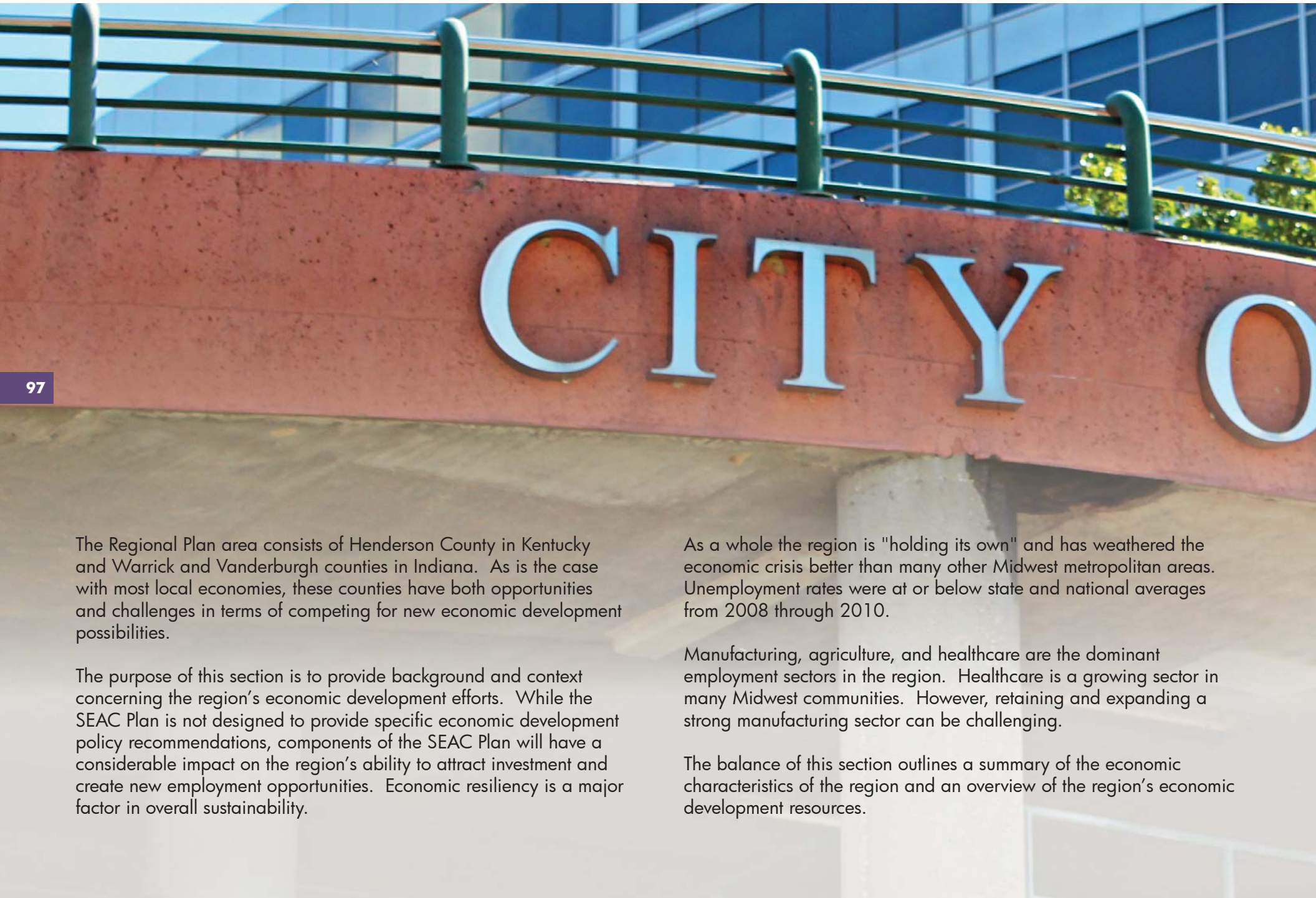| Year | Vanderburgh | | Warrick | | Henderson | |
	Housing Units	Jobs	Housing Units	Jobs	Housing Units	Jobs
1990	72,637	110,650	16,926	17,485	11,864	22,108
2000	76,300	128,301	20,546	18,658	13,037	27,891
2010	83,003	123,655	24,203	21,525	20,230	21,392

Source: 2010 U.S. Census

The Regional Plan area consists of Henderson County in Kentucky and Warrick and Vanderburgh counties in Indiana. As is the case with most local economies, these counties have both opportunities and challenges in terms of competing for new economic development possibilities.

The purpose of this section is to provide background and context concerning the region's economic development efforts. While the SEAC Plan is not designed to provide specific economic development policy recommendations, components of the SEAC Plan will have a considerable impact on the region's ability to attract investment and create new employment opportunities. Economic resiliency is a major factor in overall sustainability.

As a whole the region is "holding its own" and has weathered the economic crisis better than many other Midwest metropolitan areas. Unemployment rates were at or below state and national averages from 2008 through 2010.

Manufacturing, agriculture, and healthcare are the dominant employment sectors in the region. Healthcare is a growing sector in many Midwest communities. However, retaining and expanding a strong manufacturing sector can be challenging.

The balance of this section outlines a summary of the economic characteristics of the region and an overview of the region's economic development resources.
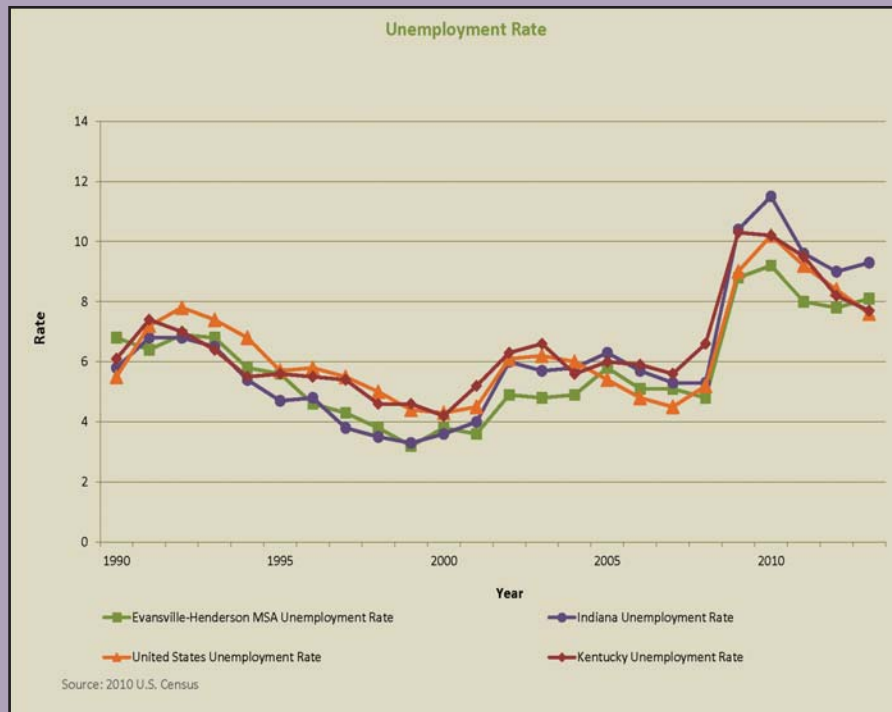
Unemployment Rate

The Region has mirrored the State of Indiana and the United States unemployment rate for most of the last two decades. However, the region realized considerably lower unemployment rates than Indiana, Kentucky, and US averages over the course of the recent economic downtown. Figure 3-15 and Table 3-9 show the unemployment rate trends that occurred between the years of 1990 to 2013.

Figure 3-15: Unemployment Rate

Source: 2010 U.S. Census

Table 3-9: Unemployment Rate

Year	Evansville-Henderson MSA Unemployment Rate	Indiana Unemployment Rate	Kentucky Unemployment Rate	United States Unemployment Rate
1990	6.8	5.8	6.1	5.5
1991	6.4	6.8	7.4	7.2
1992	6.9	6.8	7	7.8
1993	6.8	6.5	6.4	7.4
1994	5.8	5.4	5.5	6.8
1995	5.6	4.7	5.6	5.7
1996	4.6	4.8	5.5	5.8
1997	4.3	3.8	5.4	5.5
1998	3.8	3.5	4.6	5
1999	3.2	3.3	4.6	4.4
2000	3.8	3.6	4.2	4.3
2001	3.6	4	5.2	4.5
2002	4.9	6	6.3	6.1
2003	4.8	5.7	6.6	6.2
2004	4.9	5.8	5.6	6
2005	5.8	6.3	6	5.4
2006	5.1	5.7	5.9	4.8
2007	5.1	5.3	5.6	4.5
2008	4.8	5.3	6.6	5.2
2009	8.8	10.4	10.3	9
2010	9.2	11.5	10.2	10.2
2011	8	9.6	9.5	9.2
2012	7.8	9	8.2	8.4
2013	8.1	9.3	7.7	7.6

Table 3-10: Major Employers

Major Employers

Company	Product/Service	Employees	County, State
Deaconess Hospital	Medical services	5,300	Vanderburgh, IN
Toyota Motor Manufacturing, Indiana	SUVs and Vans	4,500	Gibson, IN
St. Mary's Medical Center	Medical services	3,800	Vanderburgh, IN
Evansville Vanderburgh School Corporation	Education	3,287	Vanderburgh, IN
Berry Plastics	Injection-molded plastics	2,400	Vanderburgh, IN
University of Southern Indiana	Education	2,150	Vanderburgh, IN
Koch Enterprises, Inc.	Industrial and auto parts manufacturing	2,119	Vanderburgh, IN
Patriot Coal Corp.	Coal Mine	2,000	Henderson, KY
Alcoa Warrick Operations	Aluminum sheet and ingot	1,925	Warrick, IN
T.J. Maxx	Distribution center	1,700	Vanderburgh, IN
Tyson Foods, Inc.	Mfg-Chicken Processing	1,350	Henderson, KY
Vectren	Utility: gas and electric	1,265	Vanderburgh, IN
SABIC	Plastics: Lexan, Valox, Ultem	1,200	Posey, IN
Tropicana Evansville	Gaming and entertainment	1,200	Vanderburgh, IN
Methodist Hospital	Regional Medical Facility	1,183	Henderson, KY
Old National Bancorp	Banking and financial services	1,036	Vanderburgh, IN
Mead Johnson Nutrition	Pediatric nutrition	950	Vanderburgh, IN
Springleaf Financial Services	Financial services	950	Vanderburgh, IN
Industrial Contractors	SKANSKA	Construction	900	Vanderburgh, IN
Alliance Coal Corp.	Coal Mine	887	Henderson, KY
Toyota Boshoku Indiana	Automotive Supplier	857	Gibson, IN
Gibbs Die Casting Corp.	Mfg/Headquarters	800	Henderson, KY
Peabody Energy Midwest	Coal mining	701	Vanderburgh, IN
AT&T	Wireless communications	650	Vanderburgh, IN
PGW Pittsburgh Glass, LLC	Automotive glass	641	Vanderburgh, IN
Big Rivers Electric Corp.	Headquarters	621	Henderson, KY
Bristol-Myers Squibb	Pharmaceutical manufacturing & R/D	525	Vanderburgh, IN
Guardian Automotive Trim, Inc.	Automotive Injection-molding	510	Vanderburgh, IN
University of Evansville	Education	510	Vanderburgh, IN
SRG Global	Color & Chrome Plastics Manufacturing	500	Vanderburgh, IN
Rio Tinto Alcan	Mfg-Aluminum Smelter	500	Henderson, KY
Job Corps. Center	Training Center	480	Henderson, KY
Walmart	Supercenter	480	Henderson, KY
Dana Corp.	Mfg-Truck Axles/Brake Co.	470	Henderson, KY
Fifth Third Bank	Banking and financial services	450	Vanderburgh, IN
Vuteq Corporation	Automotive Interior Parts	450	Gibson, IN
Hansen Manufacturing	Timing motors, clock movements	425	Gibson, IN
Ivy Tech Community College	Education	425	Vanderburgh, IN
Atlas World Group	Corporate and household movers	400	Vanderburgh, IN
Evana Tool & Engineering	Conveyor and Instrument Manufacturing	346	Vanderburgh, IN
Red Spot Paint and Varnish	Coatings for automotive plastics	345	Vanderburgh, IN
Advent Mining, LLC	Coal Mine	325	Henderson, KY
Anchor Industries	Tents, canopies, and canvas accessories	307	Vanderburgh, IN
Evansville Courier & Press	Newspaper Service	300	Vanderburgh, IN
Redbanks	Elderly Health Care Service	300	Henderson, KY
Pittsburg Tank & Tower	Mfg/Headquarters	300	Henderson, KY
Audubon Metals, LLC	Mtg-Heavy Metal Recycler	248	Henderson, KY
Trelleborg	Mfg-Automotive (2 loc.)	235	Henderson, KY
Accuride Corp.	Mfg-Truck Wheels & Rims	180	Henderson, KY
Whirlpool Corporation	Engineering Laboratory	174	Vanderburgh, IN
Clondalkin Pharma and Healthcare	Paperboard printing	172	Vanderburgh, IN

Sources: Northwest Kentucky Forward and Economic Development Coalition of Southwest Indiana

Major Employers

Table 3-10 lists all major employers in the region. Consistent with the data found in Table 3-11, many of the major employers found in the area are associated with the healthcare and manufacturing industries. Figure 3-16, on the next page, shows a map of major employers.
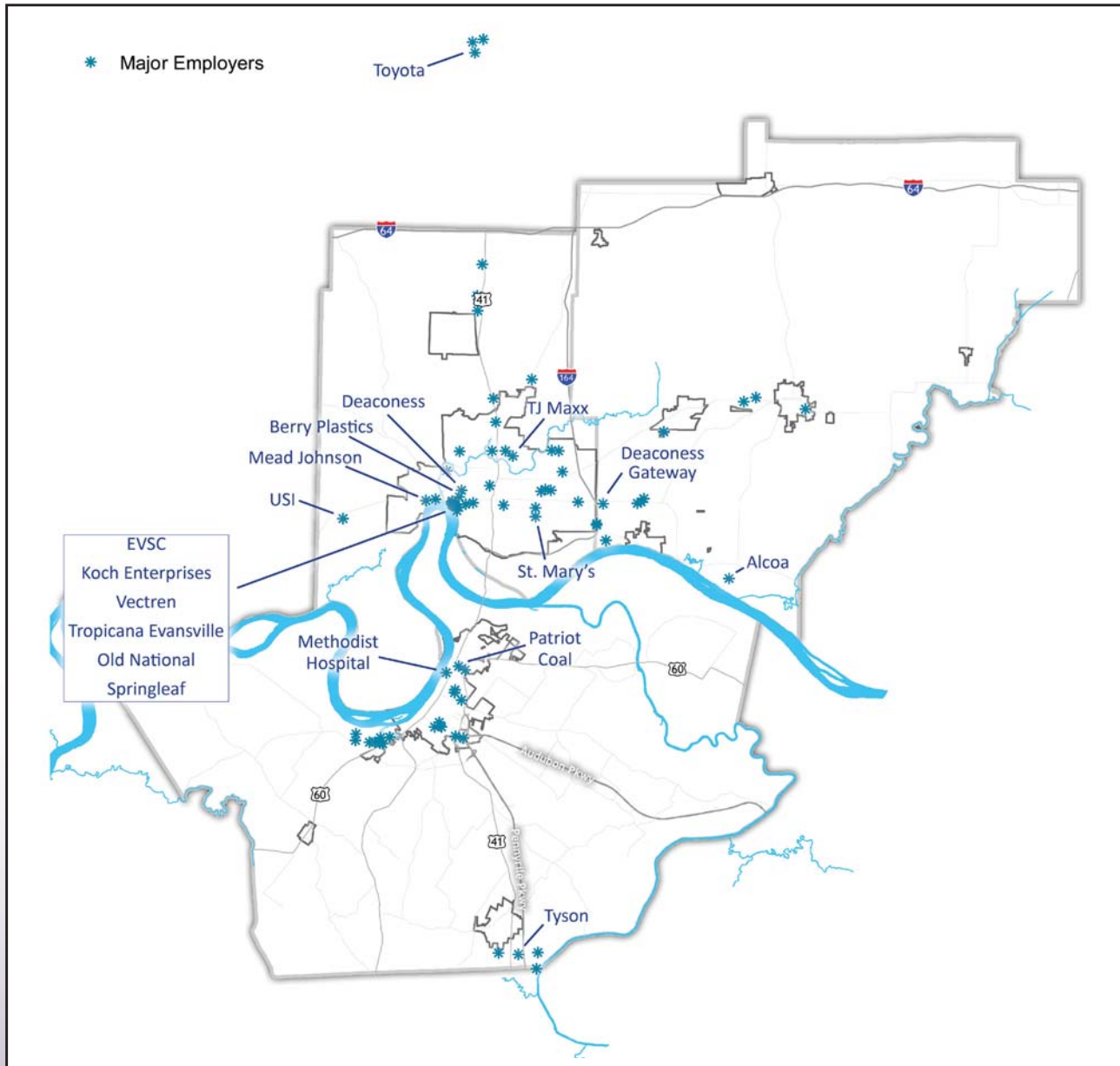
Employment by Industry

Private sector employment in the region is dominated by health care and manufacturing. Table 3-11 shows the number of jobs in the region by industry.

Table 3-11: Employment by Industry

Employment by Industry

Industry Distribution of Jobs in 2011	Warrick County	Vanderburgh County	Henderson County	Totals
Health care, social assistance	2,612	18,064	2,467	23,143
Manufacturing	2,516	11,292	4,309	18,117
Retail trade	1,562	12,491	2,146	16,199
Accommodation and food services	1,018	10,027	1,271	12,316
Construction	953	7,459	862	9,274
Administrative, waste services	355	6,987	1,430	8,772
Wholesale trade	309	4,366	915	5,590
Transportation, warehousing	504	4,568	69	5,141
Other services, exc. public admin.	426	3,829	728	4,983
Professional, technical services	637	3,735	422	4,794
Mgmt. of companies, enterprises	8	3,209	57	3,274
Finance and insurance	521	2,259	381	3,161
Arts, entertainment, recreation	215	2,064	211	2,490
Information	147	2,104	190	2,441
Educational services	157	1,959	10	2,126
Public administration	594	660	811	2,065
Real estate, rental, leasing	159	1,334	110	1,603
Utilities	277	882		1,159
Mining	208	95	294	597
Agri., forestry, hunting	51	146	84	281
Total Covered Employment and Wages	**14,580**	**105,699**	**19,023**	**139,302**
Private	12,447	96,088	16,300	124,835

Source: http://statsamerica.org

Figure 3-16: Map of Major Employers

Figure 3-17: Employment Trends

Employment Trends

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	10 Year % Change
Warrick County	13,168	13,879	13,817	14,198	14,043	14,306	14,429	14,381	14,141	14,458	14,580	10.7%
Vanderburgh County	109,418	108,688	108,463	106,962	108,096	108,111	106,937	107,333	103,849	104,094	105,699	-3.4%
Henderson County	21,411	21,357	21,344	21,319	20,932	20,315	20,384	20,027	18,596	18,534	19,023	-11.2%

Source: US Bureau of Labor Statistics(BLS) http://statsamerica.org.

Change in Employment

Figure 3-17 and Table 3-12 show the employment trends for the region. Warrick County was the only county to realize positive job growth for the period 2001- 2011. Vanderburgh and Henderson counties both realized a net loss of employment opportunities during the same period. Data suggests that manufacturing employment suffered the largest percent of job loss for this period.

Table 3-12: Employment Trends

Jobs	United States	Indiana	Warrick County, IN	Vanderburgh County, IN	Henderson County, KY
2011	129,411,095	2,755,826	14,580	105,699	19,023
2010	127,831,898	2,709,400	14,458	104,094	18,534
2009	128,607,842	2,705,331	14,141	103,849	18,596
2008	134,805,659	2,872,442	14,381	107,333	20,027
2007	135,366,106	2,905,725	14,429	106,937	20,384
2006	133,833,834	2,892,419	14,306	108,111	20,315
2005	131,571,623	2,873,795	14,043	108,096	20,932
2004	129,278,176	2,848,873	14,198	106,962	21,319
2003	127,795,827	2,821,879	13,817	108,463	21,344
2002	128,233,919	2,832,553	13,879	108,688	21,357
2001	129,635,800	2,871,236	13,168	109,418	21,411
10-Year Change	-224,705	-115,410	1,412	-3,719	-2,388
10-Year Percent Change		-4.00%	10.70%	-3.40%	-11.20%

Source: US Bureau of Labor Statistics(BLS) http://statsamerica.org

Regional Economic Comparisons

To understand the economic characteristics of the counties that make up the region, the economic performance of the individual counties were compared to the United States, the State of Indiana and the Commonwealth of Kentucky.

Following are a number of summary observations from the data.

