

State of the County Report: Community Services

COMMUNITY COMPASS REPORT NO. 16-2

Hamilton County, Ohio

Community
COMPASS



HAMILTON COUNTY
Regional
Planning
Commission

November 2004



The Planning Partnership is a collaborative initiative of the Hamilton County Regional Planning Commission. The Partnership – open to all political jurisdictions in the County and to affiliate members in the public, private, and civic sectors – is an advisory board that works to harness the collective energy and vision of its members to effectively plan for the future of our County. Rather than engaging in the Planning Commission’s short-range functions such as zoning reviews, the Planning Partnership takes a long-range, comprehensive approach to planning, working to build a community that works for families, for businesses and for the region. The Partnership firmly believes that collaboration is the key to a positive, competitive, and successful future for Hamilton County.

Visit planningpartnership.org and communitycompass.org for more information.

Community COMPASS (Hamilton County’s Comprehensive Master Plan and Strategies) is a long-range plan that seeks to address mutual goals related to physical, economic, and social issues among the 49 communities within Hamilton County. Through a collective shared vision for the future based on the wishes and dreams of thousands of citizens, Hamilton County now has direction to chart its course into the 21st century.

In developing a broad vision with broad support, Community COMPASS will help ensure that trends are anticipated, challenges are addressed, priorities are focused, and our collective future is planned and achieved strategically over the next 20 to 30 years. Through an in-depth analysis of all aspects of the County, the multi-year process will result in a comprehensive plan.

The State of the County report series outlines conditions, findings, opportunities, and key measures related to improving and sustaining quality of life in twelve major systems in our community. The individual reports lay the groundwork for an overall State of the County analysis or report card, and provide support for refining action strategies.

Abstract

Title:

State of the County Report:
Community Services
Community COMPASS
Report No. 16-2

Subject:

Current conditions and findings regarding sewer, water, storm water, solid waste, crime, homeland security, and technology in Hamilton County.

Date:

November 2004

Synopsis:

This report presents existing conditions and trends in Hamilton County related to sanitary sewer and water service, storm water management, solid waste, recycling, public safety, homeland security, and communications. The report identifies seven important findings as well as the importance of trends associated with each finding, and provides key indicators for measuring progress toward the Vision for Hamilton County’s Future.

Source of Copies:

Hamilton County
Regional Planning
Commission

138 East Court Street
Room 807
Cincinnati, OH 45202
513-946-4500

www.hamilton-co.org/hcrpc

Download this report at
communitycompass.org

Context

COMMUNITY COMPASS COMPONENTS

- 1 **Vision**
(What do we want?)
- 2 **Initiatives**
(What strategies should we consider?)
- 3 **Indicators**
(What should we measure?)
- 4 **Trends**
(Where have we been?)
- 5 **Projections**
(Where are we headed?)
- 6 **Research**
(What's the story behind the trend?)
- 7 **Partners**
(Who can help?)
- 8 **Strategic Plans**
(What can we do that works?)
- 9 **Action Plans**
(How do we make it happen?)
- 10 **Performance Measures**
(Are actions making a difference?)

This Report

STATE OF THE COUNTY REPORTS

- Civic Engagement and Social Capital
- Community Services
- Culture and Recreation
- Economy and Labor Market
- Education
- Environment
- Environmental and Social Justice
- Governance
- Health and Human Services
- Housing
- Land Use and Development Framework
- Mobility

STATE OF THE COUNTY REPORT: COMMUNITY SERVICES

Table of Contents

Acknowledgements..... iii

Executive Summary v

Introduction..... 1

Finding 1: Demand driven utility expansion policies tend to override community goals 2

Finding 2: The number of failures of on-site sewage treatment systems is increasing for mechanical systems and decreasing for non-mechanical systems 8

Finding 3: Pollution from storm water runoff and sanitary sewer problems is being addressed through government mandates as well as legal settlements. 10

Finding 4: Hamilton County’s solid waste recycling now exceeds the amount of waste deposited in the area’s sanitary landfills. 13

Finding 5: Once in decline, crime rates for the Cincinnati metropolitan region are increasing, although overall crime levels are lower than most other Midwestern metropolitan areas 15

Finding 6: Homeland security planning is an important new concern in Hamilton County 17

Finding 7: Technological advances in communications will bring economic, education, and social changes over the next years. 19

