



## Strategic Regional Policy Plan

OKI Land Use Commission  
Adopted April 14, 2005

# Acknowledgements

## Land Use Commission Steering Committee

**Mel Martin\***  
Chair, Land Use Commission  
Hamilton County Regional Planning Commission

**Kenneth Reed\***  
Vice Chair, Land Use Commission  
City of Trenton Council

**Elizabeth Brown**  
Housing Opportunities Made Equal

**Kevin Costello**  
Boone County Planning Commission

**Dennis Gordon\***  
Northern Kentucky Area Planning Commission

**Mike Juengling\***  
Butler County Planning Commission

**Gary Moore\***  
Judge-Executive, Boone County Fiscal Court

**Pamela Mullins\***  
Supplier Diversity,  
Cincinnati Public School District

**Peggy Reis\***  
Anderson Township Trustee

**Melissa Williams**  
Campbell County Fiscal Court

**Tom Yeager**  
Clermont County Water and Sewer District

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Tom Yeager  
David G. Young\*  
Greg Zix\*

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# Executive Summary

The Ohio-Kentucky-Indiana Regional Council of Governments (OKI) is an association of local governments, business organizations, and community groups committed to developing collaborative strategies, plans and programs to improve the quality of life and economic vitality of the tri-state region that includes Butler, Clermont, Hamilton and Warren Counties in southwest Ohio; Boone, Campbell and Kenton Counties in northern Kentucky; and Dearborn County in southeastern Indiana. OKI is also the federally-designated Metropolitan Planning Organization (MPO) for transportation planning, and is the tri-state's only multipurpose regional entity that is in a position to plan for and coordinate intergovernmental solutions to growth-related problems.

OKI's long range transportation plan has consistently estimated a shortfall of over \$3 billion to meet the region's transportation needs over the next 30 years. In addition, the region's "vehicle miles traveled" is projected to outpace population growth. These chronic imbalances are tied to the region's land development trends. As a result, OKI, as the MPO, typically reacts to chronic transportation problems instead of planning and funding transportation solutions that would come on line concurrent with the impacts of land development.

Although OKI is responsible for long range transportation planning at the regional level, land use decisions happen locally, and they vary considerably among cities and counties. It has become increasingly obvious that better coordination between local land use planning and regional transportation planning would help to stretch scarce taxpayer dollars.

In response to the chronic gap between transportation needs and dollars available, and to federal directives to consider land use in transportation planning, the OKI board agreed that current trends need to be changed, and that the blueprint for change would be a strategic policy plan. This policy plan is to be implemented through voluntary cooperation among local governments, OKI, and other organizations.

While OKI has no authority - and seeks no authority - over local land uses, OKI's Board of Trustees created, and sat as, a land use commission to study the complex connection between transportation and how we use land for homes, businesses, parks, and factories. The primary goal of the OKI Land Use Commission is to bring about more consistency between local land use planning and regional transportation planning, so that scarce taxpayer dollars can be used for maximum benefit. The end product of the Commission's analysis and recommendations is the strategic policy plan contained in this report, which was developed through exhaustive consultation with OKI's Board, with dozens of experts in a variety of disciplines, and with the public.

The Commission and its committees started this project in 1998 by collecting and analyzing baseline data to better understand the many regional issues associated with transportation and land use planning. These issues are complex and involve many individuals, institutions and organizations in the private and public sectors in addition to local governments. In its initial data gathering and analysis, the Commission identified over 200 issues that affect the transportation and land use planning relationship, and consulted with the 190 units of local government and the 138 local planning authorities in the region.

In 2002, the Commission and the public developed a vision for the region, and the Commission selected 28 strategic regional issues in six issue categories as the focus for developing the regional policy plan. The 28 issues are seen as strategic because they represent particularly critical challenges or fundamental policy concerns. The Commission's visioning process included an overview of regional trends and conditions and extensive public outreach and involvement. Thousands of people were reached through grass roots and media coverage in every county of the region that described the visioning process and its components, and 326 people gave input at eight public forums on the vision of the Land Use Commission during September 2002.

In 2003, the Commission further assessed the trends and conditions associated with the six issue categories and the 28 strategic regional issues selected in 2002, and used this knowledge to draft goals and objectives that could change the trends and conditions and address the strategic regional issues.

In 2004, the Commission systematically drafted and discussed over a hundred policies to indicate how the goals and objectives could be met and how the strategic regional issues could be addressed. Between January and March of 2005, another extensive public involvement process was conducted to get feedback on the draft policies. Public involvement included grass roots outreach teams in every county, extensive media coverage, public meetings in every county, and a survey to gauge support for the draft policies available both in hard copy and on OKI's website. In response, over 400 people participated in public meetings and returned policy surveys, and over 500 comments were received.

The draft slate of policies was then modified to reflect recurring public comments and was adopted by OKI's Board on April 14, 2005 as part of the strategic regional policy plan. This final plan document has been formatted to include components from all the phases of the Land Use Commission's work: its mission; vision; strategic regional issues; trends and conditions; goals and objectives; and policies.

This strategic regional policy plan is organized by six general issue categories:

- Transportation
- Public Facilities and Services
- Natural Systems
- Housing
- Economic Development
- Land Use

Each category contains an overview, a goal, the trends and conditions associated with each strategic regional issue in that category, and objectives and policies that address each of the issues.

The trends and conditions for each strategic issue were derived from a wide range of data and should provide an understanding of the opportunities, threats, and problems that need to be addressed to achieve the mission and vision of the Land Use Commission.

The goals are the long-term ends toward which the strategic regional policies are directed. The objectives provide a means of marking intermediate progress toward the goal. Objectives are more specific and measurable than the related goal. A policy is the way in which programs and activities are conducted to achieve an identified goal, often the "how" of implementation.

It is important to note that this plan uses "will" in its goals, objectives and policies to describe events in the future, rather than to order something to happen.

The process of developing the strategic regional policy plan has made evident that now, more than ever, residents of the OKI region live their lives at the scale of the region - moving through multiple jurisdictions several times a day to work, shop, play, or seek entertainment. For that reason, the fate of any individual community is inherently connected to the fate of the region. OKI is committed to working with local governments, the private and nonprofit sectors, and citizens so that the region is an exceptional place to live. This strategic regional policy plan is intended to be a key tool in pursuing that commitment.

# Introduction

Transportation planning and a number of other challenges have long transcended jurisdictional boundaries and necessitated a regional response. To be sure, there have been many valuable local-level planning efforts in the tri-state Greater Cincinnati region. Many of these efforts, however, by design or effect, do not consider the entire eight-county, three-state region. Consideration of regional interdependence and a coordinated approach are essential to regional vitality and sustainability. For example, the land development trend that has produced an estimated \$3.5 billion shortfall in funding to meet the region's transportation needs over the next 30 years will erode the tri-state's vitality. Reasonable and effective planning policies could make a strategic difference for the well being of the region. The OKI Land Use Commission was formed to address this concern.

Regional planning generally consists of processes to define a vision, establish common priorities, and work together toward a shared future. OKI, as the federally-designated Metropolitan Planning Organization (MPO) for transportation planning, is the tri-state's only multipurpose regional entity that is in a position to plan for and coordinate intergovernmental solutions to growth-related problems. OKI works daily to promote regional cooperation while supporting local autonomy.

A key impetus for establishing the OKI Land Use Commission was federal transportation legislation, specifically the Intermodal Surface Transportation Efficiency Act of 1991 and the Transportation Efficiency Act for the 21st Century, enacted in 1998, that directed MPOs to plan for transportation more comprehensively. The OKI Board of Trustees decided to establish the Commission to produce a strategic regional policy plan that would bring about more consistency between the long range transportation plan and local land use policies.

OKI's Year 2010 Regional Transportation Plan (1993) first mentioned a regional land use commission. The Year 2010 Plan provided for a commission that would identify linkages between land use and

transportation and encourage their coordination. It became clear that a charge that broad and complex would involve many jurisdictions and many organizations, and would require gathering information from 190 local governments and 138 planning authorities in the region.

OKI's intent was to create a commission that represented the region geographically. Since broad representation is also the foundation of the OKI Board of Trustees, the 103-member Board of Trustees elected to sit as the Land Use Commission. Its mission was: "Through open dialogue and communication with decision makers and the public, the OKI Commission on Land Use shall develop a strategic regional plan which encourages land use patterns that promote multimodal travel and the efficient use of land, natural resources, and public facilities and services."

To assist in the early tasks of their project, Commission members apportioned themselves among three working committees and added individuals from throughout the region who brought expertise to the project, for a total of about 180 people.

The Commission's three working committees were on Land Use Planning and Policy, Environment and Infrastructure, and Economic Development and Funding. As the commission's work progressed to the visioning phase, Publicity and Outreach committees were added to enable extensive public involvement. The leadership of all the commission's committees and its chairman and vice chair formed a Steering Committee that helped to provide guidance to staff during the phases of visioning and strategic issue selection, developing goals and objectives, drafting policies, and seeking public input on policy development.



# **Creating the Strategic Regional Policy Plan**

OKI's strategic regional policy plan contains an overall 20-year vision for regional vitality, sustainability, and competitiveness, focusing on the land use-transportation connection. Six strategic subject areas were selected to guide and focus planning efforts to achieve the overall regional vision. These strategic subject areas are transportation, land use, public facilities and services, natural systems, economic development, and housing.

Conceptually, the strategic planning process addresses four questions:

- Where are we as a region?
- Where are we going given current trends?
- Where do we want to go?
- How do we get there?

OKI as the MPO is required to maintain a comprehensive, cooperative and continuing transportation planning process. The Land Use Commission's process was methodical, moving from data gathering (including production of two composite regional-scale maps), to analyzing the data, to producing a regional vision, to describing the trends and conditions of 28 strategic regional issues, to drafting regional goals, objectives and policies.

During the planning process, experts from the public and private sectors periodically discussed with the Commission each state's planning and zoning laws, the significance of long range planning, and the cost of community services. These resources and discussions helped the Commission develop a sense of where the region is headed in the years to come.

## **Features and Purpose of the Strategic Regional Policy Plan**

There are three key features of the strategic regional policy plan:

1. Setting direction;
2. Focusing on priorities;
3. Adapting to change.

### **Setting Direction**

The strategic regional policy plan is intended to be a direction-setting document for the tri-state region, not just for the OKI Regional Council of Governments. The strategic regional policy plan should serve to promote cooperative planning and decision-making throughout the tri-state region, including OKI, local governments, special districts, state and federal agencies, and the private and civic sectors.

The tri-state region consists of many interconnected physical, economic, and social components. Strategic regional issues are best approached through coordinated actions that consider inherent linkages, such as the connection between land use and transportation. This plan addresses the vitality of the regional community, and full implementation will depend on public, private and non-profit institutions, as well as the general public.

### **Focusing on Priorities**

Second, the strategic regional policy plan focuses on priority strategic issues facing the region over a 20-year time horizon. The plan does not attempt to address all regional issues; it is not a comprehensive plan. In addressing the most strategic regional issues (the region's critical challenges or fundamental policy concerns), the plan will establish both long-term directions through strategic regional goals, as well as short-term policies to guide implementation efforts.

## Adapting to Change

Third, this plan is intended to be a dynamic document. It should evolve as the tri-state continues to grow, and it should be regularly evaluated and updated.

The purpose of the strategic regional policy plan includes:

- Moving the region toward realizing a common vision, especially as the vision relates to linking land use and transportation planning;
- Encouraging land use patterns that promote multimodal travel and the efficient uses of land, natural resources, and public facilities and services;
- Focusing on high priority, strategic issues facing the region over a 20-year time horizon;
- Bringing about consistency between the long-range transportation plan and local land use policies;
- Providing a framework to link the planning and implementation activities of various entities;
- Providing a framework to tie planning to capital budgeting;
- Providing a basis for OKI's decisions regarding transportation projects;
- Emphasizing consensus and coordination between local governments, regional entities, state and federal agencies, and the public; and
- Serving as a key resource for community education efforts on issues related to growth and development, transportation and a host of other interrelated topics.

Instead of producing a future land use map that would presume to tell local governments where to establish certain land uses, this strategic regional policy plan establishes measurable objectives and policy statements that address a 20-year vision and the high priority, strategic issues facing the region. These policies can be used to guide local and county jurisdictions to ensure that land use and transportation linkages are considered in all planning processes.

*Instead of producing a future land use map that would presume to tell local governments where to establish certain land uses, this strategic regional policy plan establishes measurable objectives and policy statements that address a 20-year vision and the high priority, strategic issues facing the region.*

## Data and Analyses

Good data and sound analyses are the foundations upon which any plan must rest. They are essential components of this strategic policy plan as well.

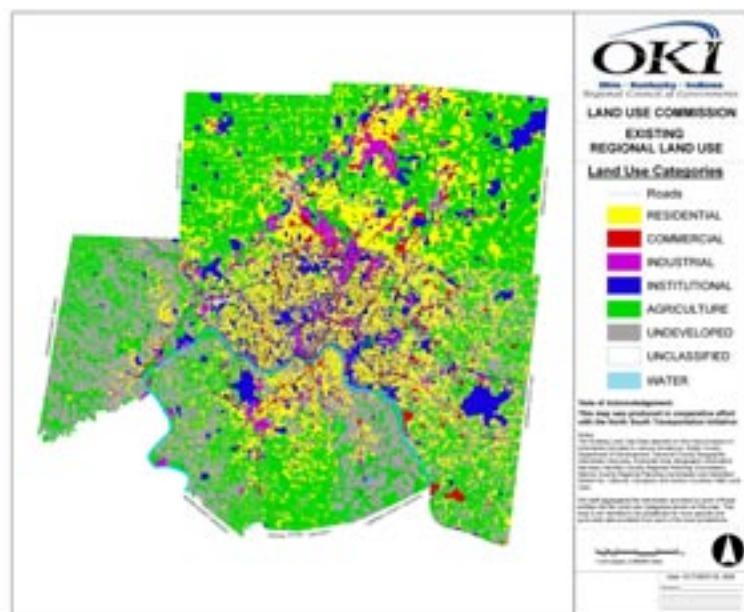
Starting in 1998, the Land Use Commission's strategic planning process began with a broad examination of the trends and conditions affecting the region - where we are as a region and where we are likely to go. The Commission also considered institutional roles and activities, and identified potential opportunities and challenges facing the region.

The Commission began a long process of assembling and analyzing a variety of information, including:

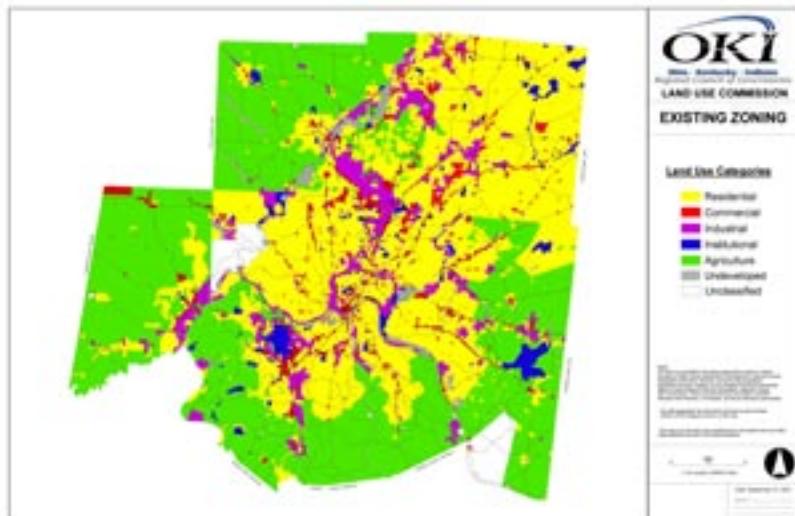
- Major components of planning and zoning law in each of three states;
- Existing economic development policies and practices in the region;
- Comprehensive plans from around the region;
- Regionally significant natural resources in the region;
- Existing land use maps; and
- Existing zoning maps.

Baseline data and composite land use and zoning maps were used by the Commission during a series of meetings that identified some 200 regional issues of concern, culminating in the Commission identifying a set of 80 regional issues that reflect the complexity of the land use/transportation relationship. These 80 regional issues were accepted by the Commission in November 2001, and served as the basis for its visioning process.

Existing Land Use Composite



Existing Zoning Composite



## Visioning and Strategic Issue Selection

In 2002 the Commission embarked on a visioning process that built on the extensive data gathering and analysis conducted to that point. As part of the regional visioning process, the Commission reviewed a wide range of data to develop a sense of where the region is headed in the years to come, including existing reports, census figures and socioeconomic data, and existing land use and existing zoning maps for all jurisdictions in the region. This research was presented to the Commission in the form of a probable scenario to illustrate what the region can expect in the future and the types of issues that will need to be addressed if current trends continue.

According to the probable scenario through the year 2020, the region can expect population and economic growth exceeding that projected for most other regions in Ohio, Kentucky, and Indiana. The majority of residential and commercial development will continue outside of the urban cores or already developed areas in the eight-county region. Traffic congestion will increase as population grows and more people travel between work and home and travel farther distances. Undeveloped land will continue to be consumed at a rate disproportionate to population growth. If current trends continue, by 2020 nearly ten percent of the region's currently undeveloped land will be consumed to accommodate the projected growth in population. The concentration of poverty in urban areas will continue.

The Commission agreed that current trends should change and through two three-hour workshop sessions discussed where and how the region should grow, in the process developing a vision statement and supporting principles for future land use and quality of life considerations.

The first visioning workshop was designed to demonstrate the current pattern of development, emphasizing the relationship between population growth, land consumption, and transportation; and to elicit preferences for future growth patterns that would be used in shaping a vision. These objectives were achieved through a values survey, two presentations, and tabletop mapping exercises. Workshop participants provided the direction needed to create the future vision related to land consumption, mobility, environmental protection, infrastructure provision and other topics. The results of the workshop clearly illustrated a strong sentiment among Commission members to modify current trends in development and land consumption

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*The Commission agreed that current trends should change and developed a vision statement and supporting principles for future land use and quality of life considerations.*

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as described in the probable scenario. Participants indicated a strong preference for encouraging more redevelopment and infill development, using less land to accommodate future growth, and preserving open space.

The second visioning workshop engaged the Commission to address the question, "How do we grow?" The outcome of this workshop was consensus on the desired direction of future growth and development. It also included agreement on a vision statement reflecting the desired principles for future land use and quality of life considerations. Participants affirmed their desire to use the region's land resources more efficiently. Through these activities, the draft vision was articulated in a series of principle statements. These statements, as well as the other supporting material were used to prepare for describing the vision to the public in the public forums.

An extensive public outreach and involvement process was then conducted in all eight counties of the OKI region. Thousands of people were reached through grass roots and media coverage, and 326 people gave input at eight public forums on the vision of the Land Use Commission during September 2002. On October 10, 2002, the OKI Board adopted the final version of *The Vision for Stewardship* and its supporting principles, which had been modified to reflect public comment and subsequent board discussion.

In the remainder of 2002, the Commission held two more three-hour work sessions to narrow the list of 80 regional issues to those 28 issues most strategic to achieving its mission and the vision. Just as the 80 regional issues were the basis for the visioning process, the 28 strategic regional issues serve as the basis for the strategic regional policy plan and were adopted by the OKI Board of Trustees on January 9, 2003.

## Strategic Regional Issues, Goals and Objectives

The results of the trends analyses and the visioning process guided the identification of 28 strategic regional issues. Strategic regional issues are the most significant challenges that must be addressed to help achieve the mission and vision of the Land Use Commission. Strategic regional issues are critical challenges or fundamental policy concerns.

In 2003, the Commission identified the trends and conditions associated with the 28 strategic regional issues, and it drafted goals and objectives that address them. The Land Use Commission established strategic regional issues within six subject areas as the key points of departure for the strategic regional policy plan, beginning the "How do we get there?" portion of the plan. The Plan's regional goals, objectives and policies continue to provide direction, and answer the "How do we get there?" question.

The Land Use Commission held five three-hour work sessions for this phase of the work. In the first three work sessions, participants considered draft trends and conditions and worked on draft goals and objectives for strategic issues in two categories per work session. The fourth work session focused on refining draft goals and objectives for all 28 strategic issues in all six categories. The fifth work session focused on finalizing goals and objectives for all 28 strategic regional issues. After hearing presentations on the context for the Commission's work and the rationale for time references in the revised drafts, participants engaged in a full-group discussion to identify any remaining concerns or questions.

## The Policy Process

After producing draft goals and objectives, the Commission addressed the final link in the strategic question, “How do we get there?” or “How do we achieve the mission and vision as well as address critical challenges or fundamental policy concerns?”

In 2004, the OKI Land Use Commission held five three-hour work sessions for policy development. In the first work session, participants considered draft policies for the Transportation category. At the next three work sessions participants considered draft policies for the Natural Systems, Public Facilities, Economic Development, Housing and Land Use categories. The Commission’s fifth session addressed revised draft policies for all six topic areas.

The first four of these work sessions featured a combination of presentations on draft trends and conditions, participants working individually, and working in small groups to evaluate draft policy statements for the strategic issues in the categories at hand. At the fifth work session, an entire slate of revised draft policies was considered by participants working as a whole.

Policy statements were drafted by staff and reviewed and modified by small “peer groups” of experts outside OKI to create a departure point for discussion. Participants at the Commission’s work sessions reviewed and evaluated the drafts, mailed out prior to the meeting, first through completing individual work sheets, and then through small group discussions.

At the work sessions, participants used worksheets to evaluate whether the draft policy would be effective in addressing the objective and issue, whether the draft policy would be feasible (meaning achievable), and whether the draft policy would be measurable – whether it would help to mark progress toward the objective. Participants could note any other considerations that they believed were equally significant for evaluating the draft policies.

Participants were then asked to indicate the draft policy that they thought was most effective for addressing the issue and objective. In small group discussions, participants then discussed the draft policy that each of them considered most effective for addressing each issue and objective, and why. These discussions were held among groups of six to eight participants and their purpose was to provide input for the draft policies and for participants to hear each other’s input without an attempt to reach consensus.

For the Commission’s final work session, specific revised draft policies were selected for discussion from a full slate of 103, based on the results of a survey sent to all members of the Commission and its committees. By the survey deadline, 74 of 176 surveys had been returned – a response rate of more than 41%. For each revised draft policy, respondents were asked to mark “effective,” “ineffective,” or “not sure” to indicate how they thought it would perform in addressing the associated strategic issue, goal, and objective.

Participants engaged in a full-group discussion to identify any remaining concerns or questions. Outcomes of the fifth work session were then taken to the Land Use Commission’s Steering Committee in December of 2004, which reviewed the discussion comments and prepared the final drafts of recommended policies. These drafts were approved for public review and input by the OKI Board of Trustees on January 13, 2005.

Between January and March of 2005, another extensive public involvement process was conducted to get feedback on the draft policies. Public involvement included volunteer outreach teams in every county to network with individuals and organizations to encourage their input; extensive media coverage; public meetings in every county that included an interactive presentation interspersed with discussion periods; and a survey to gauge support for the draft policies that was available both in hard copy and on OKI’s website. In response, over

*On April 14, 2005 when the Board of Trustees validated the work of more than 180 Land Use Commission members, dozens of expert peer reviewers, and hundreds of citizens by adopting this strategic regional policy plan and its recommended policies.*

400 people participated in public meetings and returned policy surveys, and over 500 comments were received. Public input was summarized on OKI's website and used by the Commission's Steering Committee to make revisions to the recommended policies.

## Plan Adoption

A major milestone in the OKI Board's work as a land use commission was reached on April 14, 2005 when the Board of Trustees validated the work of more than 180 Land Use Commission members, dozens of expert peer reviewers, and hundreds of citizens by adopting this strategic regional policy plan and its recommended policies.

Adoption of this plan begins a new phase of effort. The plan's goals, objectives and policies use the word "will" to describe something happening in the future - they describe events - as opposed to directing something to happen. Implementing the policies won't happen overnight, and will take sustained cooperation and coordination. OKI can pursue the policies for transportation planning, but implementation of many others is going to be up to the affected jurisdictions and organizations on a voluntary basis.

The process of developing and adopting this strategic regional policy plan has made evident that now, more than ever, residents of the OKI region live their lives at the scale of the region - moving through multiple jurisdictions several times a day to work, shop, play, or seek entertainment. For that reason, the fate of any individual community is inherently connected to the fate of the region. OKI is committed to working with local governments, the private and nonprofit sectors, and citizens so that the region is an exceptional place to live and work. This strategic regional policy plan is intended to be a key tool in pursuing that commitment.



# The Strategic Regional Policy Plan

## I. Mission

The Mission of the OKI Land Use Commission is: Through open dialogue and communication with decision makers and the public, the OKI Commission on Land Use shall develop a strategic regional plan which encourages land use patterns that promote multimodal travel and the efficient use of land, natural resources, and public facilities and services.

To achieve its mission, OKI intended the Commission to investigate and pursue land use patterns that promote multimodal travel alternatives and reduced trips. A strategic regional policy plan, and its followup model ordinances and technical assistance, can be used as guidance by local jurisdictions to ensure that land use and transportation linkages are considered in all planning processes. The strategic regional policy plan will lead to the use of reasonable standards and criteria that recognize the relationship between land use, transportation, and other infrastructure.

## II. Vision for Stewardship

The Land Use Commission's strategic planning process began with a broad examination of existing conditions and the trends affecting the region – where we are as a region, and where we are going giving current trends. During 2002, the Commission and its committees met in several working sessions to create a vision for the region. The Commission also considered institutional roles and activities, and identified potential opportunities and challenges facing the region. This trends analysis provided a basis, along with input from the regional community, for constructing a regional vision – where we want to go.

Through extensive discussion and research, the

Land Use Commission determined that modifying recent trends to create a different future was essential to improving the region's quality of life in all its dimensions. If current trends do not change, the region will continue to utilize land inefficiently, struggle to adequately fund infrastructure, have limited mobility choices, and experience further segregation of land uses and people.

The Land Use Commission came to the conclusion early in the Regional Visioning Process – and sustained it throughout the process – that the region's trends should not become its destiny. It is not inevitable that the trend of recent growth patterns must continue; however, those trends are perpetuated by a variety of existing policies and general "business as usual" attitudes that can be changed. The Vision for Stewardship, a vision for the OKI region through year 2020 and beyond, was developed through two workshops and a series of public forums.

### The Stewardship Statement:

In 2020, the region's land resources will be carefully managed based on a shared commitment of citizens and public and private sector stakeholders. This commitment will guide decisions on the timing, location, impact of development and redevelopment in the region. In addition, this commitment will enhance our quality of life, reduce government spending on development and ensure the health and viability of natural systems. Some areas of the region will have higher densities of people and more intense uses than other areas, and greater emphasis will be given to encourage reuse and redevelopment. Key green space areas, which add value to surrounding property and improve overall quality of life, will be preserved and protected for future generations. Future generations will also enjoy key areas of the built environment—such as established neighborhoods and villages, as well as places of cultural and historical significance.

## The Supporting Stewardship Principles:

### **Redevelopment And Infill Development**

In 2020, redevelopment of underutilized areas and infill development within existing areas will be actively promoted for more efficient use of land resources, with consideration given to the need for parkland and green space.

### **Land Use Patterns To Support Transit**

In 2020, communities throughout the region will have areas that are developed with higher concentrations of housing, businesses, and activities to better utilize land resources and support public transit.

### **Transportation Choices**

In 2020, transportation choices will be available throughout the region, including public transit, automobiles, biking and walking, in a manner that optimizes accessibility, efficiency, mobility, and affordability.

### **Public Facilities and Services**

In 2020, public facilities and services will be well coordinated and determined prior to land development and redevelopment. Such public facilities and services will include transportation, water, sewer, parks and storm water management systems.

### **Connectivity**

In 2020, neighborhoods will be linked by a network of interconnected streets and walkways as part of a larger system that provides safe motorized and non-motorized access to homes, businesses, schools, recreation facilities and services, and other destinations. These networks will be designed to keep local traffic off major arterials and high-speed, through-traffic off local streets.

### **Mixed-Use Centers**

In 2020, centers that include a mix of integrated office, retail, residential, and civic uses will be found

throughout the region. These mixed-use centers – of a scale appropriate to their surroundings – will concentrate uses in a manner that supports walking, biking and public transit, and automobiles.

### **Mixed-Use Neighborhoods**

In 2020, new and redeveloped neighborhoods will include walkable, compatible retail, business, education, and civic uses, as well as a broad range of housing types and price levels.

### **Housing Choices**

In 2020, a diverse mix of housing choices – in terms of size, price, type and location – will be available within communities throughout the region. Every community in the region will maintain quality housing, whether it be newer developments or older neighborhoods, owner-occupied or rental.

### **Educational Opportunity**

In 2020, comprehensive and quality education will be available throughout the region for residents of all ages.

### **Environmental Quality**

In 2020, the health and viability of natural systems, such as air quality, water resources and wildlife habitats will be protected. There will be an extensive network of green spaces in the region that includes neighborhood and regional parks, hillsides, river corridors, forests, flood plains and farmland.

### **Cooperative Economic Development**

In 2020, communities will cooperate, coordinate, and share on mutually beneficial economic development opportunities, on business retention and recruitment, and workforce development. This cooperative effort will require the active participation of local governments, economic development organizations, businesses and other stakeholders.

## Fiscal Responsibility

In 2020, decisions on land development, redevelopment, and improvements to public facilities and services will be made with a clear understanding of their fiscal impacts to individual communities and the region. The cost of development will be allocated among those who benefit, with consideration of the fiscal impacts to existing residents.

## Intergovernmental Cooperation

In 2020, land use policy remains a fundamental prerogative and responsibility of each local jurisdiction. However, local governments will effectively and willingly communicate, cooperate and coordinate on issues of land use, transportation, natural systems, economic development and public facilities and services.

As noted previously, the results of the Commission's visioning work were taken to public forums in all eight counties of the OKI region for input in the fall of 2002. After consideration of the public input, the Commission adopted the vision in October 2002, and in January 2003 selected 28 regional issues as the most significant problems, threats, or opportunities that should be addressed in a regional policy plan.