Regional Counties Compared to State of Indiana

- Economic Growth - Warrick County outpaced Indiana and other regional counties.
- Unemployment Rate - All counties fared better than Indiana average.
- Per Capita Income - Warrick and Vanderburgh fared better than the Indiana average.
- Poverty Rate - Vanderburgh and Henderson exceeded the state average.
- High School Diploma - Only Henderson is slightly under the state average.
- Bachelor's Degree - Only Warrick exceeded state average; Vanderburgh is very close.
- Average Wage/Job - Counties in the study area are below the state average of $40,248.

Regional Counties Compared to United States

- Economic Growth - Warrick County outpaced the US and other regional counties.
- Unemployment Rate - All counties fared better than the US average.
- Per Capita Income - Only Warrick fared better than the US average.
- Poverty Rate - Vanderburgh and Henderson exceeded the US average.
- High School Diploma - Only Henderson is a bit under the US average.
- Bachelor's Degree - No counties exceed the US average.
- Average Wage/Job - The region is below the US average of $48,043.

Location Quotients

Location quotients are another type of analysis used to better understand local and regional economies. Further, location quotients are often used as a tool to attract new industries and investment. A location quotient value of one or higher indicates that an industry has a higher representation than the national average. Economic development theory notes that a high location quotient for certain establishments would indicate that the area provides competitive advantages for that particular industry sector. Table 3-13 provides location quotient analysis for the industry establishments.

Table 3-13: Location Quotient for Establishments

2010 Location Quotient for Establishments in the Region

Description	QCEW Cluster - Establishments	Industry Cluster Establishment LQ	QCEW Cluster - Employment	Industry Cluster Employment LQ	QCEW Cluster - Wages	Industry Cluster Annual Wages LQ
Information Technology & Telecommunications	157	0.59	2,013	0.38	$137,486,345	0.35
Mining	4	0.64	21	0.14	$1,232,802	0.17
Defense & Security	190	0.74	3,079	0.41	$149,981,518	0.35
Agribusiness, Food Processing & Technology	84	0.79	3,511	1.08	$147,039,706	1.47
Apparel & Textiles	51	0.84	677	0.66	$24,889,831	0.69
Business & Financial Services	980	0.88	5,968	0.5	$309,988,064	0.38
Arts, Entertainment, Recreation & Vistor Industries	183	0.89	4,009	0.74	$113,054,866	0.73
Education & Knowledge Creation	89	0.93	4,871	0.93	$186,246,644	0.9
Printing & Publishing	148	1	1,487	0.67	$58,475,217	0.53
Electrical Equipment, Appliance & Component Mfg	4	1.04	617	2.12	$33,158,131	2.57
Energy (Fossil & Renewable)	350	1.12	4,546	0.75	$289,357,171	0.8
Biomedical/Biotechnical (Life Sciences)	301	1.2	18,050	1.2	$866,691,507	1.48
Transportation & Logistics	201	1.21	4,809	1.18	$198,045,876	1.26
Forest & Wood Products	69	1.28	1,961	1.33	$89,577,363	1.62
Fabricated Metal Product Mfg	62	1.36	1,011	0.76	$45,558,634	0.86
Manufacturing Supercluster	150	1.43	6,061	1.05	$326,064,610	1.05
Transportation Equipment Mfg	18	1.59	731	0.5	$34,232,133	0.43
Advanced Materials	183	1.65	9,753	1.93	$560,182,922	1.94
Chemicals & Chemical Based Products	103	1.95	7,472	3.5	$447,606,069	4.07
Glass & Ceramics	14	2.02	521	2.19	$21,989,729	2.37
Machinery Mfg	47	2.05	749	0.71	$38,112,114	0.72
Primary Metal Mfg	13	2.87	2,784	7.18	$162,683,864	8.77
Total All Industries	7,012	1	137,086	1	$5,240,709,519	1

The following industry establishments are over-represented in all three counties:

- Printing & Publishing
- Electrical Equipment, Appliance & Component Manufacturing
- Energy (Fossil & Renewable)
- Biomedical/Biotechnical (Life Sciences)
- Transportation & Logistics
- Forest & Wood Products
- Fabricated Metal Product Manufacturing
- Manufacturing Super-cluster
- Transportation Equipment Manufacturing
- Advanced Materials
- Chemicals & Chemical Based Products
- Glass & Ceramics
- Machinery Manufacturing
- Primary Metal Manufacturing

The only establishment over-represented in a single county is Education and Knowledge Creation industries which can be found in Vanderburgh County.

Economic Characteristics

Location quotients also are of value when evaluating occupations in a region. Occupations that are more highly represented in an area indicate a competitive advantage for these occupations to excel. Table 3-14 provides location quotient analysis for the occupations within the region.

The following occupations are over-represented in the three-county region:

- Health Care and Medical Science (Medical Practitioners and Scientists)
- Health Care and Medical Science (Aggregate)
- Health Care and Medical Science (Therapy, Counseling and Rehabilitation)
- Health Care and Medical Science (Medical Technicians)
- Skilled Production Workers: Technicians, Operators, Trades, Installers & Repairers

Below are occupations that are over-represented in a single county, not in the region as a whole:

- Agribusiness and Food Technology - Henderson, KY
- Agribusiness and Food Technology - Warrick, IN
- Postsecondary Education and Knowledge Creation - Vanderburgh, IN
- Arts, Entertainment, Publishing and Broadcasting - Warrick, IN
- Primary/Secondary and Vocational Education, Remediation & Social Services - Warrick, IN
- Personal Services Occupations - Warrick, IN

Table 3-14: Location Quotient for Occupations

Occupation Description	Occupation Cluster Employment Location Quotient	Occupation Cluster Employment
Arts, Entertainment, Publishing and Broadcasting	0.62	2,419
Mathematics, Statistics, Data and Accounting	0.64	2,641
Agri-business and Food Technology	0.64	1,606
Public Safety and Domestic Security	0.66	1,315
Information Technology (IT)	0.67	2,260
Personal Services Occupations	0.76	3,097
Managerial, Sales, Marketing and HR	0.78	10,082
Technology-Based Knowledge Clusters	0.8	10,550
Engineering and Related Sciences	0.81	1,221
Legal and Financial Services, and Real Estate (L & FIRE)	0.82	10,815
Natural Sciences and Environmental Management	0.87	391
Primary/Secondary and Vocational Education, Remediation & Social Services	0.88	7,683
Building, Landscape and Construction Design	0.89	661
Postsecondary Education and Knowledge Creation	0.98	1,861
Health Care and Medical Science (Medical Practitioners and Scientists)	1.18	2,177
Health Care and Medical Science (Aggregate)	1.3	12,307
Health Care and Medical Science (Therapy, Counseling and Rehabilitation)	1.33	7,443
Health Care and Medical Science (Medical Technicians)	1.34	2,687
Skilled Production Workers: Technicians, Operators, Trades, Installers & Repairers	1.41	16,451

Courtesy of Deaconess Health System

Economic Development Resources

An area's capacity for economic development is often measured by the community's ability to supply the following core economic development resources:

- **Real estate**
- **Workforce**
- **Capital**

The success of an economic development organization is often measured by its ability to develop programs and initiatives that support the three fundamental approaches for creating jobs and attracting investment. The three fundamental approaches include:

- **Retain and expand existing business**
- **Attract new business**
- **Create new businesses**

Considering that manufacturing is the region's economic driver, most economic development efforts focus on attracting new manufacturing investment into the region. The region does compete effectively for investment in this sector. Highways, rail, river, and affordable energy are a few of the assets that aid in attracting new manufacturing investment to the area.

Healthcare is also an employment driver. Current efforts are underway to accommodate the expansion of medical healthcare education programs at the Indiana University, School of Medicine - Southwest.

Real Estate

The three counties in the study area are able to provide reasonably competitive real estate to attract new jobs and investment into the region. Some properties have been developed solely through the use of public tax dollars to buy and develop the land. Other properties have been developed solely by private sector investment. Public/private partnerships are an emerging development framework to create an optimal value proposition and more competitive real estate products. It appears that the region is positioned to provide available land for new and expanding industries.

While there are a variety of available buildings in the region, many of the structures are dated, have obsolete design and are not attractive to modern businesses. As the real estate market strengthens, there may be interest in speculative building or "build-to-suit" projects.

There are a number of available industrial development sites that are capable of accommodating new manufacturing, distribution and other related economic development activities. The following is a listing of priority industrial development sites in the three county region in excess of 100 acres.

Henderson County, KY
4 Star Regional Industrial Park - 816 acres
2001 Northern Star Way
Robards, KY 42452

Henderson Riverport Industrial Park - 148 acres
5301 Industrial Park Drive
Henderson, KY 42420

Dannlin Industrial Park - 124 acres
Borax Drive
Henderson, KY 42420

Warrick County, IN
North Warrick Industrial Park - 224 acres
9988 North State Route 57
Elberfeld, IN 47613

Vanderburgh County, IN
15400 US Highway 41 Site - 101 acres
15400 US Highway 41
Evansville, IN 47725

Vanderburgh Industrial Park - 101 acres
State Road 57 & Ruston Lane
Evansville, IN 47711

Greyfield is a term used in real estate to describe economically obsolescent, outdated, failing, dilapidated and/or underused real estate assets or land. Following is a listing of such properties that have been identified in the study area. The listing denotes the larger and more prominent tracts. Additional greyfield properties could be identified through a more in-depth analysis.

The redevelopment of a greyfield property is commonly referred to as infill development. Unlike brownfields, that may have actual or perceived levels of environmental contamination, greyfields typically do not require remediation in order to accommodate redevelopment. The value proposition for these properties, in many cases, is the presence of underlying infrastructure and utilities. Other important positive characteristics including parking or a central location may also be leveraged in a well-executed redevelopment plan for the site.

Greyfield Properties:

Downtown Evansville Locations
The Evansville downtown area has a number and variety of potential greyfield properties. These include the city block where the Historic Greyhound Bus Station is located at 3rd and Sycamore.

Other properties include the many paved parking areas in the downtown and near downtown area that are underutilized and could accommodate redevelopment projects.

Washington Square Mall
This 40 acre development, located on the east side along Green River Road is one of the first malls in south central Indiana. The mall, which opened in 1963, has struggled to retain its customer base over the past 10 years. This property provides considerable opportunity to accommodate unique development since it is close both to existing residential properties and commercial development. (See Volume 2, Chapter 3.)

Greyhound Bus Station Property

Unused Paved Parking at St. Joseph Avenue

Lawndale Shopping Center

This strip commercial development is located a block north of Washington Square Mall.

First Avenue and Diamond Avenue

The northwest corner of this strategic intersection provides ten acres of parking and another five acres of vacant land adjacent to the site. The 15-acre parcel could provide an excellent mixed use development opportunity. The property has excellent access and is within close proximity to the IVY TECH Community College campus.
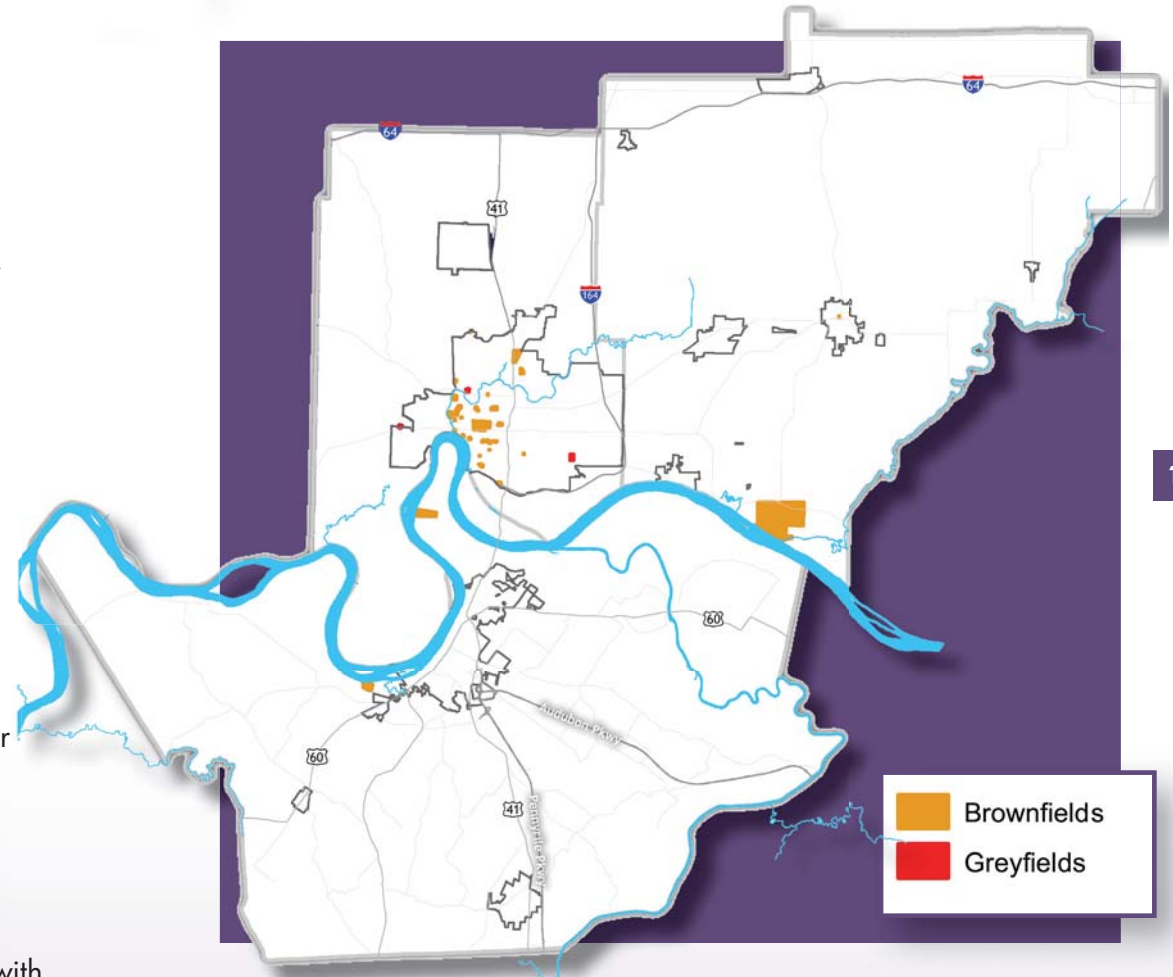
West End WalMart

This 15 acre site containing the former WalMart can provide considerable space for infill development. Located along the Lloyd Expressway and proximate to the University of Southern Indiana, with new provisions to the local development code, this property could accommodate new residential development. (See Volume 2, Chapter 3.)

Henderson US Highway 41 Corridor

Retail and commercial properties along US Highway 41 in Henderson have realized some measure of repurposing over the last 10 years. This trend may continue as commercial and retail growth trends redistribute future development closer to the new Interstate 69 corridor and associated highway improvements.

Brownfield sites have become increasingly more relevant in redeveloping properties. By combining strategic locations with funding for remediation, these properties are playing key roles in transforming communities. A map of brownfields identified in the study area can be found in Figure 3-18. This information was taken from U.S. Environmental Protection Agency's Cleanups In My Community website. While a number of brownfields have been identified and are included on the EPA listing, developers should keep in mind that additional properties could qualify as brownfields and receive assistance with appropriate environmental remediation measures, such as the Henderson Municipal Power and Light, Plant No. 1.

Figure 3-18: Brownfields and Greyfields

Brownfields
Greyfields

Employment Centers

Workforce

The availability of trained and competent workers has been identified as the most pressing economic development challenge for the region. Business persons at the state, regional, and local levels have consistently articulated their concern about the quality of the workforce. The region is not alone in this regard. These same concerns about the quality of the workforce seem to be shared across the nation.

The study area's educational framework appears to be adequate. Schools with deficiencies are provided a work plan to meet appropriate performance standards.

It should be noted that the Southern Indiana Career and Technical Center is a unique educational resource for the region. High school students from Warrick and Vanderburgh County can select from 18 programs of study that include, but are not limited to, the following: agriculture, culinary arts, broadcast journalism, health careers, and trade and industry. Programs/courses are added and/or modified on a regular basis as the labor market evolves.

High school CTE program participants can earn college credit through dual credit agreements with ITT Technical Institute, Ivy Tech State College, University of Evansville, University of Southern Indiana, and Vincennes University. A total of 65 percent of 2010 graduates of EVSC CTE programs pursued a two-year post-secondary degree or four-year post-secondary degree.

The region is also fortunate to have an ample complement of post-secondary institutions of higher learning.

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Courtesy of VPS Architecture

Table 3-15: Commute Time

	Number of Commuters	Percentage of Commuters
Travel to Work	138,635	97.6%
Car, Truck or Van	133,132	93.7%
Traveled Alone	120,502	84.8%
Carpooled	12,630	8.9%
Used Public Transportation	1,130	0.8%
Motorcycle, Bicycle, Walked, Other	4,373	3.1%
Worked at Home	3,467	2.4%
Total Workers Age 16 and Over	142,102	100.0%
Average Travel Time	20.2	
Average Travel Time using Public Transportation	37	

Source: Stats Indiana

Table 3-16: Labor Force and Commuting Trends in 2011

	Number of Workers	Percentage of Workers
MSA Labor Market Size (All Jobs)		
Employed in the MSA	167575	100.0%
Living in the MSA	158999	94.9%
Net job inflow (+) or outflow (-)	8,576	
MSA Labor Force Efficiency (All Jobs)		
Employed in the MSA but live outside the MSA	40,671	24.3%
Employed and Live within the MSA	126,904	75.7%
Employed in the MSA	167,575	100.0%
In-Area Employment Efficiency (All Jobs)		
Live within the MSA but work outside the MSA	32,095	20.2%
Live and work within the MSA	126,904	79.8%
Live within the MSA	158,999	100.0%
Outflow Job Characteristics		
Workers Earning $1,250 per month or less	10,684	33.3%
Workers Earning $1,251 to $3,333 per month	11,709	36.5%
Workers Earning More than $3,333 per month	9,702	30.2%
Workers in the "Goods Producing" Industry Class	5,323	16.6%
Workers in the "Trade, Transportation, and Utilities" Industry Class	9,864	30.7%
Workers in the "All Other Services" Industry Class	16,908	52.7%
Inflow Job Characteristics		
Workers Earning $1,250 per month or less	11,901	29.3%
Workers Earning $1,251 to $3,333 per month	13,609	33.5%
Workers Earning More than $3,333 per month	15,161	37.3%
Workers in the "Goods Producing" Industry Class	10,627	26.1%
Workers in the "Trade, Transportation, and Utilities" Industry Class	10,418	25.6%
Workers in the "All Other Services" Industry Class	19,626	48.3%
Interior Flow Job Characteristics		
Workers Earning $1,250 per month or less	33,136	26.1%
Workers Earning $1,251 to $3,333 per month	49,653	39.1%
Workers Earning More than $3,333 per month	44,115	34.8%
Workers in the "Goods Producing" Industry Class	31,043	24.5%
Workers in the "Trade, Transportation, and Utilities" Industry Class	23,068	18.2%
Workers in the "All Other Services" Industry Class	72,793	57.4%

Source: http://onthemap.ces.census.gov/

In the near term, the region will continue to see growth in manufacturing employment. However, as manufacturing becomes more technologically oriented and other industry sectors require more tech and knowledge based skills, these higher education facilities will become more important. Even with distance learning, it is likely that these campuses will continue to expand and enrollment will increase.

Another consideration regarding the workforce is mobility. Workforce dynamics are measurably influenced by commuting patterns. Workers will commute further distances to secure employment opportunities in times of scarcity or for higher wagers if such opportunities are available.

The average time to commute to work in the US is 25.4 minutes. The region's average, 20.2 minutes, is below the US average. Table 3-15 shows summary information on commuting patterns for the region.

Additional labor force and community data was provided by "On the Map," a resource developed by the US Census.

This resource revealed that those choosing to work in the Evansville MSA and live elsewhere are much more likely (37.3 percent) to earn more than $3,333 per month. Those who live within the MSA but choose to work outside the MSA are much more likely to be traveling to a lower paying job (33.3 percent earn $1,250 a month or less). Table 3-16 shows emerging Labor Force and Commuter Trends.

Capital

The study area is fortunate to have a robust complement of financial institutions that meet the financial needs of the region. Few financial institutions were impacted in the course of the financial downturn. However, like all banking institutions, the downturn led to the creation of heightened underwriting requirements that can limit lending in some cases.

To meet the financial needs of businesses that may not be able to access conventional financing, a number of community development organizations have created revolving loan funds, community development corporations and related resources to help meet these financial needs.

The region's respective economic development organizations are adept at accessing state and national financing resources to support development projects and business ventures.

Courtesy of VPS Architecture

Economic Development Organizations

As noted earlier, economic development can be pursued in the following three ways:

> - **Business Attraction**
> - **Business Retention and Expansion**
> - **Business Creation (start-ups)**

While area economic development organizations pursue all three of these functions at various levels of engagement, business attraction appears to be the primary economic development activity. Furthermore, the economic value proposition framed by the State of Indiana and the region is that of a "low cost of doing business." These value propositions often involve development incentives to attract new investment.