Appendix A: Endnotes 23

Appendix B: Community COMPASS Publications 25

STATE OF THE COUNTY REPORT: COMMUNITY SERVICES

Acknowledgements

2004

Board of County Commissioners

- John S. Dowlin, President
- Phil Heimlich
- Todd Portune

2004

Regional Planning Commission

- Robert F. Alsfelder, Jr., Chairman
- Hal Franke
- Darrell Leibson
- Melvin D. Martin
- M. Larry Sprague
- James R. Tarbell, Vice-Chairman
- Jerry J. Thomas

2004

Planning Partnership Officers

- Steve Galster, Chair
- Gwen McFarlin, Chair-Elect
- Elizabeth A. Blume, AICP, Vice-Chair

Project Staff

Principal Research:

- Andrew A. Dobson, AICP
Senior Planner

Research and Forecast:

- K.D. Rex,
Senior Planner
- John Huth,
Senior Planner
- Sam Hill,
UC Planning Student
- Jesse Hartman,
UC Planning Student

Graphics & Layout:

- Karen Ambrosius,
Administrative
Coordinator
- Paul Smiley,
Senior Planner
- Jay Springer,
Planning Communication/
Graphics Specialist
- Kevin Sewell,
UC Planning Student

Editing:

- Caroline Statkus, AICP,
Planning Services
Administrator
- Ron Miller, FAICP,
Executive Director

Reviewers

- Pat Karney,
Past Director,
Metropolitan Sewer
District
- Dan Schaeffer,
Principal Engineer,
Cincinnati Water Works
- Jeffrey W. Aluotto,
Solid Waste Program Manager,
Hamilton County Solid
Waste District

Executive Summary

FINDING 1

Demand driven utility expansion policies tend to override community goals.

- Although total population is decreasing, and surrounding counties continue to become more fashionable places to live and work, development activity continues in Hamilton County.
- In an area that has not been developed, the location of a sewer trunk line is an excellent predictor of where the growth will occur.
- In low-density developments, sewer lines are not cost-effective. Likewise, if a new development is located in a remote part of the County or in an area with rugged terrain, providing public utilities may be unfeasible.
- On-site sewage disposal systems generally are not an ideal situation for new development, and can lead to public health and environmental problems.
- Sewer and water service extensions in Hamilton County appear to be primarily driven by demand for new development. Having a demand-driven utility expansion policy can lead to problems in prioritizing where funding and efforts for service expansion will do the most public good, and often prevents progress in achieving adopted community goals.

FINDING 2

The number of failures of on-site sewage treatment systems is increasing for mechanical systems and decreasing for non-mechanical systems.

- Approximately 19,000 housing units in Hamilton County have on-site private septic (non-mechanical) or aeration (mechanical) wastewater treatment systems.
- The Hamilton County Board of Health must approve all on-site wastewater treatment systems before they can operate. Beginning in 1996, the Board of Health began regular inspections of existing systems to ensure they are functioning properly.

- Approximately ten percent of the County's on-site wastewater treatment systems completely fail every year. Furthermore, the Hamilton County General Health District estimates that as many as 50 percent of septic and aeration systems are not functioning properly.
- Due to the number of on-site sewage systems that fail each year, there is a strong incentive to extend sewer lines throughout much of the County. MSD's *QUEST Plan* identifies opportunities along with limitations for sewer line extensions.

FINDING 3

Pollution from storm water runoff and sanitary sewer problems is being addressed through government mandates as well as legal settlements.

- Storm water runoff and sewer overflows into rivers, streams, and buildings are longstanding problems in Hamilton County. Hundreds of overflows and discharges each year cause enormous damage to our environment and property, to say nothing of the public health hazards.
- The U.S. Environmental Protection Agency created the NPDES Phase II Permit Program (National Pollutant Discharge Elimination System) requiring urban counties to adopt programs to improve storm water quality. Accordingly, the Hamilton County Storm Water District (HCSWD) was formed in 2003 with 45 of the County's 49 communities joining together to work on a watershed basis.
- HCSWD has a five year program for phasing in storm water measures. It is important to note that HCSWD will issue guidance ordinances and procedures manuals for member communities, but regulations for storm water will remain under local control.