***In January 2003 the Commission selected 28 regional issues as the most significant problems, threats, or opportunities that should be addressed in a regional policy plan.***

## III. Strategic Regional Issues, Goals, Objectives and Policies

### Transportation

#### Overview

According to the 2030 Long Range Transportation Plan, 2004 Update (OKI, June 2004), during the next few years and beyond, the regional transportation system's efficiency will become increasingly important as prosperity becomes more dependent on regional performance in a global economy. The region must continue to take steps to improve the transportation system or it will become less efficient. This is evidenced by the trends of increasing congestion, reduced opportunity for travel by different modes, and poorer connections among modes. The results will mean higher transportation costs, more delays, and reduction of travel and transport opportunities, which in turn will lead to impeded economic growth and less regional competitiveness.

In addition to its economic impacts, transportation is also important to the region's quality of life. The interstate system, for example, has improved mobility at the same time that it has promoted a population and job shift from core areas to newer suburbs with significant social, environmental, and economic consequences. Transportation improvements will continue to affect land development, and travel patterns and opportunities.

Ultimately, the region's transportation system should be one that integrates alternate modes of travel into one balanced system that supports all of the area's goals. The region's transportation system must be good for people and business. It must be a major positive contributor to the region's prosperity and quality of life. It must increase mobility by providing for the safe and efficient movement of goods and people.



## Transportation Goal

**Provide an effective, balanced, integrated and financially constrained<sup>1</sup> transportation system for the entire region.**

**Strategic Regional Issue #1: At the local level, there is little coordination among transportation planning, land use planning, capital budgeting, and economic development.**

## Trends and Conditions

The relationship between land use and transportation is reciprocal: increased land use intensities in a community typically increase demand for transportation facilities and services; and transportation facilities and services typically are catalysts for land development.

Successful residential and economic development projects can generate demand for capital investment in new or upgraded public facilities and services. Economic development efforts are more fruitful when businesses know that adequate public facilities

and services are in place when they need them.

Successful yet independent and uncoordinated economic development activity can also result in unfocused or inadequate investments in public facilities and services, especially transportation facilities and services.

In the typical process for local development approvals, transportation investments often lag behind the impacts of development and redevelopment activities. Consequently, regional transportation planning agencies like OKI find themselves reacting to the impacts of incremental development or redevelopment projects, rather than planning and budgeting for adequate public investments that are available at the time development impacts occur.

The degree of integration of transportation, land use, and economic development planning profoundly affects the achievement of a variety of regional goals. In other words, successful transportation planning requires careful attention to issues other than transportation and understanding the complex interrelationships among them all.

The optimal place for the integration of transportation, land use, capital budgeting, and economic development planning and policies is the local government comprehensive plan (or “master plan”). A review of the plans on file at OKI indicates that no local government plan analyzes all of these key issues concurrently.

A local government comprehensive plan may not be a jurisdiction’s preferred means to plan and budget for transportation and other public facilities and services, but there appears to be no other mechanism in use by local governments to efficiently analyze and make those vital investments in a coordinated fashion.

OKI staff also found no evidence that any city, county or township coordinates its capital budget (or a schedule of capital improvements) with its anticipated future land uses, or with its local public-

or private sector economic development agency.

Moreover, few if any tri-state communities engage in the coordination of transportation, economic development, and future land use planning with their neighboring jurisdictions.

The absence of intra- and inter-governmental coordination of transportation planning, land use planning, capital budgeting, and economic development translates into less effective regional planning for investment of scarce transportation resources.

The OKI Regional Council of Governments is the federally designated Metropolitan Planning Organization (MPO) for transportation planning in the greater Cincinnati area. OKI was initially formed to assist the region in meeting the “continuing, comprehensive and cooperative” transportation planning requirements of the 1962 Federal-Aid Highway Act. An MPO’s service area is defined by the U.S. Census-designated “urbanized area.”

OKI conducts urban transportation planning through its 103-member Board of Trustees, and its 28-member Executive Committee. Those bodies are advised by OKI staff and an Intermodal Coordinating Committee (ICC), composed of technical specialists and interest group representatives from around the region, and state transportation agencies.

An MPO’s long range transportation plan (LRP) is the means for the transportation system to meet forecast travel demand for some specified future year, at minimum 20 years from a baseline year. The LRP is the key component of the region’s transportation planning process. The LRP also identifies capital projects, and is updated every three years.

The last three updates of OKI’s LRP have estimated a 30-year shortfall of over \$3 billion for transportation needs versus identified revenue sources. This shortfall is the cumulative result of the trend in incremental short-range land development approvals.

The OKI LRP fulfills the federal requirement that all transportation programs in urban areas of more than 50,000 population should result from a regional planning process. The mandates of the federal Transportation Efficiency Act for the Twenty-First Century (TEA-21) are reflected in the recommendations of OKI’s 2030 Regional Transportation Plan. These recommendations place emphasis on expanding modal alternatives and improving the transportation system’s efficiency. The plan’s recommendations for improving highways are accompanied by recommendations for expanding bus service and developing rail transit, using advanced technologies to move traffic more efficiently, applying strategies to help reduce drive-alone commuting, promoting ridesharing and bicycle and pedestrian travel, upgrading highway operating efficiency, and further exploring options for achieving the plan’s objectives.

A short-range Transportation Improvement Program (TIP) follows from the LRP. The TIP is the compilation of all upcoming publicly-assisted highway and transit projects, constrained to available funding levels and prioritized by need. The TIP includes projects to be initiated within a four-year horizon. It is the region’s mechanism by which local governments, acting together, place transportation system improvements in a comprehensive perspective, in order to allocate limited resources in the most beneficial manner. Inclusion in the region’s TIP is a prerequisite for federal funding assistance.

Most of the OKI region’s 138 local zoning authorities focus on incremental zoning and subdivision reviews, rather than longer-term timing, location and cost of land uses. As a result, OKI, as the MPO, typically reacts to chronic transportation problems instead of planning for and funding transportation solutions that would come on line concurrent with the impacts of land development.

Several local jurisdictions in the region prepare their own transportation plans. In some cases, these plans are prepared in the context of OKI’s region-wide transportation planning processes so

that coordination can be maintained. By being consistent with the regional transportation plan, counties can have access to many funding sources for implementation of their local plan.

OKI's Long Range Transportation Plan addresses traffic congestion, conformity to federal air quality regulations, and financial constraints. To mitigate congestion, OKI considers strategies for managing travel demand based on their regional applicability. To protect air quality, the LRP endeavors to ensure that future travel growth does not prevent the region from achieving air quality goals and meeting National Ambient Air Quality Standards. To address financial concerns, OKI identifies revenue sources and distinguishes between expenditures needed to maintain existing infrastructure and expenditures needed for capital and operational improvements, and includes the analyses in its LRP.

Everyone has a role in meeting the new transportation challenges. Local governments, for example, have increased opportunities to plan for the timing and location of land uses and infrastructure, and to work together on multi-jurisdictional issues. Public agencies and private employers are encouraged to implement new initiatives to reduce congestion. The public is typically asked to review and support new measures, and to change traditional travel behavior.

**OKI uses “will” in objectives and policy statements to describe events in the future, rather than to order something to happen.**

## Objective

- 1.A. By 2010, each local government will have an up-to-date comprehensive plan that links transportation, land use, economic development, public facilities, housing, natural resources, recreation, intergovernmental coordination and capital improvements<sup>2</sup>.

## Policies

- 1.A.1. OKI will develop model local comprehensive plan guidelines that link transportation, land use, economic development, public facilities, housing, natural resources, recreation, intergovernmental coordination and capital improvements for use by all local governments in the region. Local government comprehensive plans will be consistent with the region's model comprehensive plan guidelines, and OKI will provide technical assistance and incentives to local governments.
- 1.A.2. The long-range transportation plan and the transportation improvement plan will be consistent with the strategic regional policy plan, and the transportation elements of local comprehensive plans will be consistent with the long-range transportation plan and the transportation improvement plan.
- 1.A.3. The transportation element of each local comprehensive plan will emphasize the high priority of access management<sup>3</sup> and preservation and maintenance of existing transportation facilities and corridors, as appropriate.
- 1.A.4. Local comprehensive plans will be implemented through local regulations and incentives, such as zoning and subdivision regulations, that are consistent with such comprehensive plans.

**Strategic Regional Issue #2: On a regional scale, there are few available modes of transportation. Limited public transit is an obstacle to accessibility and mobility for the region's citizens, especially the transportation disadvantaged,<sup>4</sup> which includes elderly, disabled, low income, minority populations, and other zero-car households.**

### Trends and Conditions

Public bus service is the predominant transportation alternative to the automobile in the OKI region. To be effective, public transportation must be convenient and timely for riders. The region's land development trend, however, has worked against convenient and timely public transit service, especially in new suburban locations.

The predominant housing type in the Cincinnati region is the single-family detached unit. Many local governments do not provide for transit-friendly mixed-use development, clustered units, or non-traditional land uses. Some jurisdictions discourage higher density (multifamily) zoning districts because they believe higher revenues will be generated by single-family units, or because they fear apartments will attract transient or lower income residents.

The region's conventional low-density suburban development pattern segregates individual land uses on freestanding parcels of land, often with no direct connections to adjacent parcels. Walking and biking to various destinations is severely limited and sometimes hazardous, and newer low-density development is basically unserviceable by transit, or transit service is inconvenient to potential riders.

The region's land development trend has resulted in a 27% decrease in population density. Our population is moving toward communities farther away from centers of population and employment. This can be seen to contribute to the imbalance between total vehicle miles traveled (VMT) in the



OKI region, which was forecast to increase by 30% from 1990 to 2010, and the region's projected population increase of only 12% during that same time. It is difficult to justify providing public transit to low density development in anticipation of lower ridership rates.

The auto-oriented growth of the Greater Cincinnati region is not limited to residential land uses. The region's suburban office parks and retail centers have been absorbing a greater share of employment than have traditional central business districts. Many of the jobs added are relatively low-paying and low-skilled jobs, especially among retail employers. Since many of the employees who fill these jobs cannot afford to live in the relatively expensive housing that often surrounds these suburban employment centers, they must commute from other areas of the region. For those who are the poorest and most in need of the jobs, it is difficult or impossible to find dependable transportation to these employment centers. The decentralization of employment disproportionately affects poor, inner-city residents and further isolates them from employment opportunities.<sup>5</sup> (Cincinnati Metropatterns, June 2001 unpublished draft)

In broad terms, transportation systems of regional significance in the OKI region include Interstate highways, U.S. routes, state routes, railroads, airports, river ports, ferry service, bicycle facilities, commuter services, and public transportation (bus) services.

The backbone of the region's transportation system is the roadway network. The roadway network in the OKI region is typical of most metropolitan areas in the United States. A relatively long circular freeway surrounds the region's older cities and suburbs, and other Interstate freeways pass through the region. There is also a web of arterials, collectors, and local streets that provide access to homes, businesses, and other destinations.<sup>6</sup>

There are more than 3,000 miles of major roadways, and an additional 6,000 miles of other roadways in the OKI region. Based on 1995 estimates, vehicles travel more than 34 million miles a day on those roads.<sup>7</sup>

The principal alternative to the single-occupant vehicle for local travel in the OKI region is the public bus. There are seven major public transit systems currently operating buses in the region. "Fixed-route" service within a prescribed service area is provided by the Southwest Ohio Regional Transit Authority (SORTA)/Metro, the Transit Authority of Northern Kentucky (TANK), the Middletown Transit System (MTS), and Catch-A-Ride (formerly Southeast Indiana Transit).<sup>8</sup>

"Demand responsive" service is provided by Clermont County Transportation Connection and Warren County Transit System (WCTS). With such service, a rider prearranges a trip with the transit operator.<sup>9</sup>

The Butler County Regional Transit Authority (BCRTA) previously operated fixed route and demand responsive service in Hamilton, Fairfield, Middletown and Oxford, but ceased service in most areas after losing its funding in 2002.

The lack of local public transportation policy and the absence of operating subsidies in some parts of the region means public transportation is not available in the entire tri-state area. Where public transit exists, the level of service is not uniform; some parts of the region have fixed schedules, while only demand-based service is available on the periphery. The OKI region thus lacks a complete, integrated, and cohesive regional network of public transportation. There is some collaboration for intra-regional services between agencies; for example, TANK provides services up to downtown Cincinnati and coordinates with Metro service, so that commuters can access both sides of the river by public transit. Similar reciprocal services are not widely available, however, in the region.

To provide transportation alternatives to the single-occupant private car or truck, OKI has promoted coordinated ride sharing opportunities since the late 1970s, including: carpools, vanpools, and public transit coordinated with a computerized ride matching system; parking evaluation and management; employer-based efforts; a "guaranteed ride home" for carpoolers and vanpoolers; and park-and-ride facilities.<sup>10</sup>

Current planning for the region's transportation-disadvantaged population is linked to the concept of "environmental justice" (EJ), based on Title VI of the Civil Rights Act of 1964 (prohibiting discriminatory practices in programs and activities receiving federal funds). The definition of each EJ population, based on 2000 Census data, is as follows:

- Minority: people of African, Hispanic, Asian American, American Indian or Alaskan Native origin.
- Low income: people in households where the median income for a family of four is less than or equal to \$18,000.
- Elderly: people aged 65 or older (OKI's EJ Policy defines "elderly" as people age 60 and older).
- Disabled: people with a mobility limitation, self-care limitation, or people with both mobility and self-care limitations.
- Zero car households: households without a

vehicle or access to a vehicle.

As of 2000, EJ populations in the OKI region included (with overlap): 300,000 minority; 300,000 disabled; 290,000 elderly; and 174,000 low-income. There were also 72,000 zero-car households.<sup>11</sup>

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### Objective

2.B. By 2015, actions at the local and regional levels will promote the availability of multimodal transportation choices that link the region’s cities and villages, employment centers and residential areas, urban cores and suburbs, and that provide mobility for all the region’s residents.

### Policies

2.B.1. The transportation network, especially public transportation facilities and services, will provide convenient, efficient and affordable access for people to places of employment, commensurate with transportation funds available.

2.B.2. OKI’s long-range transportation plan will provide for a well-integrated, multimodal transportation system that serves local, regional, state, and national needs, and the long-range transportation plan’s recommended projects will provide choice, mobility, access, and efficiency, commensurate with transportation funds available.

2.B.3. The special needs of the transportation disadvantaged will be addressed through coordination of service among transportation providers.

2.B.4. Transit development plans will facilitate the design of a system that incorporates

multiple modes of transit service, links stations/stops and adjacent land uses, as well as integrates station/stops into neighborhoods. The recommendations of these transit development plans will focus on the desired outcomes of transit-friendly development,<sup>12</sup> including accessibility, walkability, and interconnectivity, and high levels of ridership.

**Strategic Regional Issue #3: The costs associated with transportation are rising. There is a lack of adequate financial resources to provide roadways and transit in the region.**



### **Trends and Conditions**

The fragmented approaches to land use planning, transportation planning, and capital budgeting at the local level have meant that there are no standardized planning-level roadway construction cost estimates for the region. It is generally understood that labor and material costs continue to rise, and that operation and maintenance of existing transportation systems (versus new construction) consumes an ever-greater portion of transportation budgets.

Transportation investment tends to lag behind land development. Retrofitting adequate public facilities and services in response to growth is typically more expensive than directing or managing growth with public investments. The result of the tri-state's trends is that limited transportation resources are spread more thinly across the region.

This strain will be exacerbated if the region's land development trend and associated trend in decreasing population density continues. The imbalance between the region's projected total vehicle miles traveled (VMT) and its population increase foretells a demand for new facilities and services, and more competition for scarce transportation dollars.

A financial analysis is developed as part of OKI's long-range transportation plan, in response to federal requirements for a "financially constrained plan." Using the best available information, the region's Long Range Plan considers capital costs and operation and maintenance (O&M) costs associated with the preservation and continued operation of the existing transportation system. The LRP also addresses the costs of any recommended improvements, and it projects revenues from all sources that will be available to pay for those improvements.<sup>13</sup>

Federal, state, and local sources fund transportation improvements. Future funding levels are estimated based on past trends.

The region gets a share of federal funds from programs authorized and appropriated by Congress. Federal highway funding is allocated for: Interstate maintenance; the national highway system; roads not classified as minor collectors or for transit capital projects (including commuter rail, bus terminals and facilities, carpool projects, traffic monitoring, and bicycle and pedestrian facilities); discretionary safety construction activities and transportation enhancements; congestion mitigation and air quality improvement (for transportation projects in "maintenance areas" for ozone and carbon monoxide); and bridge replacement and

rehabilitation.

Federal transit funding is allocated for: highway projects in "transportation management areas;" transit maintenance; transit operating assistance; and rail transit systems.

In Ohio, funding sources include the State Capital Improvements Program (SCIP) and the Local Transportation Improvement Program (LTIP), which are used for highways and bridges; the Ohio Public Transportation Grant Program, which is used for transit operations; the Street Construction, Maintenance, and Repair Fund, for operation and maintenance of state and federal highways; and local transit tax revenues. In Kentucky, funding sources are the State Projects and Rural Secondary Programs, and local transit revenues. Indiana's sources of funds include State Highway Fund, Highway Road and Street Fund, Motor Vehicle Highway Fund, Public Mass Transportation Fund, and Crossroads 2000. In some of the funds, local contributions are required; for example, 45% of the Highway Road and Street Fund is contributed by locals, and 55% is contributed by the State Highway Fund.

In Indiana, major sources of revenues for transportation funds include taxes such as gasoline tax, diesel tax, motor carrier fuel use tax, and motor carrier surtax; fees such as vehicle license fees; and permits. The fuel taxes are charged at the rate of 15 cents per gallon for gasoline and 16 cents per gallon for diesel.

Another source of state funds is from Unspecified Programs, which encompass all the state revenue (allocated by the states to the OKI counties) that does not fall into any of the established state programs.

Among local transportation funds in the OKI region, the largest source is the subsidy that transit operators receive from local governments. These funds help with the operating costs of the transit operators.<sup>14</sup>

To identify the region's transportation funding needs, the costs of operation and maintenance,

and needed capital expenditures for the region's transportation system over the 30-year planning horizon are estimated. The capital costs of projects already committed are programmed in OKI's Transportation Improvement Program (TIP).

The process of estimating highway maintenance costs is complicated by a lack of data for tracking this type of expenditure. In those Ohio counties in which municipalities have Home Rule privileges, differences in roadway maintenance responsibilities between municipalities and unincorporated areas further complicates the tracking process (although Interstate maintenance consistently is done by the state, regardless of local jurisdiction). Nevertheless, to account and plan for highway maintenance expenditures, OKI relies on historical TIP records.

For bus transit, OKI's cost estimates address operational and maintenance costs for the transit operators in the region. Operation and maintenance costs for any other types of transit are based on the best available information from ongoing or recently completed Major Investment Study (MIS) reports.

Because the long-range transportation plan's financial analysis involves a considerable degree of uncertainty, reasonable "best guess" estimates are necessary for long range planning purposes. OKI's 2030 Regional Transportation Plan estimates the total transportation-related expenditures at \$11.3 billion (capital costs plus operation and maintenance costs). The plan also estimates annual transportation revenues for the region at \$260 million per year; consequently, over the 30-year planning horizon, the total estimated revenues are \$7.8 billion.<sup>15</sup>

The difference represents an estimated 30-year, \$3.5 billion funding shortfall for identified highway and transit needs.<sup>16</sup>

This issue is not going to abate unless concerted action is taken on a regional level. The region's "vehicle miles traveled" is projected to outpace population growth. Incremental short-range development approvals are being made without

local long-range blueprints. Most jurisdictions do not contemplate tying land use planning to capital budgeting. The public will expect government to continue to build and maintain roads and transit systems.

Currently, government meets expectations for transportation facilities and services largely through local taxes.<sup>17</sup> In other parts of the country, states are beginning to explore other options for funding infrastructure adequate to support future land uses.

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### Objective

- 3.C. OKI will continue to use a prioritization process as a tool for evaluating transportation project costs, will pursue additional transportation funding, and by 2005 will re-evaluate its prioritization process to include Land Use Commission recommendations.

### Policies

- 3.C.1 The OKI long-range transportation plan and the transportation improvement plan will continue to be the primary tools for prioritizing regional transportation investments.
- 3.C.2. Transportation investments that help to meet regional needs and maximize the effectiveness and efficiency of the transportation network will be given funding priority.
- 3.C.3. OKI will explore funding options for motorized and non-motorized transportation improvements to supplement traditional transportation funding sources.
- 3.C.4. OKI will support and assist local governments in applying and qualifying

for federal funding for transportation projects, where consistent with the long-range transportation plan.

## **Strategic Regional Issue #4: There is insufficient coordination of land use issues between local, state, and regional transportation planning agencies.**



### **Trends and Conditions**

The effect of this lack of coordination is that transportation investment lags behind land development, and lags behind water, sewer and other utility facilities and services.

Retrofitting adequate public facilities and services in response to growth is typically more expensive than directing or managing growth with pro-active public investments: thus scarce transportation resources are spread more thinly across the region.

None of the three state transportation departments proactively addresses land use or growth management in its transportation plan. Critics of state policy assert that the states' infrastructure investments for

new land development outpace their investments in built-out cities and suburbs, leaving built-out areas to bear most of such infrastructure costs.

Some local jurisdictions in the OKI region prepare their own transportation plans. When those plans are prepared with direct assistance from OKI, they can be consistent with the Long Range Regional Transportation Plan and coordination can be a priority. An example of this collaborative effort was the Kenton County Transportation Plan completed in March 2003, which was developed by a Kenton County Transportation Task Force with assistance from OKI.

An example of a locally prepared plan is the 1996 Warren County Thoroughfare Plan. The plan was prepared in the context of other local and regional planning processes such as the Warren County Engineer's Transportation Improvement Plan, OKI's Regional Transportation Plan, OKI's Transportation Improvement Program, the I-71 Major Investment Study, the Lebanon-Warren County Airport Master Plan, the OKI Regional Bicycle Plan, and Warren County's Regional Planning Commission Township Plans. The County's thoroughfare plan states that "the relationship of Warren County's thoroughfare system to the regional system needs to be considered as well."<sup>18</sup>

The interconnected nature of the region's transportation system needs a coordinated approach between local comprehensive plans and capital budgets, local transportation plans and schedules for capital improvements, and the regional long range transportation plan. Coordination ensures the greatest consistency, the most efficient mobility, and the most cost effective investments. In assessing regional needs and priorities, OKI consults directly with county engineers about their priorities.

The regional long-range transportation plan is on a three-year update cycle. The State of Kentucky requires local comprehensive plan updates every five years. Ohio and Indiana law do not require the preparation of local comprehensive plans, let alone

a specific transportation element. Nevertheless, the coordination of planning horizons and plan updates is critical for consistency. With so many different planning horizons in the region, it is not always feasible to use comprehensive plan data for regional long range planning and modeling.

**OKI uses “will” in objectives and policy statements to describe events in the future, rather than to order something to happen.**

### Objective

- 4.D. By 2010, all levels of government within the region will coordinate transportation and land use planning.

### Policies

- 4.D.1. Local governments will coordinate with state and regional transportation planning and transit agencies on land use and transportation actions, such as access management, that affect state and regional facilities and services.
- 4.D.2. State transportation planning agencies will coordinate with OKI to ensure that transportation capital improvement decisions are consistent with locally adopted comprehensive plans.
- 4.D.3. All levels of government will apply land use controls, such as access management and innovative subdivision design,<sup>19</sup> to manage increased traffic associated with new development.

**Strategic Regional Issue #5:** Traffic congestion is increasing in the region, with multiple implications including loss of productivity, increased pricing of goods and services, loss of personal time, wasted fuel, and degradation of air quality.



### **Trends and Conditions**

The underlying causes of congestion are very complicated, and can include: land use patterns and zoning codes that separate uses and require people to travel longer distances; changes in home to school travel; fiscal zoning (including zoning for inefficient commercial highway strip development); a lack of affordable and mixed-income housing near employment centers and an imbalance between jobs and housing; and economic disincentives for greater efficiency (pricing signals that appear to make highway travel entirely free, while public transit is often perceived as too expensive).

Congestion generally occurs wherever traffic demand exceeds roadway capacity, with the level of congestion measured by the ratio of a roadway's volume to its capacity (or “V/C ratio”). Recurring congestion is a result of the roadway demand exceeding capacity, and is most common during peak morning and evening commute times. Non-recurring congestion results from accidents, disabled vehicles, and inclement weather. Federal Highway Administration studies suggest that 60% of daily congestion in most metropolitan regions is due to non-recurring congestion.<sup>20</sup>

Recurring congestion is caused by a combination of factors related to travel patterns and roadway capacity. Congestion is a product of increased single occupant vehicle travel and the factors that contribute to it – population growth, lack of sound comprehensive planning, land development patterns, ineffective access management, increased auto ownership, parking subsidies, and other factors. On the other hand, congestion can result from the failure to adequately expand highway or transit systems.

The general response to roadway congestion has been the construction of more roads. New roads have been shown to facilitate the expansion of people and commerce to once distant areas, thus assisting and accelerating the exodus of urban populations (that have a choice) to the suburbs. The resulting traffic has been addressed by building even more roads. Congestion, roads, people, and cars have formed a Catch-22 situation, where highway-only solutions ultimately have worsened the problem.

Nationally, the total amount of roadway miles has increased only 2.4 percent since 1980, but the number of vehicles using those roads has increased 39.8 percent and the vehicle miles traveled (VMT) increased 81.2 percent.<sup>21</sup>

Over the next 30 years, total vehicle miles traveled in the region is projected to increase 43 percent, while the supply of roadways will increase only 17 percent. Demand will outpace supply by a 2.5 to 1 margin. During that same period, total vehicle miles traveled in the region strictly on the freeways is projected to increase 43 percent while the supply of freeway miles will stay about the same.

In 1995, an estimated 38% of VMT per person during peak travel times were under congested conditions. The OKI 2030 Regional Transportation Plan projects an increase to 58% by 2030 if the plan is not implemented, but an increase to only 42% with plan implementation.<sup>22</sup> New land development, along with changing travel patterns, has fundamentally altered traffic congestion problems in this region.

In the past, congestion was associated primarily with downtown commuting and the routes radiating from the core area. Congestion has migrated out from the core, however, and now threatens to undermine the very mobility that gave rise to the economic growth in our suburban areas.

Wherever congestion occurs, it causes delays by diminishing the ability of roadways to move traffic. In addition to reducing mobility, congestion wastes fuel and increases air pollution. In the year 2000, 74 additional gallons of fuel were consumed/wasted per traveler as a result of congestion in this region.<sup>23</sup> Congestion increases vehicle emissions by prolonging travel time and creating stop-and-go conditions that cause more pollutants to be emitted than would occur at constant speeds.<sup>24</sup>

After housing, transportation accounts for the largest single household expenditure. The largest individual transportation expenditure is the vehicle purchase. This is followed by maintenance, insurance and gasoline expenditures.<sup>25</sup>

For individuals and businesses, congestion increases costs. For businesses, the costs of increased delays and vehicle operation are passed along in higher prices for shipping, delivery and insurance. The time that trucks spend sitting in traffic, for example, means increased shipping costs passed along as higher prices for consumer goods.<sup>26</sup> As consumers pay more to cover congestion costs, they have less to spend for products and services that generate jobs, which has ramifications for the entire economy.

The 2002 Urban Mobility Study by the Texas Transportation Institute, (TTI) states that the annual time lost due to congestion in the region is 43 hours per traveler.<sup>27</sup> Over half of that time is lost to accidents, disabled vehicles, and inclement weather, while the remaining 44% is lost to recurring congestion of the system during peak travel times.

The TTI study estimates the annual cost of delay from congestion in the OKI region to be \$440 million. In addition, the annual cost of fuel spent as

a result of congestion is \$65 million for the region. This study ranks the Cincinnati region as the 27th worst metro area in total annual congestion costs.

Growing congestion is a national trend, as indicated by the TTI research that shows worsening traffic congestion in nearly all of the country's 75 largest metropolitan areas. This congestion is visible to the average commuter in three ways:<sup>28</sup>

- The time penalty for making rush hour trips is increasing;
- The average "rush hour" lasts longer than 30 minutes; and
- The number of roads impacted by congestion continues to increase.

To help tackle congestion and its implications, the federal Intermodal Surface Transportation Efficiency Act of 1991 required metropolitan areas with populations over 200,000 to establish and operate a Congestion Management System (CMS), a systematic process for managing and alleviating congestion. A CMS also addresses reducing single-occupancy vehicle (SOV) travel and improving the transportation system's efficiency. Together, these strategies are intended to enhance the efficient and effective use of transportation facilities and reduce the need for highway expansion.<sup>29</sup>

OKI's 1995 CMS guide, Mobility Management Program: Manual of Practice, explains how the region's transportation system will be monitored and evaluated. Performance measures provide a basis for measuring mobility, and identifying the extent, severity and locations of congestion in the region. Over time, the system's performance is monitored to determine whether implemented improvements are performing as expected, and to determine the need for additional improvements.

Most of us see congestion as the problem. In fact, congestion is a consequence of our own making, resulting from our preferences, choices and trends. We pay the price for those choices in the form of time and money.

**OKI uses "will" in objectives and policy statements to describe events in the future, rather than to order something to happen.**

### Objective

5.E By 2006, OKI will enhance its evaluation of regionally significant transportation projects to assist communities with identifying sub-regional congestion impacts.

### Policies

5.E.1. OKI will evaluate transportation projects on the basis of regional need, efficiency, safety, access, and land use impact.

5.E.2. OKI will develop technical assistance and models to help communities identify sub-regional congestion impacts.

5.E.3. OKI will continue to promote travel demand management and education programs, such as Rideshare, van pools and trip reduction, that shift travel demand from single-occupant vehicles and peak travel periods, reducing the need for new capital investments in surface transportation.

5.E.4. All levels of government will continue to promote reduction in vehicle miles traveled through such measures as provision of a street and parking network designed for pedestrians, the disabled, bicyclists, transit, and automobiles.