Investment resources most often involve property taxes. By using tax abatement, a new business can negotiate a "phasing in" of its property tax liability for a period up to 10 years. Tax Increment Financing (TIF) provides a framework wherein a new business can realize benefit by its property tax payments being invested into infrastructure or other activities to accommodate the needs of the business. Figure 3-19 is a map depicting the tax increment finance allocation areas in Vanderburgh and Warrick counties. Property taxes do not generate sufficient revenues in Kentucky counties to create a competitive advantage for attracting investment. As such, Henderson County tax increment finance areas are not identified on the map.

Figure 3-19: TIF Districts

Figure 3-19: TIF Districts

Following is a list of economic development organizations in the region. Additional information on each of these organizations can be found via the referenced websites.

Regional Economic Development Organization:

Economic Development Coalition of Southwest Indiana
Greg Wathen, President
318 Main Street, Suite 400
Evansville, IN 47708-1456
Phone: (812) 423-2020
Phone: (800) 401-7683
Fax: (812) 423-2080
www.southwestindiana.org

Regional Workforce Development Organization:

Grow Southwest Indiana Workforce
Jim Heck, Director
318 Main Street
Evansville, IN 47708
812-492-4303
http://workonesouthwest.com/

Local Economic Development Organizations:

Warrick County Economic Development
Larry Taylor, Executive Director
Success Warrick County
4763 Rosebud Lane
Newburgh, IN 47630
812-858-3555
www.successwarrickcounty.com/

Northwest Kentucky Forward
Brad Schneider, President
P.O. Box 674
145 North Main Street, Suite 500
Henderson, KY
42419-0674
Phone 270-826-7505
Toll Free 877.434.3766
www.northwestky.com/

Growth Alliance for Greater Evansville
Debbie Dewey, Executive Director
318 Main Street, Suite 500
Evansville, Indiana 47708
812-401-4243
www.evansvillegage.com/

Local Chambers of Commerce:

Chamber of Commerce of Southwest Indiana
Christy Gillenwater
Main Office: 318 Main Street, Suite 401
Evansville, IN 47708
812.425.8147
Web Site: www.ccswin.com

Warrick County Chamber of Commerce
Shari Sherman
224 W. Main Street, Suite 203
Boonville, IN 47601
812-897-2340
http://www.warrickcounty.us/

Henderson-Henderson County Chamber of Commerce
Brad Schneider, President
230 Second Street, Suite 320
Henderson, KY 42420
(270) 826-9531
http://www.hendersonky.com/

Other Studies & Data Sources:

A Blueprint for Success: A Master Plan for Economic Redevelopment,
Prepared by Garner Economics, LLC - July 14, 2011.

This document was prepared by Jay Garner, President of Garner Economics. The report includes a Competitive Realities Report, Industry Targets and Recommendations. The report can be viewed at the following website:
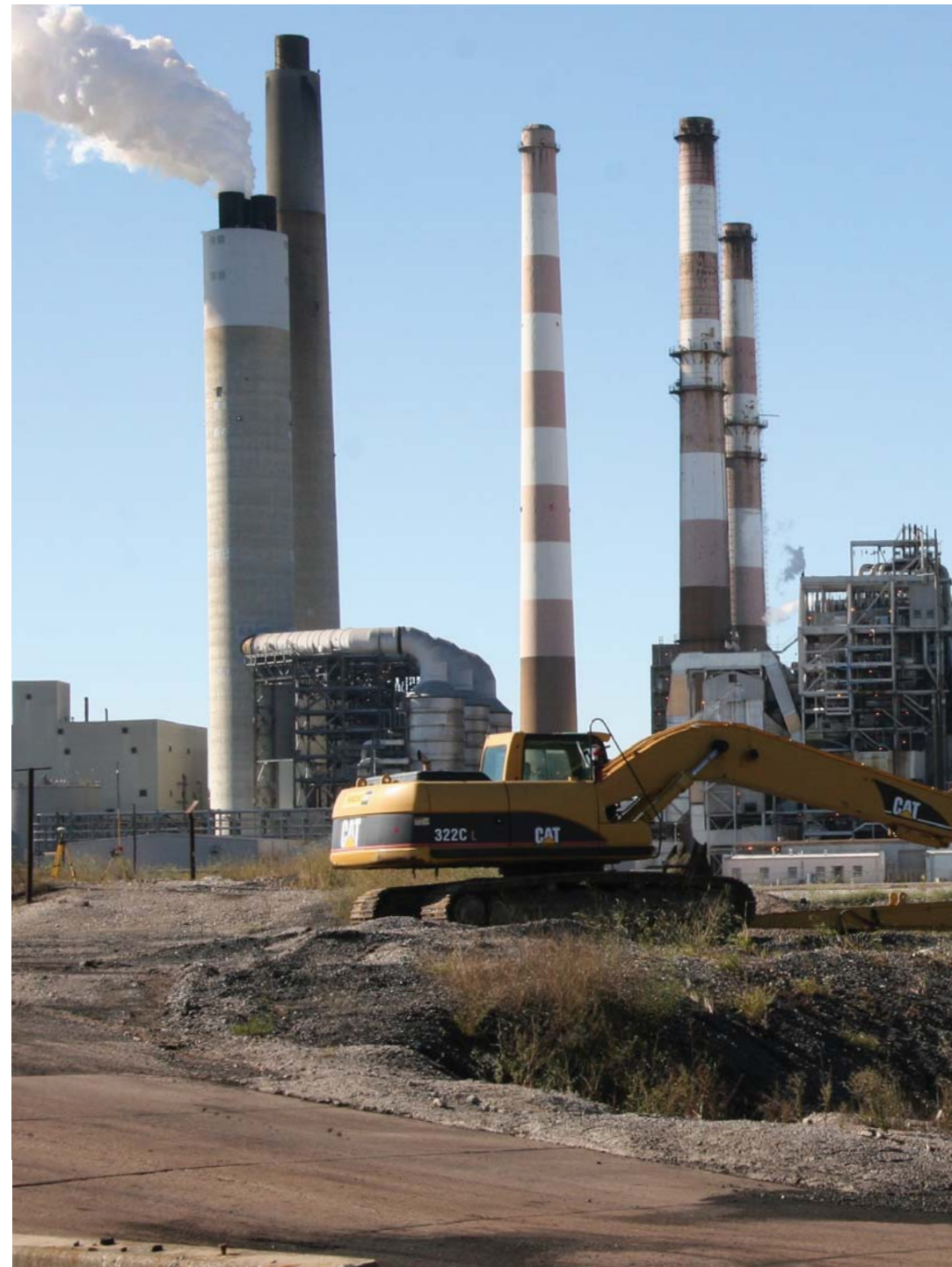http://www.southwestindiana.org/sites/default/files/au/GARNER%20final%20report%207252011.pdf

Land Conversion and Consumption

As this Regional Plan for Sustainable Development builds upon the existing green infrastructure network, it is valuable to understand the existing environmental conditions of the region. The foundation of this green infrastructure consists of a network of prime agricultural land, waterways, and many unique natural features. Features include the Ohio and Green rivers, several wildlife management areas, and much prime farmland. However, as the region grows, land is being converted from agricultural fields, forests, grasslands and natural lands to urbanized uses. Table 3-17 shows the change in acres of developed land from 2000 and 2010 in Henderson, Vanderburgh, and Warrick counties. While Henderson County experienced little change in developed lands, Vanderburgh and Warrick counties had over 6,000 total acres of agricultural, forests, grasslands, and natural lands converted to developed lands. In some instances, development of natural land has "leap-frogged" over developable properties that are served by pre-existing infrastructure.

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Table 3-17: Rate of Land Consumption from 2000 to 2010

County	Developed Acres 2000	Developed Acres 2010	Percent Change in Developed Area
Henderson	23,498	23,569	0%
Vanderburgh	35,319	39,553	12%
Warrick	22,606	24,622	9%

Air Quality Monitoring

History of Air Quality

Established in 1812, Evansville, Indiana sits on a scenic bend of the Ohio River. Like many older Midwestern cities, Evansville was powered by coal: it warmed our homes, our office buildings, schools, hospitals; powered our industry; pulled our trains; and pushed our river barges – and it created significant air quality problems.

The coal soot was so pervasive that businessmen would have to change into a clean white shirt after lunch because the morning shirt was gray with soot. When fog rolled in from the Ohio River, it combined with coal soot, corroding limestone building facades and metal bridges.

In 1931, Evansville enacted its first smoke ordinance regulating emissions from chimneys, stacks, flues and open burning. The early 1940s saw the creation of the "Citizen's Committee for Smoke Elimination" – a group of businessmen, civic leaders and concerned citizens.

Later, in 1949, the Mayor's Committee on Smoke Abatement hired Raymond E. Wetzel as City County Health Department's Commissioner of Smoke Regulation. He was the first commissioner of his kind and focused on regulating smoke from coal fired furnaces and boilers.

The city's first pollution prevention outreach program started in 1966 when John Clausheide educated the boiler operators of local businesses on better combustion.

By 2002, all coal-fired boilers in the city had been decommissioned. Homes and offices no longer were heated by coal. Instead of hundreds of chimneys and stacks emitting thick, black smoke, Vectren Corporation supplied natural gas and operated coal-fired electric generating plants, equipped with pollution control equipment.

Air Quality Monitoring

The USEPA is responsible for implementation of the Clean Air Act (CAA) and subsequent amendments to the CAA. To protect the environment and minimize the risk from exposure "requisite to protect public health" and "allowing an adequate margin of safety" (CAA 109(b) (1)), the USEPA sets National Ambient Air Quality Standards (NAAQS) in consultation with the Clean Air Scientific Advisory Committee (CASAC) and after hearing public comment. The USEPA has identified six criteria pollutants and has determined National Ambient Air Quality Standards (NAAQS) for each: Carbon Monoxide (CO), Particulate Matter (PM2.5 and PM10), Lead (Pb), Nitrogen Dioxide (NO2), Sulfur Dioxide (SO2) and Ozone (O3).

Potential harm from air pollutants depends on the level of exposure. Exposure is dependent on the concentration of the pollutant, the length of time of contact, and dose. In the SEAC region, there are two pollutants of concern: Fine Particulate Matter (PM2.5) and Ozone (O3). The NAAQS include associated averaging times, levels, and forms:

Ozone:
Averaging time: 8 hours
Form: 3 year average of 4th highest reading (known as the "design value")
Level: 75 ppb (parts per billion)
SW Indiana's design value: 74 ppb (2010 to 2012 data)

PM2.5:
Averaging time: 24 hours (midnight to midnight)
Form: 3 year average of 98th percentile (design value)
Level: 35 µg/m3 (micrograms/cubic meter)
SW Indiana's design value: 27 (2010 to 2012 data)

PM2.5:
Averaging time: annual (calendar year)
Form: 3 year average of annual average (design value)
Level: 12 µg/m3 (note: prior to March 17, 2013, the level was 15 µg/m3)
SW Indiana's design value: 12.2 µg/m3 (2010 to 2012 data)

Courtesy of Skinner Design Associates, the University of Kentucky College of Design, and the City of Henderson, Kentucky

Sources and Health Effects

Ozone is formed from complex chemical reactions triggered by strong sunlight between Nitrogen Oxides (NOx) and Volatile Organic Compounds (VOCs). NOx is a product of high-temperature combustion and is emitted from fires, car exhaust, industrial boilers and power plants. Paint, solvents and gasoline fumes are examples of VOCs.
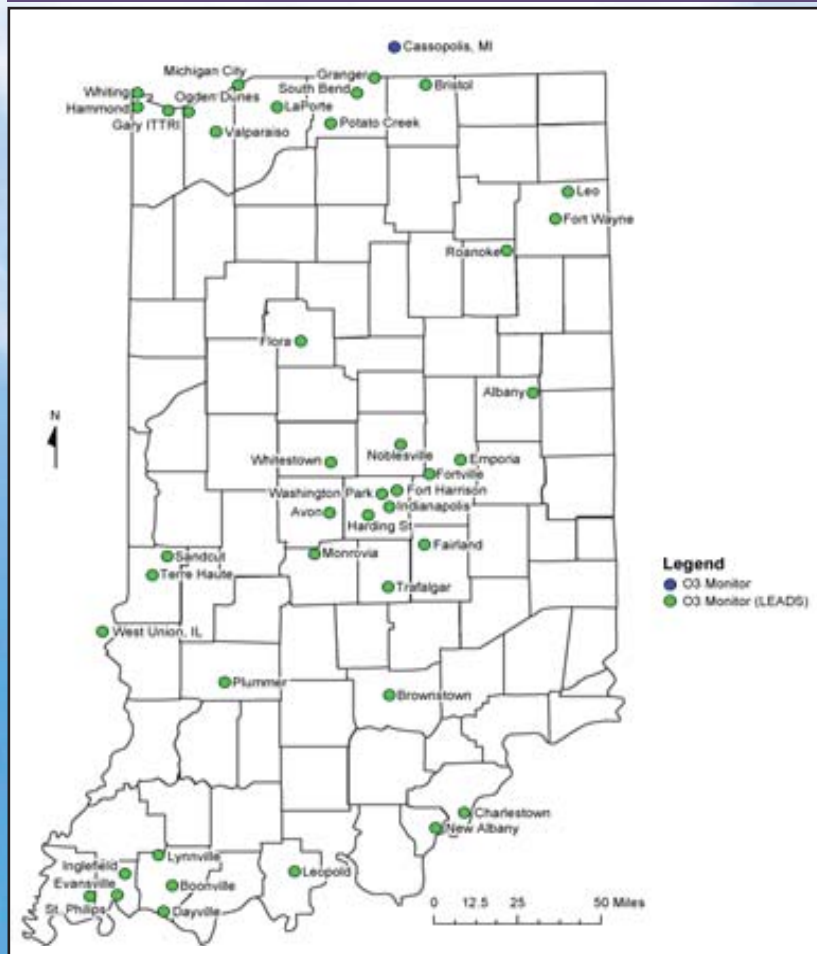
Ozone is a summer-time pollutant – ozone levels rise and fall with the sun, with higher levels observed between 10 a.m. and 7 p.m. Elevated ozone levels can cause lung and throat irritation, shortness of breath; aggravate respiratory diseases such as asthma, emphysema and bronchitis; and increase the frequency of asthma attacks.

Particulate Matter 2.5 micrometers in diameter (PM2.5) can occur any time of the day and any time of the year. Indoor concentrations of PM2.5 can be considerably higher than outdoor levels. There are primary sources of PM2.5 such as smoke, diesel exhaust and dust; while chemical reactions between other atmospheric pollutants can create secondary PM2.5. Short-term exposures to PM2.5 (hours or days) can aggravate lung disease, cause asthma attacks and acute bronchitis, and may also increase susceptibility to respiratory infections. In people with heart disease, short-term exposures have been linked to heart attacks and arrhythmias.
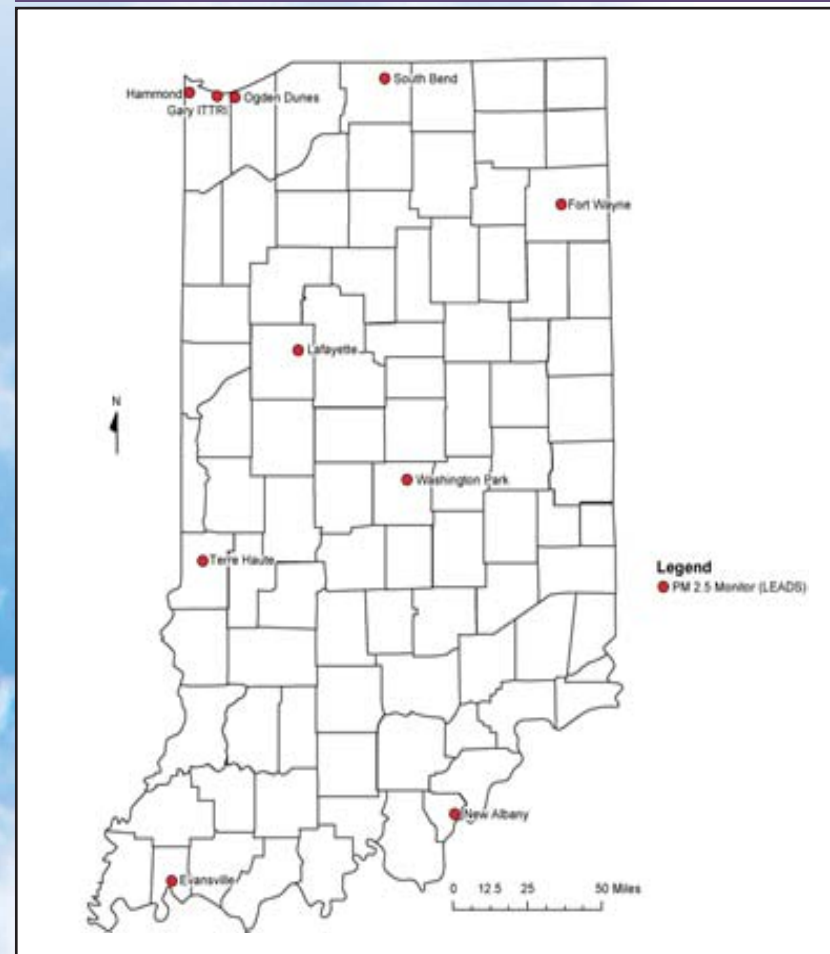
Ambient Air Quality Monitoring

Air pollution is measured by air quality monitors sited at locations throughout Warrick, Vanderburgh, Posey and Henderson counties. The Indiana Department of Environmental Management (IDEM) owns and operates ambient air quality monitors in Indiana, while the Kentucky Department of Environmental Protection (DEP) is responsible for Kentucky's air monitoring program. Figures 3-20 and 3-21 show monitoring sites. Ambient air quality monitors sample the atmosphere for the criteria pollutants, air toxins and meteorological data. Note: Not all sites have the capability to monitor for each pollutant or include meteorological instruments.
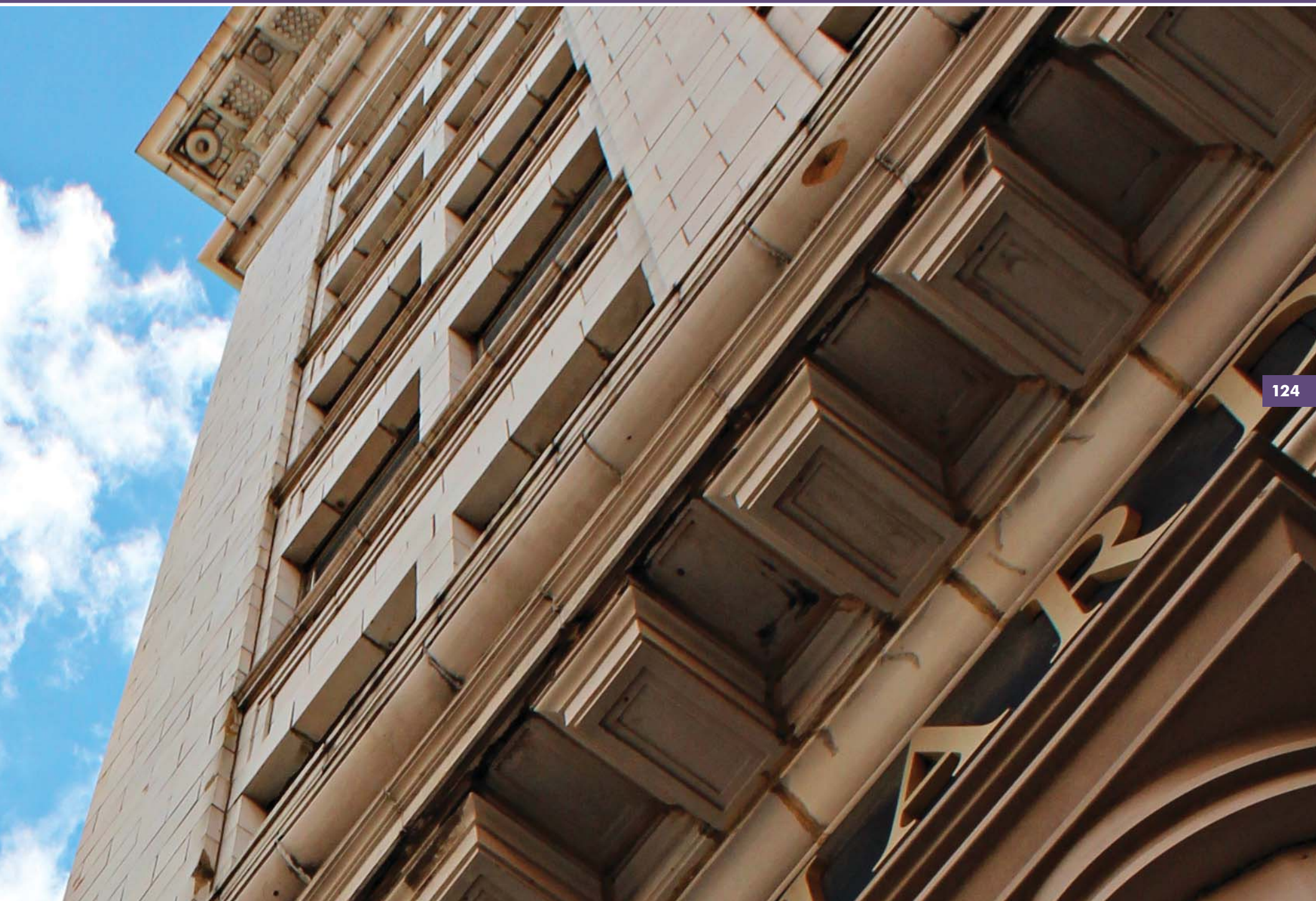
Figure 3-20: Indiana O3 Monitoring Sites

Figure 3-21: Indiana PM 2.5 Monitoring Sites

Environment

Recent Developments

From 1950s through the latter decades of the 20th century, coal powered barges and trains were phased out in favor of diesel powered units. Hospitals, schools, office buildings and homes switched from coal to electricity, LP or natural gas. By 2002, all coal-fired boilers in Evansville had been decommissioned.
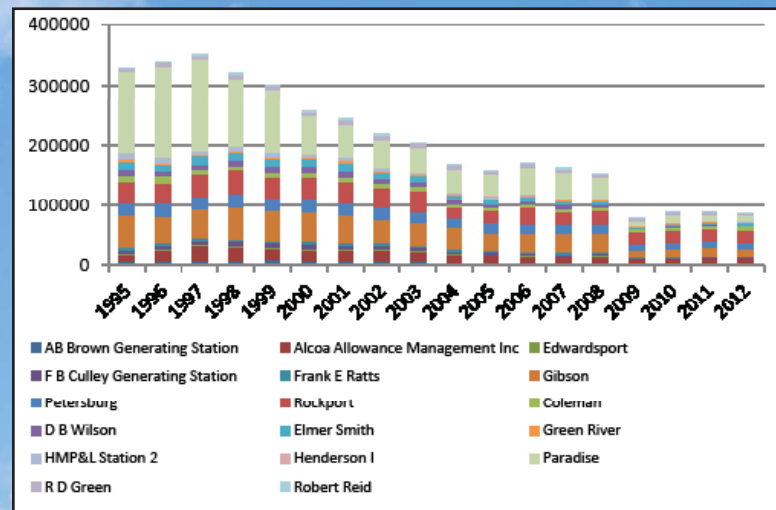
During this same time frame, the USEPA and the US Department of Transportation (DOT) cooperated in promulgating requirements for increased fuel efficiency.