- Storm water management in Hamilton County needs to advance from an engineering problem to a multi-jurisdiction planning initiative with long-range perspectives and solutions. The measures taken by HCSWD over the next years are a first step in working together to address watershed issues.
- The Hamilton County Planning Partnership has a role to play in storm water management as well. Independently of the NPDES II program, the Partnership developed an educational storm water management workshop for planning commissions of member jurisdictions. Several communities have participated in the workshop and some have subsequently revised their storm drainage requirements.

FINDING 4

Hamilton County's solid waste recycling now exceeds the amount of waste deposited in the area's sanitary landfills.

- Recycling is an increasingly important part of solid waste management in Hamilton County. As more materials are recycled, less solid waste is being sent to the Rumpke Sanitary Landfill.
- Hamilton County generates an average of 2.5 million tons of waste annually, 1.2 million of which is deposited in the Rumpke Landfill, and the remainder is recycled. Between 1992 and 2002, the total amount of material collected for recycling in Hamilton County increased over 500 percent, from about 227,000 tons in 1992 to approximately 1.4 million tons in 2002.
- According to the Solid Waste District, Rumpke Sanitary Landfill provides a low-cost solid waste disposal option not only to Hamilton County but the entire metropolitan region. How long this landfill remains in operation has implications for every household and business in Hamilton County. Recycling has a direct effect on the lifespan of the landfill. The more waste diverted from the landfill for recycling, the longer it can remain in operation.
- Beyond the benefits to the environment and landfill operations, recycling activity brings benefits to the State economy. The State of Ohio had approximately \$22.5 billion in sales of recycled materials in 2002.

FINDING 5

Once in decline, crime rates for the Cincinnati metropolitan region are increasing, although overall crime levels are lower than most other Midwestern metropolitan areas.

- An important aspect of an area's quality of life is related to the safety of its citizens. Many factors impact the level of crime, some being employment rates, education levels, and stable family environments.
- Crime rates began dropping in the City of Cincinnati during the 1990s. However, those rates began rising with the 2000 recession.
- During the 1990s, overall crime rates declined in the Cincinnati metropolitan region and have stabilized over the past two years around 4,500 incidents per 100,000 residents. Reductions in both property crime rates and violent crime rates in the City of Cincinnati drove this trend.
- When compared with the Cleveland, Columbus, Indianapolis, Louisville, Pittsburgh, and St. Louis metropolitan regions, violent crime in the Cincinnati region is among the lowest.

FINDING 6

Homeland security planning is an important new concern in Hamilton County.

- In order to create a plan for security preparedness, the Hamilton County Homeland Security Commission was formed in March 2003. Commission members come from the private and public sector and include elected officials, department heads, utility managers, public safety administrators, and business leaders.
- Top capital improvement projects are a regional emergency operations center and a consolidated facility for the Cincinnati Board of Health and the County General Health District to store materials and conduct operations. Equipment recommendations center around providing first response personnel with hazardous materials equipment.

-
- Recommendations for short-term projects include general improvement of first response operations, extra protective measures against possible threats to different facilities and locations in Hamilton County, and equipment purchases.
 - In 2004, the U.S. Department of Homeland Security awarded Cincinnati and Hamilton County \$12.7 million in federal funds through the Urban Area Security Initiative grant program. Ohio received \$68.2 million from the Counterterrorism Grant program to distribute statewide. While these are generous allotments to our community, they fall short of the estimated \$135 million estimated funds needed to carry out all the recommendations in the *Hamilton County Homeland Security Commission Report*.

FINDING 7

Technological advances in communications will bring economic, education, and social changes over the next years.

- With its Third Frontier Project, launched in 2002, the State of Ohio has made technology-based economic growth a top priority. This project matches \$1.6 billion in State investment with an additional \$4.5 billion in federal and private funding to create a \$6 billion ten-year initiative.
- Hamilton County seems to be doing quite well with high-tech jobs. That sector increased dramatically from 28,679 jobs in 1987 to 48,545 jobs in 2001.
- The Cincinnati region has benefited from \$27.4 million in awards from the Third Frontier in 2003. The largest one, \$25.2 million, was presented to a team led by Cincinnati Children's Hospital Medical Center to establish the Center for Computational Medicine to benefit children with cancer and other diseases.
- Always at issue with internet connectivity are data transfer speed and the ability to communicate from any geographic location. Three emerging options are likely to address these communication obstacles in Hamilton County: wireless broadband networking, voice over internet protocol service, and broadband over power lines.