5.E.5. Regional corridor studies will consider transit systems along congested corridors that connect urban and suburban centers to help reduce vehicle miles traveled.

## **Strategic Regional Issue #6: The number of local trips on Interstate highways has been increasing as a result of commercial and residential development patterns.**

### **Trends and Conditions**

Enhancing our arterial roadways appears to have lagged behind adding access and capacity on the Interstate that encourages local trips.<sup>30</sup> Land along the Interstate and at Interstate interchanges is typically zoned and developed as “highway commercial.”

While there is a lack of data at the regional level in the tri-state, it is widely acknowledged that our Interstate highways are increasingly used for short, local trips. High-volume commercial developments and “big box” stores often located near Interstate interchanges are increasingly relied on to generate local revenues through increased sales taxes. Such commercial highway strip development has proven to be inefficient from the perspective of traffic flow, generating trips that occupy Interstate capacity and tie up local intersections. Short vehicle trips between retail stores, services, and fast food outlets

are becoming more numerous.

When the Interstate highway system was originally conceived, its purpose was limited – it was designed to meet the requirements of the national defense, as well as to provide for increasing long distance automobile traffic and interstate commerce traffic. National statistics indicate that while the Interstate system accounts for only 1.2% of the nation’s total roadways, 24.1% of the nation’s total travel occurs on this system.<sup>31</sup>

On a national level, more than 80% of car trips are not about commuting from home to work and back; they are essentially about running errands.<sup>32</sup> Due to the design and maintenance of our roadway network, these short car trips end up on the Interstate. A key reason for this behavior is our antiquated arterial system has not kept pace with local land development approvals, and access to it is not managed. The arterial system does not facilitate efficient local trips.

People make route decisions based on three factors: distance, time and personal preference. Generally speaking, people will choose the shortest route in terms of distance; however, if the shortest route has a low speed limit, multiple traffic signals and curb cuts, people will take a longer route because it will save them time. In the OKI region, many people have a tendency to use the Interstates for short trips because it saves them time.

Consequently, Interstate access can encourage motorists to make longer trips than they would otherwise. Building high-priced freeway capacity to accommodate local trips is inefficient. Improving local roads and mitigating highway-oriented residential and commercial development would reduce local trips on Interstate highways.

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## Objective

- 6.F. By 2012, transportation funding priority will be given to projects consistent with comprehensive plans that encourage the use of arterial and collector roadways for local trips.

## Policies

- 6.F.1. Increased traffic volume and safety impacts on existing arterial and collector roadway systems will be considered during development reviews by all local governments.
- 6.F.2. Where appropriate, local comprehensive plans will direct development to town and neighborhood centers.
- 6.F.3. All levels of government will give high priority to preservation and rehabilitation projects that make more efficient use of existing arterial and collector roadways.
- 6.F.4. All levels of government will emphasize access management and signalization along arterials to increase roadway efficiency.

## **Strategic Regional Issue #7: Transportation project choices affect the region's ability to attain air quality standards.**

### **Trends and Conditions**

Conventional zoning and subdivision approvals, redevelopment projects, transit expansion, and greenspace planning all have air quality impacts. Some of the OKI region's automobile-oriented trends will tend to degrade our air quality. Among them: land consumption outpacing population growth; VMT outpacing population growth; lower-density development patterns that make transit service inefficient; increasing instances of traffic congestion; and a projected 30-year, \$3.5 billion shortfall in meeting highway and transit needs.<sup>33</sup>

Nationally, motor vehicles are the largest source of urban air pollution, generating more than two-thirds of the carbon monoxide in the atmosphere, a third of the nitrogen oxides (which react to form smog), and a quarter of the hydrocarbons (which also form smog).

Outdoor air pollution sources include factories, motor vehicles, power plants, and storms. Indoor air pollution sources include exhaust from cooking and indoor dust. Under the Clean Air Act (CAA), the U.S. EPA is required to formulate National Ambient Air Quality Standards. These standards are of two types. The primary standards are for protecting public health including the health of sensitive populations of asthmatics and children, and secondary standards are for public welfare, to protect against visibility reduction, crop damage, and building defacing.

In the realm of transportation, motor vehicle exhaust or fumes contain carbon monoxide, volatile organic compounds (VOCs), nitrogen oxides (NOx), and even lead particles. In 2000, transportation sources accounted for one-half of the total regional emissions of VOC's and about one-third of NOx emissions. Industry sources accounted for one-third of all VOC emissions and almost two-thirds of NOx emissions. The remainder of VOC and NOx emissions are accounted for by "area sources." Area sources include individually insignificant sources that when added together have a significant impact, such as lawn mowers, oil-based paints, boats with internal combustion engines, and dry cleaners.

The Clean Air Act regulates six major pollutants: sulfur dioxide, nitrogen dioxide, lead, carbon monoxide, particulate matter and ozone. The Greater Cincinnati region generally meets the national air quality standards for all of six pollutants at this time, except that the Ohio counties are designated "non-attainment" for ozone because they have not implemented certain controls on stationary sources.

The Clean Air Act Amendments (CAA) of 1990 clarify how EPA designates non-attainment areas for three pollutants (ozone, carbon monoxide and fine particulate matter) and how those areas are classified in accordance with the severity of an area's air pollution problem. Assignment of an area to one of the non-attainment classifications triggers various planning requirements with which the area must comply in order to meet the standard. The requirements vary by pollutant and they increase in number and stringency with the severity of pollution.

A seven county portion of the Greater Cincinnati region was designated by EPA, pursuant to provisions of the CAA of 1990, as a "moderate non-attainment area" for ozone based on air quality measurements from 1988-1990. The non-attainment area included our four southwestern Ohio counties, and our three northern Kentucky counties. Areas with more serious problems are required to take more numerous and stringent actions, but have more time to do so than areas with less severe problems. Any area that fails to meet the standards by its deadline could be bumped into a more stringent classification with stricter compliance requirements.

The Transportation Efficiency Act for the Twenty-First Century (TEA-21) strengthened the CAA's ability to meet its clean air objectives and to ensure that improvements in air quality will not be reversed by growth in travel. TEA-21 continued many of the programs which began under its predecessor, the Intermodal Surface Transportation Efficiency Act (ISTEA), and gives state and local officials tools for adapting the transportation system to meet the CAA requirements, including increased funding, flexibility to mix project types (e.g., transit, bicycle), and metropolitan and statewide planning requirements.

The OKI long-range regional transportation plan defines local commitments to promote alternatives to automobile travel and to enhance mobility while minimizing highway construction. Air quality is a key criterion in OKI decision making for transportation

plans, programs, and projects.

Transportation "conformity" is a mechanism to ensure that federal funding and approval are given to those transportation activities that are consistent with (or conform to) the goals of the federal air quality maintenance plans for Ohio and Kentucky. The air quality maintenance plans cover the ten-year time frame following the U.S. EPA's decision in 2000 to designate the area as being in "attainment" of the one-hour ozone standard. The maintenance area includes the region's four Ohio counties, and three northern Kentucky counties. By 2003, U.S. Circuit Court and U.S. EPA decisions resulted in OKI's northern Kentucky counties being re-designated as attainment, while OKI's Ohio counties were designated as "maintenance."

In April 2004, the National Ambient Air Quality Standards changed from a one-hour average ozone standard of 0.12 parts per million (ppm), to the more stringent eight-hour average ozone standard of 0.08 ppm. OKI's Ohio and Kentucky counties were subsequently designated "nonattainment," as well as portions of Dearborn County, Indiana. A nonattainment designation for air quality has significant implications for the conformity of transportation planning in the OKI region, implications that could further constrain adding roadway capacity.

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### Objective

7.G. By 2010, the various elements and policies of each local government comprehensive plan will help minimize air pollution emissions from transportation sources.

### Policies

7.G.1. Local and regional investments in transportation facilities and services will support compact, pedestrian-, bicycle,

and transit-friendly land uses, where appropriate, and facilitate travel demand management strategies.

- 7.G.2. Local comprehensive plans will support a mix of land uses, higher density development, and non-motorized connections to reduce single-occupant vehicle trips, where appropriate.
- 7.G.3. Local land use and infrastructure decisions and regional capital investments will support compliance with federal clean air standards.

## Footnotes - Transportation

1 **Fiscally/financially constrained** means that the LRP must compare the estimated revenue from existing and proposed funding sources that can reasonably be expected to be available for transportation projects, to the estimated costs of constructing, maintaining, and operating the total transportation system over the period of the plan.

2 **Capital improvements** are physical assets constructed or purchased to provide, improve or replace a public facility and which are large scale and high in cost. The cost of a capital improvement is generally nonrecurring and may require multi-year financing. A capital improvements budget is the set of capital improvements put into dollars and cents terms, indicating the prorated amount to be expended for each project listed over a multi-year period, and including the projected sources of revenue.

3 **Access management** involves planning and coordinating the location, design and operation of driveways together with internal roadway design features such as medians, median openings, interchanges and street connections.

4 **Transportation Disadvantaged** means those persons who because of physical or mental disability, socio-economic status, or age are unable to transport themselves or to purchase transportation and are, therefore, dependent upon others to obtain access to health care, employment, education, shopping, social activities, or other life-sustaining activities.

5 See Yale Rabin, "Highways as a Barrier to Equal Access," Annals of the American Academy of Political Science (1974). See generally, Metropolitan Planning Council of Chicago, "Trouble in the Core."

6 *OKI 2030 Regional Transportation Plan*, (Cincinnati: OKI Regional Council of Governments), 4-1.

7 Ibid.

8 *OKI 2030 Regional Transportation Plan*, (Cincinnati: OKI Regional Council of Governments), 4-2.

9 Ibid.

10 *OKI 2030 Regional Transportation Plan*, (Cincinnati: OKI Regional Council of Governments), 4-7.

11 2000 Census.

12 **Transit-friendly development** is a mix of residential, retail, and office uses that is accessible to transit service and encourages walking and bicycling in the community.

13 *OKI 2030 Regional Transportation Plan*, (Cincinnati: OKI Regional Council of Governments), 15-1.

14 *OKI 2030 Regional Transportation Plan*, (Cincinnati: OKI Regional Council of Governments), 15-6.

15 These estimates are from the *OKI 2030 Regional Transportation Plan*, (Cincinnati: OKI Regional Council of Governments), p. 15-11. Please note that OKI is in the process of updating the long-range plan for 2035, and these estimates are likely to change at that time.

## **Footnotes - Transportation continued**

- 16 Ibid
- 17 Gordon Price. *A Local Politician's Guide to Urban Transportation*. February 2001.
- 18 *Official Thoroughfare Plan Update*, Warren County, Ohio, July 1996, p. 1-1.
- 19 **Innovative subdivision design** provides attention to the environment, arrangements of housing and neighborhood aesthetics, and interconnections with nearby subdivisions.
- 20 *OKI 2030 Regional Transportation Plan*, (Cincinnati: OKI Regional Council of Governments), p. 6-3.
- 21 *Our Nations Highways – 2000*, U.S. Department of Transportation, Federal Highway Administration, Office of Highway Policy Information, Publication No. FHWA-PL-01-1012, p. 4.
- 22 *OKI 2030 Regional Transportation Plan*, (Cincinnati: OKI Regional Council of Governments), p. 16-7.
- 23 Texas Transportation Institute. 2002 Urban Mobility Report.
- 24 *OKI 2030 Regional Transportation Plan*, (Cincinnati: OKI Regional Council of Governments), 6-1.
- 25 *Our Nation's Highways – 2000*, U.S. Department of Transportation, Federal Highway Administration, Office of Highway Policy Information, Publication No. FHWA-PL-01-1012, p. 2.
- 26 *OKI 2030 Regional Transportation Plan*, (Cincinnati: OKI Regional Council of Governments), p. 6-1.
- 27 Annual delay per peak hour road traveler, year 2000.
- 28 Texas Transportation Institute. 2002 *Urban Mobility Report*. June 20, 2002 Press Release.
- 29 *OKI 2030 Regional Transportation Plan*, (Cincinnati: OKI Regional Council of Governments), p. 6-2.
- 30 Ron McLinden, *Highway "Needs" Demand Fresh Approaches*. Sierra Club, Missouri, Ozark Chapter.
- 31 *Our Nation's Highways – 2000*, U.S. Department of Transportation, Federal Highway Administration, Office of Highway Policy Information, Publication No. FHWA-PL-01-1012, p. 16.
- 32 David Crossley, *Why the Interstate-10 Expansion Plan Needs Another Look*. Gulf Coast Institute. August 1, 2002.
- 33 *OKI 2030 Regional Transportation Plan*, (Cincinnati: OKI Regional Council of Governments).

# Public Facilities and Services

## Overview

“Public Facilities and Services” means infrastructure that can be tied to a level of service over which local governments have the most influence, including: roads; sanitary sewer; solid waste; drainage; potable water; parks and recreation; and mass transit.

A broader definition of a public facility or service is a facility or service provided at a local, state, or national level. These facilities and services are generally provided and/or maintained by government as a means of promoting and preserving public health, safety and welfare. Public facilities and services can be funded either partially or wholly with public funds, and are used by the residents of more than one community. A public facility or service is generally operated and managed by a public officer, board, or commission. There are also some public facilities and services that are provided by private entities, such as the rural water suppliers, electric power suppliers, and entertainment and sports complexes. All public facilities and services represent a significant capital outlay, whether with public or private dollars. Users and taxpayers pay either directly or indirectly for the maintenance of these items.

Public facilities and services serve as a framework for rural and urban development. The timely, ordered and efficient arrangement of these facilities is accordingly key to the future and well being of communities in the region.

### Public Facilities and Services Goal

**Adequate public facilities and services will be available for all planned development,<sup>34</sup> and adequate capacity will be maintained for all existing development and re-development areas.**



**Strategic Regional Issue #8: Ill-timed<sup>35</sup> extension of water, sewer, and road facilities and services may expedite sprawling,<sup>36</sup> inefficient development.**

### Trends and Conditions

Water, sewer, and road facilities are generally provided by state and local governments as a means of providing for the general welfare of the community under the police powers granted by the Constitution. These public facilities and services are critical to the vitality of the entire region. Public water is not only a significant residential resource, but an adequate supply is also important for commercial and industrial uses and fire protection. In addition to water supply, public health standards are maintained by the provision of sewer collection and treatment facilities. Public roads ensure access and mobility for residents and workers.

The timing and location of water, sewer and road facilities can have a significant impact on land use patterns; the density and intensity of land development is influenced by the availability and

adequacy of these public facilities and services. For instance, it is difficult and often illegal to build a dense residential subdivision without an adequate supply of safe drinking water. The conditions and capacities of the region's treatment plants control adequate supplies of potable water for development. Similarly, the location and capacity of water, sewer, and road facilities is determined by various factors.

## Water

In the eight-county OKI region, there are 67 community water systems; this figure does not include mobile home park systems. (A community water system is defined by federal regulation as one that has at least 15 service connections for year-round residents or that serves at least 25 year-round residents.) The primary sources of water for these systems are the Ohio River, the Ohio River Aquifer, the Great Miami/Little Miami Buried Valley Aquifer system, Harsha Lake, the Licking River, and the Whitewater Aquifer. The Great Miami/Little Miami Buried Valley Aquifer System has been designated a "Sole Source Aquifer" (SSA) by the federal government because it is the principal source of drinking water in southwest Ohio, and if contaminated, would create a significant hazard to public health. As a result of this designation, all federal financially assisted projects constructed in the SSA area are subject to review by U.S. EPA to ensure that they do not create a significant hazard.

A large portion of OKI's Hamilton, Clermont, Butler and Warren counties is served by public water systems, and the more rural areas of those four counties are served by private suppliers. In Dearborn County, the majority of the area is served by private water suppliers, while Aurora, Dillsboro, Greendale, and Lawrenceburg have small municipal systems. The Northern Kentucky Water District was formed in 1997 by consolidating the Kenton and Campbell County Water Districts; however, there are still a few municipal water systems operating in these counties. Boone County has its own water district that buys water from the City of Cincinnati, in addition to the systems operating in Florence, Walton and at the Cincinnati/Northern Kentucky

International Airport. Overall, the Greater Cincinnati Water Works (GCWW) is the largest single provider of water in the OKI region. The GCWW serves not only the city of Cincinnati, but also most of Hamilton County, and parts of Butler, Warren, Clermont, and Boone counties.

Investments in community water systems are made for a variety of reasons, including anticipating and meeting demand, improving treatment processes, and replacing antiquated components of distribution systems. Examples of systems besides the GCWW in the process of undergoing expansion or upgrading include the water districts of Boone County and Warren County, and the cities of Harrison, Wyoming, and Glendale.

All water system operators are obligated to comply with federal drinking water standards (see Natural Resources trends and conditions statements) and state codes enforced by the Ohio Environmental Protection Agency (EPA), the Indiana Department of Environmental Management, and the Kentucky Natural Resources and Environmental Protection Cabinet. Generally, these regulatory agencies will set peak flow requirements for each system.

Potable water treatment facilities are designed to accommodate these peak flow requirements, and to have capacity for existing and projected demand. While not all water suppliers have a long-range plan, those that do use population and employment projections for their service area to determine future demand. Water facilities and services planning deals with treatment plants, storage facilities and distribution lines sufficient to meet future demand.

A review of several local water system plans indicates there is little coordination among the system operators. It does appear, however, that there is a degree of coordination between some water system operators and their respective local government planning departments through the sharing of future population and land use data. Nevertheless, detailed facilities plans remain separate and distinct from any community's comprehensive plan. The fact

that water facilities planning is not an integral part of the comprehensive planning process is nothing new; the problem was highlighted in the 1971 OKI Regional Water System Plan.

## **Wastewater**

In the OKI region, there are 44 publicly owned treatment works with an average daily flow of at least 100,000 gallons; this figure does not include those operated by schools. A publicly owned treatment works is a facility owned by a state, unit of local government, or Indian tribe, usually designed to treat domestic wastewaters.

Overall, the Metropolitan Sewer District of Greater Cincinnati (MSD) and Sanitation District No. 1 in northern Kentucky are the largest providers of wastewater treatment in the region. MSD serves most of Hamilton County and Sanitation District No. 1 serves most of northern Kentucky.

This service pattern was largely foreseen as part of OKI's 1977 Regional Water Quality Management Plan (WQM Plan), which divided the region into 71 areas for planning wastewater treatment facilities. In the years since the Regional WQM Plan was published, little funding has been available to maintain a regional-scale water quality management plan, and updates have been made on an incremental basis.

Investments in publicly owned treatment works are made for a variety of reasons, including meeting and anticipating demand, improving treatment processes, and replacing antiquated components of collection systems. Examples of such facilities in the process of undergoing expansion or upgrading, besides those operated by MSD and Sanitation District No. 1, include some in Clermont County and the cities of Harrison, Milford and Mason.

The location, type of treatment, and expense associated with wastewater treatment facilities depend on environmental and regulatory factors. The treatment capacities and processes of wastewater plants are subject to oversight by each

state's environmental agencies, including the Ohio EPA, the Indiana Department of Environmental Management, and the Kentucky Natural Resources and Environmental Protection Cabinet, which establish water quality standards for their respective states. Depending on the water quality standards they have established, each of these agencies will also set limitations for the volume and quality of wastewater discharges coming from treatment works. These limitations are reflected in a discharge permit granted to each facility under the National Pollutants Discharge Elimination System, (an "NPDES permit").

Because wastewater treatment facilities are not the only sources of pollution, other factors are also considered in the context of NPDES permits, such as stormwater runoff and overflows from combined sewers in older cities that accept both wastewater and stormwater. To address the problem of stormwater runoff, federal regulations, known as "Phase II," became effective in March of 2003. These regulations require most local governments in the region to plan controls for the quality of stormwater in their jurisdictions, and to apply for NPDES permits. The minimum control measures required by the Phase II program include construction site runoff control, post construction management, detecting and eliminating illicit drain hook-ups and discharges to public sewers, pollution prevention, and public education and involvement.

Another environmental and cost factor also affects the granting of NPDES permits and the timing and location of wastewater treatment options: the unsuitability of many soil types in the OKI region for onsite wastewater treatment systems, such as septic tanks. As septic systems in outlying areas become more concentrated or begin to fail, pressure is intensified for centralized wastewater treatment.

The costs associated with retrofitting centralized wastewater treatment highlight the need to time and locate infrastructure improvements concurrently with development.

As noted in the 2001 *Cincinnati Metropatterns* report, “It costs more to retrofit or expand infrastructure such as sewers and roads to low density, sprawling communities after the houses are built than it is to provide such infrastructure to well planned neighborhoods as they develop. Recent news coverage makes it clear that the Cincinnati region’s growth is straining both its natural and service infrastructures.”<sup>37</sup>

## Roads

The roadway network is the backbone of the region’s transportation system. The roadway network in the OKI region is typical of most metropolitan areas in the United States. A circular freeway surrounds the region’s older cities and suburbs, and other Interstate freeways pass through the region. There is also a web of arterials, collectors, and local streets, which provide access to homes, businesses, and other locations.<sup>38</sup>

The region’s growth over the last 40 years has primarily occurred north and south along the I-71 and I-75 corridors. The completion of the I-275 beltway provided quick access to previously inaccessible parts of the region. The result has been the expansive growth from northern Boone, Kenton and Campbell counties to western Clermont County.

Within the OKI region, there are more than 3,000 miles of major roadways (and an additional 6,000 miles of other roadways) that are used to transport passengers and/or goods via private automobile, taxi, bus, bicycle, and truck. Based on 1995 data, these vehicles travel more than 34 million miles a day on the region’s roads.<sup>39</sup>

Congestion problems occur wherever traffic demand exceeds roadway capacity. Adding capacity to road networks may provide short-term congestion relief, but in the long run it will also spur additional development. While the Interstate Highway System has had a multitude of impacts, many positive, it has also led to dispersal of growth and development.<sup>40</sup>

In the typical process for local development approvals, transportation investments often lag behind the impacts of development and redevelopment activities. Consequently, regional transportation planning agencies like OKI find themselves reacting to the impacts of incremental development or redevelopment projects, rather than planning and budgeting for adequate public investments that are available at the time development impacts occur. We are building roads to address the congestion resulting from ill-timed development, rather than building roads and transit service to direct planned, methodical development.

OKI’s Long Range Transportation Plan (LRP) addresses traffic congestion, conformity to federal air quality regulations, and financial constraints. To mitigate congestion, OKI considers strategies for managing travel demand based on their regional applicability. To protect air quality, the LRP endeavors to ensure that future travel growth does not prevent the region from achieving air quality goals and meeting National Ambient Air Quality Standards. To address financial concerns, OKI identifies revenue sources and distinguishes between expenditures needed to maintain existing infrastructure and expenditures needed for capital and operational improvements, and includes the analyses in its LRP.

The last three updates of OKI’s LRP have estimated a 30-year shortfall of over \$3 billion for transportation needs versus identified revenue sources. This chronic shortfall is the result of the region’s land development trends.

The placement of public facilities and services, specifically water, sewers, and roads, and their capacities affects the location and intensity of new development. Publicly-funded capital improvements can be used as inducements for new development; they can direct and manage land development and redevelopment. Public facilities can draw development to various specific locations. The provision of public facilities and services without proper planning and analyses may mean communities

trend towards scattered, untimely, poorly planned development in urban fringe and rural areas. These patterns are typically manifested in one or more of the following ways: leapfrog development; ribbon or strip development; and large expanses of low-density, single-dimensional development.

Another phenomenon is that these public facilities and services – water, sewers, and roads – are constructed in response to demand. Utilities and roads can be extended over long distances to subdivisions and businesses.<sup>41</sup> Roads and the prominent fixtures of America’s landscape that they serve – including uses like big box retail, edge cities, residential subdivisions, and corporate campuses – are clearly codependent. Without proper planning and analyses, the demand for public facilities and services can exceed their capacity more quickly than anticipated. The haphazard provision of public facilities is almost always more costly to taxpayers than if a planned capital improvements schedule were employed.

“Ill-timed” as used in this section addresses two trends: 1) the construction of public facilities which facilitates the premature or poorly planned conversion of rural land to other uses; and 2) the necessary public facilities and services to maintain level of service standards not being available when the impacts of development occur.

Many of the tri-state’s land use patterns exhibit one or more of the following characteristics:

- low-density, low intensity, or single-use development or uses;
- development in rural areas at substantial distances from existing urban areas; development that may have leaped over undeveloped lands that are available and suitable for development;
- urban development in radial, strip, isolated or ribbon patterns generally emanating from existing urban developments;
- development that fails to adequately protect and conserve natural resources, and adjacent agricultural areas and activities;
- development that fails to maximize use of existing

public facilities and services;

- development that fails to maximize use of planned or constructed future public facilities and services;
- the timing of land uses which disproportionately increases the cost of providing and maintaining facilities and services (in terms of time, money and energy), including roads, potable water, sanitary sewer, stormwater management, law enforcement, education, health care, fire and emergency response, and general government;
- development that fails to provide a clear separation between rural and urban uses;
- development that discourages or inhibits infill development or the redevelopment of existing neighborhoods and communities;
- single-use development, or development that fails to encourage a functional mix of uses;
- development that results in poor accessibility among linked or related land uses;
- development that results in the loss of significant amounts of functional open space; and
- development that does not follow the recommendations of a comprehensive plan.

These characteristics of the region’s sprawling development patterns add to the cost of providing public facilities and services. A primary generator of these inefficient development patterns is the perceived desire of people to achieve the “American dream” of living on a large lot in a low-density, single-family neighborhood.<sup>42</sup> There are few other residential options in the tri-state; thus, the single-use auto-dependent residential subdivision has become the trend and the preferred living situation for a large percentage of the population.

Achieving the Land Use Commission’s vision by changing the region’s land development trend would tend to lower public facilities capital and operating costs. The initial cost of providing water, sewer, and roads to new development is typically higher in low-density areas than in compact areas where the facilities and services can be centralized.<sup>43</sup>

OKI’s Land Use Commission has determined that a continuation of the region’s land development

characteristics and trends will result in a number of costly long-term impacts, including scattered, untimely, poorly planned extension of water, sewer, and road facilities and services. The Commission has indicated, in its "Vision for Stewardship" that planned and budgeted reinvestment in existing infrastructure is preferable to ill-timed extension of public facilities and services. In other words, investments in public facilities and services should direct development or redevelopment rather than primarily respond to demand, and/or prematurely cause the conversion of rural land to other uses.

**OKI uses "will" in objectives and policy statements to describe events in the future, rather than to order something to happen.**

### Objective

8.H. By 2010, each local government will have an up-to-date comprehensive plan recommending that the necessary public facilities and services will be in place at the time the impacts of development occur, and that discourages the provision of public facilities outside of areas recommended for new development.

### Policies

8.H.1. OKI will develop model local comprehensive plan guidelines that link transportation, land use, economic development, public facilities, housing, natural systems, recreation, intergovernmental coordination, and capital improvements for use by all local governments in the region. Local government comprehensive plans will be consistent with the region's model comprehensive plan guidelines, and OKI will provide technical assistance and incentives to local governments. (Same as Policy 1.A.1.)

8.H.2. The public facilities element of each local comprehensive plan will analyze the need for public facilities and services, as well

as specify areas for capital improvements, in consultation with water and sewer providers.

8.H.3. OKI will inventory and track the growth of water and sewer systems to help local and regional planners understand where new development is being encouraged and where transportation system improvements could be needed.

**Strategic Regional Issue #9: Adequate<sup>44</sup> infrastructure does not keep pace with the impacts of development.**



### **Trends and Conditions**

This is a difficult issue to quantify across the region, but indications are that the statement is true region-wide. A review of several information sources lends credence to this policy concern. Those sources include the content of local government comprehensive plans, the region's long-range transportation plan and the associated long-term deficit projected for capital highway and transit projects, newspaper accounts (including business news) of proposed development projects and tax

levies, and various independent studies such as Cincinnati Metropatterns and the Gallis reports.

Infrastructure is the basic structural foundation of a community. Man-made infrastructure serves the common needs of the population and includes: sewage disposal systems; potable water systems; potable water wells serving a system; solid waste disposal sites or retention areas; storm water systems; utilities; bridges; roadways; docks; marinas; navigation channels; schools; libraries; parks; fire stations; and post offices. The terms "infrastructure" and "public facilities" are often used interchangeably. The OKI Land Use Commission, however, has used the phrase "public facilities and services" to more narrowly mean infrastructure that can be tied to a level of service standard, including: roads; sanitary sewer; solid waste; drainage; potable water; parks and recreation; and mass transit. These are the facilities and services that local governments in the OKI region can most influence.

Public facilities and services are critical to the vitality of the entire region. Their existence is critical, but so is their adequacy. We need sufficient capacity in our water, sewer and roadway systems to accommodate the needs of the region's existing and future populations, wherever they are located. In the central, older areas where infrastructure has existed for years, their general condition and expected life can present opportunities or problems in service delivery, environmental protection, redevelopment and capital budgeting. In areas experiencing new development, however, planning for, budgeting, and providing the adequate public facilities and services to keep pace with the impacts of new development can be equally or more difficult.

The difficulty arises in the form of fiscal stress in the fast growing areas of the region. The stress occurs because rapid population growth requires large public expenditures to provide needed roads and all the other public facilities and services required to support the community.<sup>45</sup>

With a few exceptions, local governments in the OKI

region do not prepare true comprehensive plans, that is, plans with all the elements identified by the Land Use Commission for maximum effectiveness. A long-range plan that integrates physical planning with capital budgeting allows communities to direct development and redevelopment in terms of the timing and location of public facilities and land uses. Cities, townships and counties can determine what capital improvements will be needed in the coming five years, where they will be located, how much they will cost, and who will pay for them.

When a local government receives a proposal to convert a one hundred acre farm to a 300-unit subdivision, for example, it must make several determinations, including whether the timing and location of the proposed subdivision is appropriate; and whether adequate water, sewer and roads can be provided when the impacts of the subdivision occur. Not all 300 homes in this example are likely to be built all at once, and the proposed project may be built in phases. Subdivisions build out over time. The day a hotel or a casino opens, however, impacts on roads alone are immediate and large. Public sector investors at all levels should plan and budget for development and redevelopment projects of varying intensities. It is most economical to provide sufficient public facilities and services concurrent with the impacts of development.