In 1994 and 2004, the USEPA regulated vehicle emissions from light-duty vehicles, reducing their contribution to air pollution and in 2006, mandated significant reductions in the sulfur content of both diesel and gasoline. In 1995, the USEPA began a two-phase tightening of emissions of SO2 and NOx emissions from coal-fired power plants and large industrial boilers, known as the Acid Rain program. In 1998, the USEPA, to reduce the regional transport of ozone, required twenty-two states including Indiana and Kentucky to reduce their states' Nitrogen Oxide (NOx) emissions in order to reduce their contributions to eastern-most states' ozone pollution. The NOx SIP call, as it was called, required NOx reductions from large coal-fired industrial boilers and coal-fired power plants by May 2003 (see Table 3-18 and Table 3-19).

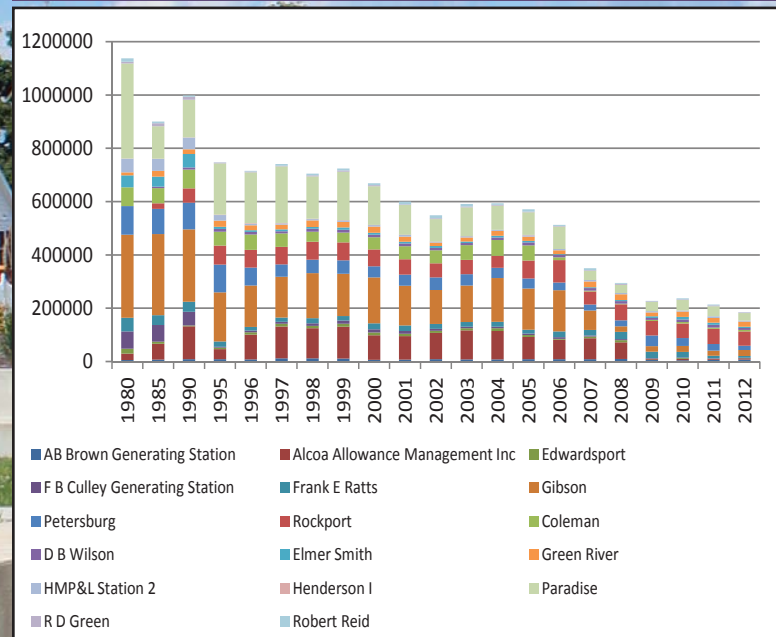While the intent of the Acid Rain program and NOx SIP call was to protect eastern forests and lakes from acid rain and improve the air quality in northeastern states, the measures were instrumental in improving air quality in this region both for ozone and particulates.

The emissions reductions resulted from the add-on pollution controls, rather than reduced load or decreased demand due to the 2008 economic recession.

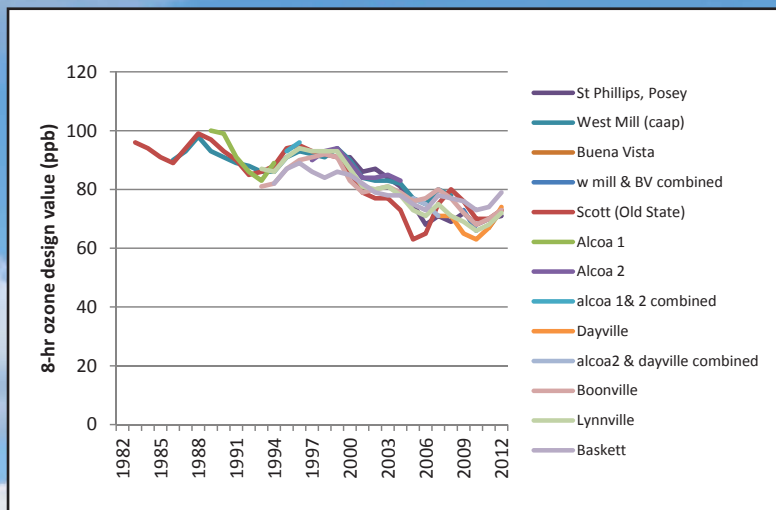### Table 3-18: Annual NOx Emissions from Area Power Plants (Chart Compiled by Dr. J.M. Alexandrovich)

Legend: AB Brown Generating Station, Alcoa Allowance Management Inc, Edwardsport, F B Culley Generating Station, Frank E Ratts, Gibson, Petersburg, Rockport, Coleman, D B Wilson, Elmer Smith, Green River, HMP&L Station 2, Henderson I, Paradise, R D Green, Robert Reid

Table 3-19: Annual SO2 Emissions from Area Power Plants (Chart Compiled by Dr. J.M. Alexandrovich)

Legend: AB Brown Generating Station, Alcoa Allowance Management Inc, Edwardsport, F B Culley Generating Station, Frank E Ratts, Gibson, Petersburg, Rockport, Coleman, D B Wilson, Elmer Smith, Green River, HMP&L Station 2, Henderson I, Paradise, R D Green, Robert Reid
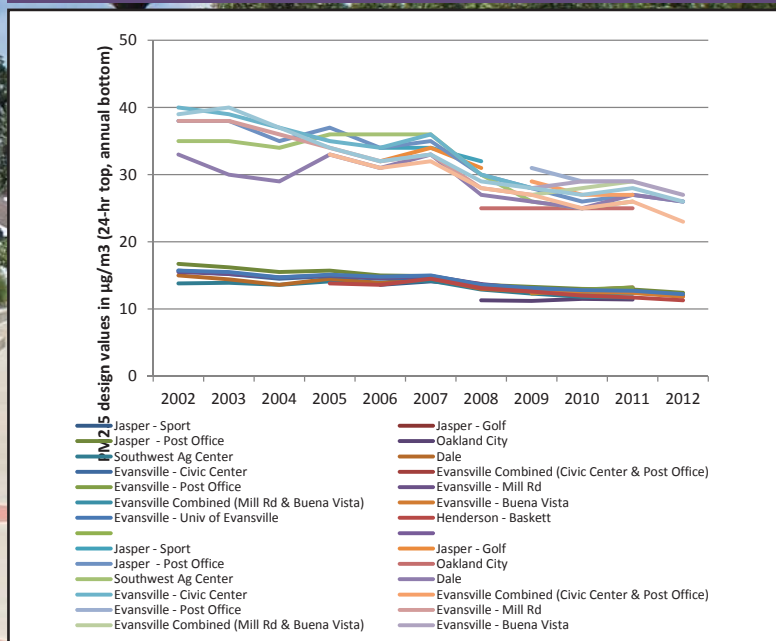
**Figure 3-22: Ozone Design Values
(Chart Compiled by Dr. J.M. Alexandrovich)**

**Figure 3-23: PM2.5 24-Hour and Annual Design Values
(Chart Compiled by Dr. J.M. Alexandrovich)**

Attainment/Nonattainment

When an area's design value for a given criteria pollutant is higher than the National Ambient Air Quality Standard for that pollutant, the US EPA designates the area as in "nonattainment" for that NAAQS. This nonattainment designation is considered a deterrent to economic development and the state in which the area is located must take steps to reduce emissions and improve air quality in that area (attain the standard) within a specified time frame.

In the past, for brief periods, Vanderburgh and Warrick counties have been designated in "nonattainment" for both Ozone and PM2.5 NAAQS. For Ozone, the nonattainment designation was due to the design value for one or more monitors in one or both of the counties violating the standard.

In the case of PM2.5, in 2004, Vanderburgh, Warrick and Dubois counties and Montgomery Township (Gibson County), Ohio Township (Spencer County) and Washington Township (Pike County) were designated as in nonattainment. These townships contain coal-burning electric utilities. The USEPA based its nonattainment decision on a violating monitor in Dubois County although Vanderburgh County monitors demonstrated attainment with the 15μg/m3 annual standard, while the other areas did not contain monitors.

Current Attainment Status

At the date of this report, Vanderburgh and Warrick counties in Indiana and Henderson County in Kentucky are considered in attainment for all criteria pollutants.

Uncertain Future

NAAQS Revisions

The US EPA is required by the Clean Air Act to revisit the National Ambient Air Quality Standards every five (5) years. The US EPA and the Clean Air Scientific Advisory Committee (CASAC) review research and request public comment when considering revising a NAAQS. Generally, the US EPA will leave the NAAQS at its current level, or lower the NAAQS to be more protective of public health and the environment.
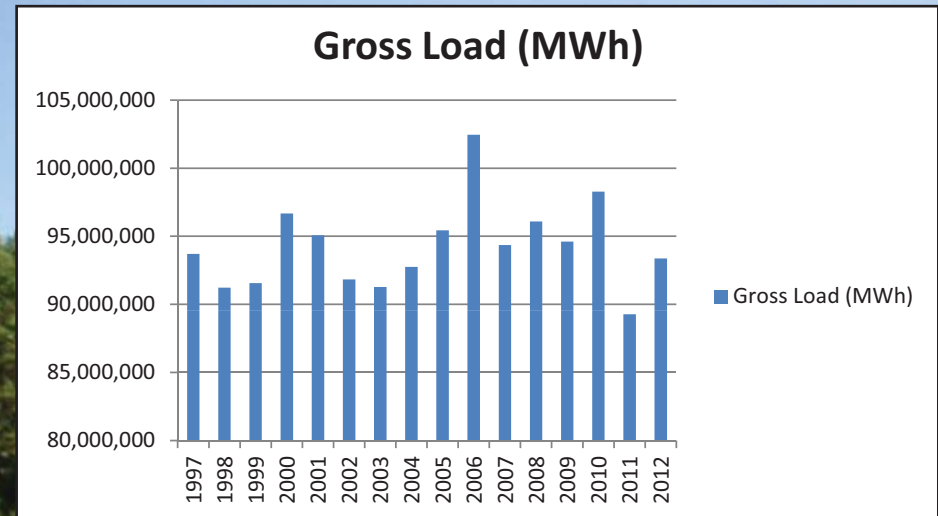
The US EPA will be revisiting the Ozone NAAQS in 2013, possibly lowering the standard from the current 75 ppb/ 8-hr. average to an as-yet-to-be-determined level.

Regarding PM2.5, the USEPA published a new PM2.5 NAAQS in the Federal Register on January 15, 2013, revising the annual standard from $15\mu g/m3$ to $12\mu g/m3$. The US EPA anticipates making initial attainment/nonattainment designations by **December 2014, with those designations effective in 2015.**

States would have until 2020 (five years after the designations are effective) to meet this revised standard. The US EPA projects that 99 percent of US counties, including those in the SEAC region, would meet this standard without any additional actions to reduce PM2.5. As noted previously, Vanderburgh County's current design value (2010-2012) is $12.2\mu g/m3$.

There is a possibility that the design values in Dubois, Vanderburgh or Henderson Counties would not improve sufficiently to meet the $12.0\mu g/m3$ standard. As in 2004, the USEPA could declare multiple counties and townships of southwestern Indiana and northwestern Kentucky in "nonattainment" based on one individual violating monitor somewhere in the region.

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Figure 3-24: Gross Load (MWh)
(Chart Compiled by Dr. J.M. Alexandrovich)

Figure 3-25: Gross Load (SO2 and NOx
(Chart Compiled by Dr. J.M. Alexandrovich)

President Obama's Climate Action Plan (CAP)

On June 25, 2013, President Obama announced his Climate Action Plan (CAP). The CAP has three over-reaching strategies: "Cut Carbon Pollution in America;" "Prepare the US for the Impacts of Climate Change;" and "Lead International Efforts to Combat Global Climate Change and Prepare for its Impacts."

Both Indiana and Kentucky obtain 90 percent or more of their electricity from coal. The CAP directs the USEPA to set Green House Gas (GHG) standards for new and existing power plants and promotes switching from coal to natural gas as an interim "bridge" strategy to reduce CO_2 (Green House Gas) emissions.

The proposed emission standards will shut down some power plants. The USEPA estimates around 17-20 gigawatts (GW) of coal-produced electricity will be lost nationwide, but industry estimates reach 67 GW lost by 2025. The primary means by which an existing coal-fired power plant will be able to reduce its carbon dioxide emissions will be to switch from coal to natural gas. The resulting cost increases for electricity may curtail consumption until the improvements are amortized.

Watershed Management

An abundant water supply plays an
important role in the economic, social, and
environmental health of the region. The
Ohio River and the Green River together
with smaller tributaries provide the region
with a large reserve of fresh water supply.
These rivers give the region drinking water,
a solid ecosystem, good economic benefits,
and many recreational opportunities. These
water resources offer the region advantages
over many other metropolitan areas and
measures to protect these resources should
continue to be practiced.

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Figure 3-26: Watersheds

Tree Cover

Forests offer many beneficial aspects to a region including improved air quality, savings in energy usage, increased real estate values, and verdant natural wildlife habitats. Historically, Henderson, Vanderburgh, and Warrick counties have had substantial dense hardwood forests covering much of the land. As land has been cleared for development and agricultural uses, these forested lands have dwindled and begun to disappear. Today, those forested lands exist only as pockets of wooded areas, in many cases, unable to serve as continuous wildlife migratory corridors.

One of the best actions we can take, to help the environment, is to plant a tree. A Reforestation Plan and program will be presented in Volume 2, Chapter 5.

Figure 3-27: Tree Cover

Tree Cover

Managed Lands

Much of the existing forested land in the region is preserved in parks and recreational areas. The largest areas include: the Blue Grass State Fish and Wildlife Area, the John James Audubon State Park, the Sloughs Wildlife Management Area, the Green River State Forest, and the Interlake State Recreation Area. In addition to these areas, the cities and counties in the region manage and maintain a number of natural and recreational areas including Wesselman Park, Eagle Slough, Scales Lake, and Atkinson Park. Similar to water areas, these managed areas provide economic, social, and environmental benefits to the region, and aid in providing our green infrastructure. See Figure 3-28.

Figure 3-28: Managed Lands and Parks

Prime Farmland

The Natural Resources Conservation Service defines prime farmland as "land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed and is also available for these uses (the land could be cropland, pastureland, rangeland, forest land, or other land but not urban built-up land or water)." Indiana has the second highest percentage of prime farmland in the United States and Kentucky is in the top 1/3 of all states in its percentage of prime farmland. See Figure 3-29.

Figure 3-29: Prime Farmland

Prime Farmland

Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season

Prime farmland if protected from flooding or not frequently flooded during the growing season

Prime farmland if drained

Prime Farmland

Steep Slopes

The land's soil type, drainage, and slope have a tremendous impact upon the desirability of land for development. These physical features of the land can render areas of the region unsuitable for certain land uses or even completely unsuitable for any land use development whatsoever. The Soil Conservation Service of the US Department of Agriculture publishes detailed soil information and maps. Understanding the soil type and slope helps address harmful runoff and erosion, while aiding in the recapture and reuse of rain water. See Figure 3-30 for slopes of various percentages.
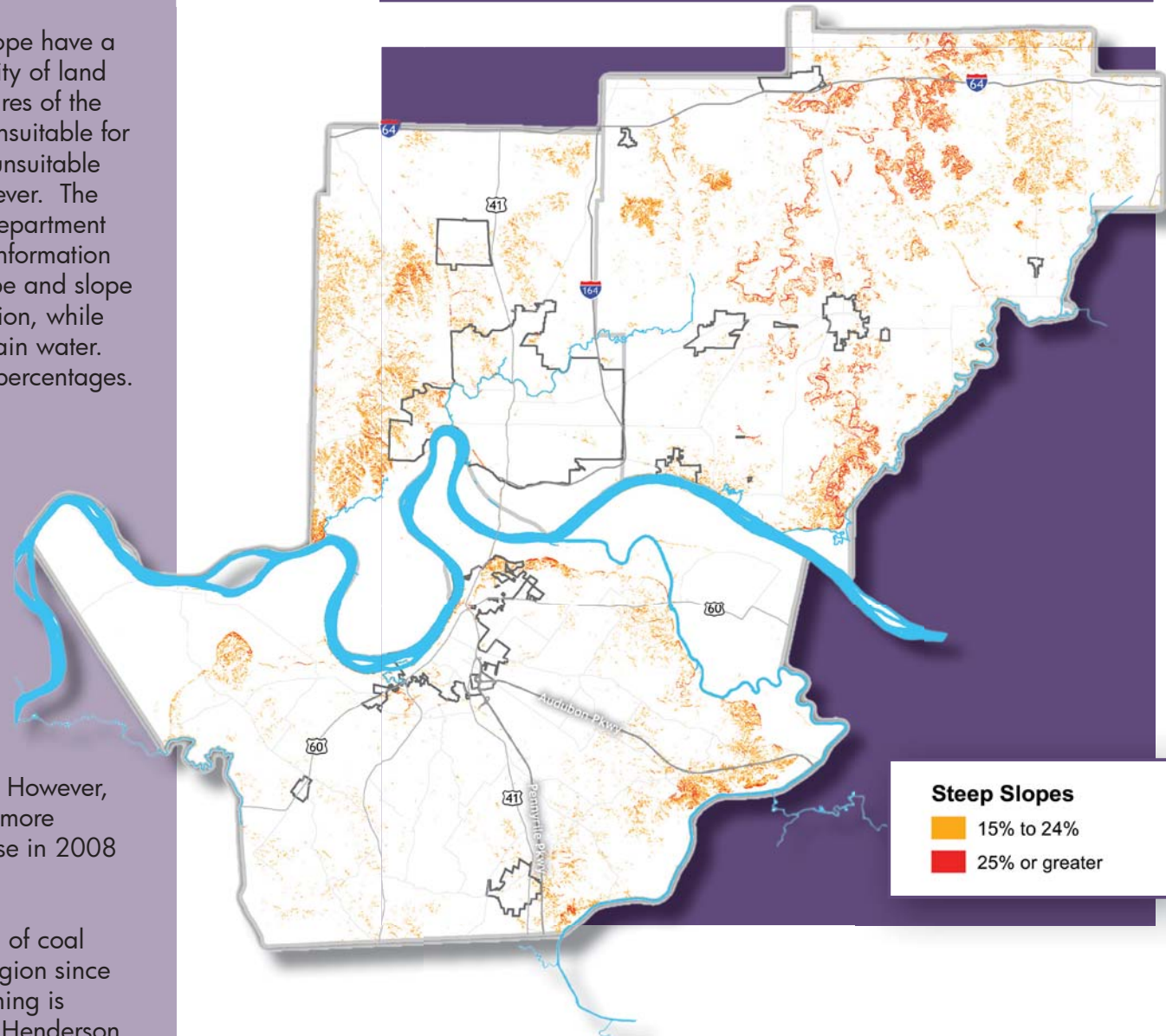
Mining/Seismic

Southwestern Indiana and Western Kentucky are close to two seismic zones: the New Madrid and the Lower Wabash Valley seismic zones. According to the United States Geological Survey's National Earthquake Information Center, numerous earthquakes have occurred in the region but the majority of these earthquakes have been minor events. However, several of the earthquakes have been more significant, with the most recent of these in 2008 registering a 5.4 on the Richter scale.