STATE OF THE COUNTY REPORT:

Community Services

THE VISION FOR HAMILTON COUNTY'S FUTURE:

Quality of life improvements through improved safety services, community beautification, and well planned and maintained comprehensive infrastructure with consideration of the impact on the built and natural environments.

INTRODUCTION

This report presents existing conditions and trends in Hamilton County related to sanitary sewer and water service, storm water management, solid waste, recycling, public safety, homeland security, and communications. The report identifies seven important findings as well as the importance of trends associated with each finding, and provides key indicators for measuring progress toward the Vision for Hamilton County's Future.

As communities grow outwards, new residents require the extension of services for public health, safety, and welfare. Other than zoning and other land development regulations, the decisions a community makes on where to build public sewer and water lines has a significant impact on where new development will take place and how that community will grow. These decisions are far-reaching as other community services are affected by utility expansion. With outward growth, police and fire departments will experience a greater number of calls over a wider area for service and will adjust their operations accordingly. School districts must accommodate an increase in students. Hospitals and health care providers will adjust to the needs of a changing population. Traffic generated from new development will impact the area's roads. All of these events to accommodate outward growth leave the older city and "first suburb" areas with fewer residents and less tax base to accommodate increasing cost of community services.

Ideally, community facilities planning would operate hand-in-hand with regional comprehensive land use planning. However, this kind of coordination has not been the tradition in Hamilton County, the OKI region, or the State of Ohio (which does not have legislation requiring comprehensive planning), nor indeed much of the nation throughout the last century of urban growth and expansion. With the completion of the new comprehensive plan - Community COMPASS - Hamilton County has identified initiatives to work towards closer coordination of comprehensive planning and infrastructure planning. Providing excellent community services will play an important role in retaining and attracting people and development in Hamilton County.

The Vision Statement for Community Services, a component of The Vision for Hamilton County's Future, is based on recommendations from 12 Community Forums in the Fall of 2001 and the Countywide Town Meeting held January 12, 2002.

The Vision for Hamilton County's Future was reviewed and approved by:

- Community COMPASS Steering Team, July 30, 2002
 - Hamilton County Planning Partnership, Dec. 3, 2002
 - Hamilton County Regional Planning Commission, Feb. 6, 2003
 - Hamilton County Board of County Commissioners, Nov. 26, 2003
-

FINDING 1

DEMAND DRIVEN UTILITY EXPANSION POLICIES TEND TO OVERRIDE COMMUNITY GOALS.

Hamilton County's population peaked in 1970 at 924,018 people. Since then, population has declined, falling to 845,303 in 2000. Although total population is decreasing, and surrounding counties continue to become more fashionable places to live and work, development activity continues in Hamilton County (Figure 1). People are spreading themselves further out across the County, building new houses, office parks, and shopping centers as they go. This new development encourages expansion of public infrastructure for water and sewer lines as shown in Figures 2 and 3.

The last large vestiges of undeveloped lands lie in the western third of Hamilton County. In an effort to plan for growth in this area of steep slopes and large floodplains, the 1999 *Western Hamilton County Collaborative Plan* (WHCCP) brought 10 communities together to consider the locations and types of growth. Rather than infrastructure driving growth, the WHCCP instead recommended areas for rural and moderate growth based on capacity of the land mainly for sewers (since on-site sewer systems are a limiting factor in housing density) and to an extent water as well as assessing fiscal and transportation