Ensuring that the necessary public facilities and services are in place at the time the impacts of development occur requires a community to establish and maintain measurable level of service standards. Level of service standards are indicators of the degree of service provided by, or proposed to be provided by a facility based on and related to the facility's operational characteristics. Level of service indicates the capacity per unit of demand for each public facility. In the case of roadways, the public expects a high level of service (free flowing traffic, or frequent and highly convenient transit service), as opposed to a low level of service (congestion and gridlock). Maintaining the highest levels of service may be cost-prohibitive, however.

In general, level of service standards should be set such that public facilities and services are able to handle current demand. Residents expect clean, fresh, pressurized water when they turn on the tap or flush the toilet. They expect the storm water from a heavy rain to be conveyed away from their basements. They expect to drive a car or take a bus to a destination with minimal delay.

Development or redevelopment carries demands for public facilities and services. New development can bring more people, more cars on the roads, more children in the schools, more storm water run-off, or higher demand for public water supplies. The public expects infrastructure keep pace with the impacts of development.

**OKI uses “will” in objectives and policy statements to describe events in the future, rather than to order something to happen.**

### Objective

9.I. By 2012, measures will be in place to require the provision of adequate facilities and services.

### Policies

9.I.1. Local governments will ensure that the costs of providing public facilities and services for development are accounted for and covered by available funds, fee structures, and benefits to the community.

9.I.2. Each local comprehensive plan will include level of service standards,<sup>46</sup> will identify the facilities needed to meet them, and will reference capital improvement plans from relevant jurisdictions and water and sewer utilities.

9.I.3. Local governments will evaluate land use proposals for consistency with the capacity and level of service of the public facilities and services identified in their comprehensive plans, and will estimate

public facility and service costs associated with these proposals.

9.I.4. OKI will develop evaluation criteria and techniques that can be used at the local level to ensure that needed infrastructure improvements are provided when the impacts of development occur.



**Strategic Regional Issue #10: There is little coordination among public facilities and services planning, transportation planning, and land use planning.**

### **Trends and Conditions**

In the typical process of local land development approvals, transportation investments often lag behind the impacts of development and redevelopment activities. Consequently, regional transportation planning agencies like OKI find themselves reacting to the impacts of incremental development or redevelopment projects, rather than planning and budgeting for adequate public investments that are available at the time development impacts occur.

In a review of local government plans, OKI found little coordination among public facilities and services planning, transportation planning, and land use planning. Most plans in the region are not truly comprehensive in the sense that they do not address all of the components of an effective comprehensive plan, as previously discussed by the Land Use Commission. Public facilities, transportation, and land uses function together, and in order for local governments to manage their fiscal impacts, they must be correlated and integrated.

True coordination would require synchronizing these elements – public facilities, transportation, and land uses – within the local comprehensive plan, as well as coordinating between the independent bodies that plan and budget for public facilities and services, transportation, and land use. Historically, this has not happened. For example, when I-275 was built, it was strictly a transportation project; there were no associated water and sewer projects to complement the new roadway and direct the land development that most officials assumed would locate near the new road. The investment in the I-275 beltway could have been maximized by coordinating it with infrastructure development. The result is the scattered development in the eastern and western portions of the region that lack public water and sewer facilities.<sup>47</sup>

It is important to note that a number of entities provide services but do not have regulatory authority over the use of land, including school boards, other units of local government, independent special districts, and state agencies. State agencies and utility authorities can also have regulatory authority within local jurisdictions.

These seemingly independent elements of a comprehensive plan affect each other. A community's vitality can be affected by the degree to which it addresses a wide-ranging set of elements in its local comprehensive plan, including not only public facilities, transportation, and land use, but also economic development, housing, the environment, recreation, capital improvements, and intergovernmental coordination. Solutions to a

wide range of shared problems can be found through cooperation among adjacent local governments and between governments at all levels.

Intergovernmental coordination encourages consistency within and between local governments, thereby incorporating a broader view in their individual planning process.

In all three Northern Kentucky counties, comprehensive plan elements are consistent by virtue of the state's planning law. Before initiating any planning or zoning activities, the Kentucky Revised Code requires the preparation of a comprehensive plan that includes the following specific set of elements: goals and objectives, a land use element, a transportation element, and a community facilities element.<sup>48</sup> The code also contains requirements for the research, analysis and projections related to each of these elements.<sup>49</sup>

Indiana does not require local governments to prepare comprehensive plans, but if they do, the state code establishes the minimum contents. At the very least, a comprehensive plan in Indiana must include a statement of objectives, a statement of policy for land use development, and a statement of policy for the development of public ways, places, lands, structures, and utilities.<sup>50</sup>

The Ohio Revised Code has no comprehensive planning guidelines, which unfortunately affects the greatest number of jurisdictions in the OKI region. As a result, the lack of state guidance has led to little planning uniformity and consistency between and among Ohio jurisdictions.

Most of the OKI region's 138 local zoning authorities focus on incremental zoning and subdivision reviews, rather than on timing, location and cost of land uses. As a result, OKI, as the MPO, typically reacts to chronic transportation problems instead of planning for and funding transportation solutions that would be implemented concurrent with the impacts of land development.

Despite this fragmentation, there is an opportunity under Ohio, Kentucky and Indiana state law for a consistent approach to local government comprehensive planning using the components of an effective comprehensive plan previously discussed by the OKI Land Use Commission.

The primary benefit of coordinated comprehensive planning is that it provides for timing and location of development and redevelopment ~ something that zoning or subdivision regulations do not achieve on a community-wide basis. The timing and location of development or redevelopment have direct implications on the use of local taxes for capital projects and on the conservation of natural resources.

**OKI uses “will” in objectives and policy statements to describe events in the future, rather than to order something to happen.**

### Objective

10.J. By 2010, each local government will have an up-to-date comprehensive plan that links public facilities, land use, transportation, economic development, housing, natural systems, recreation, intergovernmental coordination, and capital budgeting.

### Policies

10.J.1. OKI will develop model local comprehensive plan guidelines that link transportation, land use, economic development, public facilities, housing, natural systems, recreation, intergovernmental coordination, and capital improvements for use by all local governments in the region. Local government comprehensive plans will be consistent with the region’s model comprehensive plan guidelines, and OKI will provide technical assistance and incentives to local governments. (Same as Policy 1.A.1.)

10.J.2. Local subdivision regulations and other development related regulations will be consistent with the public facilities and services goals, objectives, and policies of the local comprehensive plan.

10.J.3. The intergovernmental coordination element of each local comprehensive plan will encourage cooperation within and between local governments on issues related to public facilities, land use, and transportation.

10.J.4. The public facilities element of each local comprehensive plan will encourage coordination with and among water and sewer providers and stormwater management authorities.

## **Footnotes - Public Facilities and Services**

34 **Planned development** means new development that is in accordance with an adopted comprehensive plan.

35 **Ill-timed** addresses two trends: 1) the construction of public facilities which facilitates the premature or poorly planned conversion of rural land to other uses; and 2) the necessary public facilities and services to maintain level of service standards not being available when the impacts of development occur.

36 Sprawling development means scattered, untimely, poorly planned development in urban fringe and rural areas. These patterns are typically manifested in one or more of the following ways: leapfrog development; ribbon or strip development; and large expanses of low-density, single-dimensional development.

37 Cincinnati MetroPatterns, September 2001. Prepared by Myron Orfield and Thomas Luce, Metropolitan Area Research Corporation.

38 *OKI 2030 Regional Transportation Plan*, (Cincinnati: OKI Regional Council of Governments), 4-1.

39 *OKI 2030 Regional Transportation Plan*, (Cincinnati: OKI Regional Council of Governments), 4-1.

40 Planners Web: Sprawl Guide on Highway Building as the Roots of Sprawl, [http://www.plannersweb.com/sprawl/roots\\_highway.html](http://www.plannersweb.com/sprawl/roots_highway.html) accessed 7/14/03.

41 Fred P. Bosselman, Alternatives to Urban Sprawl: Legal Guidelines for Governmental Action, prepared for the consideration of the National Commission on Urban Problems, Research Report No. 15 (Washington, D.C.: Government Printing Office, 1968), p.6.

42 Smitha Vijayan, "Transportation and Land Use Primer", University of Wisconsin – Milwaukee, Center for Urban Transportation Studies. [www.uwm.edu/DEPT/CUTS/ce940/primer1.pdf](http://www.uwm.edu/DEPT/CUTS/ce940/primer1.pdf) accessed 7/31/03.

43 Smitha Vijayan, "Transportation and Land Use Primer", University of Wisconsin – Milwaukee, Center for Urban Transportation Studies. [www.uwm.edu/DEPT/CUTS/ce940/primer1.pdf](http://www.uwm.edu/DEPT/CUTS/ce940/primer1.pdf) accessed 7/31/03.

44 **Adequate** means having sufficient capacity in our water, sewer and roadway systems to accommodate the needs of the region's existing and future populations, or meet a required level of service standard.

45 Cincinnati MetroPatterns, September 2001. Prepared by Myron Orfield and Thomas Luce, Metropolitan Area Research Corporation.

46 **Level of service standards** are qualitative ratings of the effectiveness of a facility or service to meet the public demand. They indicate the extent or degree of service provided by, or proposed to be provided by a facility based on and related to the operational characteristics of the facility. Level of service standards indicate the capacity per unit of demand for each public facility.

47 Greater Cincinnati Metro Region Resource Book, Preparing for the New Millennium, 1999. Prepared by Michael Gallis & Associates for the Metropolitan Growth Alliance.

**Footnotes - Public Facilities and Services, Continued**

48 Kentucky Revised Code 100.187.

49 Kentucky Revised Code 100.191.

50 Indiana Code 36-7-4-502.



## Natural Systems<sup>51</sup>

### Overview

The long-term viability of the OKI region is dependent on the health and quality of our dynamic and interdependent natural resources and open spaces. Every building erected, public utility placed, and every road constructed could potentially have an impact on the individual resources and broader natural systems. The value of the region's natural resources and open space can be positively or negatively affected by local land use and transportation decisions.

In broad terms, natural resources are materials and assets occurring in nature that provide for the sustenance of life, that have potential economic value, or that serve the community's well-being or recreational interests. Open space is land that is undeveloped or in its natural state. The value of natural resources and open space in the region includes enhanced quality of life, physical attractiveness, enhanced economic vitality, and

### Natural Systems Goal

Protect and improve the diversity and sustainability of the region's natural systems.

**Strategic Regional Issue #11: Protection and sustainability of groundwater and surface water resources are not always addressed in local, state, regional, and federal planning processes.**

### Trends and Conditions

The region's residents, businesses and farms depend on groundwater and surface water resources for their potable and process water. Water resources contribute significant value to the region, including enhanced economic vitality, physical attractiveness, and higher property values. Groundwater and surface water are thus key components of the region's economy and quality of life. The principal uses of the region's water resources are water supply, waste disposal, drainage, recreation, habitat, and navigation.

With water resources, the region has an economic interest in meeting the needs of the present generation without compromising the ability to meet the needs of future generations. The value of water resources as economic and social assets is best understood in the context of population growth, capital budgeting, the timing and location of future land uses, infrastructure needs and economic development.

In the OKI region, protection of water resources at the local level is often done by local environmental management or public works agencies, water suppliers, health departments, and sanitation districts, with monitoring and technical assistance sometimes provided by consultants and universities.

Organizations responsible for monitoring the groundwater and surface water resources in the OKI

region are: the Ohio EPA, the Indiana Department of Environmental Management, the Kentucky Natural Resources and Environmental Protection Cabinet, and the Miami Conservancy. The three state environmental agencies are responsible for monitoring and regulating all water resources in the region: the Ohio EPA Division of Surface Water is responsible for monitoring and protecting the quality of the water resources in Ohio. The Indiana Department of Environmental Management, Office of Water Quality is responsible for regulating and monitoring the surface water and ground water resources in Indiana. The ‘Division of Water’ within the Kentucky Natural Resources and Environmental Protection Cabinet is responsible for managing, protecting, and enhancing the water resources of the Commonwealth of Kentucky. The Miami Conservancy works in the area of flood protection and water resources monitoring in the Great Miami River Watershed only.

This fragmented approach is the result of state and federal laws or regulatory mandates – many inadequately funded – including the Clean Water Act, the Safe Drinking Water Act, and the National Environmental Policy Act.

At the local level, water resources planning and protection is typically not addressed in local comprehensive plans along with land use, transportation and other infrastructure, housing, recreation, intergovernmental coordination, and capital budgeting issues.

Where significant water resources are present in a jurisdiction, no local government comprehensive plan reviewed by OKI identifies and analyzes rivers, lakes, wetlands, floodplains, major natural drainage features, or groundwater sources and uses. No local government comprehensive plan analyzes those resources’ existing or potential commercial, recreational or conservation uses, or their known pollution problems including hazardous wastes.

No local government comprehensive plan reviewed by OKI identifies and analyzes current and projected

water needs and sources based on the demands for industrial, agricultural and potable water use, and the quality and quantity of water available to meet these demands.

Protection and sustainability of water resources are further complicated where these resources are provided by one jurisdiction to another. In such cases, there typically are no long-range analyses of neighboring areas served for the purpose of projecting facility needs. For such shared facilities, the proportional capacity of the systems allocated to serve multiple jurisdictions is often not fully understood in the context of population growth, future land uses and economic development.

Protection of water resources is compounded by the multiplicity of potential pollution sources. Groundwater contamination, for example, results from a variety of sources. Some sources are found throughout the nation, such as septic systems. Others are more characteristic of certain regions, such as mining operations. Some sources are associated with specialized waste disposal practices, such as injection wells, while others result from common, everyday practices, such as lawn chemical applications. Some sources are direct causes of contamination, such as leaking underground storage tanks, while others are not, such as abandoned wells and gravel mining pits. Control of these diverse sources of groundwater contamination requires a combination of voluntary precautions, prescribed management practices and regulatory oversight.

The Clean Water Act strategy to protect surface waters essentially consists of a goal, a stream-use classification system, pollutant discharge guidelines, and surface water quality standards. Groundwater protection efforts have also begun to follow this strategy by pursuing a groundwater-quality goal, an aquifer classification system, wellhead protection guidelines and groundwater quality standards.

At the regional, state and federal levels, the emphasis on, and funding for, water resource planning has shifted in recent years from “point” sources<sup>52</sup> of

pollution to “non-point” sources.<sup>53</sup> Nonetheless, point sources of pollution remain a problem, and regional water quality management plans – typically produced 25 years ago – officially remain in effect but receive little federal monetary support for updates and maintenance. OKI is the federally designated areawide water quality management agency, but receives only about \$50,000 per year in federal funds to maintain its detailed, technical, and mandated water quality management plan and provide technical assistance.

A 1986 amendment to the federal Safe Drinking Water Act required the development of wellhead protection programs for groundwater, a requirement expanded to include surface water sources by a 1996 amendment to the Act, requiring “source water assessment and protection.” The intent of these source water assessment and protection programs (SWAPs) is to formally protect the water that supplies public water systems, but despite state administration and oversight, they are not always developed consistently at the local level.

The Ohio Environmental Protection Agency (OEPA) administers the SWAPs in Ohio. For example, OEPA requires public water suppliers to commit to the development of a SWAP as a condition for permitting new public water supply wells. The SWAP does not apply to private or industrial water suppliers.

Similarly, the Indiana Department of Environmental Management requires all community water systems to develop a SWAP, as does the Kentucky Natural Resources and Environmental Protection Cabinet. Because the area draining to the Ohio River is so large and the river and its associated aquifer provide water to so many jurisdictions, the Ohio River Valley Sanitation Commission is facilitating an agreement among states for source water assessment and protection in the Ohio River watershed.

At all government levels in the tri-state, the highly regarded concept of “water budgets” receives little attention as a tool for the protection of water

resources. “Water budgeting” involves tracking demands for water supply and investigating the capability of water resources to meet that demand under existing and projected conditions. Kentucky has, however, developed a Water Supply Planning Program. By Kentucky law, water suppliers are required to develop long range Water Supply Plans for each county. In most cases, Area Development Districts (ADDs) have taken on the responsibility for preparing these plans for their counties.

**OKI uses “will” in objectives and policy statements to describe events in the future, rather than to order something to happen.**

### Objective

11.K. By 2010, groundwater and surface water resource protection and sustainability will be addressed in local government comprehensive plans, and will continue to be addressed in relevant OKI planning efforts.

### Policies

11.K.1. OKI will develop model local comprehensive plan guidelines that link transportation, land use, economic development, public facilities, housing, natural systems, recreation, intergovernmental coordination, and capital improvements for use by all local governments in the region. Local government comprehensive plans will be consistent with the region’s model comprehensive plan guidelines, and OKI will provide technical assistance and incentives to local governments. (Same as Policy 1.A.1.)

11.K.2. Local jurisdictions will protect water quality through land use decisions and implementation of best management practices<sup>54</sup> for stormwater run-off, with consideration of downstream impacts.

11.K.3. Local jurisdictions will develop and adopt updated zoning and subdivision regulations that support implementation of the local comprehensive plan goals, objectives, and policies, such as conservation design<sup>55</sup> practices for new residential and commercial developments.

11.K.4. OKI will serve as a clearinghouse for incentives and programs that could be used by local governments to conserve regionally significant natural systems. The incentives and programs should include, but not be limited to the following: tax abatement or incentives, conservation easements, transfer of development rights, purchase of development rights, and land acquisition.

11.K.5. OKI will pursue funding sources for water quality management to ensure continued regional planning as required by the federal government and continued technical assistance to local governments.

## **Strategic Regional Issue #12: The value and preservation of diverse natural systems, which includes air, water, wildlife, plantlife, and land are not always examined in local, state, regional, and federal planning processes.**

### **Trends and Conditions**

A natural system is a set of interrelated natural resources that, due to its size, function, scarcity or endangerment, retains or provides benefit of regional significance to the natural or human environment, regardless of ownership. Many local communities want to consider the values of ecological resources in the region when making land use and transportation decisions.

In broad terms, natural systems of regional significance in the OKI region include watersheds,



surface waters, groundwater, wetlands, wildlife, habitats, hillsides, farmland, natural communities, airsheds, and minerals. These natural systems contribute significant value to the region, including enhanced quality of life, economic vitality, physical attractiveness, and higher property values.

By placing values on the region's natural systems, local governments can begin to evaluate and prioritize their assets. In the tri-state region, however, few local governments address some natural systems issues in long-range plans. Their approaches are typically site-specific, narrowly focused, or not part of truly comprehensive plans. Where they exist, such plans typically focus on criteria for protection of individual parks, preserves, water resources, wildlife, plantlife, and other discrete open spaces or environmentally sensitive areas. They typically do not include measurable policies that address the maintenance of intrinsic, economic, environmental, and social values of natural systems within their boundaries or in neighboring jurisdictions.

No local government comprehensive plan reviewed by OKI identifies and analyzes resources such as wildlife, known sources of commercially valuable

minerals, vegetative communities including forests, or known species listed by federal, state, or local government agencies as endangered, threatened or species of special concern. Similarly, no local government comprehensive plan addresses such resources' existing commercial, recreational or conservation uses, known pollution problems, and the potential for conservation, use or protection.

To bridge the inconsistency in natural systems planning, OKI's Greenspace Office is creating a regional green infrastructure plan, which will promote the value and utility of conservation for the tri-state's quality of life and economic vitality.

Air is an example of a natural resource that crosses political jurisdictions, and affects value and costs throughout the region. In 2000, the U.S. EPA determined that the OKI region had attained the one-hour ozone standard based on three consecutive years without a violation of that standard. By 2002, U.S. Circuit Court and U.S. EPA decisions resulted in OKI's northern Kentucky counties being re-designated as attainment, while OKI's Ohio counties were designated as "maintenance."

In April 2004, the National Ambient Air Quality Standards changed from a one-hour average ozone standard of 0.12 parts per million (ppm), to the more stringent eight-hour average ozone standard of 0.08 ppm. OKI's Ohio and Kentucky counties were subsequently designated "nonattainment," as well as a portion of Dearborn County, Indiana. A nonattainment designation for air quality has significant implications for the conformity of transportation planning in the OKI region, implications that could further constrain adding roadway capacity.

The ten-year air quality maintenance plans submitted by both Ohio and Kentucky contain emissions budgets for both volatile organic compounds (VOC) and nitrogen dioxide (NO<sub>x</sub>). These budgets establish a maximum allowable limit on future emissions from vehicles (mobile sources). OKI's transportation plans and programs must be shown

not to exceed those established budgets.

State and local officials have the ability to adapt the transportation system to meet federal requirements, including increased funding, flexibility to mix project types (e.g., transit, bicycle), and metropolitan and statewide planning requirements. OKI's regional transportation plan defines local commitments to promote alternatives to automobile travel and to enhance mobility while minimizing highway construction. Air quality is a key criterion for OKI in making decisions for transportation plans, programs, and projects.

The pollutant impact of transportation sources has been significantly reduced through vehicles meeting stricter emissions standards, cleaner federal fuel standards, and regional emissions check programs implemented by Ohio and Kentucky. These technology-based actions have resulted in lower emission rates per motor vehicle and will continue to be the primary contributor to lower total emissions from vehicles. At the same time, however, air quality continues to be impacted by our residential and commercial development patterns and the related increase in vehicle miles traveled.

Since 1996, the Regional Ozone Coalition has sponsored a Clean Air Fare on transit buses during the summer months. Both the Southwest Ohio Regional Transit Authority and the Transit Authority of Northern Kentucky have offered a 50-cent fare during those months.

The Greater Cincinnati region joined the U.S. Department of Energy's Clean Cities Program in January 1997. The tri-state Alternative Fuels Coalition promotes the acquisition and use of vehicles by local fleets that operate on alternative fuels. Alternative fuel vehicles typically produce fewer emissions than conventionally fueled vehicles.

Trees further help to reduce air pollution in urban areas by absorption of pollutants. Trees increase humidity in the air (through transpiration), which also helps rid the particulates from the air. Trees

also help to lower air temperatures, which lead to reduction in the formation of smog.

Trees can also benefit a community by their placement in the landscape. Trees help to shade buildings in the summer and block winds in the winter, reducing the amount of energy needed to heat and cool a building. Trees placed in parking lots, along sidewalks and road medians help to reduce the urban heat island effect.

**OKI uses “will” in objectives and policy statements to describe events in the future, rather than to order something to happen.**

### Objective

12.L. By 2007, a regional model for estimating the value of natural systems will be developed for use in planning processes throughout the region.

### Policies

12.L.1. OKI will develop a model to estimate the economic and environmental values of natural systems for use by local governments in their planning efforts.

12.L.2. Local governments will use the outcomes of a regional economic/environmental model to establish comprehensive plan policies that protect valuable natural systems such as wetlands, water recharge areas, fish and wildlife habitat conservation areas, riparian zones, flood plains, and steep slopes.

12.L.3. OKI will develop a process for use by local governments to inventory natural systems in their jurisdictions.

**Strategic Regional Issue #13: There is little coordination among natural systems planning, land use planning, and public facilities planning.**



### **Trends and Conditions**

Natural systems contribute significant value to the region, including enhanced quality of life, economic vitality, physical attractiveness, and higher property values.

The OKI region lacks a coordinated regional approach for the valuation, conservation, preservation, restoration, and use of natural systems that cross political jurisdictions. Land use decisions are made every day at the county, township and municipal levels, but no state or regional plan guides local governments or the private sector as they plan for and manage our region's natural systems. Minimal intergovernmental coordination of land development and natural systems planning exists among 190 local governments and 138 independent zoning authorities.

Few local comprehensive plans reviewed by OKI provide for actions that would better coordinate natural resources and land use planning, such as: protection of air quality; appropriate use, conservation, and protection of areas suitable for extraction of minerals; protection of water quality by addressing activities and land uses known to

affect identified water sources, including natural groundwater recharge areas, wellhead protection areas and surface waters used as a source of public water supply; protection of native vegetative communities from development activities; emergency conservation of water sources; addressing activities known to affect the survival of endangered and threatened wildlife; protection and conservation of the natural functions of existing soils, wildlife habitats, rivers, lakes, floodplains, wetlands and shores; continuing cooperation with adjacent local governments to appropriately use, conserve, or protect unique vegetative communities located in more than one local jurisdiction; designation of environmentally sensitive lands for protection based on locally determined criteria; management of hazardous wastes to protect natural resources; and protecting USDA-designated prime agricultural land.

Similarly, few local comprehensive plans address actions designed to better coordinate natural resources and planning for public facilities and services, such as: consideration of soil capabilities when siting storm water management facilities; consideration of the impacts of runoff on adjacent water resources and hillsides when siting transportation facilities; consideration of the impacts on the local water table/groundwater/aquifer when siting public and private wells; or consideration of integrating new public facilities like schools, libraries, or post offices into residential areas and making them bicycle and pedestrian-friendly.

**OKI uses “will” in objectives and policy statements to describe events in the future, rather than to order something to happen.**

### Objective

13.M. By 2010, each local government will have an up-to-date comprehensive plan that links natural systems, recreation, public facilities, land use, transportation, economic development, housing, intergovernmental coordination, and capital budgeting.

## Policies

13.M.1. OKI will develop model local comprehensive plan guidelines that link transportation, land use, economic development, public facilities, housing, natural systems, recreation, intergovernmental coordination, and capital improvements for use by all local governments in the region. Local government comprehensive plans will be consistent with the region's model comprehensive plan guidelines, and OKI will provide technical assistance and incentives to local governments. (Same as Policy 1.A.1.)

13.M.2. Local governments will enable the use of environmentally sensitive building practices<sup>56</sup> to integrate growth with protection of the region's natural systems.

13.M.3. OKI will develop regional green infrastructure<sup>57</sup> strategies by working with townships, municipalities, counties, state agencies, non-profit interest groups, and land trusts in the region. The strategies will identify opportunities for contiguous greenspaces,<sup>58</sup> and recommend ways to preserve the functionality of existing greenspaces.

**Strategic Regional Issue #14: Protection and sustainability of water resources are most effectively addressed on a watershed basis, while local governments make planning and budgeting decisions on a jurisdictional basis.**

## **Trends and Conditions**

“Watershed” refers to a geographic area (regardless of political boundaries) in which water, sediments and dissolved materials drain to a common outlet, such as a stream, river, lake, wetland or aquifer.

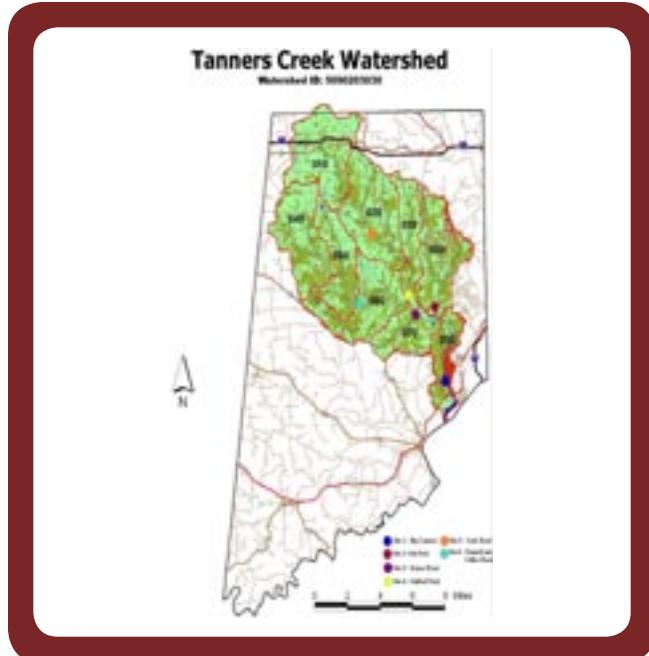
The watershed protection approach is not a new concept, but it is taking on renewed impetus as a flexible, locally managed way to protect and restore water quality.

The watershed protection approach (also known as watershed management planning) has the potential to refocus existing water pollution control programs on more comprehensive goals, while bringing more players into the picture. The approach is built upon three main principles: First, target watersheds where pollution poses the greatest risk to human health, ecological resources or desirable uses of water. Second, recruit all parties with a stake in the watershed (stakeholders) to participate in the analysis of watershed problems, opportunities and solutions. Third, take actions that draw on the full range of methods and tools available, integrating them into a coordinated, multi-stakeholder response to the problems.

Much of the progress in reversing or preventing water quality degradation the past 30 years has been achieved by nationwide command-and-control regulations limiting "point" source discharges from industrial and municipal facilities. Yet, significant water quality challenges remain in polluted stormwater runoff, contaminated seepage into groundwater, and the continuing loss of wetlands and streamside habitat. Uniform federal regulation of these problems would be prohibitively expensive and would impinge on local prerogatives to control land use and economic development. That sets the stage for governments at all levels to address these remaining problems in cost-effective, innovative ways.

Ideally, the watershed protection approach persuades the various stakeholders to participate in a watershed protection project. While they differ widely in their objectives and methods, watershed protection projects have several characteristics in common to distinguish them from conventional programs:

- They are discrete activities, often structured as a work group spearheaded by an organization sensitive to environmental considerations.



- They encompass all or most of the landscape in a well-defined watershed.
    - They provide well-structured opportunities for meaningful participation by federal, state, regional and local government agencies, as well as private landowners, industry representatives, consulting firms, citizens and other interested parties.
    - They identify the most significant threats to water quality, based on comparative risk analysis of the human health, ecological and economic impacts, and they target resources toward the high-risk problems.
    - They establish well-defined objectives for the watershed, including objectives for chemical water quality (pollutants), physical water quality (e.g., temperature and flow), habitat quality (e.g., channel structure and streambank vegetation), and biodiversity (e.g., number and range of species).
    - They collaboratively develop and implement an integrated action agenda for achieving the objectives, incorporating a broad range of techniques (e.g., education, best management practices, reissuance of permits).