Underground and surface strip mining of coal has been a dominant activity in the region since the 1890s. Today, the active coal mining is mostly surface mining in Warrick and Henderson counties. While mining provides economic

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Figure 3-30: Steep Slopes

Steep Slopes
- 15% to 24%
- 25% or greater

benefits for the region, abandoned mines and subsidence issues require the mining activities to be regulated through federal and state laws. Henderson County has a Surface Mine Committee to oversee surface mining activities. Figure 3-31 shows a historic inventory of coal mining activity.

Archaeological Sites

In addition to the many natural areas, there are significant architectural and archaeological resources in the region. While damaged or aged architectural resources can be restored, the archaeological resources are often irreplaceable and require protective measures to ensure preservation. A map showing historic districts can be found under the Arts and Culture section of this chapter. The Angel Mounds State Historic Site in Vanderburgh and Warrick Counties is nationally recognized as one of the best-preserved prehistoric Native American sites in the United States with archaeological remains of mounds. Since individuals seek to explore these sites for artifacts, archaeological resources must be protected and the location of sites is not identified in public documents.

Figure 3-31: Coal Mines

Coal Mines
- Abandoned Surface Mine
- Active Surface Mine
- Abandoned Underground Mine
- Active Underground Mine
- Abandoned Unknown Type

Historic Resources

In 1975, an ordinance was drafted in the City of Evansville establishing the Original Evansville Preservation Commission and with it a Historic Preservation District. The Commission has been active since 1975 in overseeing the protection and preservation of structures in the district. No new buildings can be built, altered or relocated without the express approval of the Commission. The formal issuance of a Certificate of Appropriateness is required before any major new construction or renovations are begun.

In 1981, shortly after the Commission was formed in Evansville, the State of Indiana created the Indiana Register of Historic Sites and Structures, including many of the prime sites in Southwestern Indiana. There are now well over 100 individual sites, in and around Evansville, that are on the combined National Register and State of Indiana Register of Historic Sites and Structures. Over 50 of these sites are located within the Downtown Evansville Multiple Resource Area. Angel Mounds in Warrick County and several sites in the Town of Newburgh are also listed on the State of Indiana Register and the National Register of Historic Places.

Included on the master list of historic survey sites published and administered by the Kentucky Heritage Council, there are 150 survey sites and four archeological sites from Henderson County. Of these sites, seven are included in the National Register of Historic Places, and another eight appear to meet the National Register requirements but have not been formally designated. The City of Henderson has implemented five distinct historic districts within the corporate limits. (The accompanying maps show designated districts within the region.) These districts are considered "overlay" districts, since they impose certain distinctive design requirements that complement the requirements of the underlying zoning designation (i.e. commercial, residential or industrial). Provisions of the overlay district can potentially include items that impose conformance to standards that protect the district, such as common setback requirements or details of the desired period's signage.

In 2004, the Renaissance Kentucky Program was altered to become the Renaissance on Main Program for the entire Commonwealth of Kentucky. The City of Henderson has been approved for inclusion in the Renaissance on Main Program, after becoming designated as a Certified City in 2005. The designation must be re-certified annually, and all eligible cities are then classified to be under "priority status" when applying for funding by applicable state governmental agencies.

In rural areas of Henderson County, there are a substantial number of historic farms, detailed in the Henderson County Historic Farms Survey. Many of these historic farms are still active farmsteads having retained historic dwellings and/or barns, silos and other storage structures. Farms such as the Barrett-Keach Farm or the William Soaper Farm are outstanding examples of typical mid-19th and early 20th century farmsteads. The agricultural heritage in all three of the regional counties – Vanderburgh, Warrick, and Henderson – is substantial and ongoing, serving as one of the staples of the local economic base.

A major historic site, not located within the three-county study area, but accessible to the east, is Historic New Harmony. The community is located in Posey County, near the Wabash River, and has a heritage representing two earlier utopian communities from the nineteenth century. The University of Southern Indiana has partnered with the Indiana State Museum and Historic Sites to maintain significant historic properties and sponsor cultural events. The Athenaeum, designed by internationally known architect Richard Meier, functions as the Visitors' Center for Historic New Harmony.

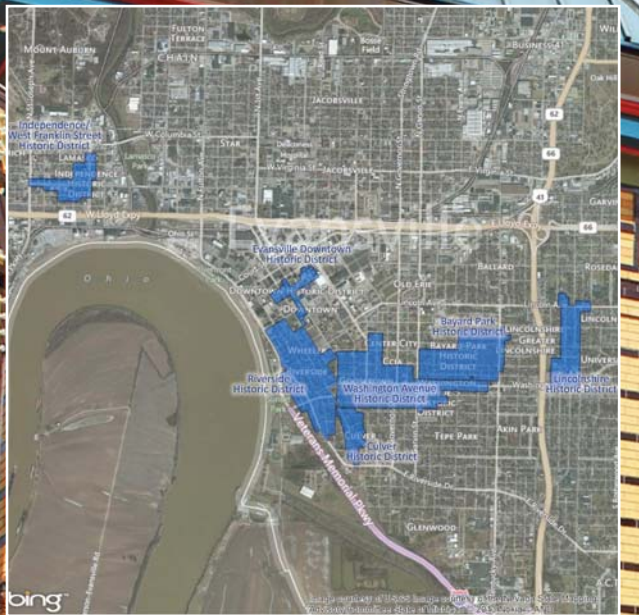Figure 3-32: Vanderburgh Historic Districts
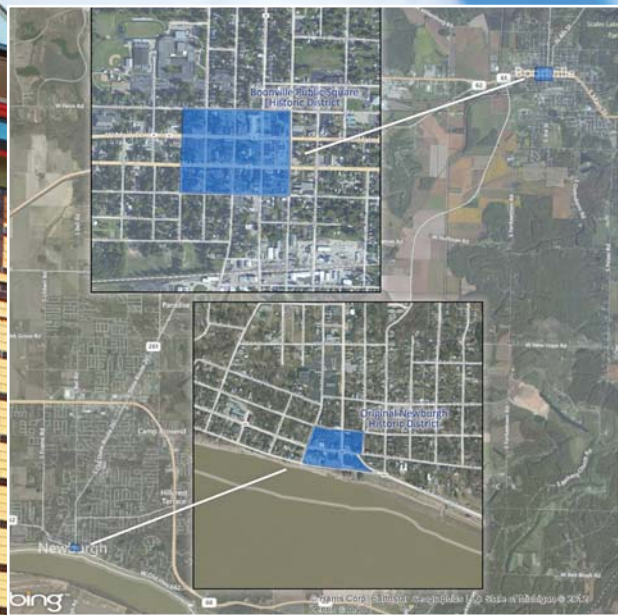

Figure 3-33: Warrick Historic Districts

Figure 3-34: Henderson Historic Districts

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Cultural Assets and Arts Organizations

Southwestern Indiana and Western Kentucky contain a wealth of cultural assets and arts facilities. The Arts Council of Southwestern Indiana serves as an arts advocate for seven counties in the southwestern part of Indiana including Warrick, Vanderburgh, Spencer, Posey, Pike, Knox, and Gibson counties. The Council possesses over fifty cultural affiliates in this seven-county service area. The Arts Council, located in Innovation Pointe on the Evansville Main Street Walkway, proudly displays regional artworks by professionals and students in its Bower-Suhrheinrich Gallery where it also offers a brown-bag luncheon series for lectures and musical ensembles. The Arts Council also administers Arts Institute Funding for local arts education projects and programs.

In Henderson County, the John James Audubon state park and museum serve as regional centers for nature, hiking and cultural endeavors. The Audubon State Park includes 692 acres of public parklands. Of this total, approximately 575 acres are of historic significance. The historical portion of the site includes recreation and parklands, a nature preserve, a natural history and art museum, and 19 historic structures. The museum includes an interpretive display of John J. Audubon's life through some of his original works and other personal memorabilia. The State Park has national historical significance in the areas of public works from the period of 1934-1941, along with landscape architectural significance and historical architecture status of most of the on-site structures.

Courtesy of VPS Architecture

The region possesses numerous venues for fine and performing arts, including the new Ford Center located on Main Street at Martin Luther King, Jr. Boulevard in Evansville; the Victory Theater on Main Street at 6th Street, home of the Evansville Philharmonic Orchestra, the largest arts institution in the tri-county area; the Henderson Community College Fine Arts Center, with a 1,000 seat performing arts theater and two art galleries; the Vanderburgh County Convention Centre (Old National Events Plaza) on Locust at Martin Luther King, Jr. Boulevard, housing a 2,500-seat performing arts center and a 40,000 square foot exhibition hall; the Mesker Park Outdoor Amphitheatre, currently in need of major renovations; the University of Southern Indiana Theater on Igleheart Avenue and the on-campus Mallette Studio Theater in USI's Liberal Arts Center; the Student and Faculty Art Gallery, also in the USI Liberal Arts Center; University of Evansville's nationally recognized theater program at Shanklin Theater on the UE Campus, along with the attached May Studio/Black Box Theater; Evansville Civic Theater at Fulton and Columbia streets in Evansville; and in Posey County, the New Harmony Theater with its 350-seat Murphy Auditorium.

Courtesy of VPS Architecture

Courtesy of VPS Architecture

Courtesy of VPS Architecture

Museums

Diverse museum offerings in Vanderburgh County include the Evansville Museum of Arts, History and Science, founded in 1906, which has recently added a 360 degree immersive theater that is unique in the United States and offers planetarium programming, documentary films, and artistic presentations. The Museum operates an EMTRAC Transportation Center, complete with locomotive and railcars of the EMTRAC period. The Reitz Home Museum is an anchor in the city's downtown Historic Preservation District. The main home is an example of French Second Empire Architecture and features genuine examples of Victorian period furnishings and decorative themes. The Reitz Home also operates a carriage house meeting room and gift shop.

Angel Mounds State Historic Site, straddling the Vanderburgh County and Warrick County line, is one of the best examples of prehistoric Native American settlements in the United States. Located in the Ohio River Valley, the Mounds Native Americans utilized earthworks for their rituals and as a functional flood protection strategy. Farming the rich river bottom soils, the Middle Mississippian tribes occupied villages in this area from around 1100 to 1450 A.D. They produced intricate bead and pottery work, all displayed at the state historic site's museum.

The Evansville African American Museum, located southeast of downtown Evansville, is housed in the last remaining building of the original Lincoln Gardens public housing project in the City of Evansville. Lincoln Gardens was the second federal housing project in the United States, funded and built during the New Deal in 1938. The African American Museum commemorates and documents the challenges and historic struggles of African Americans living in Evansville during the past 75 years.

The LST 325, a historic World War II amphibious landing vessel, is docked in Evansville near Marina Pointe, and except for excursions to other historic locations in America, stays open for tours, both interior and exterior, during most months of the year. The ship's purpose was to land complete war-ready tanks, soldiers and supplies directly onto the enemy's shorelines. The ship represents the very last intact and navigable LST still in operation. The Koch Family Children's Museum of Evansville, also known as cMoe, is located at 5th and Locust streets in downtown Evansville, housed in the former Central Library Building. As its name implies, cMoe offers exhibits designed to stimulate the creative imaginations of children and families.

Events and Attractions

In the three-county region of Henderson, Warrick and Vanderburgh counties, the opportunity to get involved and experience the natural and man-made wonders of the Ohio River Valley has never been better. Traditionally a "family-oriented" region, the area offers fun and learning in many outdoor "green" places and spaces. The Mesker Park Zoo and Botanic Garden displays a wide range of plant and animal life, all presented in natural settings that give educational meaning and context to the zoo experiences. The Howell Wetlands and the Wesselman Park Nature Center are two other significant green experiences that educate about local plant and animal species and their natural environments. Classes from kindergarten through twelfth grade can gain knowledge and lifelong memories by visiting these natural venues.

The annual West Side Nut Club Fall Festival is a regional tradition dating back to 1921. The festival has grown to become second only to the Mardi Gras in New Orleans in terms of attendance and finances. The Nut Club, through the years, has been a generous benefactor for other non-profits, charities, and community programs. You have not lived until you've tried a brain sandwich, buffalo burger and elephant ear, all in the same evening. Another event that gives a true taste of the Ohio River Valley is "Evening on the River." Though not as old as the Fall Festival, "Evening on the River" has become a springtime (May 31st or June 1st) event that offers the chance to taste the region, stroll the river, enjoy local music and fine art, and walk the esplanade. Other river events like the Newburgh Wine, Art and Jazz Festival in mid-May, the W.C. Handy Blues and Barbecue Festival (Henderson Riverfront) during the first two weeks of June each year, and Fourth of July Fireworks (Evansville Riverfront) make it possible for residents to have the "river experience."
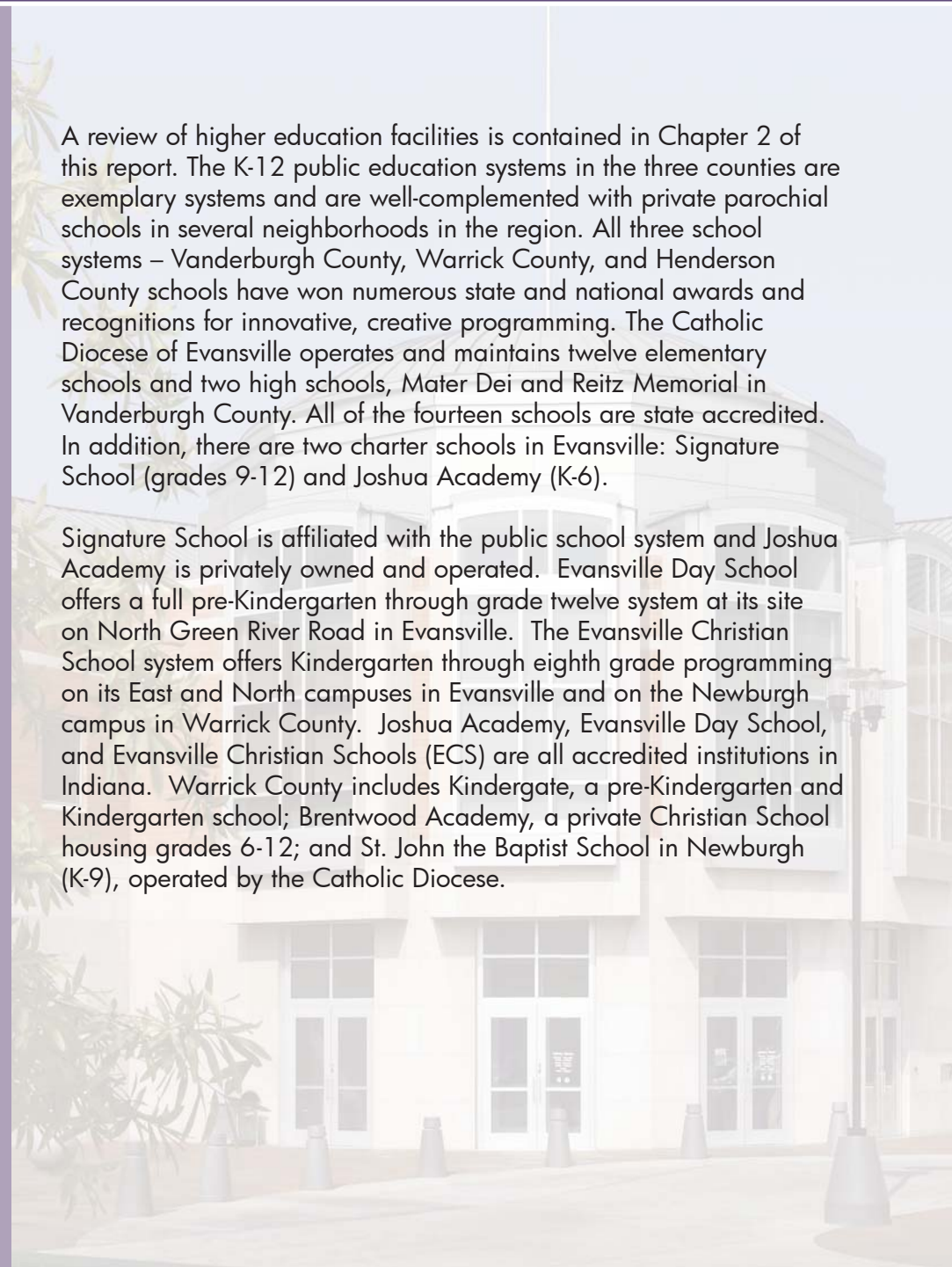
Libraries and Educational Facilities

The Library network in the region is modernized, green, multi-media, community-oriented, and available to everybody, virtually free. The Evansville-Vanderburgh County library system completed a $40 million bond issue and construction program in 2002 – 2005 that created a new central library facility and new branches on the north side of Evansville (North Park) and the northeast side (Oaklyn Library) with a green roof, along with renovations to two historic Carnegie Libraries, one in the Bayard Park neighborhood and the other in the West Franklin village. The Stringtown Branch Library was also renovated. The Evansville-Vanderburgh library system contains two other existing facilities, the West Branch on Red Bank Road and the McCullough Branch on Washington Avenue. The historic Willard Library in the Jacobsville area of downtown Evansville, opened in 1885, is now the oldest operating public library in the State of Indiana. Willard is planning an expansion project in the near future.

The Ohio Township Library also built a new central library facility in the Belle Oaks section of Warrick County. The facility is a fine example of green architecture, with solar panels, recycled materials, and a saw-tooth day-lighting roof system. Boonville and Chandler also contain solid community library buildings that serve the Warrick County public with books, periodicals, mixed-media, and community services. The Henderson Public Library is located in a historic, classical building in the heart of downtown Henderson at 101 South Main Street.

A review of higher education facilities is contained in Chapter 2 of this report. The K-12 public education systems in the three counties are exemplary systems and are well-complemented with private parochial schools in several neighborhoods in the region. All three school systems – Vanderburgh County, Warrick County, and Henderson County schools have won numerous state and national awards and recognitions for innovative, creative programming. The Catholic Diocese of Evansville operates and maintains twelve elementary schools and two high schools, Mater Dei and Reitz Memorial in Vanderburgh County. All of the fourteen schools are state accredited. In addition, there are two charter schools in Evansville: Signature School (grades 9-12) and Joshua Academy (K-6).

Signature School is affiliated with the public school system and Joshua Academy is privately owned and operated. Evansville Day School offers a full pre-Kindergarten through grade twelve system at its site on North Green River Road in Evansville. The Evansville Christian School system offers Kindergarten through eighth grade programming on its East and North campuses in Evansville and on the Newburgh campus in Warrick County. Joshua Academy, Evansville Day School, and Evansville Christian Schools (ECS) are all accredited institutions in Indiana. Warrick County includes Kindergate, a pre-Kindergarten and Kindergarten school; Brentwood Academy, a private Christian School housing grades 6-12; and St. John the Baptist School in Newburgh (K-9), operated by the Catholic Diocese.

The Henderson County School System presently has a total enrollment of 7,546 students. The system offers eight elementary schools, two middle schools (grades 6-8), one high school, one alternative learning center, and one preschool. Henderson County has two private schools: the Busy Bees Educare Center for pre-Kindergarten and Kindergarten students; and the Holy Name Catholic Elementary School (grades K-9).

The Warrick County School System, with an enrollment of 9,037 students, is comprised of ten elementary schools, three middle schools (grades 6-8), one middle school (grade 7-8) at Tecumseh, three high schools, and one alternative school. The Vanderburgh County School Corporation had an enrollment for the 2011-2012 academic year of 23,427. The school mix is as follows:

- 3 Early Childhood Centers
- 14 Elementary Schools
- 4 K-6 Schools
- 4 K-8 Schools
- 7 Middle Schools
- 9 High Schools
- 2 Charter Schools (1 K-6 & 1 9-12)
- 1 Alternative School for middle and high school students
- 1 Career and Technical Center
- 1 Virtual Academy

Workforce Training

The region has developed strong workforce training sites for all ages, from ages 16 to 66. With collaboration between the Evansville-Vanderburgh School Corporation and four other surrounding public school systems, students from all five counties in Indiana -- Vanderburgh, Warrick, Posey, Gibson, and Perry counties -- can attend the Southern Indiana Career and Technical Center, located on Lynch Road in Evansville. Students from counties outside Vanderburgh pay a small fee for each of their students attending the program, to cover basic costs of operations and programming. Students typically spend one half of their school day at their home high school and the other half day at the Career and Technical Center.