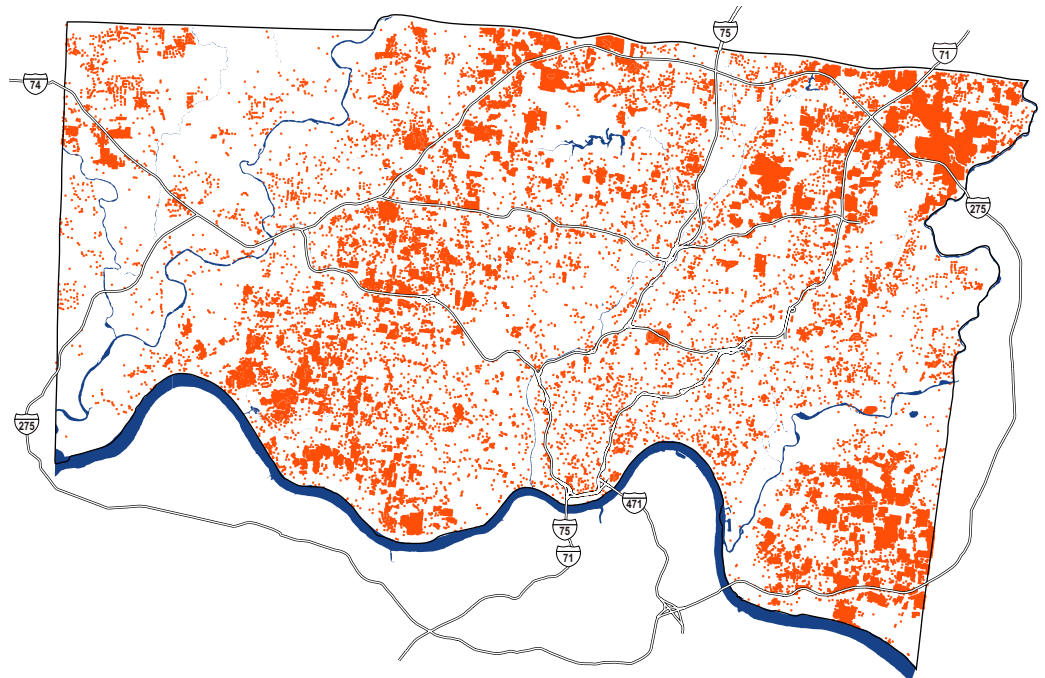
impacts. The areas shown for planned sewer as shown in Figure 4, are where moderate density (up to two or three homes per acre) can be accommodated. Areas without planned sewer (generally due to development constraints) are more appropriately kept in a rural state. It must be cautioned, though, that even larger lot developments (in excess of three acres) in rural areas can have an environmental impact when private sewage treatment plants are the only means of service.

Typically, when a parcel of land is developed in Hamilton County, the developer or owner of the property builds the

Figure 1
RESIDENTIAL
DEVELOPMENT,
1970 - 2004

- Post 1970 Dwellings

Source: Hamilton County Regional
Planning Commission



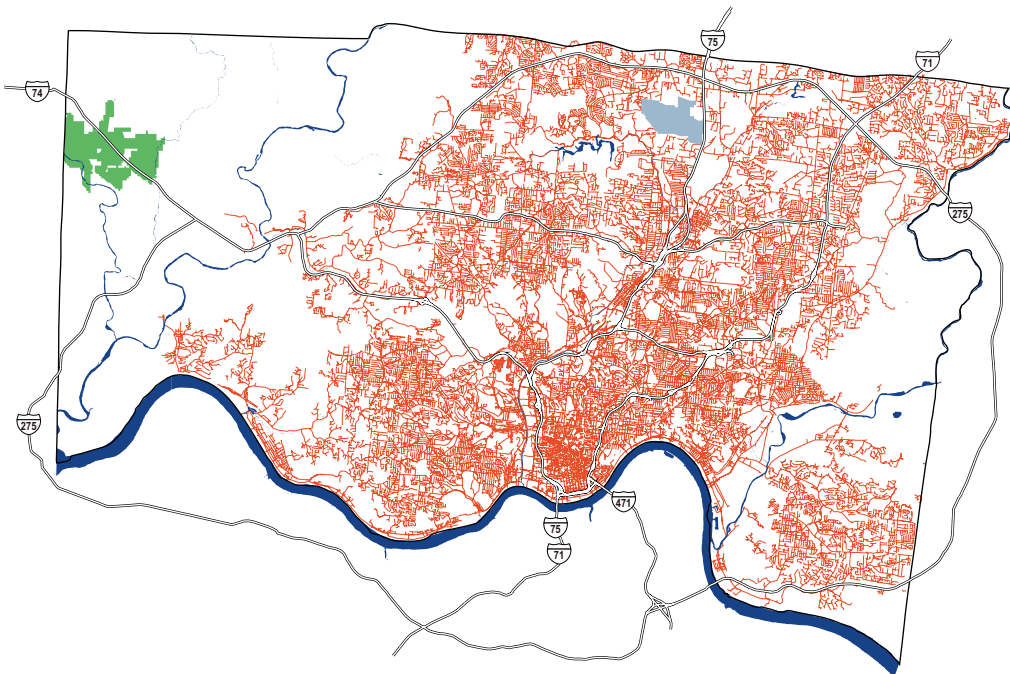
necessary sewer and water infrastructure within the project. All infrastructure is built according to the review and approval of the public utility that eventually will be responsible for operation and maintenance of the lines. In most cases




in Hamilton County, this is either the Metropolitan Sewer District (MSD) for sanitary sewer lines or Cincinnati Water Works (CWW) for water lines. Although MSD and CWW predominantly serve the County's residents, there

are some other providers as shown in Figures 5 and 6.