In the OKI region, water resource protection at the local level is often done by local environmental management or public works agencies, water

suppliers, and/or sanitation districts. Similarly, land use planning and capital budgeting are also assigned to discrete planning, community development, engineering or finance/budget offices.

In the OKI region, no local government comprehensive plan addresses water resources, land use, transportation and other infrastructure, housing, recreation, intergovernmental coordination, and capital budgeting issues in one plan.

Local land use decisions can have considerable impact on water supply, water quality, stream biodiversity, and flooding. Few local land use plans, however, feature specific water resource goals that are quantifiable or enforceable. Watershed plans tend to put a more direct focus on protection of water resources and the problems specific to the watershed.

A watershed management plan is not usually prepared by a single community because watersheds often cross several jurisdictional boundaries. Watershed groups consisting of multiple stakeholders within the watershed's geographic area produce such management plans. In the OKI region, watershed management plans are taking shape for the Mill Creek, Licking River, Banklick Creek, Little Miami River, East Fork Little Miami River and other waterways. These plans are at different stages of development and continually evolving, and are typically done on an incremental, sub-watershed basis.

**OKI uses “will” in objectives and policy statements to describe events in the future, rather than to order something to happen.**

### Objective

14.N. By 2006, each local government in the OKI region will be involved in watershed planning efforts, so that cities, villages, townships and counties make more informed planning and budgeting decisions.

### Policies

- 14.N.1.OKI will share information about watersheds in the region where land use decisions, pollution, and/or flooding pose risks to human health and welfare, natural systems, or desirable uses of water.
- 14.N.2.OKI will continue to assist local governments and watershed groups in establishing wellhead protection programs and source water protection programs that are required by federal law.
- 14.N.3.Local governments will utilize the efforts of local watershed planning groups in the development of comprehensive plan goals, objectives, policies, and implementing regulations.

## **Footnotes - Natural Systems**

51 **Natural systems** mean regularly interacting and interdependent components of air, water, land and biological resources.

52 “Point” sources are pollutants that come directly from a pipe, such as industrial waste and sewage effluent.

53 “Non-point” sources are pollutants that come from a dispersed area, such as agricultural fertilizers, residential lawn care products, and septic system leachates.

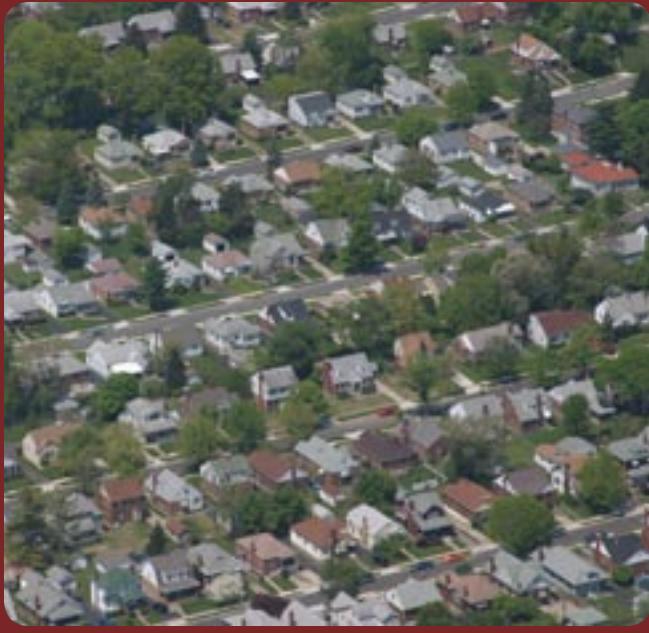
54 **Best management practices** are a pollution control system, or combination of systems, that improve water quality conditions for surface or groundwater bodies by dealing with runoff (nonpoint sources of pollution).

55 **Conservation design practices** incorporate the conservation of land, natural features, and open space into the project design, resulting in substantial natural systems protection that would not be possible under traditional zoning and subdivision standards. Conservation design practices include shared driveways, stormwater runoff reduction, relaxed setback standards, smaller lots, and cluster housing.

56 **Environmentally sensitive building practices** typically involve fewer materials, less energy consumption, less pollution, less natural habitat loss and better indoor air quality.

57 **Green infrastructure** is a connective network or functional patchwork of greenspace that sustains the diversity and quality of natural systems, and that contributes to the health, economic vitality, and quality of life for communities and people.

58 **Greenspace** is land that is in its undeveloped, natural, or restored state.



## Housing

### Overview

Housing is our shelter from the environment, it is the building in which we live, it is the place we inhabit. Housing is also a land use – typically “residential” land use, but it can also be mixed into other land uses such as commercial and agricultural uses. Communities generally classify their housing stock as single family and multi-family residential, and they designate residential land uses according to density.

Housing issues do not occur in a vacuum – they affect and are affected by infrastructure, economic development, and other land uses. Housing is a region-wide issue; the housing needs of the region’s citizens are addressed in one way or another by all of the region’s jurisdictions.

The housing market is directly related to the region’s economy, as well as to interest rates. There is a direct relationship between housing and jobs. School populations and facilities are affected by housing.

The location and density of housing impacts transportation systems, infrastructure and public services (including emergency response). Housing has a direct relationship to quality of life.

The purpose of exploring housing at the regional level is to focus on the critical challenges or fundamental policy concerns that can be affected by the many local governments operating in the region. Housing policy should address government activities, and provide direction and assistance to the private sector.

### Housing Goal

**Offer a diverse mix of housing choices – in terms of size, price, type, transit accessibility and location – within communities throughout the region, and maintain and improve the quality of the housing stock in every community in the region, whether newer developments or older neighborhoods, owner-occupied or rental.**

**Strategic Regional Issue #15: The housing stock in the region’s older neighborhoods is in need of stabilization and revitalization in order to maintain the community’s fiscal strength and protect the property owner’s assets.**

### Trends and Conditions

A review of US Census Bureau data indicates that all counties have some degree of physical problems in their housing stock, such as lack of plumbing, non-working heating systems, no electricity, dangerous stairways, and leaking roofs. While these numbers vary between the counties, the highest number of problems exists in Hamilton County.

In addition, the Census Bureau indicates the varying degrees of age in the region’s housing stock.

The oldest housing stock in the region is located in Campbell and Hamilton counties where 1958 is the median year built.

The development trend in the region shifted somewhat between 1970-2000. Between 1970 and 1990, the largest percentages of new construction were appearing in Boone and Clermont counties. Between 1990-2000, however, Boone and Warren counties were the fastest growing counties in terms of new units constructed.

A community's fiscal strength is partially dependent on the amount of property taxes collected. Property taxes are based on the assessed value of property, which is based on several factors, including physical condition. It is therefore in a community's best fiscal interest to monitor the physical condition of its housing stock. According to a study by the Ohio Urban University Program,<sup>59</sup> residential property value assessments in Cincinnati's outlying counties (Butler, Warren, Clermont, Campbell, Kenton, Boone, and Dearborn) have steadily increased and surpassed those of Hamilton County.

Throughout the OKI region, the same patterns of growth that have led to especially poor and isolated neighborhoods in our inner-urban areas are also beginning to create significant fiscal and social stresses in our suburbs. While the social problems are generally not as severe in these areas as in the poorest neighborhoods, some of these communities show signs of growing instability that could lead to rapid social decline. Increasing social stresses in schools and neighborhoods, comparatively less valuable homes, the loss of local businesses and jobs, and the erosion or slower than average growth of the local tax base are symptoms of this decline occurring in our older neighborhoods. (Cincinnati Metropatterns, June 2001 unpublished draft)

While there are several active and successful housing assistance and rehabilitation programs in the region, such programs are applied separately from a community's overall development efforts. Six jurisdictions in the region receive direct funding

annually (Community Development Block Grant (CDBG) and HOME<sup>60</sup>) from the Department of Housing and Urban Development (HUD).<sup>61</sup> Each of these jurisdictions must prepare a Consolidated (housing) Plan that examines community development and housing needs and designs ways to address the needs that are appropriate for the community. The Federal funds must be used to eliminate slum/blight or to benefit low or moderate-income residents. One successful program that is not based on income is the Hamilton County linked-deposit Home Improvement Program. Low interest home improvement loans are available to encourage homeowners to invest in their residences, rather than move out of the county.

Housing should be seen in the context of a community's (and the region's) use of land, its transportation system, its natural systems, its other public facilities and services, its education facilities, recreation and open space, intergovernmental coordination, and most important, capital budgeting.

No local government comprehensive plan reviewed by OKI addresses the identification, prevention, or elimination of substandard housing conditions. No local comprehensive plan reviewed by OKI addresses deterioration of housing stock in terms of the community's quality of life. As mentioned above, there are housing plans being prepared and implemented by some communities in the region;<sup>62</sup> however, these Consolidated Plans are not generally considered in the community's comprehensive plan. A comprehensive plan is the appropriate vehicle for any community to consider and define the condition of its housing because of the comprehensive context it provides.

**OKI uses “will” in objectives and policy statements to describe events in the future, rather than to order something to happen.**

## Objective

15.O. By 2010, each local government comprehensive plan will include a housing element that assesses the physical condition of the jurisdiction's housing stock, and provides for the maintenance of the community's character, fiscal strength, and property values, to ensure that safe, decent housing is available for all residents.

## Policies

15.O.1. Local governments will use the comprehensive plan guidelines developed by OKI to establish a set of unique goals, objectives and policies that are specific to the community's needs and circumstances, and consider housing in the context of transportation, land use, economic development, public facilities (including schools), natural systems, recreation, intergovernmental coordination, and capital improvements.

15.O.2. Local government comprehensive plans will include/establish housing goals, objectives and policies that support revitalization, re-development, and re-investment in existing housing stock, where appropriate.

15.O.3. Local governments will use housing/property maintenance codes to protect the community's character, fiscal strength, and property values, and will enforce with legal action, when appropriate.

15.O.4. Local governments will pursue public and private funding and technical assistance to improve and maintain the housing stock in their communities, where appropriate.

## **Strategic Regional Issue #16: Generally, there is a lack of housing convenient to**



**transit and services such as shopping and daycare.**

## **Trends and Conditions**

Existing public transit service in the OKI region is generally limited; the current fragmented multiple-provider transit system does not consistently serve the entire urbanized area. Presently there are six main transit systems in the region (Southwest Ohio Regional Transit Authority/Metro, Transit Authority of Northern Kentucky, Middletown Transit Service, Catch-A-Ride, Clermont County Transportation Connection, and Warren County Transit), only three of which operate fixed routes. In addition to the services provided by these public agencies, transit service in the region is also provided by privately owned entities, taxi companies, and social service agencies.

According to the March 2001 MetroMoves Plan, the movement of people and activity centers to the region's suburbs has impacted the need to provide additional regional transportation services. The OKI region lags in regional transportation coverage compared to other similar cities. While development patterns in the region have shifted and changed in character, our transit system remains much the same today as it was in the 1970's.<sup>63</sup>

The predominant housing type in the Cincinnati region is the single-family detached unit. Many local governments do not provide for mixed-use development or non-traditional land uses, and some townships discourage higher density (multifamily) zoning districts because they believe higher revenues will be generated by single family units or because of the concern that apartments will attract transient or lower income residents.

The region's conventional low-density suburban development pattern segregates individual land uses on free-standing parcels of land with no direct connections to adjacent parcels. Walking and biking to various destinations is severely limited and often hazardous, and such low-density development is basically unserviceable by transit, or transit service is inconvenient to potential riders.

The region's land development trend has resulted in a 27% decrease in population density. Our population is moving toward communities farther away from centers of population and employment. This can be seen to contribute to the imbalance between total vehicle miles traveled (VMT) in the OKI region, which was forecast to increase by 30% from 1990 to 2010, and the region's projected population increase of only 12% during that same time. It is difficult to justify providing public transit to low density development in anticipation of lower ridership rates.

The auto-oriented development patterns in the OKI region make transit service inefficient. Certain types of land development policies, such as clustering of residential development, higher residential densities, and mixed land uses, help decrease dependency on the personal automobile. These types of community-oriented development patterns are not, however, widely employed in this region.

It is important to note that several of the region's older neighborhoods, such as Mariemont, Cheviot and Ft. Mitchell, are examples of more community-oriented development. These are characterized by a network of streets configured in a grid pattern,

with multiple routes for intra-community trips and alternate routes for travel outside the community. Community-oriented development is generally based on the premise of integrated residential and commercial land uses, a range of housing types and affordability, an average density of about five to six units per acre, with travel between land uses possible on a variety of alternative routes. Walking and biking to various attractions is encouraged and safe. Accommodations for transit in such developments are excellent.

The sprawling growth of the Greater Cincinnati region is not limited to housing. In recent years, the region's suburban office parks and retail centers have been absorbing a greater share of employment than has the traditional central business district. Many of these jobs are relatively low-paying and low-skilled jobs, especially among retail employers. The *Cincinnati Metropatterns* report says that many of the suburbs in the region actually have more jobs than residents. Since many of the employees who fill these jobs cannot afford to live in the relatively expensive housing that often surrounds these suburban employment centers, they must commute from other areas of the region. For those who are the poorest and most in need of the jobs, it is difficult or impossible to find dependable transportation to these employment centers. When workers cannot find convenient, dependable transportation, employers experience uncertainty and high turnover. The decentralization of employment disproportionately affects poor, inner-city residents and further isolates them from employment opportunities.<sup>64</sup> (*Cincinnati Metropatterns*, June 2001 unpublished draft)

Workers' lack of access to jobs adversely affects the economy. Suburban employers have expressed a need for transit. Transit, along with other transportation tools, can link the region's areas of economic growth. (OKI Transit Commission, 1996)

To the extent that workers can get to their jobs, the mismatch between affordable housing and employment opportunities often contributes to congestion on the region's freeways and roads at the

peak hours of commuting. Further, as development intensifies in the vicinity of suburban employment centers, traffic congestion caused by commuters and shoppers increases very quickly. (Cincinnati Metropatterns, June 2001 unpublished draft)

The placement of parking is a key ingredient for successful pedestrian and public transportation circulation (USDOT, 1989). Unfortunately, in the OKI region, suburban development in particular is oriented toward the use of large, “free” parking lots and garages that reinforce auto-dependency. In such environments the public is discouraged from walking, riding a bicycle or using public transportation.

In Cincinnati, the Federal National Mortgage Association (FNMA or “Fannie Mae”) began an innovative \$5 million “Downtown Walk to Work” pilot program. This low down payment mortgage accounts for savings in transportation and parking expenses as a result of living within walking distance of downtown employment. The FNMA initiative was created to provide an incentive for homebuyers to purchase homes within walking distance of the central business district.

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### Objective

16.P. By 2010, each local government comprehensive plan will provide for higher density housing near commercial centers, transit routes, and parks.

### Policies

16.P.1. Local governments will use the goals, objectives, and policies of their comprehensive plan to encourage mixed-use,<sup>65</sup> transit-friendly development, where appropriate.

16.P.2. Local governments will use the goals, objectives, and policies of their

comprehensive plans to provide for increased housing densities near transit stops and neighborhood business centers, where appropriate.

16.P.3. OKI’s long-range transportation plan will acknowledge transit needs identified by local comprehensive plans and transit providers, whether or not project funding has been identified.



**Strategic Regional Issue #17: Affordable housing<sup>66</sup> is not consistently available throughout the region.**

### **Trends and Conditions**

Housing is considered affordable to a household if that household pays no more than 30% of its gross income for basic housing costs.<sup>67</sup> Families who pay more than 30 percent of their income for housing are considered cost burdened and may have difficulty affording other necessities such as food, clothing, transportation and medical care.<sup>68</sup> According to the 2000 Census, 17 percent of homeowners and 34

percent of renters in the OKI region spent over 30 percent of their income on housing.

It is important to note that “affordable housing” refers not just to subsidized housing, but also market rate housing. In many parts of the region, retail workers, teachers, and police cannot afford to purchase housing in the same community in which they work. This leads to longer commutes to reach jobs, or in some cases, households paying a large percentage of their income on housing. Although Warren County had the highest median household income in the region, 16% of homeowners and 30% of renters in the county are spending over 30% of their income for housing.

The mismatch between affordable housing and employment opportunities also contributes to congestion on regional freeways and roads at the peak hours of commuting. As development intensifies in the vicinity of suburban employment centers, traffic congestion caused by commuters and shoppers increases very quickly. Ensuring that all the communities in the region are strengthening their commitment to affordable housing allows people to live closer to work and provides them with real choices concerning where they want to live in the region. (*Cincinnati Metropatterns*, June 2001 unpublished draft)

A number of private homebuilders are actively providing a variety of housing types and prices. However, local zoning requirements, particularly requirements for large lot sizes and low density, restrict the builders’ ability to produce an affordable product for even moderate-income homeowners.

Another barrier to the production of affordable housing is the fear of current residents that the creation of affordable housing in their community will attract undesirable residents. This Not-In-My-Backyard (NIMBY) attitude creates pressure on elected officials.

Many local governments discourage higher density (multifamily) zoning districts and mixed-

use development because they believe higher tax revenues will be generated by single-family units. Instead, using their zoning ordinances as a tool, they promote owner-occupied, single-family, detached units on large lots, which are only accessible to families in upper-income brackets.

According to the Department of Housing and Urban Development (HUD), the economic expansion of the 1990s obscured certain trends and statistics that point to an increased need for affordable housing. Research by National Neighborhood Council on Affordable Housing in 2001 found that affordable housing is scarce within the urban area as well as suburbs.<sup>69</sup> The National Low Income Housing Coalition (NLIHC) further substantiates these findings, reporting that there is no county, metropolitan area or state in the U.S. where a minimum wage worker can afford a two-bedroom apartment at fair market rent.<sup>70</sup> According to the 2000 Census, a worker would need to earn \$12.73 per hour in the Cincinnati Metropolitan Area<sup>71</sup> to afford a two-bedroom apartment at fair market rent.

A successful housing delivery system requires the coordination of government and business. These players, however, cannot function without the support and assistance of numerous other participants, including landowners, real estate brokers, title companies, architects, engineers, surveyors, lawyers, and lending institutions. In addition, it is possible to produce affordable housing for all income groups through techniques such as public and private partnerships. Such techniques can create an environment in which impediments to the private development of affordable housing are reduced.

The breakdown in the ability of the private sector to meet housing demand is greatest at the lower income levels. When a household income is low, there are inadequate dollars for the family to obtain adequate housing without some form of assistance. Housing subsidies include public housing, Section 8 housing and vouchers, low income housing tax credits, and

other HUD subsidies. In the OKI region, there are 35,000 subsidized housing units, 69% of which are located in Hamilton, Kenton and Campbell counties (the most densely populated counties in the region). The demand for these subsidized units, however, is spread throughout the region's eight counties, according to the 2000 Census; there are significant numbers of households in every county in the region paying more than 30 percent of their gross income on basic housing costs. The demand for subsidized housing in the OKI region is four times greater than the supply.

Another factor impacting the need for affordable housing throughout the region is the general aging of the population. Few communities in the region have yet to fully address the demand to provide for our aging population through permissible uses such as assisted living units, granny flats, and innovations like co-housing, all of which are more accommodating not only to the physical limitations of the elderly, but also their limited incomes. Other segments of the population also have special personal, health or family housing needs.

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### Objective

17.Q. By 2010, local governments (working with homebuilders, state agencies, and housing authorities where they exist) will encourage a range of housing choices, in terms of price, size, type and location, dispersed throughout the region.

### Policies

17.Q.1. Local governments will use the goals, objectives, and policies of their comprehensive plan's land use element to encourage a range of housing types, densities, and affordabilities within their communities.

17.Q.2. Local government comprehensive plans will assess the condition of their existing housing stock and the current and future housing needs of residents and workers.

17.Q.3. Developers, public housing authorities, and private landlords will continue to work with local governments to ensure the availability of scattered-site subsidized<sup>72</sup> housing.

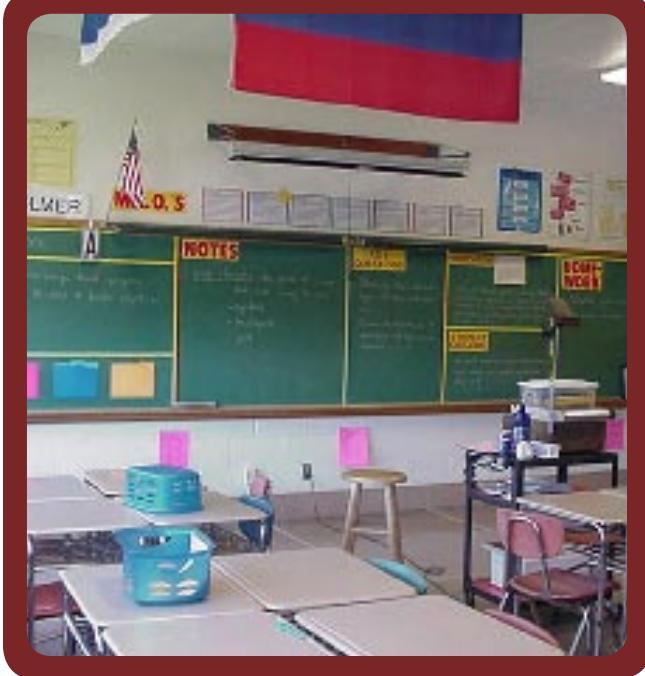
17.Q.4. Local comprehensive plans and zoning regulations will enable diverse and affordable rental and homeownership opportunities (such as garage apartments, granny flats, mixed residential/office/commercial structures, and multi-family buildings, where appropriate).

17.Q.5. Local comprehensive plans will enable the reduction of unnecessary regulatory barriers to build affordable housing.

### **Strategic Regional Issue #18: Distressed public school districts affect and are affected by the surrounding neighborhoods.**

### **Trends and Conditions**

Schools are a powerful prophecy for communities. Deepening poverty and other socioeconomic changes show up in schools before they do in neighborhoods and in elementary schools before junior high and high schools, as evidenced by the numbers of students eligible for free lunches. Elementary school enrollment patterns sound an early warning of impending flight by the middle class, the first group to leave a neighborhood when schools fail.



Perceived school quality is a key factor in attracting or retaining middle-class residents (and the businesses that cater to them) in our communities. Neighborhood stability also helps in maintaining property values, which in turn fund schools. When the perception of a school declines, it can set in motion a potentially vicious circle that ultimately affects the entire community. (*Cincinnati Metropatterns*, June 2001 unpublished draft)

There is often a perception that distressed school systems are limited to the central city. Several suburban school districts (some adjacent to the central city and some in the outer parts of the region), however, serve student populations with above average poverty rates. In a comparative study of the 25 largest metropolitan areas,<sup>73</sup> the OKI region's schools displayed the seventh worst degree of segregation by income. In 1997, 57% of free lunch eligible students in the region's elementary schools would have had to change schools in order to achieve a balanced distribution of poor children across regional schools.<sup>74</sup> (*Cincinnati Metropatterns*, June 2001 unpublished draft)

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### Objective

18.R. By 2007, all local governments will work with their school districts to address the actual and perceived problems associated with their students and the surrounding neighborhoods.

### Policies

18.R.1. The goals, objectives, and policies of local comprehensive plans will encourage public and private actions that: 1.) attract and help keep families with children in the urban areas to improve the balance between urban and suburban growth and 2.) improve the physical and environmental conditions of all neighborhoods.

18.R.2. Local governments and school districts will work together to identify and resolve crime and safety issues that affect surrounding neighborhoods, where appropriate.

## **Strategic Regional Issue #19: Socioeconomic issues continue to fuel migration within the region.**

### **Trends and Conditions**

Socioeconomic issues, such as income, race, and perceptions of safety and school quality influence people's housing location choices. “Depending on who moves where, communities rise and fall.”<sup>75</sup> Because public policy has a tendency to influence who moves where, this nation and the OKI region have seen a movement outward away from the central city.<sup>76</sup>

Migration of persons from the city of Cincinnati to the surrounding suburbs was accelerated by the 1967-1968 race riots. While most of the migration has been “white flight”, there is also a degree of black middle-and upper-class flight to the suburbs.<sup>77</sup> The impact of this migration is most pronounced in Hamilton County where 85 percent of the region’s black population lives.

After more than three decades of steady population flight, census analysts have labeled the Cincinnati Metropolitan Area<sup>78</sup> the sixth-most segregated metro area in the nation, indicating that region-wide, neighborhoods on average have three times more whites than blacks, or vice versa.<sup>79</sup>

As people achieve economic success, their options for housing location are expanded. Typically, a new house costs more than the one being vacated, and for most people the choices for “moving up” tend to be located farther out from the central city. The constant addition of new housing units to the market enables “moving up” at all income levels, because as structures age, wear and become obsolete, they filter down to lower income residents.<sup>80</sup>

Until the capital gains tax was changed in 1997, the only way homesellers could avoid tax liability resulting from the appreciated value of their home was to purchase another home of equal or greater value. Moving down was taxed; moving up was not. While this law is no longer in effect, for 46 years it pushed millions of homesellers to purchase more expensive homes, often located further out, whether or not they wanted such a move.<sup>81</sup>

Pronounced social separation, inequitable fiscal policies and inefficient development patterns are threatening the long-term social and economic strength of the Greater Cincinnati region.<sup>82</sup> Despite a strong regional economy over the past decade, sustained population growth and significant reinvestment in the city of Cincinnati, the region is still highly polarized compared to other large metropolitan areas. Concentrated poverty persists in many of its core areas, destabilizing schools and

neighborhoods not only in Cincinnati, but also in a growing number of municipalities surrounding Cincinnati. (*Cincinnati Metropatterns*, June 2001 unpublished draft)

The social, educational, and economic needs associated with this concentrated poverty dramatically limit the life opportunities of residents, discourage investment by families and businesses in those neighborhoods, and place a significant burden on the cities’ resources. Ultimately, people living in high poverty neighborhoods become isolated from the educational, employment, and social opportunities available to residents in other parts of the region. (*Cincinnati Metropatterns*, June 2001 unpublished draft)

These trends present problems not only for Cincinnati, but also for the region as a whole. Poverty concentrations in the inner part of the region contribute to sprawling development patterns at the edges of the region as the affected communities become less desirable places to live or locate businesses—increasing the pressure to accommodate population growth elsewhere. (*Cincinnati Metropatterns*, June 2001 unpublished draft)

The result is the migration of those who can from the center to the suburbs. As people achieve economic success, options are expanded in terms of the type and location of their housing. Our current situation is such that the better options in regard to safety, schools, and newer, larger houses are in the suburbs. There is a lack of opportunity for moving up and improving a family’s situation within the core city.

The Cincinnati region shows some of the most pronounced patterns of separation by race and income in the nation. It is often assumed that the effects of poverty and social instability in the Greater Cincinnati region can be confined to a few small neighborhoods. In reality, however, concentrated poverty has impacts that are felt throughout the region. The socioeconomic decline

of communities in the core of the Greater Cincinnati region contributes to a self-reinforcing pattern that threatens even greater disinvestments in the future. (Cincinnati Metropatterns, June 2001 unpublished draft)

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### Objective

19.S. By 2007, all local governments in the region will assess and prioritize for action the issues prompting migration in and out of their jurisdiction.

### Policies

19.S.1. Local governments will encourage public and private efforts to create and maintain safe and livable neighborhoods where people want to live, work, learn, play, shop, and grow a business.

19.S.2. The goals, objectives, and policies of the local comprehensive plan’s housing element will encourage a diverse mix of housing choices in order to attract and provide housing options for all income levels.

## **Footnotes - Housing**

59 The Ohio Urban University Program, "State of Ohio's Urban Regions Reports: Land Use", January 2000.

60 As established by the Home Investment Partnership Act.

61 Entitlement cities and urban counties (Cincinnati, Covington, Hamilton, Middletown, and Hamilton and Butler counties), are required to prepare a five-year Consolidated Plan to HUD in order to receive certain grant monies.

62 Ibid.

63 Southwest Ohio Regional Transit Authority (SORTA), METROMOVES Plan, March 2001.

64 See Yale Rabin, "Highways as a Barrier to Equal Access," Annals of the American Academy of Political Science (1974). See generally, Metropolitan Planning Council of Chicago, "Trouble in the Core."

65 **Mixed-use development** refers to development with more than one type of use (such as office, retail, residential, entertainment, cultural, recreation, etc.), all of which are physically and functionally integrated and are mutually supporting.

66 **Affordable housing**, as defined by HUD, is housing, either ownership or rental, for which a household pays no more than 30 percent of its gross annual income.

67 Basic housing costs include mortgage/rent, insurance, taxes and utilities.

68 HUD <http://www.hud.gov/offices/cpd/affordablehousing/index.cfm> accessed March 2003.

69 National Neighborhood Coalition, Smart Growth for Neighborhoods: Affordable Housing and Regional Vision, July 2001.

70 Ibid.

71 Cincinnati OH-KY-IN PMSA (Clermont, Hamilton, and Warren Counties OH, Boone, Campbell and Kenton Counties KY, and Dearborn County IN).

72 **Subsidized housing** refers to housing where the rents are partially paid through government subsidies. It includes housing owned by housing authorities, Section 202 housing for the elderly, Section 811 housing for people with disabilities, project-based HUD-assisted housing, and Housing Choice Vouchers. The Housing Choice Voucher (sometimes called Section 8) is a tenant-based rental subsidy. The tenant qualifies for the subsidy based on family income and then finds a private rental unit in the neighborhood of their choice.

73 Metropolitan Area Research Corporation.

## **Footnotes - Housing continued**

74 Myron Orfield, American Metropolitics (Washington, D.C.: Brookings Institution, 2001, forthcoming), Table 2.1. The segregation measure used in the analysis was the Dissimilarity Index.

75 <http://www.brookings.edu/dybdccroot/es/urban/publications/bier.pdf>, accessed on 02/20/2003. Moving Up, Filtering Down: Metropolitan Housing Dynamics and Public Policy, Thomas Bier, The Brookings Institution, September 2001.