Programs of instruction at the Career and Technical Center include:

Industrial Maintenance
Plastics Technology
Precision Machine Metalworking
Welding Technology
Small Engines/Power Mechanics
Veterinary Science
Floral Design/Landscape/Greenhouse Management
Computer Network Technology (CISCO)
Building Construction Technology
HVAC and Alternative Energy Systems
Electricity and Robotics
Culinary Arts
Architectural Design & Computer Aided Design and Drafting
Civil Engineering/Architectural Engineering
Graphic Communication
Health Sciences
Public Safety/Law Enforcement
Fire Technology
Telecommunication and Television
Automotive Service Technology

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Image Courtesy of VPS Architecture

Image Courtesy of VPS Architecture

Image Courtesy of VPS Architecture

Image Courtesy of VPS Architecture

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Image Courtesy of VPS Architecture

While the Career and Technical Center serves high school students from grades 10-12, Indiana Vocational Technical School (Ivy Tech) offers expanded programming for college- level students in its Associate Degree (two year) and its College Degree (four year) programs. Close association between Ivy Tech Southwest and the Career and Technical Center, means that students can begin a technical career path, suited to the local economy when they turn 16 years of age and can follow that path, with in-depth technical training until they have a technical or college degree that prepares them for the increasingly complex technological world we live in. Both CTC and Ivy Tech maintain close communication and interaction with leaders in the business and technological fields of the local economy, tailoring educational programming to remain fresh and relevant. Ivy Tech's Corporate College Southwest is dedicated to offering a wide variety of direct workforce training classes. Ivy Tech also maintains satellite locations in Warrick County, Princeton (Gibson County) and Tell City (Perry County).

Image Courtesy of VPS Architecture

Image Courtesy of VPS Architecture

Programs offered at Ivy Tech Community College of Indiana include the following:

- Accounting
- Agriculture
- Aviation Maintenance
- Hospitality Administration
- Biotechnology
- Building Construction Management
- Business Administration
- Chemical Technology
- Computer Information Technology
- Criminal Justice
- Dental Hygiene
- Education
- Electrical Engineering Technology
- Electronics & Computer Technology

- Energy Technology
- Engineering Technology
- Environmental Design
- Health Information Technology
- Human Services
- Nursing
- Automotive Technology
- Information Security
- Interior Design
- Kinesiology
- Machine Tool Technology
- Industrial Technology
- Manufacturing Production and Operations
- Mechanical Engineering Technology

- Medical Assisting
- Medical Laboratory Technology
- Mortuary Science
- Nanotechnology
- Neurodiagnostics
- Paralegal Studies
- Paramedic Science
- Physical Therapist Assistant
- Radiation Therapy
- Surgical Technology
- Therapeutic Massage
- Visual Communications

Courtesy of VPS Architecture

Religious and Spiritual Resources

A wide range of denominations and religious faiths are practiced and represented in the three-county region, including Jewish, Christian, Christian Unity, Muslim, Buddhist, Hindu, and Unitarian. The Council of Churches of Evansville, located at 414 NW Sixth Street in Evansville, acts as a clearinghouse and resource for the Christian faith. The Catholic Diocese of Evansville's Catholic Center Administrative Offices are located at 4200 North Kentucky Avenue, along with the Sarto Retreat House. Sarto is equipped with a chapel, meditation grounds and garden walking paths, meeting rooms, guest sleeping quarters for 55 persons, and a complete kitchen and dining room. The site provides spiritual or secular meeting and retreat facilities in a quiet residential setting. Another secular but spiritual retreat site is the New Harmony Inn in New Harmony, Indiana. While not located in the three-county study area, the Inn is a quiet, contemplative spot, situated in the heart of the historic, utopian village of New Harmony in Posey County. The Inn offers a calm, cultural environment, perfect for getting away to contemplate or meditate.

Athletics, Sports, and Gaming Facilities

The tri-state area (southwestern Indiana, northwestern Kentucky, and southeastern Illinois) is known for its wealth of amateur, semi-professional and professional athletic sports and teams, whether at the high school level, university competitive programs, or club team systems. Participation in athletics and sports events are body- and character-building activities that are sure to help ward off obesity. Sports that a couple of decades ago were virtually unknown or, at least, unorganized, such as lacrosse, have become popular. The emphasis on women's sports, which were undervalued and under-promoted until the late 1970s, when women's opportunities began to flourish, has increased the need for more gymnasiums and sports fields, from softball to soccer, and from track & field to indoor volleyball.

The University of Evansville and the University of Southern Indiana, through hard work and persistence, have had good fortunes in their athletic endeavors, fielding teams that have won regional and national titles in their respective divisions, including most notably, basketball and soccer. Both university women's and men's sports have developed a wide following among both students and citizens of the region. At the professional level, teams such as the Evansville Otters baseball team and the Evansville IceMen hockey team, playing at historic Bosse Field and the new downtown Ford Center arena respectively, have added even more excitement and competitive spirit to the local culture.

At the amateur level, whether it is club team swimming or soccer, women's softball or boys' baseball, rugby, lacrosse, or hockey, the tri-state's youth are participating at ever growing levels. The popularity of club and youth team sports is part of the family emphasis in the region. Crowds of spectators usually consist of moms, dads, aunts, uncles, and grandparents.

The parks departments in all three counties maintain playing fields and municipal golf courses for the use and enjoyment of their citizens. The Goebel Soccer Fields on the Evansville east side, the Burdette Park Motocross and Supercross biking venues on the west side of Vanderburgh County, and the pool, golf and park facilities at Atkinson Park in Henderson, are good examples of publicly-owned and operated municipal facilities. Special events for runners and bikers such as the River City Bicycle Classic, presented by Deaconess Hospital, and the Evansville Half Marathon, sponsored by the YMCA of Southwestern Indiana, contribute to the healthy involvement of all ages of the population.

In the private sector, venues like the Victoria National Golf Course in Warrick County (site of the national Tropicana Pro-Am Tournament, including numerous PGA Tour stars); the Tropicana Evansville riverboat casino on Evansville's Riverfront; and the Ellis Park Race Course for horse racing in Henderson, Kentucky all add to the fun, competitive spirit and festivity of the region.

Special Lifestyle Centers

There are a nice variety of special places in the EMPO three-county region. These destinations have a marked "sense of place," a uniqueness that is unmistakable. Whether it's vivid natural features, stunning architecture, interesting people, or the right mix of all of these features, these special places draw people consistently. The scale is just right. The sun and shade fall perfectly. The wine flows smooth and evenly.

The list of special places is long. But naming just a few of them will give the idea merit. Good examples are places like historic downtown Newburgh or historic downtown Henderson, both with breathtaking views of the Ohio River; the downtown riverfront esplanade in Evansville, connected to the Main Street Walkway; West Franklin Street in Evansville; the University of Evansville campus; Darmstadt; Bluegrass Fish and Wildlife Area; Scales Lake; Audubon State Park; Wesselman State Park; and the University of Evansville campus.

Lifestyle Centers often make up the nucleus of strong neighborhoods. They often occur at the intersection of the elementary school with the community arts building or a neighborhood park. In addition, a strong lifestyle center will have bus service, community services, and retail shopping nearby. In this regional plan, it is important to advocate ways of keeping lifestyle centers robust and in good repair, with easy access for nearby residents, and to locate centers to strengthen existing or new neighborhood cores. Commercial corridors offer potential opportunities to define strong focal points for lifestyle and neighborhood centers. These commercial corridors can be reinforced by the application of appropriate zoning designations, in order to manage growth effectively. Intentional usage of grant and business improvement programs, along with wise capital improvements, can make huge differences in the way these centers shrink or thrive. So when designing new places or planning new neighborhoods, it is instructive to try to determine what makes these special places so special.

Land Use

Existing Land Use

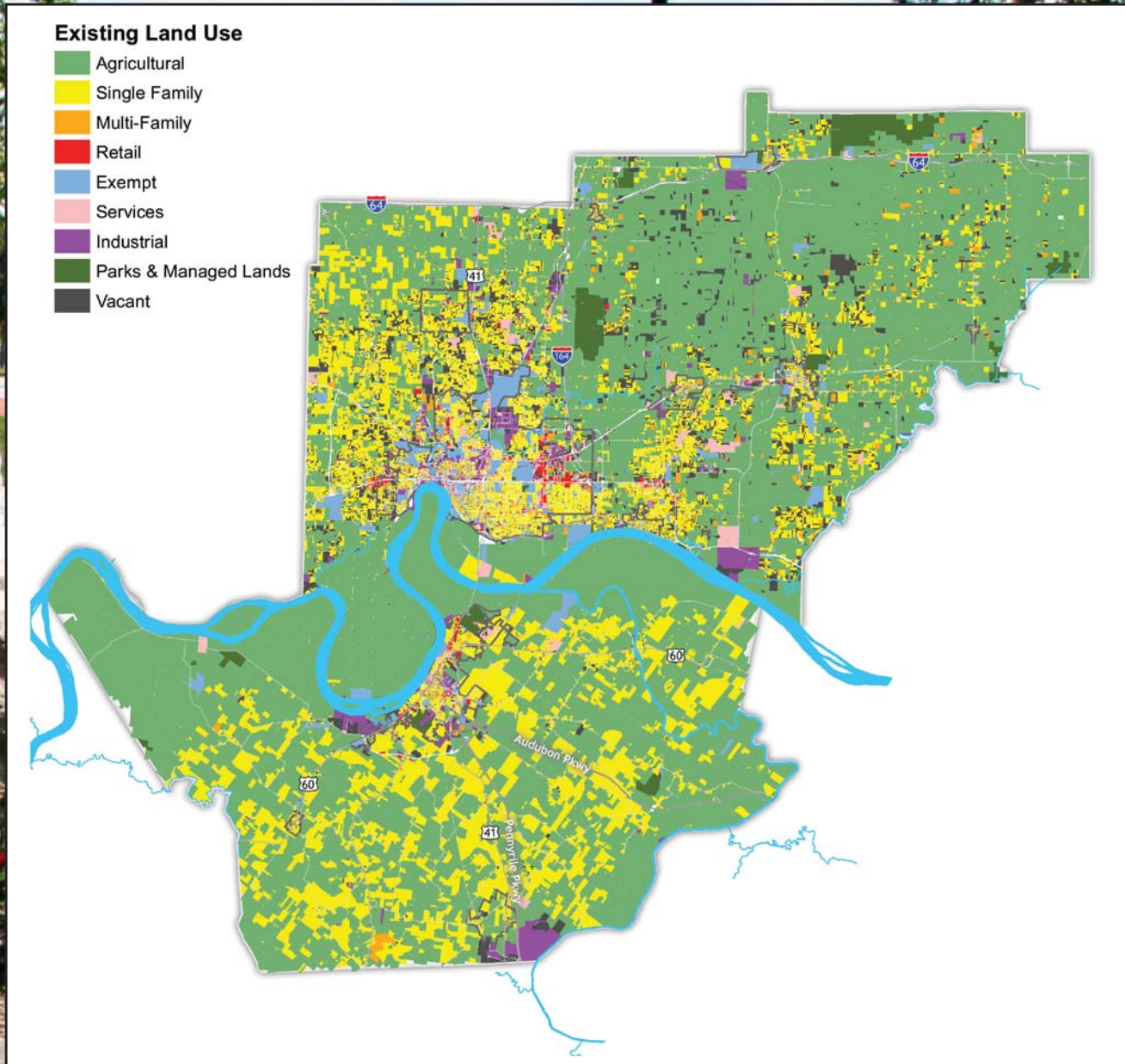The map of the existing land uses within Henderson, Vanderburgh, and Warrick counties was developed based on parcel data received from each of the three counties and aerial photography, which was checked to confirm accuracy.

Figure 3-35: Existing Land Use

Existing Land Use
- Agricultural
- Single Family
- Multi-Family
- Retail
- Exempt
- Services
- Industrial
- Parks & Managed Lands
- Vacant

Land Use

Existing land uses are broken down into nine categories as follows:

Agricultural
The agricultural land use category includes all land used for the cultivation of animals and plants. The category includes all farming fields, land used for the grazing of animals, and structures used for agricultural purposes including the storage of farming equipment.

Single-Family Residential
The single-family residential category includes all single-family houses and manufactured homes on a single parcel. Single-family lots can range from less than 1/8th of an acre in inner city neighborhoods to several acres in rural areas.

Multi-Family Residential
The multi-family residential category includes duplexes, apartment buildings, condominiums, townhomes, and any other single structure used for multiple dwelling units. Multi-family parcel sizes range from small lot duplexes to multi-story residential towers to apartment complexes covering several acres.

Retail
The retail land use category includes all establishments that sell goods, including grocery stores, clothing stores, department stores, restaurants, and other similar uses.

Services
The services land use category includes all businesses that provide a service. This category includes doctor's offices, salons/barbershops, architectural/engineering offices, insurance agents, realtors, attorneys, accountants and other similar uses.

Industrial
The industrial land use category includes all heavy and light industrial uses. The industrial category includes heavy and light manufacturing businesses, warehouses, and mining activities.

Exempt
The exempt land use category includes all public and quasi-public property that is tax exempt. This includes government buildings, libraries, churches, schools, not-for-profits, and other similar uses.

Parks and Managed Lands
The parks and managed land category includes all land owned by federal, state, or local governments intended for or related to recreational uses. Parks include neighborhood and regional parks, playgrounds, sports complexes, owned and maintained by municipal or county government. Managed lands include fish and wildlife areas, sloughs, parks, forests, preserves and other recreational uses owned and maintained by the state or federal government.

Vacant
The vacant land use category includes all land that is currently not being used for any of the previous uses and has no structure associated with the parcel. This category also includes large industrial and commercial structures that have been vacant for a long period of time.

The Existing Land Use map is shown, on the previous page, as Figure 3-35 for Henderson, Vanderburgh, and Warrick counties. Agricultural uses are the predominant land use in each of the three counties. The single-family residential usage takes up the greatest amount of non-agricultural land.

Land Use Patterns

The Regional Plan for Sustainable Development seeks to define patterns of growth that (a) optimize pre-existing infrastructure and utilities; (b) capitalize on undeveloped property inside existing city limits before forcing growth into more remote parts of the county; (c) encourage compact, mixed-use projects with neighborhood centers that are easily accessed by walking; and (d) locate the denser developments along transportation corridors capable of offering express bus routing. The goal is to create viable neighborhoods; memorable places and spaces rather than just "projects;" and diverse communities. For more efficient use of scarce resources, it is wiser to develop towns and villages rather than endless sprawling suburbs.

Proximity to Employment and Services

The Regional Plan for Sustainable Development also seeks to define patterns of growth that promote a wide range of location choices for families and small businesses. Employees in the workforce save time and money by being able to select their residential location reasonably close to where they work, preferably within walking distance, but no more than a fifteen minute commute by car. Often, there is a dearth of workforce housing – housing that is affordable, through rental or ownership, to families with incomes that are no more than 80 percent to 100 percent of the median family income of the county in which they reside – located close to major employers and/or service sectors of the community. With affordable workforce housing growing ever more elusive, families often must move to less expensive but more distant suburban areas, often consuming irreplaceable agricultural land while overloading roads because of long commutes to work.

Walkable Neighborhoods

Walking is the most basic mode of transit on the planet. Not only is walking the most sustainable mode of transit, it is free. Studies indicate a daily walk can lower stress, prevent depression, lengthen lifespan, improve sleep and provide other physical and emotional benefits. The Evansville Travel Demand Model estimates trips in a sub-area along with the transportation mode (car, bus, walking or biking). In Vanderburgh, Warrick, and Henderson, an overall average of 2.96 percent of all daily trips are made by walking. In the United States, walking trips make up roughly 10.9 percent of all trips, according to the National Household Travel Survey (NHTS), completed in 2009. Based on 2010 data, Vanderburgh County had 0.16 daily walk trips per capita; Henderson County had 0.13 walk trips per capita; and Warrick County made 0.1 daily walk trips per capita.

According to the National Survey of Pedestrian and Bicyclist Attitudes and Behaviors, 45.1 percent of all walk trips in the US occur on sidewalks. Neighborhoods need sidewalks, along with biking and walking trails to support increased biking and walking.

Neighborhood development nodes, the "building blocks" of the regional land use plan, shown in the conceptual land use and sustainable development prototypes in Volume 2, Chapter 3, are designed so that residents have a wide range of choices within walking distance of their homes: a fifteen minute walk (approximately one quarter of a mile or less). Pocket parks, tot lots, green spaces and recreational fields should be within a five-minute walk of each and every resident's home. Higher housing densities near the central cores of these neighborhood nodes can save on land, energy, and resources. Traffic is reduced. Homes are more affordable. Children and the elderly can have easier access to playgrounds and services and working people are not burdened with unduly long commutes. Complete neighborhoods have pedestrian trails leading to key destinations within the neighborhood. Wide sidewalks, with curb ramps for wheelchair use, along complete streets, are also desirable in a walkable neighborhood.

Zoning for Mixed Use

Present zoning laws in all three counties tend to fracture and separate age groups, income groups, ethnic groups, family types, and land uses. On the contrary, diverse neighborhoods are capable of bringing people of all types together in a wide variety of activities, including shopping, recreation, dining, relaxing, browsing, and just hanging out. Mixed use zoning encourages buildings that can serve several purposes all at once, such as retail on the first floor, residences on the second floor and storage on the third level. When land uses, densities, and family incomes are mixed together in diverse neighborhoods, communities become more interesting and "livable." Rather than trying to revise present zoning provisions, which tends to make them more complicated and convoluted, it is recommended that overlay design districts be determined for appropriate areas in the three-county region. These design districts can be defined at major transportation crossings and vacant in-fill sites, as well as in pre-existing neighborhoods targeted for redevelopment or rehabilitation. See Volume 2, Chapters 3 and 4, for further discussion of nodes and design districts.

To create more walkable neighborhoods and, thereby, decrease total miles driven by the community, meaning less congestion, less pollution, and fewer traffic accidents, the most effective land use strategy is to encourage more walkable, denser neighborhoods (12-16 dwelling units per acre in their core areas) at the suburban fringe and along major transportation corridors. This strategy will form the nucleus of the urban design and land use planning approach shown in Volume 2, Chapters 3 and 4, of this document.

Location of Neighborhood Centers

The Regional Plan for Sustainable Development seeks to designate locations for mixed-use centers that are capable of making up the core of a walkable neighborhood based on several key features or characteristics. These key locational factors are (1) available acreage that is located near existing public infrastructure such as paved streets with sidewalks, municipal sewer and water service, and adequate fire and police protection, all usually situated inside or in close proximity to corporate city limits; (2) proximity to major traffic corridors that are capable of supporting express bus routes in the future; (3) proximity to major regional employment centers and leading local employers; and (4) proximity to key suppliers and services such as grocery stores, pharmacies, schools, libraries, and clinics.

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Transit Revitalization Corridors

Major Auto Corridors

This sustainability plan identifies potential neighborhood development "nodes" that are close to or fronting major traffic corridors. Most of the pre-existing traffic corridors have complete infrastructure, including sewer, water, electric, and cable service. Therefore, completing neighborhoods by infill remains the intention and direction of this regional plan. Devising multi-modal transportation interconnectivity based on desired land use configurations and preferred growth scenarios to the year 2040 and beyond is the responsibility of the Evansville Metropolitan Planning Organization. The Metropolitan Transportation Plan 2040 is currently being prepared by the EMPO as Volume 3 of this Regional Plan for Sustainable Development.

Arterials and major traffic collectors can function as "multi-purpose" districts and tie together a diverse range of neighborhood land uses with civic spaces, town centers, and commercial shopping/entertainment districts. Higher density projects are most appropriate where transportation capacity is greatest, along arterials and major collectors. Regular bus stops, spaced to link various activity centers, should be located along boulevards or avenues. Once within a densely developed town center or within a neighborhood core, well-designed avenues with fairly frequent intersections can provide walkable and bike-able linkages to localized "destination" nodes. Corridor planning can also create economic districts that are stronger than the sum of their component parts. National retailers select new markets based on demographics, daytime population, transportation options, accessibility, parking and the prospect of achieving retail synergy. Such location factors make corridor planning crucial to retail and service sector development.

Complete Streets

Streets should be able to accommodate all modes of travel, from walking to biking to bus riding. Streets are not just traffic conduits; they are public spaces that accommodate active civic life. So they should be designed for gathering. The well-designed neighborhood thoroughfare has narrow lanes for slowing traffic. It has dedicated bicycle lanes, on-street parking, continuous tree canopy, sidewalks that are wide enough for walking two-by-two in both directions, plus space along the sidewalk for seating. The complete street also has appropriate lighting levels and supportive and inviting building frontages.