Five Hamilton County communities provide water to residents through local utility companies. Norwood and Reading purchase water wholesale

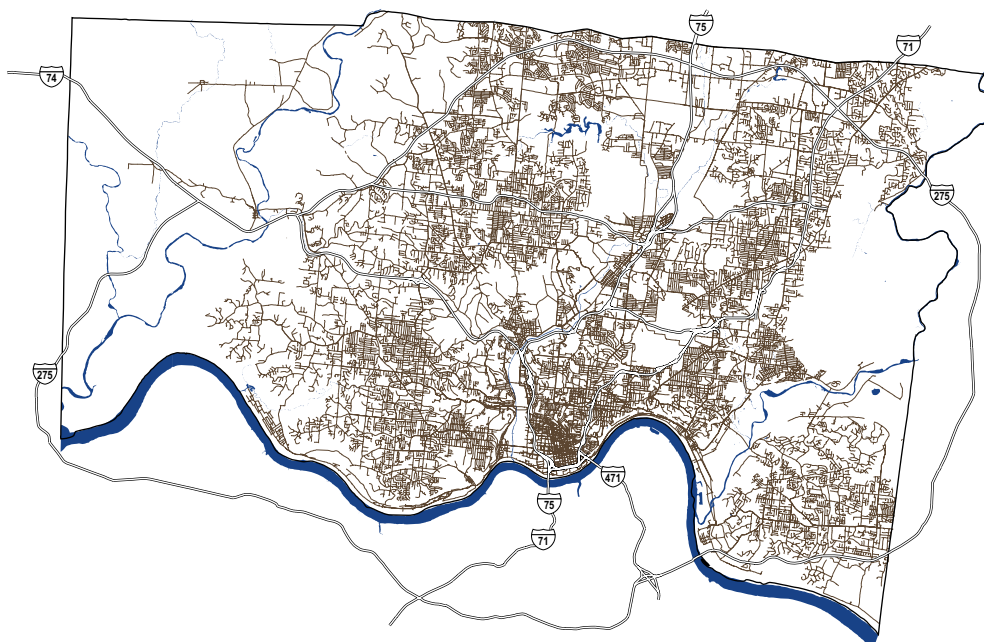
Figure 2
SEWER LINES, 2004




-  MSD Sewers Lines
-  Harrison Sewer Service
-  Glendale Sewer Service

Source: Metropolitan Sewer District , CAGIS

Figure 3
WATER LINES, 2004



-  Cincinnati Water Works Water Mains

Source: Cincinnati Water Works

from CWW and then sell it to their residents through their local utilities. Wyoming, Lockland, and Glendale, produce their own water from well fields but maintain standby con-



nections to CWW in cases of emergency.

Whitewater Township has a Sewer Management District that extends across the entire jurisdiction. Township officials cre-

ated the district to assist with sewer construction and hookup costs in the Miamitown and Hooven areas. New sewers in these communities became necessary when failing on-site sewage systems created a public health hazard for residents. MSD built the sewer lines and the Sewer Management District maintains them. The sewage is treated by MSD treatment plants, and Whitewater Township does not plan on building any treatment facilities. Since Whitewater Township has not adopted zoning, the recent availability of sewers could lead to haphazard development.

The City of Harrison Utility Department provides sewer service inside the Harrison city limits. Property owners outside Harrison have typically requested annexation