76 Ibid

77 Cincinnati Post, "Cincinnati Now 6th Most Segregated City," November 30, 2002.

78 Cincinnati OH-KY-IN PMSA (Clermont, Hamilton, and Warren Counties OH, Boone, Campbell and Kenton Counties KY, and Dearborn County IN).

79 Cincinnati Post, "Desegregation: Still Only a Dream," January 20, 2003.

80 Moving Up, Filtering Down: Metropolitan Housing Dynamics and Public Policy, Thomas Bier, The Brookings Institution, September 2001.

81 Ibid.

82 In this study the Cincinnati region is defined as the thirteen counties designated by the Federal Office of Management and Budget as the Cincinnati-Hamilton Consolidated Metropolitan Statistical Area (CMSA). It includes 13 counties in three states: Dearborn and Ohio counties (Indiana); Boone, Campbell, Gallatin, Grant, Kenton, and Pendleton counties (Kentucky); Brown, Clermont, Hamilton, Warren, and Butler counties (Ohio).



## Economic Development

### Overview

In the typical local development approval process, transportation investments often lag behind the impacts of development and redevelopment activities. Like residential development projects, successful economic development (business retention and recruitment) can generate demand for capital investment in new or upgraded public facilities and services; and economic development efforts are more fruitful when businesses know that adequate public facilities and services are in place when they need them.

Successful but independent and uncoordinated economic development activity can also result in unfocused or inadequate investments in public facilities and services, especially transportation facilities and services. Incremental residential and commercial development across the region means transportation planning agencies like OKI must react to the impacts of development or redevelopment projects, rather than planning and budgeting for

adequate public investments that are available at the time development impacts occur.

Economic development is a process that leads to business development, expansion, and/or reinvestment within the OKI region. The process results in expanded job opportunities for citizens, and an increased tax base for the government to provide necessary public facilities and services.

Economic activity often crosses political boundaries and serves large geographic areas. These regions are not restricted by administrative boundaries, but extend to places that are served by the flow of goods and services. Walter Isard, a regional economist, has said a region can be defined as a concept as well as a concrete reality.<sup>83</sup> Usually a region consists of contiguous geographic areas, which are homogeneous or related functionally. The regional economy is an overarching concept affecting economies of more than one jurisdiction, which are complementary to each other.

It is recognized that the economic development needs of each municipality and county within the region are different. This holds true for the social and physical character of each community, which in turn influences their ability and desire to attract certain types of industry and employment. No one economic development strategy is completely applicable to all communities. What may work well for one community or region may fail or be inappropriate for another. There is, however, a set of elements consistently observed in places where a strong regional economy exists.

### Economic Development Goal

**Improve cooperation and coordination on economic development efforts and opportunities throughout the region, and provide incentives for such cooperation in order to make our region the location of**

**choice for diverse businesses and to build the regional tax base.**

**Strategic Regional Issue #20: Suburbs and cities are linked in a single regional economy, but numerous economic development organizations operate without a common mission, plan, or coordination and compete for economic development opportunities.**



### **Trends and Conditions**

In the typical local development approval process, transportation investments often lag behind the impacts of development and redevelopment activities.

Like residential development projects, successful economic development (business retention and recruitment) can generate demand for capital investment in new or upgraded public facilities and services; and economic development efforts are more fruitful when businesses know that adequate public facilities and services are in place when they need them.

Successful but independent and uncoordinated economic development activity can also result in unfocused or inadequate investments in public facilities and services, especially transportation facilities and services.

Incremental residential and commercial development across the region means transportation planning agencies like OKI must react to the impacts of incremental development or redevelopment projects, rather than planning and budgeting for adequate public investments that are available at the time development impacts occur.

Economic activity often crosses political boundaries and serves large regions. These regions are not restricted to the administrative boundaries but extend to places, which are served by the flow of goods and services. Walter Isard, a famous regional economist, has said a region can be defined as a concept as well as a concrete reality.<sup>84</sup> Usually a region consists of contiguous geographic areas, which are homogeneous or related functionally. The regional economy is an overarching concept affecting economies of more than one jurisdiction, which are contiguous and complementary to each other.

A study by Paul Gottlieb on older central counties states, “two percent of the nation’s counties with approximately two percent of the nation’s land area, contain one-third of all economic and demographic activity.”<sup>85</sup> He cites this as a “testament to the continued viability” of our older central counties,<sup>86</sup> provided we include the suburbs of the central counties along with their central cities. In other words, the suburbs and the cities are linked in a single economy.

Components of a strong regional economy include employment and income growth in the region. They are two factors necessary for improving the competitive advantage of a region. The OKI Land Use Commission’s committee on economic development and funding identified ten elements for a strong regional economy. These elements include

jobs and income, diversity in industry sectors, developing economic clusters, public facilities and services, downtowns, historic preservation, brownfield redevelopment, transportation linkages, quality of life, and incentive programs. A brief description of each of the elements is provided below.

Jobs and income generation is the most important objective of any economic development strategy. Availability of different types of jobs of various income levels indicates diversity in the job-market and ensures opportunity for people with diverse skill levels.<sup>87</sup>

The next element, diversity in industry sectors within the region, means that the region's economy is not tied to a single industry group. Diversity also means that there is a range of industrial sectors in the region requiring different skill types and levels of education.<sup>88</sup>

An economic cluster refers to a concentration of companies and industries in a geographic region that are interconnected by the markets they serve and the products they produce, as well as by suppliers, trade associations and educational institutions. Three examples of economic clusters in the OKI region are health care, personal care products, and food processing.<sup>89</sup>

Public facilities and services are also referred to as the "infrastructure" of the region. Public facilities and services include transportation systems or facilities, sewer systems or facilities, solid waste systems or facilities, energy facilities, drainage systems or facilities, potable water systems or facilities, telecommunication facilities, educational systems or facilities, cultural facilities, parks and recreation systems or facilities, fire and police systems, public health systems or facilities, and historic and archeological resources.<sup>90</sup>

Strong and healthy downtowns are the centerpieces of any region. Generally, a downtown has recreational centers, arts, and cultural centers, as well as retail and business activities. They become

hubs for business, cultural, social, and recreational activities, making a downtown the most attractive center in a city. Downtowns are generally the focus for economic development.<sup>91</sup>

Historic preservation means identifying and working to protect and conserve the properties and sites that are important components of a community's history and character, and in this context, it focuses mainly on the traditional commercial and residential areas of the community. Generally speaking, historic preservation efforts have proven to be a powerful economic development tool for many communities.<sup>92</sup>

Brownfields are generally located in once thriving areas of economic activity. They lie abandoned today for a variety of reasons including: the contamination that resulted from past uses; changes in manufacturing processes; and changes in the business conducted on the site. Sitting unused or under-utilized, brownfields are impediments to economic development in rural and urban communities across the nation, and their redevelopment comes with challenges.<sup>93</sup>

"Transportation linkages" refers to linkages between transportation modes, linkages between people and places, and linkages between this region and other regions. The region's ability to efficiently move people, goods, and services is an important component for economic development. The movement of people within, around and through the region is also a major factor related to economic development.<sup>94</sup>

"Quality of life" describes the collective components that impact a person's daily life. Quality of life is subjective to a certain degree, but there are commonly used criteria to describe its components. These include the natural environment, air and water quality, traffic, recreational and cultural programs and facilities, safety, education, social character, housing and property values, business and employment opportunities, and health services.<sup>95</sup>

Economic incentive programs are used to attract

and retain businesses in the region. Such programs include: tax abatements, tax incentives, tax credits, grants and loans, infrastructure financing, relocation assistance, technical assistance, training, marketing, and communication.<sup>96</sup>

There are various types of organizations currently engaged in economic development efforts in the OKI region. These organizations can be broadly classified as public, private, and non-profit economic development organizations, and chambers of commerce. These organizations include, but are not limited to the following:

- Regional level organizations such as Northern Kentucky Tri-County Economic Development Corporation (Tri-Ed);
- Chambers of Commerce such as the Clermont Chamber of Commerce;
- Countywide economic development organizations such as the Warren County Office of Economic Development;
- Citywide economic development organizations such as the City of Fairfield-Department of Planning and Economic Development;
- Other organizations such as Techsolve (formerly known as the Institute of Advanced Manufacturing Sciences) that offer business development and training assistance, and Cinergy, that assist businesses with relocation and expansion efforts.

The economic development organizations in the OKI region are engaged in different types of economic development activities including business retention, expansion, and attraction; new business formation; technology transfer; community capacity building; creating partnerships within the community; assisting new and existing businesses; new market opportunities; travel and tourism; advocacy; and education. A range of economic development activities is taking place at different scales within the region.

In an attempt to understand the range of economic development activities taking place in the region, OKI's Land Use Commission developed a questionnaire that was sent to economic development

organizations in the Greater Cincinnati Metropolitan Region. Responses to the questionnaire led to the following conclusions:

- Over half of the agencies responding to the questionnaire have either adopted an economic development plan or have set specific economic development goals.
- The majority of these agencies follow a plan and most of them revise the plan either annually, or every two to five years.
- The main activities of economic development organizations in the region include retention of existing businesses, attraction of new businesses, redevelopment, and advocacy. Retention and attraction efforts are the primary focus for many of the agencies. Retention is the principal goal for most of the agencies, but they appear to spend a greater amount of time on attraction efforts.
- Redevelopment of existing sites within the community and advocacy are also highly ranked goals for many of the organizations.

These agencies use a variety of tools to attract new development to their communities. All of the agencies responding to the questionnaire stated that tax incentives of some kind (abatements, credits, etc.) are available and used in their communities. In most cases, a public-sector economic development agency handles the allocation of the tax incentives.

Other types of incentives used by the communities and economic development agencies include:

- infrastructure financing assistance;
- grants and loans;
- technical assistance and training;
- events, marketing and communications; and
- discounts on local goods and services.

The success of local economic development and job growth is determined largely by the success of existing local firms. The benefits of business retention and expansion programs may have more significance than business recruitment since the existing firms have already shown a willingness to invest in the local economy.<sup>97</sup> According to a 2002 survey of economic development practitioners in Ohio, retention and expansion strategies will be more important than

any other economic development activities in the near future.<sup>98</sup>

While the popularity of recruitment strategies such as subsidies, tax abatements and infrastructure development is well known, the actual effectiveness of these strategies has been challenged. Newly recruited firms may not stay long before moving to another, cheaper location. Nationally, concern that incentives may encourage destructive competition between localities has led to increased interest in alternative economic development approaches. Research results generally support the notion that businesses benefit more from investment in infrastructure, workforce development and quality of life, than they do from tax breaks.<sup>99</sup> Certainly, communities benefit more from these types of investments than they do from the competition associated with abatements.

As noted above, the economy of any place extends beyond its political boundaries into the larger region. Moreover, some of the elements of a strong regional economy, such as diversifying industrial sectors, developing economic clusters, and transportation linkages, require a comprehensive regional approach because these types of elements are best developed at a larger than city- or county-wide scale. In the absence of a regional approach, efforts are wasted on intra-regional competition rather than competing with other regions to retain existing businesses or attract new industries and businesses to the tri-state. Intra-regional competition typically results in locational changes of businesses and industries within the region, with no cumulative gains for the region.

Another characteristic of intra-regional competition for new business is a concept called "chasing rateables." The dictionary definition for rateables is properties that provide tax incomes for local governments. Chasing rateables is the idea of pursuing business development for the tax income they will provide to a community. Many communities have learned that these rateables do not provide a long-term benefit to the community. They are often businesses that

would have located there anyway, or their short-term benefits are outweighed by the long-term detriments (congestion, pollution, a sense of "anywhereness" and demands on public infrastructure).

Various studies, such as the Orfield<sup>100</sup> and Gallis<sup>101</sup> reports have identified the strengths and potentials of the Greater Cincinnati Metropolitan Region. These opportunities include the historical predominance of the region in the machine tools and manufacturing sector; the current predominance in consumer products, personal care products, and finance sectors; and leadership in the emerging bio-technology sector. Marketing these regional strengths nationally and globally creates a reputation for the region in these sectors and eventually attracts new investments. This type of marketing, however, requires a regional level coalition that can prepare a strategic plan for the region and represent the region in the national and global forums.

In 1999, an effort to unify the region's resources, marketing efforts and economic development infrastructure resulted in the creation of the Partnership for Greater Cincinnati. The Partnership is a public/private initiative facilitated by the Greater Cincinnati Chamber of Commerce, and designed to provide a unified image for the region's three states, 13 counties and more than 200 local units of government.<sup>102</sup> Focusing on regional challenges to economic growth, the Partnership is an attempt to bring together the fragmented, diverse players from around the tri-state to stimulate growth on a regional scale. The Partnership's initiatives<sup>103</sup> are:

- Coordinate business attraction programs to maximize the effectiveness of regional marketing resources.
- Create a one-stop electronic referral network to link local economic development professionals.
- Promote unified regional advocacy at federal, state, and local levels.
- Develop a qualified workforce.
- Develop a Chamber collaborative to enhance cost saving benefits programs and coordinated education and networking programs.

In his report, Michael Gallis noted the Partnership for Greater Cincinnati as an economic development resource that already exists in the region, that should be supported “to create a ‘cutting edge’ regional image and send one consistent message” about the region to the world. As a regional coalition of economic development organizations, the Partnership is able to leverage resources, time and talent.<sup>104</sup>

The Partnership for Greater Cincinnati is in its fifth year. It has been relatively successful in achieving its goals, particularly in light of the recent economic downturn. The Partnership’s focus during these first five years has been its marketing plan for the region.

On a smaller scale, the Tri-County Economic Development Corporation of Northern Kentucky (Tri-ED) is another example of a coordinated, cooperative economic development effort. Tri-Ed’s primary function is the promotion and marketing of Boone, Campbell, and Kenton counties on both a national and international basis. Tri-ED works with communities to develop the resources and infrastructure necessary to support new businesses.<sup>105</sup>

While the Partnership and Tri-Ed are steps in the right direction and represent a huge change in the fragmented approach typically taken in this region, many hurdles toward a regional approach in economic development remain, including a lack of desire on the part of the local jurisdictions to give up their independence. The surrendering of local economic development decisions to a regional body is sometimes viewed as an infringement on local autonomy.

Experts say that “it’s becoming increasingly common to shift the bulk of development duties” from public economic development organizations to private, non-profit groups.<sup>106</sup> The non-profit sector can be utilized to support community development corporations and implement certain economic development initiatives that are part of a regional plan. Non-profits can combine social support,

training, and community organizing to support the regional economic development plan. In addition, this type of collaborative can increase the scale and impact over what local government or non-profits could provide alone.<sup>107</sup>

Other potential collaboration tools include Joint Economic Development Districts (JEDD) and Special Improvement Districts (SID). A JEDD occurs when two or more municipalities, or a municipality and township form a contract to share in the cost of public improvements to facilitate the expansion of economic development. A SID can be created within the boundaries of any one municipality, township, or any combination of contiguous municipal corporations and townships, for the purpose of developing and implementing plans for public infrastructure and service improvements that would facilitate economic development.<sup>108</sup>

**OKI uses “will” in objectives and policy statements to describe events in the future, rather than to order something to happen.**

### Objective

20.T. By 2010, local governments and other stakeholders will strengthen efforts necessary to support regional economic development practices.

### Policies

20.T.1. The goals, objectives, and policies of local comprehensive plans will encourage cooperation with economic development agencies and major institutions in the region to provide information about sites and services available for new and expanding businesses.

20.T.2. Local governments will support and participate in regional economic development partnerships, such as the “Cincinnati USA Partnership,”<sup>109</sup> led by the Greater Cincinnati Chamber of Commerce, to develop and nurture

businesses that contribute to the needs of the regional economy.

20.T.3. Local governments will work together to establish a set of best practices that can be used to streamline local regulatory and permitting processes, thus improving the climate for business retention, expansion, and recruitment.

20.T.4. The goals, objectives, and policies of local comprehensive plans will support coordinated economic development by encouraging the location of new or expanded business in areas currently served by public facilities and services or in areas that are planned for infrastructure expansion.

20.T.5. The goals, objectives, and policies of local comprehensive plans will support clusters<sup>110</sup> of related industries and businesses that export outside the region and have strong multipliers,<sup>111</sup> as identified through research at the regional level.



An educated, skilled workforce, however, is at the base of a vital economy, because without it there is no incentive for developing any other elements of a strong economy. Without a skilled, educated workforce, businesses will not choose to locate in the region, which, in turn, effects the diversification of the job base, the maintenance of healthy industry clusters, the redevelopment of brownfields and other components of the economy. Recently, the Greater Cincinnati Chamber of Commerce and the Sustainable Cincinnati indicators project identified the importance of an educated, skilled workforce for the region. The Gallis report cites the development of a regional workforce as an opportunity for the tri-state region.<sup>113</sup>

## **Strategic Regional Issue #21: Economic vitality depends on an educated, skilled workforce.**

### **Trends and Conditions**

The economic vitality of the region depends on an ability to maintain the elements of a strong regional economy (i.e., jobs and income, diversity in industry sectors, developing economic clusters, public facilities and services, downtowns, historic preservation, brown-field redevelopment, transportation linkages, quality of life, and incentive programs).

Employers need to be confident that if they relocate or expand their business in this region, there will be qualified employees to fill positions. It is, however, somewhat difficult to discern the employment skills of the region's population. The Census provides a limited view through its Educational Attainment data (see Table 1), but these data do not address the amount of training potential employees may have in a particular field or trade.

If one looks at the region's educational attainment over the last 30 years, Census data do tell us that

overall the educational attainment levels of the region's population have increased. The percentage of high school graduates increased in the region, the number of high school graduates attending college also increased by 11.4%, and the number of individuals with at least four years of college increased by 15.5% (see Figure 1).

According to the 1999 Gallis report, "Continuing job creation will require both a larger and a better trained workforce."<sup>114</sup> Over the last decade (1990 - 2000) the region's civilian labor force increased by 11% (see Table 2). During this same time period, the region's population increased by 8%. It appears that overall, the region's labor force is growing, but it is still difficult to know if this labor force has the skills necessary to meet the needs of employers.

We do know that employers in the Greater Cincinnati region have expressed a need for a workforce that has a well-developed set of basic skills, including reading, writing, math, and, in some cases, computer literacy, as well as simple communication and work ethic skills.<sup>115</sup> In the late 1990s that need was particularly accentuated because of low unemployment rates in the region and elsewhere.

Employers are concerned not only about technical skills, but they also want workers with a high degree of "soft skills" - non-technical skills, abilities and traits required to function in an employment environment.<sup>116</sup> Workforce development consequently also requires workforce readiness training - the ability to get and keep a good job requires a range of basic skills that are necessary to meet workplace expectations.<sup>117</sup> These may include skills as basic as a positive attitude and reliability/punctuality, as well as problem-solving and other cognitive skills, oral communication skills, and interpersonal and teamwork skills.<sup>118</sup>

In 1998, Congress enacted the Workforce Investment Act (WIA) for the purpose of consolidating, coordinating and improving employment training, literacy, and vocational rehabilitation programs at the State and local levels.<sup>119</sup> It was the first major

job training legislation since the early 1980s. The WIA's most important aspect is that it provides the framework for a unique national workforce preparation and employment system designed to meet both the needs of the nation's businesses and job seekers, in addition to those who want to further their careers.<sup>120</sup> Key components of the Act include:

- Customers (potential employees) are able to easily access information about a wide array of job training, education, and employment services through a "One-Stop" system, and employers have a single point of contact to provide information about current and future skills needed by their workers and to list job openings.
- "Individual Training Accounts" promote individual responsibility and personal decision-making by empowering adults to "purchase" the training they determine best for them. Payment for services will be arranged through the Individual Training Accounts.
- Accountability is expected on the part of states, local areas, and providers of training, education and employment services to meet the needs and expectations of the customer.

Under WIA, Ohio, Kentucky, and Indiana each have a Workforce Policy Board, in addition to the local boards. In the OKI region, local WIA programs are overseen by the Southwest Ohio Regional Workforce Policy Board, the Northern Kentucky Area Development District, and the Southeastern Indiana Workforce Investment Board.

Ohio's Workforce Policy Board is "committed to a new streamlined workforce development system that is business-driven" and locally developed.<sup>121</sup> Kentucky's Workforce Investment Board's vision is for a system that is "universal, seamless, customer-focused, and performance-based."<sup>122</sup> The goal of Indiana's Policy Board is to have a workforce investment system that is: focused on regional economies; locally flexible; provides training programs that are both demand-side and customer driven; accessible through the Internet; and financed less through federal dollars by leveraging

local tax dollars, private sector dollars, and personal investments.<sup>123</sup>

The locally operated One-Stop centers in the OKI region are being provided by the Southwest Ohio Regional One-Stop Consortium. The Consortium is a partnership of employment and training provider agencies working together in the tri-state area. Employer services provided by these One-Stop centers include staffing services, professional and technical referrals, testing, and information on the labor market. Customer services provided to individuals by the centers include resume development, job skills workshops, information on training and education programs, and financial aid information. While the One-Stop centers are concentrated in Hamilton County, they are located throughout the eight county region.

In addition to the services provided under the WIA at the state and local levels, there are other work readiness and training programs in the region. The Greater Cincinnati Chamber of Commerce has established the Chamber Workforce Solutions group, which has a number of resources developed to assist in workforce development. The City of Cincinnati has a Workforce Development Division that provides skills training. The Jobs Plus Employment Network focuses on pre-employment counseling and training, as well as support in sustaining and upgrading employment. Other programs in the region are provided by: Goodwill Industries, Queen City Vocational Center, the Urban League, Great Oaks Center for Employment Resource, and Cincinnati Works, to name a few.

Advances in technology, the Internet, and the “new economy” have created a demand for workers with higher educational levels. The need for scientists, engineers and other educated and skilled workers is increasing in our region as the intellectual assets of our local businesses become more and more essential.<sup>124</sup> The need for well-educated – not just highly skilled – workers with the drive for lifelong learning is critical, however, for all industries, including manufacturing.<sup>125</sup>

According to the Partnership for Greater Cincinnati’s Voice of the Customer Report, employers increasingly define computer literacy as a basic skill, and they state that the demand for technically skilled workers is greater than the supply. Many of these employers acknowledge and accept their role in providing continuing technical education for their employees.<sup>126</sup> Sustained economic growth depends on workers having the opportunities to continuously up-grade their education and skill levels.<sup>127</sup> The WIA has addressed these needs to a large degree.

Global competition has also increased the demand for a highly educated workforce. Education and development of human capital is one of the greatest challenges of the 21st century.<sup>128</sup> We need to be concerned about the failure of schools to effectively prepare students for the workplace and to make our region globally competitive.<sup>129</sup> According to an analysis by The National Center for Public Policy and Higher Education titled “Measuring Up 2002,”<sup>130</sup> all three states in our region have room for improvement when compared to the rest of the nation. Improvement is needed in high school completion rates, proficiency test scores in basic skills (math, reading, science and writing), college entrance exam scores (SAT and ACT), and the number of 18-24 year olds enrolling in college if we want to better prepare our youth for the workforce.

We also need to do a better job convincing our young adults to stay in the region after graduation, particularly the college-educated. As an economic development committee in Philadelphia noted, “In today’s global economy, talent is highly mobile”,<sup>131</sup> drifting towards the places with the most to offer in terms of opportunity and quality of life. Between 1990 and 2000, the young adult population (ages 20-34) in the OKI region declined 10.6 percent (-46,600).<sup>132</sup> This “brain drain” phenomenon is particularly impacting the technology-based portion of the economy, but it is also an issue in other economic sectors.

A new school of thought about what it takes to

attract young adults to the region is based on the writings of Richard Florida, author of “The Rise of the Creative Class.” According to Florida, the “creative class” is a demographic group of young, educated adults who value a certain lifestyle that includes diversity, arts, culture, nightlife and urban living.<sup>133</sup> Florida states that this group of young adults is oriented to cities and regions that offer a stimulating environment and a variety of job opportunities, as well as amenities for every possible lifestyle.<sup>134</sup> Through his research, he found that the cities and regions which are able to attract and retain the creative class have performed well in economic development. The creative class forms the skilled and diversified human resource for the region.

**OKI uses “will” in objectives and policy statements to describe events in the future, rather than to order something to happen.**

### Objective

21.U. By 2008, state and local governments, economic development organizations, businesses and other stakeholders will work together to ensure that a variety of workforce development programs are available and utilized in the region.

### Policies

21.U.1. Local governments will collaborate with workforce policy boards to ensure the development of locally-driven training and placement programs that offer high-quality education to potential employees and technical assistance to new and established businesses, consistent with their specific needs.

21.U.2. The goals, objectives, and policies of local comprehensive plans will encourage mutually beneficial school-to-work alliances between educational institutions at all levels and employers, to ensure that students are learning the technical and non-technical skills needed by businesses and necessary

to function in the work environment.

21.U.3. The goals, objectives, and policies of local comprehensive plans will support a living and working environment that is attractive to highly skilled and educated adults so that they will find sufficient reason to come to and remain in the region and the regional workforce.



**Strategic Regional Issue #22:** Sprawling development patterns can de-stabilize central downtown business districts, as well as secondary business districts.

### **Trends and Conditions**

Since the early part of the twentieth century, increases in affluence, the expansion of automobile and highway use, separation of land uses, and the abundance of inexpensive land have furthered sprawling development patterns in our region, and across the nation.<sup>135</sup> In this instance, “sprawling development patterns” means unbalanced, inconsistent growth (in terms of timing and location) outside currently urbanized areas, into

the surrounding areas, which disproportionately increases the cost in money, energy and time of providing and maintaining public facilities and services.

In the OKI region, land is being consumed at a rate five times faster than the population growth rate, vehicle miles traveled is projected to outpace population growth by 2.5 times, and there is projected to be \$3.5 billion more in highway and transit needs than there is available funding in the next 30 years.

The region's land development trend has led to the growth and multiplicity of suburban residential subdivisions and commercial nodes. People move to the suburbs for different reasons. One of them is the preference of people to live in less dense areas. The movement of businesses to the newer suburbs is in part due to the movement of workers to the suburbs. Other commercial and industrial businesses move to the suburbs for convenience in transportation and infrastructure development. Corporate offices and businesses in the central cities move to the suburbs for more open space and the availability of developable land.<sup>136</sup>

When population in the suburbs grows and reaches a critical mass, various new services and businesses, including retail, come to the suburbs. Generally, the cumulative impact of the movement of people to the suburbs is a net loss of population in the central cities. The movement of corporate offices and businesses from the central downtown and secondary business districts to the suburbs causes the deterioration of older business districts. The central city loses population, as well as commercial tenants and owners. This phenomenon is occurring in most metropolitan areas across the nation.

A review of the total number of establishments in downtown Cincinnati<sup>137</sup> (see Figure 2) indicates that the number of downtown firms decreased only 3% between 1994 and 2000, even though there had been virtually no change until 1997. Between 1997 and 2000, however, the total number of downtown

establishments decreased by 4%. While Census numbers are not available from 2000 to the present, information provided by Downtown Cincinnati, Inc. (DCI)<sup>138</sup> indicates that there has been a high retention rate of downtown businesses over the last year.

Suburbanization is a cyclical phenomenon. The cycle begins with low-density residential development in an area outside the urban core that is primarily agricultural. Single-family subdivisions begin to appear and multiply. Commercial uses develop along arterial roadways as population and thus the demand for goods increases. Property values begin to rise. Fewer farms operate, as they await development. Roadway congestion typically increases. Development density increases. Schools can become crowded. More and more land is zoned and developed for commercial uses. Public facilities and services become overloaded, requiring capital investment and expansion. Eventually everything stabilizes, but the quality of life that originally attracted people to the area has been compromised. These areas transition into mature and older suburbs, following the cycle of an area's "first suburbs." Again, the population fluctuates as people change locations again. Property values begin to decline. Businesses begin to relocate or close as their customer base decreases.<sup>139</sup> The cycle begins again as people relocate and patterns of low-density residential development appear in the area outside the first suburban areas.

"First suburbs" is used to describe the first, inner ring of suburbs, which are typically the mature, built-out communities around the central city. Usually, they are close to the central city and developed before the major spurt of suburbanization in the 1940s and 50s. The Northeast Ohio First Suburbs Consortium provides some history of the first suburbs: - "In the Midwest, suburban development began around 1900 and progressed slowly until halted by the Great Depression and World War II. In the 25 years following the War, suburban growth accelerated dramatically. Those "first" suburbs now are 40 to 80 years old, and with age many have begun

to experience what had been exclusively central city challenges: deteriorating and obsolete real estate, problematic sewer and water systems, disinvestment, and residents with modest or low incomes.”<sup>140</sup> One of the primary problems in the “first suburbs” has been the deterioration of their business districts, following a pattern of their central city.

Various research<sup>141</sup> shows that neighborhoods of the metropolitan core as well as the first suburbs face the same challenges – the flight of affluent and middle class households, deteriorating land prices, reduction in the property tax base, deteriorating services. The first suburbs’ business districts and other neighborhood districts, known as secondary business districts, face challenges similar to those of central business districts, which includes loss of business.

Some first suburbs have banded together in an effort to address many of these problems. In the OKI region, a consortium known as the Southwest (Ohio) First Suburb Consortium is an informal group of 35 municipalities in Hamilton County sharing characteristics similar to the core city including population loss, aging infrastructure, and neglected housing<sup>142</sup>.

A jurisdiction’s loss of residents has a negative impact on its property tax base. Loss of businesses reduces not only the property tax base but also a variety of other tax revenues such as corporate franchise taxes, individual state income tax, unemployment insurance, incorporation fees, sales tax, and business income tax. While some of these taxes may be abated in various jurisdictions, the loss of business to a jurisdiction has more of a negative impact on the total tax revenues than the loss of the residents. A reduction in tax revenues impacts the local government’s ability to provide public facilities and services.

As previously noted, land within the OKI region is being consumed at a rate five times faster than the rate of the population growth, causing sprawling development patterns. A review of Census data on

the Cincinnati “urbanized” area<sup>143</sup> shows that our urbanized area has grown steadily over the last 50 years, beginning with the suburbanization boom of the 1950’s. Between 1990 and 2000, the Cincinnati “urbanized” area increased by 91 square miles – a 14% increase in a single decade.