Pedestrian Trails and Bikeway Corridors

As mentioned previously, the three-county region has developed trails and biking corridors, with EMPO leading the effort to help devise an integrated path/trail-ways plan. Evansville is fortunate to have had leaders who helped initiate, design and implement the Greenway Passage Plan that will ultimately link up with Warrick County's Trail system. In Volume 2, Chapter 5, the Millennial Environment and Green Infrastructure Plan illustrates future Greenway phases. A key initiative of the Regional Plan for Sustainable Development is to prescribe means whereby neighborhoods can effectively be linked to trails, bikeway systems, greenways, open space and recreation opportunities.

According to Roberta Heiman, President of the Pigeon Creek Greenway Advisory Committee, one of the Evansville region's fastest growing businesses is bicycle shops. She says, "The East Side (of Evansville) is lined with new shops opened by out-of-town companies who've discovered a growing bicycle market here – Scheller's Fitness & Cycling came from Louisville; Breck's Bike Shop and Legends both came from Owensboro; Dan's Comp came from Mount Vernon; joining already established Top Spot and others to offer top-end brand name products for every kind of biker at every age. They're creating jobs, paying taxes, adding to our local economy! It's a great business story. And it's happening because more of us are riding bikes. The nationwide rebirth of bicycling as a major form of recreation and transportation has arrived in Evansville and the tri-county region."

The rekindled desire to walk and bike means that our region will be wise to continue to fund improvements to sidewalks, greenways, bike and walking trails throughout the region. Walking and biking are healthy, non-polluting ways to get around. We should take all measures we can to make walking and biking in the region safe and enjoyable.

Connections for Broadband and Wireless Access

As development gets focused in neighborhood nodes along revitalized corridors, it will be important to reinforce access to and widest possible use of a broadband telecommunications infrastructure. This key item of "connectivity" should be envisioned as a public utility. Broadband must be seen as a permanent high-speed network for transmitting data and telecommunications. For educational, commercial, and governmental uses, a modern broadband Internet system can help reduce the operational costs of private businesses and governmental departments, while improving their products and services. There is still a large contingent of the tri-county population that cannot afford private Internet service in their own homes. Some may lack stable housing altogether. Dedicated places for public access to the Internet within neighborhoods that house the most economically disadvantaged residents – areas where unemployment is high and educational attainment may be low – can, along with digital literacy programming, assist residents in finding their way out of poverty.

The Gen Y/Millennials are the most "connected" generation yet. Their comfort with the Internet and social media is deeply embedded. Increasingly, the way they work, play and live are structured and framed by technology. Future leaders and decision-makers understand the power of social media to unite and inform. In the very near future, problems will be met democratically by virtue of the instantaneous globalized connections that are being made and will continue to be forged exponentially. It is critical that wireless broadband linkages be readily accessible in all neighborhoods, gathering places, restaurants, coffee shops and public buildings. It should be easy to access the Internet within a short walk. A broadband, wireless connectivity system is one of the most crucial infrastructure needs in the three-county area to keep current and have citizens actively involved in the public's business.

Courtesy of VPS Architecture

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Chapter 4: Community Engagement

"By far the greatest and most admirable form of wisdom is that needed to plan and beautify cities and human communities."

– Socrates

The successful development and implementation of any plan relies upon broad, inclusive public and stakeholder engagement. This Regional Plan for Sustainable Development involved a major public participation and regional visioning process. The foundation of this community engagement process was the Sustainable Evansville Area Coalition (SEAC). The Coalition and its consortium of 21 local organizations, businesses, and governmental agencies were involved throughout the development of the Plan. A steering committee, the technical committees, and the public involvement committee consisted of members of the Coalition, elected officials, and other interested parties.

Steering Committee

On June 21, 2011, the Steering Committee, together with the consortium members, met at the Evansville Central Public Library to begin the project. The meeting outlined the roles and responsibilities of the Steering Committee and the consortium members (Appendix A lists the Consortium members). An initial kick-off event, designed to engage the public from the beginning of the project, was discussed. The goal of the kick-off event, called the Summit for Sustainability, was to generate interest and enthusiasm in the development of a plan by having recognized experts in the field of building sustainable communities challenge the attendees to think outside the norm. All committee and consortium members agreed to promote attendance at this initial event.

The Steering Committee was designed to be convened solely at major decision points in the process.   The Technical Committees were the groups responsible for all of the technical aspects of the development of the Regional Plan for Sustainable Development. The committees met regularly throughout the process to guide this plan. The second Steering Committee meeting was held on September 18, 2012 to present the findings of the existing conditions analysis and performance measures. This information was contained in the report entitled "Sustainability Today." That meeting also provided the members an opportunity to hear and comment on the various alternative land use scenarios under consideration.

Technical Committees

The roles, responsibilities, and membership of the three Technical Committees – Live, Work, and Play – is discussed in Chapter 1 and the membership is listed in Appendix E of the Appendices document. With the large interest in sustainable efforts in the Evansville region, it was decided to organize the Technical Committee into three groups with each group having a slightly different focus. These smaller-sized groups offered more opportunities for participation from all attendees and provided meeting time and location options for members. The Technical Committees were to meet several times a year to guide the project. As the plan began to emerge, the meetings became monthly meetings, wherein the committees reviewed the plans, ideas and recommendations.

The first series of technical committee meetings was held in July of 2011. These meetings provided an overview of the project, an outline of the members' responsibilities, and a visioning session using the SWOT (strengths, weaknesses, opportunities, and threats) analysis.
Table 4-1 is a list of the Technical Committee meetings:

Table 4-1: Technical Committee Meeting Dates

2011 Meeting Dates	2012 Meeting Dates	2013 Meeting Dates
July 18th	January 17th	February 20th
July 19th	January 18th	April 11th
July 22nd	January 24th	July 2nd
	May 1st	September 4th
	May 2nd	

Public Involvement Committee

The media group had an initial meeting on July 15, 2011 to discuss the region-wide kick-off event. This group consists of local television, radio, and newspaper organizations. The media group also included several governmental officials representing the city of Boonville, the city of Evansville, and the city of Henderson. As SEAC scheduled public events, workshops, and forums, this group was notified, provided with written material promoting the particular event, and encouraged to broadcast the provided information to their listeners and subscribers.

One outgrowth of this media group was the WNIN-TV series entitled "Healthy Air – Healthy Communities." This television series was funded by a grant through the Evansville Metropolitan Planning Organization. WNIN established a committee to help guide the development of this series. Many of the members of this committee were also consortium members. The television series offered the opportunity to broadcast many of the issues and ideas that are part of the Regional Plan for Sustainable Development.

To kick-off the Regional Plan for Sustainable Development, SEAC sponsored a region-wide kick-off event, the Summit for Sustainability, which featured guest speakers that challenged attendees to think of sustainable development in new and different ways. The event was held on August 3, 2011. Robert Orr, son of a former Indiana governor and an Evansville native, was the opening speaker and offered thoughts on sustainability from an architectural perspective. John Norquist, President of the Congress for New Urbanism and an ex-mayor of Milwaukee, was the keynote speaker.   Mr. Norquist challenged the attendees to think outside the norm and consider innovative sustainable solutions in land use development, housing, and transportation. Approximately 150 people from the Evansville region attended this event. The local PBS television station videotaped the entire summit and rebroadcast the event several times to its viewers.

As a follow-up to the summit, people were offered several ways to participate in the sustainability conversation. Six workshops open to the public were initially offered in the Evansville region. Henderson, Vanderburgh, and Warrick counties each held two workshops – one workshop at 1:00 PM and one workshop at 6:30 PM. The format at each workshop was the same, utilizing the SWOT analysis. Two additional workshops were conducted with one focusing on public housing concerns and a second workshop for the Spanish speaking population.

A second way to participate was through the SEAC website – www.seacplan.org.   The website offers the ability to email thoughts and ideas to SEAC.

One of the key ways that citizens could become engaged in the process was to participate in one of the visioning workshops. By the time the visioning process was completed, eight workshops had been held at various times and locations in the Evansville region. As part of the plan's emphasis on environmental justice and equitable development, special consideration was given to minority and low-income residents of the region. A workshop was held at the Kissel Community Center for persons served by the Evansville Housing Authority. Again, the format was similar to the other workshops with a SWOT analysis being the focus of the meeting.

An eighth workshop was conducted totally in Spanish, in order to reach the non-English speaking, Hispanic population of the Evansville region. This workshop was held at the Nativity Catholic Church in Evansville, Indiana. This church shepherds the Juan Diego Latino Center, which is the headquarters for HOLA, (Hospitality and Outreach for Latin Americans). HOLA is a not-for-profit Latino Organization that is an advocacy group for the growing Latino population in Henderson, Vanderburgh, and Warrick counties.

Approximately 200 people participated in these workshops during this phase of the project. At these workshops, the facilitator used the SWOT analysis approach to solicit comments on the five focus areas of the plan. These five areas were defined as part of the grant application for sustainability and include:

1. **Transportation and Land Use**

2. **Affordable Housing**

3. **Economic Development**

4. **Environmental Justice**

5. **Arts and Culture**

The participants of the workshops were encouraged to offer their ideas and to recognize how strengths and weaknesses can lead to opportunities. For example, the region may be good at providing a specific service (strength) but there are often ways to improve the service (weakness) and means by which the improvement can be accomplished (opportunity). The SWOT analysis for these five focus areas is summarized in the information below: *(See Appendix B in the Appendices document for the full list of analysis results.)*

Strengths
- Transportation – short commutes; good access to other metropolitan areas; diverse system
- Housing – low cost of living; low crime rates
- Economic Development – Diverse economic base; strong agricultural industry
- Environment – Ohio River; seasonal climate; coal; air quality
- Arts and Culture – park system; museum, theater, concert amenities

Weaknesses
- Transportation – transit; lack of trails and bicycle lanes and paths; airline connections; sidewalks
- Housing – aging housing stock; vacant and dilapidated properties; lack of affordable options; zoning restrictions
- Economic Development – need for skilled workforce; lack of Internet access; more entrepreneurship options
- Environment – high energy costs; brownfields and greyfields; large polluters impacting air quality
- Arts and Culture – lack of good access to parks; lack of cultural diversity in events

Opportunities
- Transportation – regional transit authority; sidewalk improvements; I-69; trails and paths; ridesharing/bikesharing
- Housing – more affordable housing; update the ordinances and codes; money for home repair/code enforcement
- Economic Development – job training; expand broadband service; incentivize entrepreneurship
- Environment – encourage "green" technologies; emphasize volunteerism; empower disadvantaged
- Arts and Culture – promote healthy lifestyles; urban farming

Threats
- For all areas: the threats include (1) money, (2) apathy, (3) politics, (4) lack of vision, and (5) ignorance.

In recognition of the outreach efforts conducted through the visioning workshops and surveys to gather information for the Regional Plan for Sustainable Development, the Evansville Metropolitan Planning Organization representing the Sustainable Evansville Area Coalition was recognized at the 2011 Indiana Metropolitan Planning Organization for outstanding public involvement efforts. All 14 Indiana MPOs were eligible for the annual award given by the Indiana MPO Council. The MPO Council recognized EMPO for the unique public involvement program that was developed and is being implemented to engage the public in the development of a Regional Plan for Sustainable Development for Henderson, Vanderburgh and Warrick counties.

In addition to the workshops, a survey was developed and posted on the website to capture the thoughts of residents toward sustainable development in Henderson, Vanderburgh, and Warrick counties. The complete results of the survey are shown in Appendix C. The online survey was designed to be able to sort out information by county and within communities. The results of the survey were used in the development of the goals for this plan and in the development of the land use model.

The online survey was posted on the SEAC website in late July of 2011 and ran until early October of 2011. Of the 118 completed online surveys, 55 percent were filled out by men. The majority of the surveys were completed by residents between the age of 50 and 65 (39 percent). Vanderburgh County had the most responses with 71 percent; while Warrick County had 21 percent; and Henderson had 5 percent. Several of the survey questions focused on the importance of access to employment, parks and schools, as well as various types of services including restaurants, retail shops, and healthcare facilities. Over 50 percent of the respondents said that it is very important to be close to jobs and schools. Close access to parks, retail shops, and healthcare facilities was deemed very important by 40 percent to 49 percent of the respondents. Only 26 percent of the respondents felt that close access to restaurants was very important.

The major concerns of respondents regarding their neighborhood are the cost of housing (87 percent of the respondents); the crime rate (84 percent of the respondents); and traffic (71 percent of the respondents).

The online survey was complemented by another abbreviated survey conducted during the 2011 Westside Nut Club Fall Festival. These questions were similar to the questions asked on the online survey. In 2011 this festival was held from October 3 to October 8. SEAC had a booth at the festival from 3:30 p.m. to 7:30 p.m. each night from Monday to Friday. The abbreviated survey obtained 100 completed surveys.

The combination of the two surveys offers some interesting insights into sustainable activities in the Evansville region. Figure 4-1 lists the top ten most important activities that should be addressed by a Regional Plan as recommended by survey respondents.

Which of the following do you think is the most important to the region and should be addressed in the Regional Plan for Sustainable Development?

Activity	Percent
Job creation	57%
More sidewalks, trails, and bikeways	34%
Affordable utilities/Energy efficiency of homes	31%
Providing affordable housing	26%
Water quality/Air quality improvements	25%
Improving access to healthy food	25%
Improving access to healthcare	24%
Better bus service	23%
Increasing use of alternative energy/Conservation of energy	22%
Increasing recycling	22%

Source: Data has been extracted from the 218 Online and Fall Festival Surveys taken in 2011.

Approximately 57 percent of the respondents recommended **job creation** as the single most important sustainability activity for the region. The other major activities cited by the respondents included: **more sidewalks, trails, and bikeways** (34 percent); affordable utilities and better **energy efficient homes** (31 percent); and **redevelopment of vacant properties** (26 percent).

Figure 4-2 and Figure 4-3 show the priorities of the respondents regarding transportation and strategies to improve the use of public transit, bicycles and walking.

The strategy most likely to get people riding the bus is an increase in gas prices with 43 percent of the respondents saying that they very likely would ride the bus if gas prices were high enough.   The extent of the gas price increase to shift people to the bus was not a question. Besides gas prices, other incentives that respondents said would very likely get them to ride the bus are increased number of routes (37 percent) and stops closer to home and destinations (36 percent).

Figure 4-2: Likelihood of Riding the Bus

If the following changes were made, how likely would you begin to ride the bus or ride the bus more frequently?

	1 = Very Likely	2	3 = Undecided	4	5 = Not Likely
If gas prices were high enough	43%	16%	16%	6%	17%
More routes were available	37%	19%	14%	5%	27%
Bus stops are placed within a close distance to my home and desired destination	36%	17%	13%	9%	24%
Bus service became free	27%	14%	23%	11%	26%
It became easier to transfer between routes	26%	20%	20%	9%	26%

Approximately 58 percent of the respondents stated that they would very likely bicycle more if more bicycle lanes were available. Other incentives to promote walking and biking are **intersections with safer crossings** (50 percent), additional **sidewalks** (50 percent), and **better lighting** (49 percent).

Figure 4-3: Likelihood of Biking and Walking

If the following changes occurred, how likely would you begin to walk or bike more frequently?

	1 = Very Likely	2	3 = Undecided	4	5 = Not Likely
Bike lanes added in your neighborhood and major roadways	46%	15%	21%	7%	11%
Intersections were upgraded to make crossing safer	46%	12%	20%	9%	12%
Sidewalks added in your neighborhood and major roadways	49%	18%	17%	6%	9%
Better lighting along my travel route	50%	18%	16%	6%	10%
If gas prices were high enough	50%	19%	18%	4%	8%
Traffic laws were better enforced	58%	17%	10%	5%	9%

Source: Data has been extracted from the 218 Online and Fall Festival Surveys taken in 2011.

The online and abbreviated surveys also asked questions regarding strategies for enhancing the Evansville region to attract young people. Summary of the responses for this question can be found in Figure 4-4. The top two responses focused on job opportunities (83 percent) and on well-paying job opportunities (78 percent). Since the surveys were conducted in 2011 when unemployment rates across the region and the United States were high, it is no surprise that job opportunities in the region were at the forefront of the respondents' minds. Other strategies that were cited regularly include more recreational activities (57 percent), expanded cultural activities (47 percent), additional entertainment options (42 percent), increased educational opportunities (40 percent), and more community festivals and events (40 percent).

Figure 4-4: Keeping and Attracting Young Professionals

Which do you think the region should do to encourage young people to stay in the region or entice people to move to the Evansville Region.

	1 = Very Likely	2	3 = Undecided	4	5 = Not Likely
Improve the diversity of housing types (Condos, single-family homes, townhomes, etc.	32%	21%	31%	7%	9%
Increase public transportation options	35%	27%	23%	9%	6%
Provide more community festivals and events	40%	20%	23%	6%	10%
Provide more continuing education opportunities	40%	29%	20%	4%	6%
Increase the availability of restaurant and entertainment options	42%	30%	18%	3%	6%
Provide more cultural activities	47%	23%	22%	3%	5%
Increase the number of available recreational activities	57%	22%	14%	2%	5%
Increase the number of higher paying jobs	78%		14%	5%	2%
Increase the number of available jobs	83%		13%	2%	2%

Source: Data has been extracted from the 218 Online and Fall Festival Surveys taken in 2011

Other Community Engagement Activities

In addition to the committees, workshops, website, surveys and social media, several other activities were used to engage the public and obtain review and comment on ideas and recommendations for the plan. These included the Evansville VOICE program, Engage Henderson, Boonville NOW!, and Arts District neighborhood design charrettes.

Engage Henderson is a community visioning initiative that focuses on the future of the East End neighborhood in Henderson. Engage Henderson has involved various community organizations including the University of Southern Indiana, Henderson Community College, One Life Community Church, the South Heights Elementary school, the Henderson mayor and city manager together with city commissioners, and the Henderson-Henderson County Chamber of Commerce. The plan and vision for the East End neighborhood is one of the small area plans showcasing sustainability at a local level. This plan is included in Volume 4 and was developed in conjunction with Engage Henderson.

Another small area plan showcasing sustainable actions is the **Evansville Art District** plan. This plan, also included in Volume 4, was developed through a series of urban design charrettes held in the Art District in Evansville. These charrettes were sponsored by the Sustainable Evansville Area Coalition with the goal of engaging citizens in the Art District neighborhood in the formulation of the final plan. Through the SEAC website, email blasts, and postal mailings, citizens were invited to two Saturday half-day design charrettes held in the neighborhood. Over 150 citizens attended the charrettes and offered ideas on the future of the neighborhood.

Boonville NOW! is a non-profit corporation formed to promote community development in Boonville. One of the main focuses of Boonville NOW! is the downtown area and implementing recommendations from the Boonville Downtown Revitalization plan. This plan was developed in 2011 with an extensive public engagement process including a blog, attitude survey, media coverage, and community workshops. Following adoption of the plan, SEAC worked with the mayor and Boonville NOW! to implement recommendations in the plan. The plan is included in Volume 4.

In 2009, a task force called **Greater Evansville: The Place for Young Professionals** was formed and sponsored by local foundations, businesses, utilities (Vectren) and universities (University of Evansville). In 2010, the task force and its sponsors hired Next Generation Consulting, a company that specializes in evaluating cities and regions according to the characteristics that matter to top talent. Next Generation spent five months studying Greater Evansville's "brain drain" by conducting surveys, focus groups, and in-depth interviews. After conducting the web-based survey of almost 1,000 residents and non-residents from 8-15-11 to 10-21-11, plus in-depth interviews with community leaders and focus groups in November 2011, Next Generation Consulting published the key findings, in December of 2011, that emerged from its research as follows:

1. "Greater Evansville lacks a central identity.
2. Downtown Evansville has suffered from urban sprawl and the "donut" effect.
3. People living in Greater Evansville do not promote the region.
4. Young people are fleeing the region and, as a result, Greater Evansville is becoming older and less diverse. Between 2000 and 2010 Greater Evansville lost over 5,000 people between the ages of 20 and 34. During the same period Evansville gained more than 3,000 people over the age of 60 and lost 2 percent of its population of non-whites.
5. Evansville is underutilizing assets that could improve the downtown.
6. Evansville is passing, but should focus on excelling." [1]

In early 2012, Leadership Evansville, in partnership with the Mayor's Office of the City of Evansville, devised a visioning process for community input, developed a **VOICE** website, and established social media accounts. Officers and volunteers from Leadership Evansville generated a stakeholder list of over 2,500 names who would later be invited to participate in VOICE visioning sessions. From the period of August 2012 to May of 2013, Leadership Evansville and the Mayor's Office gathered input and information from a wide cross-section of residents. The three charts in Figure 4-5 show gender, age, and race/ethnicity breakdowns for the 1,721 participants. The leaders and volunteers from VOICE asked the question: "If you could make Evansville the best it could be, what would it include or look like?" The pie chart in Figure 4-6 shows the features and characteristics for which residents voiced their preferences and desires.