Figure 4
RECOMMENDED 2020 SEWER AND WATER SERVICE AREA FOR WESTERN HAMILTON COUNTY

-  Planned Sewer and Water Service Area
-  Planned Water Service Area

Source: *Western Hamilton County Collaborative Plan, 1999*

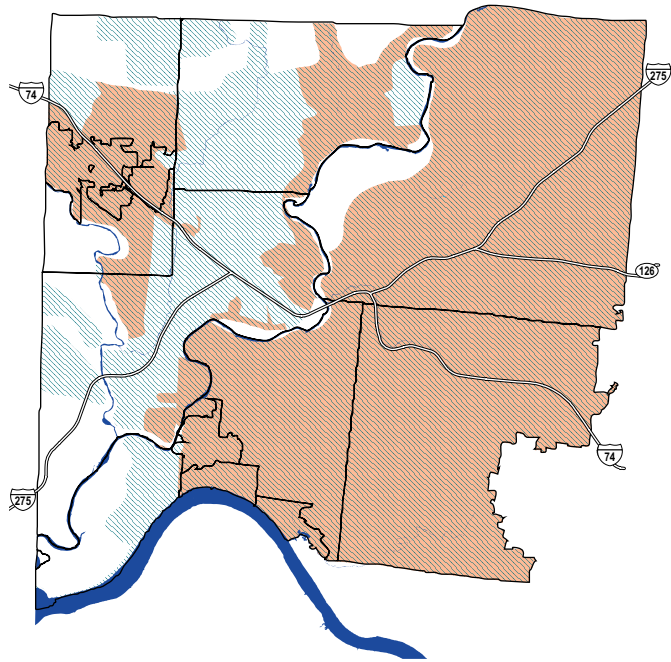







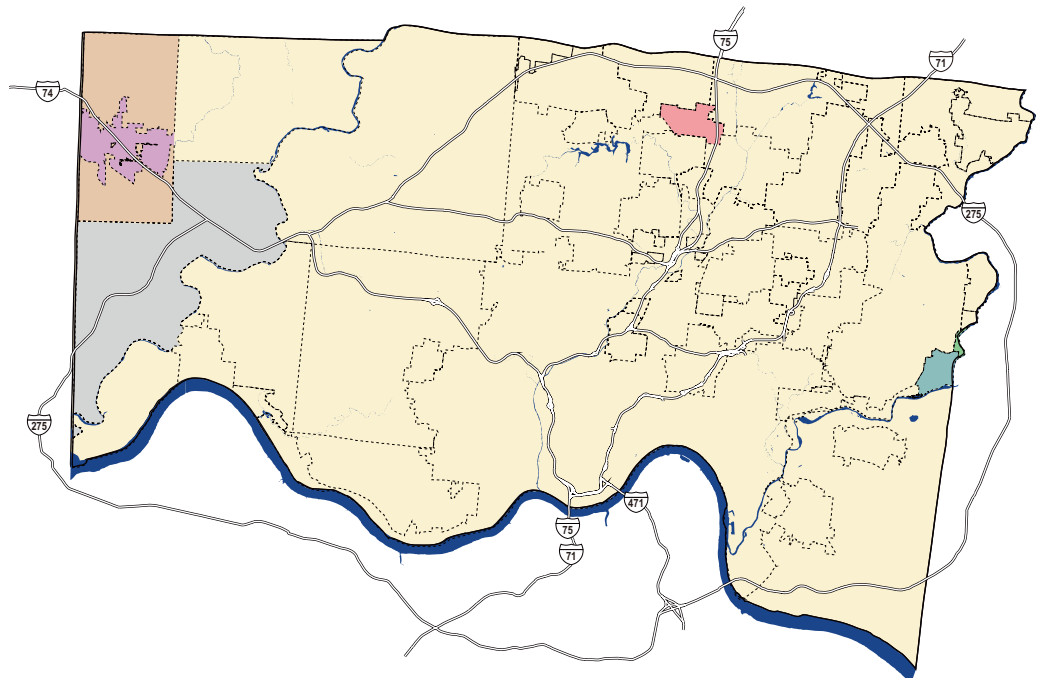


Figure 5
SEWER SERVICE PROVIDERS, 2004

-  Glendale Village
-  Harrison City
-  Harrison Township
-  Metropolitan Sewer District
-  Milford City
-  Terrace Park Village
-  Whitewater Township

Source: Metropolitan Sewer District and other local sewer service providers



into the City in order to access public sewers. There is also a Harrison Township Sewer Management District created to manage any future sewer development, but it does not own or maintain any sewer lines currently.

Water service in the Harrison area is provided by three utilities. Cincinnati Water Works provides water service to the south-

ern half of the Township and most of the City of Harrison. Harrison Township Water Service and Southwest Regional Water Service have jurisdiction over the northern half of the Township.