The census figures also indicate that the region’s suburban population increased by 30% between 1970 and 2000, while the total population of the region increased by only 17% during the same time period. These numbers indicate a high rate of suburbanization in this region. Other factors, such as in-migration from outside the region, are impacting the number of people in the suburban areas, yet many of the people moving to the outer suburbs are simply moving from the region’s central cities.

The flight of businesses and people out of the region’s central cities and first suburbs results in the abandonment of often-derelict properties, which are decades old and often alleged to be brownfields.<sup>144</sup> The trouble and cost of redeveloping brownfields are deterrents to their revitalization. Dr. Thomas Bier, director of the Housing Policy Research Program at the Cleveland State University College of Urban Affairs, said, “It’s almost always going to be cheaper to build on greenspace in a place like Clermont County than to tear down something and clean up a site in Hamilton County.”<sup>145</sup> The disincentives/deterrents to developing brownfields include the owner’s liability for clean up, and the costs associated with assessing and cleaning the site. These disincentives, along with cheap land prices in greenfield areas, the building of new roads and infrastructure, lower taxes, better schools and openspace all contribute to the reluctance to redevelop brownfields.

The benefits of a vital downtown or business district include:<sup>146</sup>

- Downtown is a symbol of the community’s economic health, local quality of life, pride, and community history.
- Towns retain and create jobs, which support

a community's tax base.

- Downtowns reduce sprawl by concentrating retail in one area.
- The downtown core protects property values in surrounding residential neighborhoods.
- The traditional commercial district is an ideal location for independent businesses and is a good incubator for new small businesses.
- Downtowns provide an important civic forum, where members of the community can congregate.
- Many downtown districts become tourist attractions by virtue of the character of buildings, location, selection of unique businesses, and events held there.

According to Ms. Kennedy Lawson Smith, Director of the National Main Street Center, downtown housing is essential to the success of a business district because it creates a captive market for downtown businesses and can provide a base for maintaining economic success.<sup>147</sup> The deterioration of downtowns in large part is also due to the development of zoning regulations that call for separation of different types of land uses. Historically, downtowns have been a heterogeneous place offering multiple activities. Downtowns always had a broad mixture of land uses including retail stores, professional offices, theaters, government offices and courts, post offices, banks, apartments, places of worship, libraries, wholesale businesses, train and bus stations, warehouses, and restaurants.<sup>148</sup> Restrictive zoning regulations made the mixture of land uses and activities in the downtowns illegal.

Another impact of our current development patterns is a glut of commercial space in America,<sup>149</sup> which has resulted in vacant commercial spaces. Usually vacant are the downtown commercial spaces, which result in less tax money for the city.

Cincinnati's efforts to revitalize its downtown have faced some major setbacks in the past few years, including Nordstrom canceling plans to build a department store at Fifth and Race streets; Madison Marquette's problems attracting tenants to redevelop the former McAlpin's site on Fourth Street; and the

relocation of Closson's, the venerable downtown furniture store and art gallery, to the suburbs after 137 years in downtown.<sup>150</sup>

As Cincinnati grapples with the fallout from riots in 2001, a boycott, and a sluggish economy, other businesses, including the five-star Maisonette restaurant, have warned that they might also move to the suburbs. There is no debate that downtown Cincinnati is facing tough times: Visitors have fallen by 50 percent since the rioting occurred, and retail sales have dropped 10% to 30%, a downtown consultant reports. The population of the downtown also decreased from 3,838 in 1990 to about 3,500 now.<sup>151</sup> The decreasing population is a hindrance in turning the downtown into a 24-hour community.

The City of Cincinnati's current efforts to revitalize downtown include:

- The Banks project, a 15-acre mixed-use development (housing, retail, and office), which could attract 1,700 new residents to the downtown, create more than 8,000 new jobs, and stimulate more than \$600 million of investments in the riverfront.<sup>152</sup> The Banks project is located between Paul Brown Stadium and the Great American Ball Park and is to be funded primarily by Cincinnati and Hamilton County.
- A redevelopment plan for Downtown Cincinnati that focuses on Fountain Square and the surrounding blocks. Hamilton, Rabinovitz, and Alschuler, an economic development consultant from New York, is preparing the plan.
- An economic development task force created to make recommendations to city officials on how to jump-start the city's economic development efforts.<sup>153</sup>

Recent revitalization efforts in the Northern Kentucky Riverfront area include:<sup>154 155 156</sup>

- Newport on the Levee - restaurants, retail and entertainment (originally envisioned for Cincinnati's riverfront)
- The Newport Aquarium
- Covington's RiverCenter - office towers have

lured high-profile companies like Ashland Inc. and Clear Channel Communications, which moved from Cincinnati.

- Roebling Row - upscale apartments at the foot of the Suspension Bridge (Towne Properties).
- The Northern Kentucky Convention Center in Covington.
- A 326-room Marriott Hotel in Covington.
- Madison Place - a 15-story office-and-condominium complex adjacent to the Marriott in Covington.
- The World Peace Bell in Newport
- Covington's Riverfront West - a proposed \$277 million development on the last remaining undeveloped portion of Covington's riverfront that would include a public plaza, office towers, residential units, restaurants, entertainment venues and retail space, and an 1,800-space parking garage.
- Port Bellevue, located on the Ohio River bank at the Newport-Bellevue city line on Ky. 8, features three restaurants and office space at a site providing a pleasant view of the river and the Cincinnati skyline.

There are also a number of recent revitalization efforts in the Northern Kentucky Riverfront area including: various downtown Covington redevelopment projects, Newport on the Levee, The Newport Aquarium, Roebling Row, and the Northern Kentucky Convention Center.<sup>157 158</sup>

**OKI uses “will” in objectives and policy statements to describe events in the future, rather than to order something to happen.**

### Objective

22.V. By 2010, the region’s core cities and older, inner-ring suburbs will work individually and collectively toward establishing specific strategies to attract, develop, and retain businesses and residents.

### Policies

- 22.V.1. The goals, objectives, and policies of local comprehensive plans will lead to the revision of zoning ordinances to allow mixed-use development<sup>159</sup>, where appropriate.
- 22.V.2. Local comprehensive plans will support investments in public facilities and services within existing business districts, and foster the development of compact communities that are attractive to a range of income and skill levels, where appropriate.
- 22.V.3. Local governments will use their comprehensive plans to examine opportunities to improve the balance of jobs and housing within their jurisdictions in order to reduce commutes and enable people to live close to work, where appropriate.
- 22.V.4. Local comprehensive plans will promote the adaptive reuse of buildings and sites in the region’s urban cores/business districts, where appropriate.

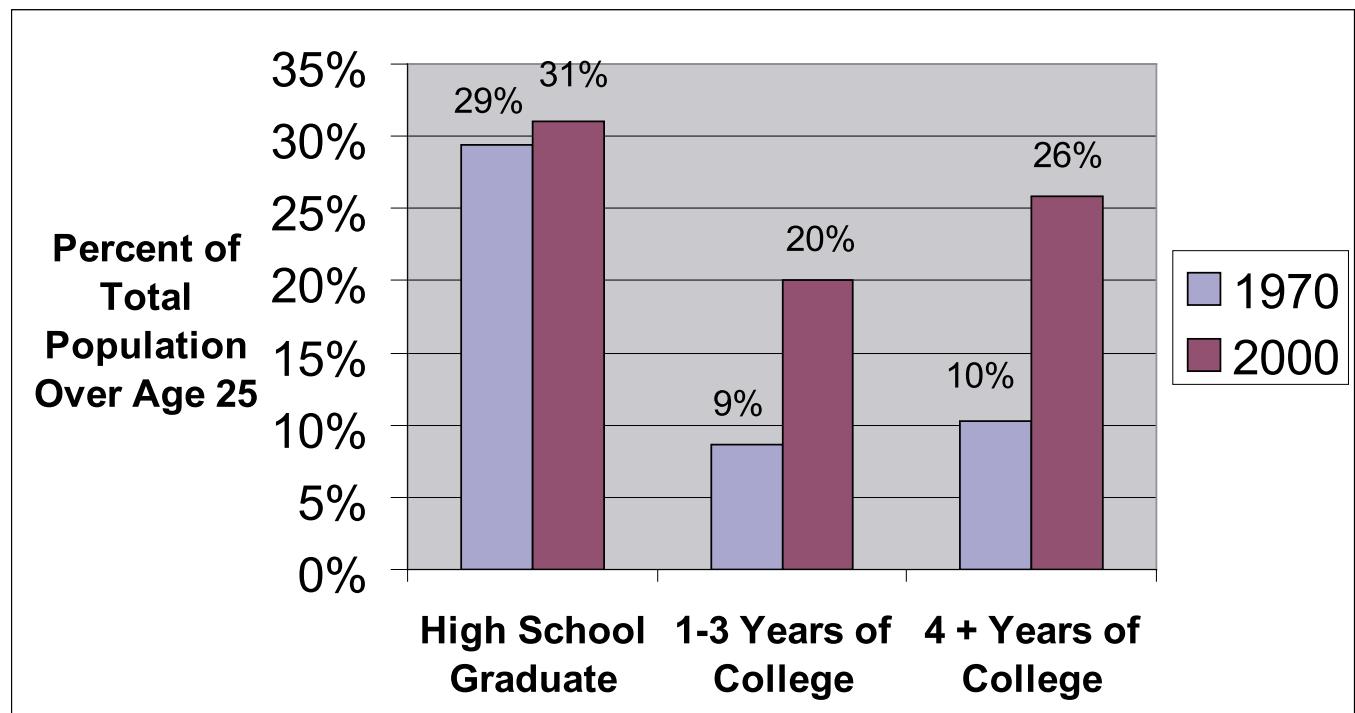
## Figures and Tables - Economic Development

Table 1: Educational Attainment for the Region, 2000

County	Total Population Over Age 25	HS Graduate	%	Some College	%	4 or More Years of College	%
<b>Dearborn</b>	29,712	12,244	<b>41.2</b>	5,537	<b>18.6</b>	4,582	<b>15.4</b>
<b>Boone</b>	54,166	17,771	<b>32.8</b>	12,882	<b>23.8</b>	12,364	<b>22.8</b>
<b>Campbell</b>	57,184	19,882	<b>34.8</b>	11,730	<b>20.5</b>	11,748	<b>20.5</b>
<b>Kenton</b>	97,727	31,834	<b>32.6</b>	20,920	<b>21.4</b>	22,375	<b>22.9</b>
<b>Butler</b>	207,213	69,581	<b>33.6</b>	41,525	<b>20.0</b>	48,659	<b>23.5</b>
<b>Clermont</b>	113,513	40,139	<b>35.4</b>	22,131	<b>19.5</b>	23,557	<b>20.8</b>
<b>Hamilton</b>	546,048	151,759	<b>27.8</b>	106,901	<b>19.6</b>	159,212	<b>29.2</b>
<b>Warren</b>	103,306	32,242	<b>31.2</b>	20,019	<b>19.4</b>	29,301	<b>28.4</b>
<b>Total Regional</b>	1,208,869	375,452		241,645		311,798	

Source: 2000 Census, Profile of Selected Social Characteristics, Table DP-2: Educational Attainment

Figure 1: Regional Education Attainment 1970-2000



Sources: 2000 Census, Profile of Selected Social Characteristics, Table DP-2: Educational Attainment.  
 1990 Census, Social and Economic Characteristics, Table 142: Educational Attainment.  
 1970 Census, General Social and Economic Characteristics, Table 120: Educational and Family Characteristics for Counties

## Figures and Tables - Economic Development continued

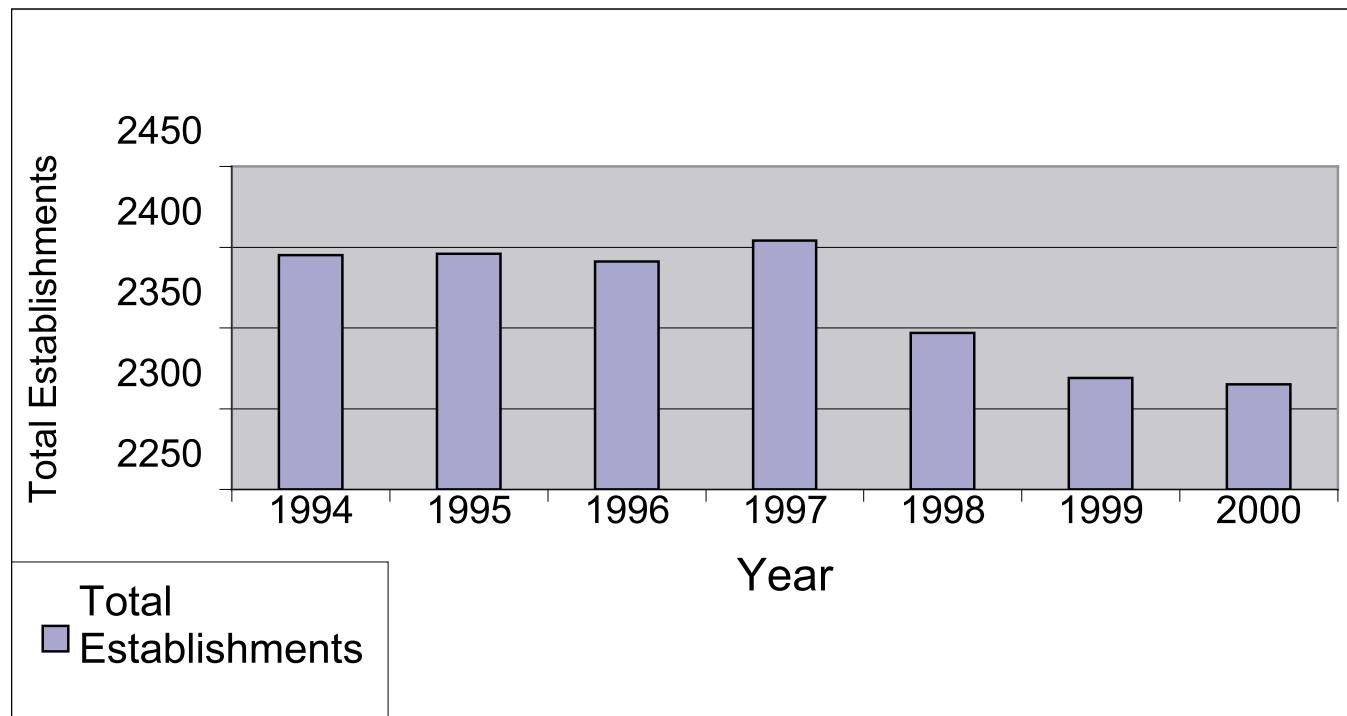
**Table 2: Civilian Labor Force for the Region, 1990-2000**

County	1990	2000	Change 1990-2000	Percent Change 1990-2000
<b>Dearborn</b>	18,712	23,869	5,157	28%
<b>Boone</b>	30,085	46,776	16,691	55%
<b>Campbell</b>	41,850	45,117	3,267	8%
<b>Kenton</b>	72,912	80,052	7,140	10%
<b>Butler</b>	145,017	170,363	25,346	17%
<b>Clermont</b>	76,680	93,282	16,602	22%
<b>Hamilton</b>	430,745	426,552	-4,193	-1%
<b>Warren</b>	57,505	80,102	22,597	39%
<b>Total Regional</b>	873,506	966,113	92,607	11%

Sources: 1990 Census, Labor Force status and Employment Characteristics, Table DP-3: Labor Force Status.

2000 Census, Sex by Employment Status for the Population 16 years and Over, Table P43.

**Figure 2: Total Business Establishments in Downtown Cincinnati 1994-2000**



Source: County Business Pattern for Zip Code 45202, <http://censtats.census.gov/cbpsic/cbpsic.shtml>, accessed on 05/07/2003.

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- 110 **Clusters** refer to concentrations of companies and industries in a geographic region that are interconnected by the markets they serve and the products they produce, as well as by suppliers, trade associations and educational institutions. Clusters capitalize on an industry’s strengths, assets and potential.
- 111 **Multipliers** indicate the total impact on the local economy that can be expected from a change in a given economic activity.
- 112 **Performance provisions** are enacted to ensure that foregone revenues and expenditures resulting from tax incentives (abatement, exemptions, credits, or grants) are recaptured if terms of the agreement are not met, such as failing to deliver on jobs, wages, or capital investment. Performance provisions are also referred to as clawback, reimbursement, or recapture provisions.

## **Footnotes - Economic Development continued**

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## **Footnotes - Economic Development continued**

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# Land Use

## Overview

Land is one of the most important resources in the OKI region. The effective and efficient use of land is key to ensuring the quality of life and long-term health and vitality of our communities. Land experiences tremendous changes in response to human activities. The term “land use” usually refers to the way in which, and the purposes for which, humans employ the land and its resources.<sup>160</sup>

Land use planning and controls typically address the concept of land as a limited resource with many different types of community values, as well as its value as a commodity in the economic marketplace.<sup>161</sup>

Throughout the United States, land use is considered a local issue as a result of state enabling legislation. The culture of planning in Ohio, Kentucky and Indiana puts land use regulatory power in the hands of cities, townships and counties.

One of the greatest challenges that we face today is the issue of how best to use land while preserving community character and protecting the environment. Growth and development over the years have stimulated the creation of jobs, brought new transportation infrastructure and increased economic prosperity. Development has also created a number of problems that we face today.

Our land use practices over the past several decades have incrementally converged to generate haphazard, inefficient, and unsustainable urban growth. The complex problems shared by cities throughout the U.S. are evidence of the impacts of sprawling development patterns – increasing traffic congestion and commute times, air pollution, inefficient energy consumption, loss of open space and habitat, inequitable distribution of economic resources, and the loss of a sense of community and place.<sup>162</sup> In effect, current policies and programs

are having unintended consequences on urban and suburban areas because there was not adequate consideration given to their long-term effects.

Land use issues transcend local boundaries and create pockets of development on the periphery of our urban centers and along transportation corridors. In the short term, development of vacant land on the suburban fringe occurs because greenfield development is more economical and less constrained than brownfield redevelopment. Land use planning thus needs to be understood and dealt with at a larger scale. Regional cooperation is a necessary and effective tool for communities to achieve development objectives while conserving open space and natural resources.<sup>163</sup> A regional frame of reference helps to create a comprehensive view, thus fostering more sensible, planned growth.

There is major fragmentation of political, legal, and land use authority in the region, including wide variations among state planning laws. This leads to conflicts in the effective implementation of programs that involve land use issues. Specific attention should be given to the effects of federal policies and programs that may be contrary to state and local land-use policies and goals, including economic development programs; transportation programs; the location of federal facilities; and environmental programs, such as brownfields redevelopment, air quality, and environmental justice.<sup>164</sup>

## Land Use Goal

**Encourage local governments throughout the region to create up-to-date, consistent, and coordinated comprehensive plans.**

**Strategic Regional Issue #23: There are few truly comprehensive plans at the local government level which link land use policies with transportation planning and capital budgeting.**



## Trends and Conditions

A “comprehensive plan” is a locally adopted long-range policy foundation for the orderly social, economic and physical growth of the jurisdiction. It serves as the underpinning for local planning and land use decisions regarding capital improvements, conservation, intergovernmental coordination, recreation, open space, future land use, housing, traffic circulation, and public facilities.

The local government comprehensive plan is the optimal place for the integration of these functions and activities. A review of the local plans on file at OKI indicates that no local government plan analyzes all of these key issues concurrently. OKI staff also found no evidence that any city, county or township coordinates its capital budget (or a schedule of capital improvements) with its anticipated future land uses, or with its local public sector or private sector economic development agency. Moreover, few if any tri-state communities engage in the coordination of transportation, economic development, and future land use planning with their neighboring jurisdictions.

The components of an effective comprehensive plan have been discussed by the OKI Land Use Commission. The following is a brief outline of these components:

- Public Participation Process is a necessary foundation to support the legitimacy of any local government comprehensive plan.

- Core Data And Analyses of existing conditions relative to each of nine suggested planning elements are necessary to establish the trends, conditions, goals, objectives, and policies.

- Goals, Objectives And Policies that set forth the long-term, intermediate and short-term measurable ends toward which a local community’s programs and activities are ultimately directed. They identify a local community’s desired future conditions or results to be obtained in each of the plan’s elements, and define the actions and measures necessary to meet those conditions or results.

- General Planning Elements

1. Transportation
2. Community Facilities
3. Natural Resources
4. Recreation and Open Space
5. Housing
6. Economic Development
7. Land Use
8. Capital Improvements
9. Intergovernmental Coordination

- Level of Service Management is an ongoing system whereby the necessary public facilities and services to maintain adopted level of service standards are available when the impacts of development occur. “Level of service” means an established minimum capacity of public facilities or services provided per unit of demand or other appropriate measure of need.

- Plan Implementation describes how the local government’s programs, activities, and land development regulations will be consistently applied.

- Monitoring and Evaluation is intended to establish a process for reviewing and assessing the implementation of the local comprehensive plan, as well as for updating and evaluation procedures. This monitoring process should be addressed every three to five years.

The region-wide use of this outline would preserve local authority for land use planning and decision-

making, and facilitate the timing and location of land development. The level of detail among local government comprehensive plans will vary based on differences in planning jurisdictions' type, population, capability, and need; however, cooperative, coordinated, and compatible planning and budgeting would result.

The region's existing local comprehensive plans lay a fragile foundation for transportation planning and capital budgeting. Local plans in the tri-state follow their counterparts elsewhere in that they tend to represent wish lists of local officials and thereby frequently overcompensate for market expectations to avoid constraining development opportunities.<sup>165</sup>

Successful land use planning requires careful attention to other related issues and an understanding of the complex inter-relationships between all of them. Land use, transportation and capital budgeting have close connections with each other, and each of these issues directly and indirectly impacts the other.

The relationship between land use and transportation is reciprocal. Development patterns shape travel patterns in that the design of suburban areas makes transit and walking a challenge, and the separation between land uses in low-density developments makes driving a necessity. Transportation policy and projects influencing land development patterns is evidenced by commercial development stretching out along highway corridors; new subdivisions built soon after new freeway capacity opens; high-volume franchises, gas stations and malls amassing at or near interchanges.<sup>166</sup> The increase of land use within a community typically increases the demand for transportation, and transportation facilities and services are catalysts for land development. This increased demand for facilities increases the demand for capital budgeting and programming.

The degree of integration between transportation, land use, public facilities, natural resources, economic development and housing profoundly

affects the achievement of local and regional goals. Accordingly, the comprehensive framework and understanding of the interconnections between an issue is key to the success of any development effort.

The Land Use Commission's Vision for Stewardship emphasizes the desirability for local governments to communicate, cooperate, and coordinate on the issues of transportation, land use, public facilities, natural resources, economic development and housing.

Communities that plan in a comprehensive manner are more aware of how their land use plans will affect the levels of traffic; the capacities for sewer, potable water, stormwater, landfill, and parks; the health of the natural environment; the appearance and function of the built environment; and the level of capital investment necessary to make it all happen. A truly comprehensive plan brings logic, foresight, and defensibility to zoning, development, and other community decisions.<sup>167</sup>

**OKI uses “will” in objectives and policy statements to describe events in the future, rather than to order something to happen.**

### Objective

23.W. By 2010, each local government will have an up-to-date comprehensive plan that links land use, transportation, economic development, public facilities, housing, natural resources, recreation, intergovernmental coordination and capital budgeting.

### Policies

23.W.1 OKI will develop model local comprehensive plan guidelines that link transportation, land use, economic development, public facilities, housing, natural resources, recreation, intergovernmental coordination and capital improvement programs and budgets for use by all local governments in the region. Local government comprehensive

plans will be consistent with the region's model comprehensive plan guidelines, and OKI will provide technical assistance and incentives to local governments. (Same as Policy 1.A.1.)

**23.W.2. Local government comprehensive plans will guide the adoption and amendment of local zoning regulations.**

**23.W.3. OKI's strategic regional policy plan and local government comprehensive plans will consider both the public interest and private property rights.**

**23.W.4. Local governments will assure that adopted comprehensive plans are current by scheduling an update and public review at least once every five years.**

**23.W.5. Local governments should work with their state legislators, professional associations, and others to ensure that state governments provide legislation, guidance, and incentives to prepare comprehensive plans and to achieve consistency between local plans and regulations, and between the local plans of neighboring communities.**

## **Strategic Regional Issue #24: There is major fragmentation of political, legal, and land use authority in the region, including wide variations among state planning laws.**

### **Trends and Conditions**

Most of the OKI region's 138 local zoning authorities focus on incremental zoning and subdivision reviews, rather than the timing, location and cost of land uses over the long-term. As a result, OKI, as the MPO, typically reacts to chronic transportation problems instead of planning for and funding transportation solutions that would be implemented concurrent with the impacts of land development.

Fragmentation of political, legal, and land use authority plays out in government policies, decision-making authorities and land use programs across the region. This fragmentation makes cooperation and coordination between jurisdictions extremely difficult. The issue of fragmentation in the OKI region has been noted in both the Gallis<sup>168</sup> and the Orfield<sup>169</sup> studies.

The region served by the OKI Regional Council of Governments is comprised of eight counties in three states. Within the region, there are 190 local governments: counties, townships, cities, villages and towns. Table 3 shows the distribution of the major political jurisdictions in the OKI region. The region's 65 independent and county school districts<sup>170</sup> and the multitude of special districts are also considered governmental units. An accurate accounting of special districts is difficult because there are so many different types. Special districts in the region include: conservancy districts, hospital districts, ambulance districts, police and fire districts, library districts, housing authorities, park districts, port authorities, arts and cultural districts, solid waste districts and authorities, health districts, regional transit authorities, regional water and sewer districts and authorities, sanitation districts, soil and water conservation districts, drainage districts, flood control districts, and airport authorities.

It is important to note the number of entities that provide services but do not have regulatory authority over the use of land, including school boards, independent special districts, and state agencies. Some other state agencies and utility authorities can also have regulatory authority within local jurisdictions.

All of these governmental units intersect at different points in time. There is no means for coordination other than the local comprehensive plan, and this only works if the overlap is analyzed and planned for within local governments.

Fragmentation can result from the variations between federal, state and local policies and programs. This

can lead to conflicts in the effective implementation of programs that involve land use issues. “Specific attention should be given to the effects of federal policies and programs that may be contrary to state and local land-use policies and goals, including: economic development programs; transportation programs; the location of federal facilities; and environmental programs, such as brownfields redevelopment, air quality, and environmental justice.”<sup>171</sup>

Another major cause of fragmentation of political, legal, and land use authority in the region is the variation in planning and zoning law among the three states. The power to enact land use regulations is vested in the state legislatures, and they have generally bestowed this control to cities and counties.<sup>172</sup> While the Standard State Zoning Enabling Act, published by the U.S. Department of Commerce in 1926 is the model for the zoning enabling legislation in all three states in the OKI region, individual state law is very different in content.

Kentucky requires<sup>173</sup> the preparation of a comprehensive plan if a jurisdiction wishes to have authority over zoning. Kentucky requires that the contents of the comprehensive plan include goals and objectives, a land use element, a transportation element, and a community facilities element.<sup>174</sup> In addition, it sets forth requirements for the research, analysis and projections related to each of these elements.<sup>175</sup>

The state of Kentucky actually encourages the coordination of planning and zoning through the establishment of area planning commissions.<sup>176</sup> This statute allows any two or more adjacent counties and/or cities to consolidate their planning operations by establishing an area planning commission to provide a more efficient planning operation. The only area planning commission currently in existence in Kentucky is the Northern Kentucky Area Planning Commission. (NKAPC).<sup>177</sup>

Indiana does not require local governments to

prepare comprehensive plans, but if they do, the state establishes minimum contents for a plan: a statement of objectives; a statement of policy for land use development; and a statement of policy for the development of public ways, places, lands, structures, and utilities.<sup>178</sup>

Ohio is the only state in the OKI region with no comprehensive planning guidelines. As a result, there is little long-range planning uniformity and consistency among or between Ohio’s local jurisdictions.

Zoning and subdivision regulations also vary widely among the region’s three states. In addition, the responsibility for planning, zoning, and subdivision decision-making differs among the states. The differing laws and responsibilities are accentuated by the desire to maintain local authority for these decisions.

Fragmentation in the OKI region is also attributable in part to the power of local self-rule. The power to establish regulations that are not in conflict with general state law can be exercised in Ohio cities, townships (limited<sup>179</sup>) and counties, in Indiana cities and counties, and in Kentucky counties.<sup>180</sup> Even without this “home rule” authority, Kentucky cities have the authority to establish planning and zoning laws once they have adopted a comprehensive plan. That is not to say, however, that cities, townships and counties are prohibited from coordinating because of this local authority, but there has been no incentive, no regional vision, and little political will to do so.

The dissimilar political, legal and land use planning mechanisms between Ohio, Kentucky and Indiana create impediments to intergovernmental coordination, which could be overcome by applying a coherent, comprehensive approach to land use and transportation planning.

A consistent system of land use planning and budgeting, and a consistent political and legal framework that addresses communities’ specific

needs comprehensively would enable more orderly land development. More orderly land development would facilitate more effective regional transportation planning and budgeting. Less fragmentation would promote the implementation of more local projects and programs that serve the region as a whole.

**OKI uses “will” in objectives and policy statements to describe events in the future, rather than to order something to happen.**

### Objective

24.X.: By 2007, local governments in the region will establish strategies for minimizing the inefficiencies that arise from fragmented government authority and duplication of services.

### Policies

24.X.1. Local governments will consolidate public facilities and services to achieve economies of scale where feasible, or establish equitable inter-local agreements to provide for more efficient delivery of public facilities and services.

24.X.2. OKI will provide technical assistance to local governments in an effort to adequately maintain and enhance the region’s green infrastructure.<sup>181</sup>

24.X.3. Local governments will work together to ensure that the timing and location of proposed development and transportation projects in one community do not adversely affect neighboring communities.