Based on the Greater Evansville effort and the VOICE outcomes noted above, the VOICE leadership elected to pursue further strategic planning and positive action in three key topics:

1. **Healthy Green Space;**

2. **Evansville City Core; and**

3. **Experiences.**

The VOICE leaders and the Mayor's Office have, at this writing, begun a Phase II planning and strategic action process. [2]

1 Bringing the Heart Back, Greater Evansville: The Place for Young Professionals, by Next Generation Consulting, http://nextgenerationconsulting.com/, December 2011

2 VOICE, 401 SE Sixth Street, Suite 209, Evansville, IN 47713. www.evansville-voice.com; Facebook.com/evansvillevoice@evansvillevoice

Figure 4-5: Residents That Voiced Their Opinions

Gender Breakdown

Male, 755
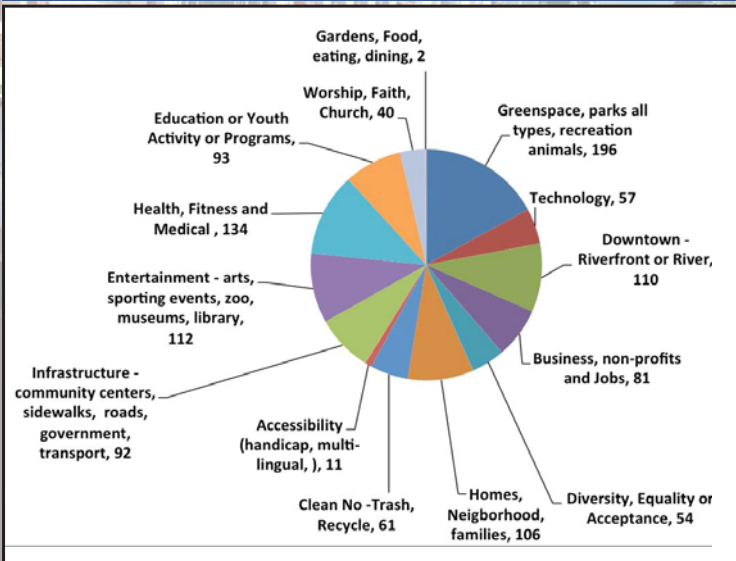Female, 966

Age Breakdown

78 7
497
1099
40

- 0-5
- K-12
- 18-24
- 25-64
- 65 & above

Race / Ethnicity Breakdown

24 31
177
67
1076

- American Indian/Alaskan Native
- Asian/Pacific Islander
- Black/African American
- Hispanic/Hispanic American
- White/Caucasian
- $Multiracial (more than one of above)

Figure 4-6: VOICE Vision Statements

- Gardens, Food, eating, dining, 2
- Worship, Faith, Church, 40
- Education or Youth Activity or Programs, 93
- Greenspace, parks all types, recreation animals, 196
- Technology, 57
- Health, Fitness and Medical , 134
- Downtown - Riverfront or River, 110
- Entertainment - arts, sporting events, zoo, museums, library, 112
- Business, non-profits and Jobs, 81
- Infrastructure - community centers, sidewalks, roads, government, transport, 92
- Accessibility (handicap, multi-lingual,), 11
- Clean No -Trash, Recycle, 61
- Homes, Neigborhood, families, 106
- Diversity, Equality or Acceptance, 54

Chapter 5: Vision, Goals & Objectives

"Make no little plans; they have no magic to stir men's blood and probably will themselves not be realized. Make big plans; aim high in hope and work, remembering that a noble, logical diagram once recorded will not die."

- Daniel Burnham

With the information collected through the visioning workshops as well as the surveys, a draft vision statement was prepared that encapsulates the future of the Evansville region. In developing this vision statement, the consortium members were contacted to obtain vision statements from their organizations. Following review of vision statements from consortium members, a draft statement was prepared and submitted to the EMPO. The statement was presented to all technical committees.

The Vision Statement is:
"Great Life, Great Community, Great Environment, Great People"

Development of the goals and vision for this plan also originated with information from the visioning workshops and the surveys. Draft goals were identified in each of the areas of transportation, housing, economic development, environment, arts and culture, and land use. After review by the EMPO, the draft goals were presented to the technical committees in January of 2012. As the process has proceeded, pertinent goals and vision declarations have been added in cooperation with community stakeholders.

The following Vision Themes were developed by Consortium and Technical Committee/members.

Vision Theme Number One:
Great Life

In concert with the Livability Principals, presented in the Introduction, the Great Life Theme consists of balanced, compact growth within livable urban, suburban and rural neighborhood centers. At the heart of these centers will be vibrant mixed use developments that serve the neighborhood. These centers are brimming with street life and commerce, dining and relaxing, and just plain hanging out. The characteristics of the neighborhood centers are as follows:

- Compact mixing of land uses
- Diversity in housing types and affordability near job centers and transit stops
- Remediation of abandoned and underutilized lands, including brownfields, greyfields, and redfields (fore-closed properties)
- Provision of ample opportunities for recreation and open space enjoyment
- Promotion of historic preservation and development of cultural resources.

Vision Theme Number Two:
Great Community

The Great Community Theme means making the most of existing cities, towns, and villages. It consists of downtown redevelopment, urban area revitalization, infill development, and urban core infrastructure upgrading. Included within the Theme are the following characteristics:

- Promotion and redevelopment of downtown shopping and governmental centers as livable, mixed-use downtowns
- Encouragement of loft housing, adaptive reuses, infill construction and remediation of underutilized properties, particularly brownfield sites
- Development and renovation of housing resources to offer good quality, affordable housing choices in all neighborhoods and urban centers
- Continued development and interconnection of greenway and bikeway systems in the three county region
- Partnering to protect threatened natural species, either plant or animal
- Promotion of high quality design and planning to achieve an aesthetic quality in neighborhoods and downtown urban areas.

Vision Theme Number Three:
Great Environment

The Great Environment Theme centers on valuing the Green Infrastructure and world of nature. It entails preserving prime agricultural and open spaces, while promoting orderly, balanced, compact development. The following elements are the keys to this Theme:

- Promotion of regional greenway systems and blueways (water trails such as Pigeon Creek) and fostering of linkages of greenways and blueways across county lines
- Optimizing existing road and sidewalk networks, and drainage infrastructure, before extending new subsystems
- Encouraging redevelopment of underutilized sites and vacant infill areas within established neighborhoods and downtown urban centers
- Promotion of compact development through revisions in zoning and subdivision ordinances
- Fostering of local food networks, farmers' markets and urban gardening, all integrated into the regional food economy
- Preserving historic rural farms, prime agricultural lands and rural vistas and landscapes.

Vision Theme Number Four:
Great People

The Great People Theme values rich diversity and the unequaled talents of the population in Vanderburgh, Warrick and Henderson Counties. Integral to this Theme is human and workforce development, along with cultural education. The following items are crucial to human development efforts:

- Supporting schools, public and private, at each age level from pre-kindergarten through graduate school
- Enhancing the technical expertise of the workforce through training and human development efforts, seminars, convocations, lectures and festivals
- Encouraging all of the players and actors in a rich cultural resource milieu, from fine to performing arts, and from concerts to gallery showings
- Developing sports and athletics venues for optimal performance and spectator enjoyment
- Continuing specialty education offerings, as evidenced by the Signature School, the Career and Technical Center, the growing Ivy Tech presence in Southwest Indiana, the Fine Arts Center at Henderson Community College, and the religious education resources throughout all three counties.

Goals

The following goals were developed during the SWOT analysis exercises in public meetings held in the three counties: Vanderburgh, Warrick, and Henderson. They are organized under the functional areas of the SEAC Regional Plan for Sustainable Development.

Transportation and Infrastructure Development Goals

1. Supply a regional transportation system that encompasses all modes and is user-friendly.
2. Improve accessibility options for all residents.
3. Encourage all new developments to be walkable.
4. Improve the movement and connectivity of freight via rail, road, air and water throughout the region.
5. Coordinate regional subsystems including drainage, wastewater, electrical distribution and wireless broadband access with the transportation network in optimal locations in order to encourage wise and economical growth patterns.
6. Promote "complete streets" in all neighborhoods and districts, thereby creating safe, convenient access and travel for pedestrians, bicyclists and motorists.

Housing and Neighborhood Development Goals

1. Create distinctive, livable areas, supported by appropriate public policies and ordinances.
2. Expand housing choices for all income levels and life stages with emphasis on affordable workforce housing near job opportunities.
3. Reduce total housing and transportation costs.
4. Encourage redevelopment of vacant city properties for housing.
5. Empower residents, renters and homeowners alike, to work together to improve the appearance and function of their neighborhoods.
6. Encourage "Life Cycle Housing" strategies that offer a variety of housing types such as townhomes, zero-lot villas, and clustered multi-family rental units.
7. Provide "shovel-ready" blocks and sites for private development.

Workforce and Economic Development Goals

1. Make the region more attractive to emerging industries and employees.
2. Support local small businesses and incentivize their expansion.
3. Embrace all entrepreneurship with both public and private incentives.
4. Encourage redevelopment of greyfields and foreclosed properties.
5. Educate, attract, and retain a skilled workforce.
6. Attract clean, green, high-tech enterprises to the metropolitan area.

Environment and Healthy Communities Goals

1. Maintain an environment that encourages healthy lifestyles and continually improves air and water quality for all residents.
2. Encourage mitigation and redevelopment of brownfields and greyfields.
3. Preserve high quality farmland and open, green spaces, while planting street trees along local streets.
4. Institute watershed management practices and maintain soil erosion control standards.
5. Encourage green building and equipment technologies.
6. Institute afforestation and reforestation programs in appropriate locations in the three county area.
7. Promote public safety, healthy eating habits and walkable neighborhoods that encourage residents to be outside, breathing fresh air and exercising daily.

Arts and Cultural Development Goals

1. Encourage affordable tourism opportunities for local residents and regional visitors.
2. Increase the use of locally grown food products and arts and crafts.
3. Provide wide access to recreational and cultural opportunities.
4. Improve the use of the Ohio River, Pigeon Creek, Green River, and other waterways for recreation and commerce.
5. Provide walkable and accessible neighborhood centers for gathering and community festivals and events.
6. Nurture and improve schools, universities, and other instructional and educational venues in the region.
7. Promote a wide range of entertainment options and opportunities at all pertinent and appropriate venues.

Building and Land Development Goals

1. Incentivize builders and developers to provide higher density residential and commercial land uses along transportation corridors in compact neighborhoods having modern public services and accessible consumer provisions.
2. Explore land trusts and land banks in order to preserve forests and prime agricultural land.
3. Promote, through land use regulations, including subdivision and zoning ordinances, infill development on vacant land that is already served by streets and infrastructure to optimize taxpayer cost for public improvements and maintenance.
4. Encourage multi-use buildings for mixed income groups with a mixture of development densities, in order to foster diversity and "sense of place."
5. Discourage development in sensitive areas such as wetlands, steeply sloping sites, native woodlands, wildlife habitats, and coal-mined lands.
6. Encourage and incentivize development that minimizes waste, pollution, and the production of CO_2, in order to help minimize the negative effects of climate change.
7. Promote, through building codes and ordinances, and the LEED sustainable building rating system, the use of sustainable building techniques and green building materials for all new public buildings.

Objectives:

Transportation and Infrastructure - ("Connectivity")

1. Reduce total vehicle miles traveled (VMT) by promulgating compact, mixed use "floating zones" with specific development standards applied to each zone.
2. Provide alternatives to the "single-driver" auto mode, including walking, bicycling, carpooling, car-sharing and bus transit by fostering complete streets, road diets, dedicated bus rapid transit lanes, connected pedestrian trails and bikeway corridors.
3. In all publicly-funded agencies and organizations, institute the use of vehicles powered by renewable fuel sources such as biodiesel, solar electric, hydrogen, compressed air, or natural gas produced from methane waste products.
4. Encourage neighborhood street design that will discourage higher traffic speeds while encouraging safer walking and bicycling.
5. Implement street designs that enhance access and connectivity to and between neighborhoods, including commercial and mixed land uses in between residential neighborhoods.
6. Promote green streets with ample native vegetation and indigenous trees in rights of way and boulevards, forming canopies and linear allees.
7. Promote neighborhood street grids and smaller block developments by granting developers a range of incentives for compact, dense residential development.

8. Institute natural sewage and septic treatment systems through bioswales, rain gardens and riparian buffers, all capable of discharging effluent that meets or exceeds federal drinking water standards, while eliminating the use of harsh chemicals.
9. Help institute more genuine composting and gray water reuse activity and practices by removing outdated regulatory or health department standards that would otherwise prohibit these systems from consideration.
10. Promote natural wastewater planning and practice on-site, at the neighborhood and community level, working to reduce the overuse of heavily engineered, expensive municipal collection and processing systems.
11. Implement multi-modal arterials and collector streets to form boundaries and edges around strongly-defined neighborhoods.
12. Implement a Regional Transit Authority and a Bus Rapid Transit (BRT) system to serve the three-county area.

Objectives:

Housing and Neighborhoods – ("Location Choices")

1. Encourage compact, dense housing development near employment centers in the range of 8 – 16 dwelling units per acre.
2. In all new residential communities, provide at least five percent of the new housing units as affordable workforce units for low-income residents.
3. Incentivize developers to provide, in every new neighborhood and residential development, housing products that draw a diversity of homebuyers in terms of income, age, social, and cultural characteristics.
4. Promulgate landscape design practices that provide natural species and indigenous plant materials that are hearty enough to thrive without pesticides and herbicides.
5. In zoning ordinance, PUD ordinance, and subdivision regulation revisions, provide for compact and clustered residential development areas with reduced, minimum lot sizes and setback line dimensions.
6. Encourage proper marsh and wetland designs that can accomplish natural filtration and restoration of the quality of the on-site surface water runoff before it leaves the immediate area where it was generated and enters local estuaries.

7. Reduce or eliminate impervious paving materials in favor of permeable options such as patio pavers, pervious asphalt and concrete drives, and masonry block pavers that allow grass to grow up through perforations.
8. Make neighborhood street lanes no wider than eleven feet and encourage parking at the rear of residential lots, rather than on-street, by implementing neighborhood alleyway systems.
9. Discourage "snout" garages – garages that project into the front yard further than the houses they are attached to.
10. Give incentives for developers to provide boulevards, dedicated bike lanes, extensive green landscapes, and other neighborhood amenities that will help foster a cleaner, safer and more aesthetic environment.
11. Identify neighborhood centers in each viable neighborhood; such as schools, libraries, parks, or community centers; where residents can identify and socialize with one another.
12. Provide incentives to local builders and developers in order for them to include affordable workforce housing in all multifamily projects.

Objectives:

Economic Development – ("Skilled Workforce")

1. Reduce, through efficiencies and connections in the street and road network, employee and product transport vehicular trips and total vehicle miles traveled (VMT).
2. Promote the use of regenerative and renewable energy alternatives to fossil fuels in processing and transport systems.
3. Reduce and ultimately eliminate the use of any traces of cadmium, lead, mercury, and any other potentially toxic metals, minerals, or manufactured substances that can build up in the biosphere over time.
4. Incentivize and promote locally-based and home-based businesses, thereby reducing total commuting mileage.
5. Develop an Air Quality Task Force to continue to monitor and improve air quality in the Southwestern Indiana, Western Kentucky, and Southeastern Illinois area.
6. Reduce and minimize the use of synthetic chemicals that may cause potential harm to environmental ecosystems, while employing proper disposal mechanisms where their use is unavoidable.

7. Employ agriculture processes that reduce or minimize the use of pesticides, herbicides, and manufactured synthetic, unnatural fertilizers.
8. Minimize the consumption or destruction of virgin raw materials by utilizing recycled or by-product materials wherever and whenever possible.
9. Maintain natural terrain, drainage and vegetation biosystems, while minimizing disruption to interdependent, natural ecosystems.
10. Use agricultural approaches that stockpile rather than deplete topsoil, and conserve the use of groundwater sources that would otherwise deplete underground aquifers.
11. Encourage local, community-supported agriculture and provide near-to-home sources for fresh, healthy food, by mitigating urban "food deserts."
12. Encourage new major commercial or industrial developments to include wellness trails for employees.

Objectives:

Environment and Healthy Communities – ("Walkable Neighborhoods")

1. Provide recreational facilities within a 10 minute walk and a 5 minute bicycle trip for residents of all neighborhoods.
2. When maintaining parks and open spaces, minimize use of equipment powered by fossil fuels such as mowers, edgers, and leaf blowers.
3. In order to preserve natural outdoor spaces and wildlife reserves, maintain a reasonable public fund for open space acquisition and land banking.
4. Preserve pristine wilderness places, without encroachment of vehicles and powered equipment, such as bulldozers and chainsaws.
5. Promote urban and community gardens as a strategy for food security and fresh produce for area residents.
6. Preserve wildlife habitats and safeguard the biological diversity of all regional ecosystems.
7. Encourage utilization of on-site composting of organic waste at both residential and commercial establishments.

8. Restore damaged natural systems through regenerative design and restorative strategies.
9. Create a system of interconnected greenways and greenspaces that feature hiking trailheads, and historic and educational markers.
10. Develop responsible alternatives to landfills and general solid waste disposal, such as methane capture, composting, recycling, and minimizing plastic and paper packaging in favor of biodegradable waste that can mix naturally and enrich the earth.
11. Use regionally native plants for lush landscaping and natural appurtenances such as green walls and roofs to adorn public buildings.
12. Maintain and expand public parks and open spaces so all residents are within a 5-10 minute walk of green space.

Objectives:

Arts and Culture – ("Family-Friendly")

1. Continue to develop entertainment and family recreational opportunities that are connected with nature and the outdoors.
2. Foster collaboration between local higher education institutions and area not-for-profits to offer innovative family education opportunities that have potential to forward community goals for a cleaner, healthier region.
3. Continue to fund worthwhile established venues such as the Evansville Zoo and Botanical Garden and the John J. Audubon Park with tax dollars so that maintenance, upkeep, and continued transformational growth are assured.
4. Develop a new amphitheater on the Evansville Dress Plaza Riverfront, at the south end where the rip-rap rock bank is presently located.
5. Encourage more public art by endowing the Public Art Commission in Evansville with a public-private budget to commission public art pieces, and in Henderson through a Cultural Arts Commission.
6. Encourage public art and murals in urban gateway locations such as the new Fulton Avenue underpass of the Lloyd Expressway and in the future, in conjunction with the newly reconstructed interchange of Highway 41 and the Lloyd Expressway.

7. Institute a "Cultural Heritage" program, alternating between downtown Henderson, downtown Evansville, downtown Boonville, and downtown Newburgh, showcasing a wide variety of ethnic/cultural heritage displays and presentations, complete with food and entertainment, over one weekend each month during the summer months of the year (June through September).
8. Construct a new eight-field softball complex southwest of the Goebel Soccer Fields on Evansville's east side. (By the Evansville Convention and Visitors Bureau.)
9. Redevelop greyfield sites such as Washington Square and the Westside WalMart in Evansville with mixed use shopping and entertainment centers near multifamily housing.
10. Organize and implement regional Food Hubs for local food production, mobilization, marketing and delivery in the Henderson East End and in northern Vanderburgh County.
11. Optimize and enhance riverfronts of all communities contiguous to the Ohio River, including Evansville, Henderson, and Newburgh.
12. Identify several locations along the present bicycle trails systems, in each county, to install unmanned bicycle rental venues where bicycles can be rented by the hour and returned at other rental locations.

Objectives:

Land Use and Building Construction – ("Compact Development")

1. Encourage new developments and existing neighborhoods to provide a mix of community uses such as housing, shops, workplaces, schools, parks, and civic facilities – all within walking and biking distance of every resident.
2. Encourage and prioritize development that is proximate and oriented toward major transportation routes and bus lines.
3. Direct new development toward previously existing developed areas, minimizing development in outlying, under-served and undeveloped areas.
4. Publicly remediate brownfield and greyfield sites that may have environmental constraints that private entities find too risky for restoration efforts.
5. Encourage and reward regional and local designs that respect regional ecosystems and natural functions while supporting human settlement.
6. Create financial and regulatory incentives that encourage infill development while eliminating any associated disincentives.
7. Guide development away from floodplains and restore wetlands and riparian strips along rivers.
8. Mount afforestation and reforestation programs to plant trees and other vegetation in quantities that absorb significant amounts of carbon dioxide and air pollutants.
9. Structure local building codes to require high recycled content for certain key building materials such as fabrics and metals.
10. Promulgate building energy standards and statutes, setting maximum energy consumption thresholds for public buildings.
11. Require all public structures to be LEED Silver certified.
12. Develop a cross-section for corridors in the Network of Complete Streets that includes "low impact development approaches," (LIDA) thereby minimizing the impact of storm water, including such strategies and improvements as bio-swales, rain gardens, tree boxes, and grey water reclamation systems.

Thank You

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