**Strategic Regional Issue #25: The public costs associated with new development are not widely understood, nor is a consistent method for calculating public costs used in the region, leading**



**to developments that may not generate anticipated revenues.**

### **Trends and Conditions**

Since very few attempts have been made to quantify public costs associated with new development across the OKI region, this strategic issue is, on its face, accurate. In addition, a review of several information sources lends credence to this policy concern. Because so few studies have been conducted in the tri-state to calculate the costs associated with public facilities and services, however, this is a difficult issue to assess.

Public costs associated with new development include:<sup>182,183</sup>

- Any costs necessary to extend public facilities and services (water, sewer, roads) to new development from the developed portion of a jurisdiction.
- Cost to expand drinking water and wastewater treatment plant capacity.
- Costs for solid waste disposal.
- Additional operation and maintenance costs for public facilities and services.
- Additional operation and maintenance costs for transit service.

- Additional operation costs for police and fire protection.
- Cost of new, expanded or rehabilitated school facilities.

Low-density residential growth usually costs communities much more than it returns in tax revenues, thereby weakening the tax base and treasuries of local communities.<sup>184</sup> The fiscal condition of our cities, townships and counties is determined by the capacity to obtain revenues, and the costs of meeting the demands for public services.<sup>185</sup>

While conventional wisdom tells us that the added tax base received from new development will more than make up for the public facilities and services new development will require, this is proving to be false.<sup>186</sup> A number of studies and actions around the country in recent years have focused on costs:

Studies by the American Farmland Trust in Ohio have indicated that for every dollar of revenue generated by residential properties, an additional 67 cents was necessary to satisfy the demand for public facilities and services.<sup>187</sup> Another AFT study in Lexington-Fayette County, Kentucky indicated that for every dollar in revenues generated by residential property, \$1.64 was required in public services.<sup>188</sup>

A Montana study indicated that without commercial and industrial development, property taxes for the average rural resident in low-density, fast sprawling communities rise to pay for new roads and their maintenance, newschools and school transportation, and additional public safety services.<sup>189</sup> Rising tax bills and rising valuations for rural land lead to a land development boom that can push farmers and long-time residents out of their homes.

In California, the landmark Bank of America report: *Beyond Sprawl: New Patterns of Growth to Fit the New California* (1995) said, “Unchecked sprawl has shifted from an engine of California’s growth to a force that now threatens to inhibit growth and degrade the quality of our life.”

A December 1994 Florida Trend (“*The Magazine of Florida Business*”) cover story noted that sprawl is undesirable, is subsidized by the public, and drives up transportation costs. “Hidden subsidies often make sprawling developments the thriftiest buy, despite this choice being, in reality, more expensive to the public as a whole.” The piece endorsed recommendations made by a 1989 governor’s task force, which said that “residents should pay the full marginal cost of the lifestyle they choose,” meaning that public services should be priced according to what it actually costs to deliver them to specific locations. Outlying, low-density residential projects and strip malls should pay for the impacts of extra demand on road capacity; and water, sewer and other utility charges should reflect the actual cost of delivery to individual locations, rather than the average cost of delivery to all customers. The governor’s task force predicted that subsidized sprawl would result in a widening fiscal deficit in Florida.

In 2001, Florida Governor Jeb Bush proposed a cutting-edge tool, called “full-cost accounting,” which would measure the public expense of land development such as new expenditures for roads and schools before development happens<sup>190</sup>.

A New Jersey study projected that from 1990 to 2010, planned development would save taxpayers \$9.3 billion dollars in avoided capital, operation, and maintenance costs for roads, schools, and utilities and would also save 175,000 acres of land.<sup>191</sup>

All development comes with a price. Few communities assess the conditions, capacities and levels of service of their public facilities, or the overall effects and costs of development proposals. In most cases then, it falls to developers to provide project-specific analyses of the adequacy of the existing public facilities and services (water, sewer, schools, fire protection, police, and any other locally financed facilities or services) that will serve a proposed development. Developers can be asked to provide data on:

- Any additional on and off-site public facilities and services that would be required as a result of the development;
- The amount of traffic to be generated by the development, the capacity of the existing roads, and any necessary road improvements;
- The estimated tax revenues to be generated by the development;
- The permanent and temporary changes and impacts on the environment (aesthetics, vegetation, farmland, stormwater drainage, noise, air and water);
- Any projected employment generated by the development; and
- The cost to the public improvements to be financed and paid for by the community.<sup>192</sup>

This information would allow decision makers to see the probable impacts of new development prior to approval and permitting. It essentially provides a baseline of current information to help local citizens and officials make informed decisions about land use policy.<sup>193</sup> In addition, fiscal impact analyses can be an important consideration for approval or disapproval of a development proposal.<sup>194</sup> Briefly, a fiscal impact analysis is a study done to estimate the difference between revenues and expenditures generated by the proposed development.<sup>195</sup>

Quantitative studies like those mentioned above have been used to determine what the market is willing to bear, and whether or not new development is paying its fair share of the true costs of what it creates.<sup>196</sup>

These studies reveal a number of specifics:

- Larger lot residential subdivisions, even those occurring within or adjacent to established urbanized areas, have higher development costs (in terms of streets and utilities) because of the larger road frontage. While a portion of these costs may be paid for by the occupants of the final dwellings, the entire actual cost is rarely passed on.<sup>197</sup>
- Generally speaking, residential development does not provide enough tax revenue to pay for all the facilities and services that are provided for it.<sup>198</sup>
- Agricultural land generally contributes more in tax revenue than it requires in public facilities and

services.<sup>199</sup>

One particular study by the Urban Land Institute<sup>200</sup> concluded that if the community's concern is to hold down the cost of providing public facilities and services to support new development, then two broad classes of public policy should be considered: regulation and public prices. Regulation is more direct in its approach, defining permissible and non-permissible situations in relation to a desired public purpose, and establishing an administrative mechanism for ensuring that only the permissible situations are allowed.

If a community wishes to minimize the public costs associated with new development, then the community can use its regulatory powers to encourage new development to locate in areas where services and public facilities exist or can easily be extended. Residential development tends to be more fiscally advantageous to local governments when it occurs within or adjacent to established urbanized areas, as opposed to occurring in outlying, undeveloped rural areas.<sup>201</sup> In addition, requiring residential subdivisions to occur within or adjacent to established urbanized areas, with small road frontages, will lower the cost of providing water and sewer, which is more likely be passed on to the occupants of that development in the form of the sales price of final dwellings.<sup>202</sup>

Public pricing is a more direct and automatic policy approach, intended to affect development by requiring the developer to pay the cost of providing public facilities and services (most commonly referred to as impact fees and extractions). The idea is to allow the market to influence the true cost of new development, and in doing so, to roll these costs into the price to the consumer. Whether the market is willing to bear the direct cost of the additional facilities and services necessary to serve the new development will be determined by the market demand.<sup>203</sup>

In the OKI region, regulation is much more widely used than public pricing. Zoning and subdivision

regulations are applied in the 138 zoning jurisdictions in the region. The only public pricing in the region is in the form of water and sewer capacity fees, and the dedication of land or funds for recreational purposes. Neither Ohio<sup>204</sup> or Kentucky<sup>205</sup> has specific enabling legislation for local development impact fees. Indiana does permit municipalities to impose a monetary charge on new development to defray the costs of the new infrastructure;<sup>206</sup> however, no community in Dearborn County has enacted such an ordinance.

**OKI uses “will” in objectives and policy statements to describe events in the future, rather than to order something to happen.**

### Objectives

25.Y. By 2008, OKI will provide a model for calculating the public costs associated with new development, for use throughout the region.

### Policies

25.Y.1. Local governments will use a standardized model supplied by OKI for calculating the public costs associated with new development, and OKI will provide technical assistance to local governments for its use.

25.Y.2. Local governments will foster creative public/private financing mechanisms and partnerships for public facility improvements.

25.Y.3 Local government comprehensive plans will consider public costs and revenues from new development, as well as the need for accommodating low revenue land uses (such as parks and affordable housing).



**Strategic Regional Issue #26: Land is being consumed for new development at a rate five times faster than population growth, resulting in a decrease in population density and population movement toward communities farther away from current centers of population and employment.**

### **Trends and Conclusions**

The tri-state's rate of land consumption implies that land available for development or redevelopment in urban areas is not being fully utilized to accommodate the region's growing number of people. Instead, the trend has been to develop vacant land on the suburban fringe. The density of population (the number of people per acre of land) has been declining over the years, while the rate of development of virgin land has increased. The OKI region's land development trend has resulted in a 27% decrease in population density.

The movement of population toward communities farther away from centers of population and employment has a number of transportation and social equity implications.

Separated and isolated land uses multiply

transportation needs, as good travel connections need to be established between physically expanding centers of growth. According to the March 2001 Metro Moves Plan, the movement of people and activity centers to the suburbs of the OKI region has impacted the provision of additional regional transportation services.

The region's conventional low-density and low-intensity suburban development pattern typically segregates individual land uses on freestanding parcels of land with no direct connections to adjacent parcels. Walking and biking to various destinations is severely limited and often hazardous, and such low-density development is basically unserviceable by transit, or transit service is inconvenient to potential riders. Limited public transit is an obstacle to accessibility and mobility for the region's citizens, especially the transportation disadvantaged, which includes elderly, disabled, low income, minority populations, and other zero-car households.

New development on previously undeveloped land at the urban fringes and beyond is more economical and less constrained than redevelopment of existing urban land. Suburban growth is increasing the pressure to develop more floodplains and steep hillsides, which can aggravate flooding and landslides. These two problems result in millions of dollars in damage to public and private property each year.<sup>207,208</sup> Greater amounts of impervious surfaces (roads, sidewalks, rooftops, parking lots), increases the need for storm water management, both in terms of flooding and pollution control.

Water quality is impacted by runoff of storm water into streams and percolation into the aquifers. Development that borders natural landscape can displace wildlife and disrupt wildlife corridors. Increased traffic congestion resulting from suburban growth threatens the region's ability to maintain clean air standards.

An example of these impacts is an analysis by the National Oceanic and Atmospheric Administration and the South Carolina Department of Health and

Environment that indicated that in Charleston, sediment loads from sprawling development patterns are 300 percent greater than those from more compact development patterns. Low-density development increased nitrogen and phosphorous loads in runoff to surface waters. Heavy runoff resulted in increased government spending to manage the consequences. Taxpayers thus subsidized the roads and utilities that promoted low-density patterns, and then paid again to mitigate the consequences.

Because the region is experiencing slow to moderate growth, the cumulative impact of the movement of people to the newer suburbs is a net loss of population in the central cities and older suburbs. The movement of corporate offices and businesses from the central downtown and secondary business districts to the suburbs fosters the deterioration of older business districts. The region's central cities lose population, as well as first-class commercial tenants and owners. This out-migration has enormous negative impacts on the affected jurisdictions' property tax bases. Sprawling development disproportionately increases the cost in money, energy, and time of providing and maintaining public facilities and services.

People move to the suburbs for different reasons. One of them is the preference of people to live in less dense areas. Businesses move to the newer suburbs in part due to the movement of new residents to the suburbs. Other commercial and industrial businesses move to the suburbs for convenience in transportation and infrastructure. Corporate offices and businesses in the central cities move to the suburbs for more open space and the ability to develop land relatively inexpensively.<sup>209</sup>

When population in the suburbs grows and reaches a critical mass, various new services and businesses, including retail, come to the suburbs to serve the new population. This phenomenon is occurring in most metropolitan areas across the nation. The flight of businesses and people out of the region's central cities and first suburbs can result in the disuse, deterioration, dereliction and later abandonment of properties, which are decades old and often alleged

to be contaminated/polluted.<sup>210</sup>

Historically, downtowns have been heterogeneous places offering multiple activities. Downtowns typically have had a broad mixture of land uses including retail stores, professional offices, theaters, government offices and courts, post offices, banks, apartments, places of worship, libraries, wholesale businesses, train and bus stations, warehouses, and restaurants.<sup>211</sup> The deterioration of downtowns in large part is also due to the development of zoning regulations that call for separation of different types of land uses. Restrictive zoning regulations make a mixture of land uses and activities in the downtowns illegal.

Automobile-oriented development patterns are associated with increased distances between workplaces and homes, and the separation of land uses. A study of 37 cities worldwide found that per-person use of automobiles in American cities is double that of the more compact European cities.<sup>212</sup> It was also found that auto-use rapidly increases when density drops below eight people per acre.<sup>213</sup>

To combat the imbalanced rates of land consumption and decreasing population densities, planners and researchers have demonstrated that concepts like “growth management,” “smart growth,” and “new urbanism” can remedy the aforementioned problems through the simultaneous application of planning, incentives, cost accounting, cost sharing, and regulations.

In general, the concept of smart growth addresses three inter-related problems: the density of development; the spatial separation of land use; and the lack of transportation mode choice.<sup>214</sup> The problems associated with low-density development can be remedied by practices such as urban growth management and infill development. The spatial separation of land use can be tackled by considering mixing land uses and creating functional public spaces. Solutions to the issue of the lack of transportation mode choice include mixing land uses and creating transit and pedestrian friendly

environments. Implementation of these ideals involves concentrating rather than dispersing employment and services, increasing pedestrian access, clustering housing, and mixing land use types.<sup>215</sup>

Land is one of the most important resources in the OKI region. The cost-effective and efficient use of land is key to ensuring the quality of life and long-term health and well being of our communities.

**OKI uses “will” in objectives and policy statements to describe events in the future, rather than to order something to happen.**

### Objective

26.Z. By 2012, new development will be guided toward areas of the region where centers of population and employment already exist, and where public facilities and services, roadways and other infrastructure have been expanded or are planned for expansion as outlined in local comprehensive plans.

### Policies

26.Z.1. Local governments will use their comprehensive plans and zoning ordinances to direct new development with a residential density of two or more household units per acre to areas that already have sewers and other urban services, or to areas where development can be phased in with the provision of urban services.

26.Z.2. Local governments will prioritize infrastructure investments to serve existing and planned centers of population and employment, rather than developing greenfields.

26.Z.3. OKI and local governments will encourage patterns and forms of development and redevelopment that maximize multi-modal transportation where appropriate, to

reduce the total amount of daily vehicle miles traveled.

**26.Z.4. Local zoning ordinances will permit mixed-use developments in centers of population and employment that are recommended in local government comprehensive plans.**

**26.Z.5. OKI and local governments will give priority to transportation projects which facilitate infill and compact development, and foster transit-friendly developments.**

**Strategic Regional Issue #27: There is a tendency in the region to develop vacant land on the suburban fringe because greenfield development is more economical and less constrained than brownfield redevelopment.**

### **Trends and Conditions**

“Brownfield” sites are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.<sup>216</sup> Brownfields may include abandoned factories, warehouses, power plants, dry cleaners, hotels and gas stations.<sup>217</sup> “Greenfield” sites are pieces of usually semi-rural, undeveloped property that may be considered as a site for expanding urban development.<sup>218</sup>

Brownfield redevelopment is the identification, clean up, and reuse of contaminated properties, which benefits the environment, public interest, and the economy. Greenfields are integral to our natural resource base; consequently, their conservation is key to the vitality of our communities, environment, and quality of life.

The movement of businesses and people out of the region’s central cities and first-ring suburbs can result in the disuse, deterioration, dereliction and later abandonment of properties. There is a tendency in the region to develop vacant land on the



suburban fringe because the property owner and/or developer finds greenfield development to be more economical and less constrained than brownfield redevelopment.

A major barrier to the brownfield redevelopment process is cost, which can sometimes be quite high. Based on a national survey of communities, the U.S. Conference of Mayors reports “brownfields are a major problem for cities large and small, and the lack of funds to clean-up these sites was the most frequently identified obstacle in recycling these lands.”<sup>219</sup>

Dr. Thomas Bier, director of the Housing Policy Research Program at the Cleveland State University College of Urban Affairs, said that initially it is almost always going to be cheaper to build on a greenfield in an outlying county than to tear down something and clean-up a site in an urban county.<sup>220</sup> The disincentives/deterrents to developing brownfields include the owner’s liability for clean up, and the costs associated with assessing and cleaning the site which makes the alternative of greenfield development a more economical option. Disincentives, along with cheap land prices in greenfield areas, the availability

or promise of newer roads and infrastructure, lower taxes, better schools and open space all contribute to the reluctance to redevelop brownfields.

Brownfield sites often remain undeveloped because of entrepreneurs' concern about legal and financial liability for contamination caused by previous owners or users. Greenfield development is less constrained in the sense that there are no such political and legal issues involved and hence developers and private property owners choose greenfield development over brownfield redevelopment.

Owners, real estate buyers and developers need encouragement and incentives to invest in brownfields, and to reuse existing buildings, land, and infrastructure. Strong and vibrant communities are essential to a healthy environment. Reusing existing buildings, land and infrastructure helps protect quality of life and preserve open space.<sup>221</sup> This can be done by providing incentives to buyers that would encourage brownfield redevelopment instead of diverting growth towards suburban landscapes. A number of public and market oriented tools for overcoming liability problems have been made available in recent years.<sup>222</sup>

Local, state and federal agencies are targeting attention and resources to brownfields. Forty-six states allow volunteers to clean-up sites and receive some level of liability relief from state enforcement.<sup>223</sup> Many states have also established programs within their environmental, economic development, and transportation agencies to assist in financing site testing and clean up.<sup>224</sup>

In January 2002, President Bush signed the "Small Business Liability Relief and Brownfields Revitalization Act" which amended past stringent brownfield laws. It is aimed at protecting owners of contaminated property from legal responsibility for cleanup when the owners did not contribute to the contamination.<sup>225</sup>

Such measures help to ensure that owners, real estate purchasers and developers participate

effectively in the brownfields redevelopment process. Community members, working in partnership with the local governments and potential developers, can overcome many of the obstacles to brownfields redevelopment and greenfields conservation.

In November 2000, Ohio voters approved a \$400 million environmental bond program known as the Clean Ohio Fund. By 2004, \$200 million of this bond money will be used to clean up and redevelop Ohio brownfields. The remaining \$200 million will be used to acquire and develop green space for recreation, water protection and farmland preservation.<sup>226</sup> The Clean Ohio Fund is designed to help turn brownfields into investments that will produce both environmental and economic benefits. The Clean Ohio Revitalization Fund and the Clean Ohio Assistance Fund are financial tools developed to provide funding for brownfield clean up activities.<sup>227</sup>

Whether it is in the context of new government incentives for managed growth and brownfield redevelopment, or the OKI Land Use Commission's *Vision for Stewardship*, day-to-day development trends must be altered to ensure the vitality of the region's residential and commercial districts, environment, and quality of life.

**OKI uses "will" in objectives and policy statements to describe events in the future, rather than to order something to happen.**

### Objective

27.AA. By 2007, a regional database will identify abandoned and underutilized brownfield sites available for redevelopment.

### Policies

27.AA.1. OKI will research and document existing legislation (local, state, federal) that hinders brownfield redevelopment. This research and documentation will also include an identification of opportunities for grants and other funding sources to

help make brownfield redevelopment more economically feasible while protecting public health and safety.

27.AA.2. State and local governments will streamline brownfield redevelopment approval processes where possible, while protecting public health and safety.

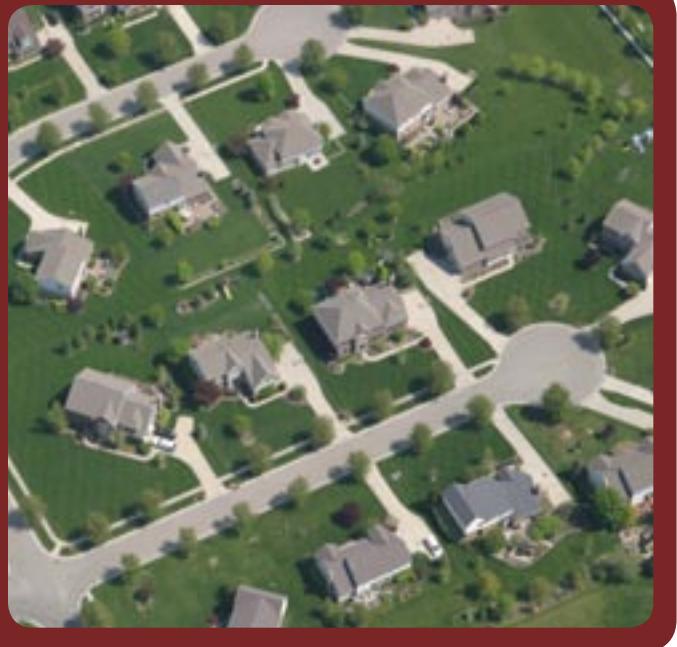
27.AA.3. Local governments will identify and plan for commercial and industrial reuse of brownfield sites in their comprehensive plans.

### **Strategic Regional Issue #28: Low-density developments, and the isolation of residential, work place, and shopping uses increases the per-unit cost of public facilities, taxes or user fees, and the level of income needed to obtain housing.**

#### **Trends and Conditions**

A combination of factors have driven the region's prevailing development patterns, including zoning regulations, cheap land, inattention to the timing and location of new development, and a lack of alternatives to the modern single-family residential subdivision. In Ohio, the exemption of parcels in excess of five acres from subdivision review exacerbates this strategic issue.

Newer residential development in the region can generally be characterized as one-half to one-acre lots in cul-de-sac type subdivisions. This is the case in all parts of the region where relatively large tracts of vacant land have been available. New business development in the region also has a tendency to occur on vacant land on the fringe of the urbanized areas. These new business are typically oriented toward the roadway, and have large parking areas in front of the building. They are designed for the automobile, not the pedestrian.



Other design characteristics of the region's prevailing development patterns are:

- Isolation of low-density residential development from other land uses, requiring residents to use their cars for travel to work, school, shopping and pleasure;
- Higher priced residential development associated with the costs of providing public facilities and services;
- Businesses that are isolated from residential uses, not pedestrian oriented, and often not serviced by transit, thus requiring workers to use an automobile to get there;
- Escalating traffic congestion and air pollution;
- Increased costs associated with extending public water and sewer service to these previously un-served areas;
- Higher costs associated with additional roadway lane miles (length and/or width); and
- Loss of open-space, natural resources and agricultural lands.

The term "isolated" refers to the separation of residential land uses from other uses, such as retail and office. One of the basic premises of zoning has been to separate and divide the differing land uses

within a community into categories,<sup>228</sup> to exclude certain uses and keep them separate from other uses. The recent history of zoning laws has been that if a section of a community were zoned residential, then no commercial uses would be permitted, so a grocery store could not be built within a housing district.<sup>229</sup>

Low densities and intensities tend to increase the per-unit cost of public facilities and services. Fewer linear miles of sewer and water lines, roads, and utilities are needed to service structures that are arranged compactly. Compact, higher intensity, mixed-use, pedestrian-oriented development uses less land, and can cost 25% less for roads, 15% less for utilities, 5% less for housing, and 2% less for other fiscal impacts.<sup>230</sup>

Similarly, police and fire service is less expensive for compact development because there is less area to patrol. School bus routes can be shorter, more students can be collected at each stop, and more children can walk to school or use regular transit services. Compared to low-density developments, a compact area with comparable population size can be similarly served by fewer police stations, fire stations and schools.<sup>231</sup>

Automobile-oriented development leads to traffic congestion, reduced pedestrian safety, and rising costs for commuters. Residents of compact, mixed-use development have shorter trips to grocery and hardware stores, healthcare, restaurants, and jobs. They can more easily travel by foot or bicycle. Compact development, which is more feasibly served by transit, also relieves many residents of the high cost of personal automobile ownership. Proximity of businesses helps maintain a thriving local economy and keep sales tax revenue in the region.<sup>232</sup>

The combination of low-density development and isolated land uses has significant impacts, including:<sup>233</sup>

- Higher public infrastructure and operating costs; the initial cost of providing water, sewer, and roads

to new development is higher in low density areas than in compact areas where these facilities and services can be centralized. The lower the density of the development, the higher the cost of providing the necessary infrastructure (based on, for example, cost per linear foot.). The greater the number of taps and toilets, the higher the necessary treatment capacity; these costs are borne by the consumer up front, in initial tap and capacity fees, as well as in monthly water and sewer bills.

- The laws of supply and demand cause higher aggregate land costs; total cost of land is driven higher as land is consumed by development, adding to the final cost of the structure.
- Prime agricultural land is consumed and the productivity of remaining farms is negatively affected due to the difficulty of conducting efficient farming operations (i.e., the decline of the area's agricultural district and the loss of economies of scale).
- The loss of cohesive communities and sense of place. The community's social capital is diminished; more driving time means less interaction with family, friends and civic organizations. Every 10 minutes of commute time means a 10% decline in social capital.<sup>234</sup>
- The economic base of the inner city is weakened as businesses and households move to the suburbs where land is cheaper.
- Worsened air and water pollution as a result of increased traffic congestion and storm water runoff.
- More automobile trips, higher household transportation spending, increased vehicle miles traveled region-wide, and less efficient, effective transit.

While these factors provide ample evidence that it is time to change our development patterns, the primary generator of these sprawling, inefficient development patterns is the "American Dream" of living on a large lot in a low-density, single-family neighborhood. Given that this type of subdivision has been the only product for most of the suburban residential market for over 40 years, it is the preferred living situation for a large percentage of the population.<sup>235</sup>

One consequence of this strategic issue is if tri-state residents are spending a large percentage of their income on housing and transportation, they have less to spend for other products and services. As noted in the Land Use Commission's report on housing trends and conditions, housing is considered affordable to a household if that household pays no more than 30% of its gross income for basic housing costs.<sup>236</sup> Families who pay more than 30 percent of their income for housing are considered cost burdened and may have difficulty affording other necessities such as food, clothing, transportation and medical care.<sup>237</sup> According to the 2000 Census, 17 percent of homeowners and 34 percent of renters in the OKI region spent over 30 percent of their income on housing; there are significant numbers of households in every county in the region paying more than 30 percent of their gross income on basic housing costs.

Even though a number of homebuilders are actively providing a variety of housing types and prices, the breakdown in the ability of the private sector to meet housing demand is greatest at the lower income levels. Local zoning requirements for large lot sizes and low density restrict the builders' ability to produce an affordable product for even moderate-income homeowners.

Many local governments discourage higher density (multifamily) zoning districts and mixed-use development because they believe higher tax revenues will be generated by single-family units, and often because of opposition by neighboring property owners. Instead, zoning ordinances are used to promote owner-occupied, single-family, detached units on large lots, which are mainly accessible to families in upper-income brackets.

Many communities now understand that this type of zoning may not create the best quality of life. Tools like "planned use development" (PUD) zoning allow communities the flexibility to approve development with mixed uses, allowing single-family homes near apartments and offices, and grocery stores near

residential areas, so people can work and shop close to home.<sup>238</sup> PUDs, while increasing in popularity, can portend future burdens for local governments in tracking and administering each PUD's unique site plan. Many local officials have instead opted for amending their ordinances to permit mixed use zoning districts.

According to the Cincinnati Metropatterns report, "the fiscal connection between local land use policy and tax capacity" is an incentive for communities "to attract or limit development to uses that generate greater revenues than costs (commercial and industrial)." This causes fierce competition between local governments because "there is only a limited amount of such development to go around."<sup>239</sup>

**OKI uses "will" in objectives and policy statements to describe events in the future, rather than to order something to happen.**

### Objective

28.BB. By 2012, local governments will use their comprehensive plans, land development regulations, and incentives to promote development patterns that encourage cost-effective public facilities and services and a diverse mix of housing choices.

### Policies

28.BB.1. Local comprehensive plans will encourage compact, transit-friendly, pedestrian-oriented development and redevelopment, where appropriate, in an effort to minimize the per-unit cost of public facilities and services.

28.BB.2. Local comprehensive plans will encourage the use of innovative street design<sup>240</sup> in conjunction with compact development to enhance or preserve community character, where such street design can be implemented safely and with balanced consideration of capacity needs for vehicles, bicycles, and pedestrians.

## Tables - Land Use

Table 3: Governmental Units in the OKI Region

	Number of Townships	Number of Municipalities (cities, villages, and towns)	Number of Independent and/or County School Districts
Ohio			
Butler	13	12	10
Clermont	14	12	9
Hamilton	12	36	22
Warren	11	13	8
Kentucky			
Boone	0	3	2
Campbell	0	15	6
Kenton	0	20	5
Indiana			
Dearborn	14	7	3

## Footnotes - Land Use

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181 **Green infrastructure** is a connective network or functional patchwork of greenspace that sustains the

## **Footnotes - Land Use continued**

diversity and quality of natural systems, and that contributes to the health, economic vitality, and quality of life for communities and people.

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# Implementation

## How the Strategic Regional Policy Plan Will Be Used

Various public, private or non-profit, or citizen-based institutions within the region that affect regional policy may use the strategic regional policy plan.

For example, the plan should be used by OKI in its transportation programs to address OKI's federal mandates. The plan offers guidance to local governments in areas of policy development, land development, and capital budgeting, because public investments in infrastructure greatly affect land development and land use decisions affect infrastructure investments. The strategic regional policy plan encourages various conservation-oriented non-profit organizations to look at natural resources extending beyond their agency's service area. The plan also illustrates how the economic development community ties into transportation, housing, and other issues.

Policies in the strategic regional policy plan should be applied within the context of the overall intent of the plan; consequently, no policy should be applied in isolation. For example, a regional economic development policy, if applied in isolation, may be in direct conflict with natural resource policies in the strategic regional policy plan. In that instance, the overall and long-term benefits and costs to the region should be carefully considered.

Successful implementation that moves the region toward its vision and goals is the ultimate test of a good strategic regional policy plan; however, coordinated policy implementation to realize regional goals presents tremendous challenges.

OKI will provide tools such as model ordinances, processes and techniques that further the Commission's mission and vision, and that local governments may consider adopting.

## Evaluation, Appraisal and Amendment

Evaluation, appraisal and updating of this strategic regional policy plan will coincide with the regular updating of OKI's long range transportation plan.

Amendments to this strategic regional policy plan will be considered by the full OKI Board of Trustees, with action on proposed amendments preferably coinciding with a regularly scheduled Board of Trustees meeting.