Individual developments - residential subdivisions, shopping malls, or industrial parks - connect their sewer lines into larger sewer mains or "trunk

lines. Trunk lines are high capacity sewer pipes that are generally too expensive to be constructed to serve a single development. They are intended to provide sewer service to a large region and potentially thousands of customers. Trunk sewers are usually constructed by MSD or other sewer utilities as part of larger capital improvement plans. In an area that has not been developed, the

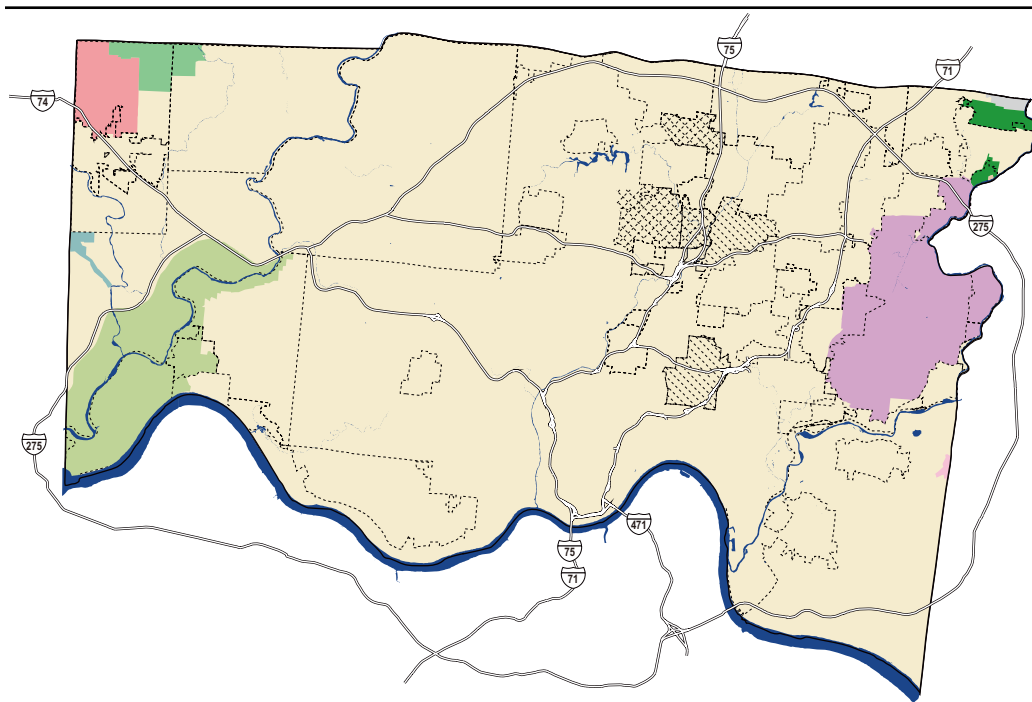


Figure 6
WATER SERVICE PROVIDERS, 2004

- CWW Standby Connections
- CWW Wholesale Connections
- Clermont County Water Service
- Cleves Water Service
- Cincinnati Water Works
- Harrison Twp. Water Works
- Indian Hill Water Service
- Loveland Water Service
- Twin Rivers Water Service
- Warren County Water Service

Source: Cincinnati Water Works and other local water providers

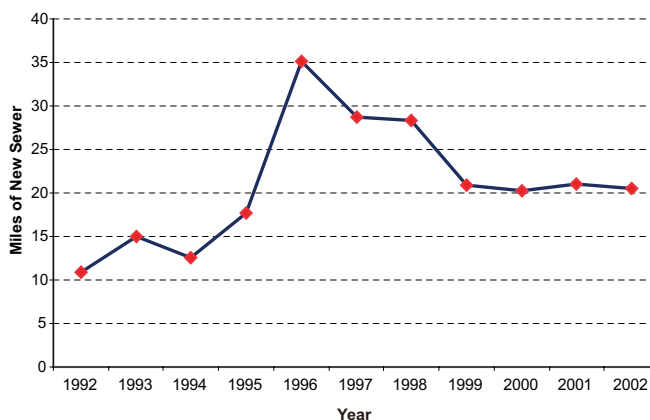


Figure 7
NEW SEWER CONSTRUCTION IN HAMILTON COUNTY, 1992-2002

Source: Metropolitan Sewer District

location of a sewer trunk line is an excellent predictor of where the growth will occur. Figure 7 shows sewer construction as peaking in the mid 1990s and then leveling off as the County became more developed and remaining land is often more topographically difficult to service.

In low-density developments, sewer lines are not cost-effective. For instance, some residential subdivisions are designed with large lots (five or

more acres) that are nearly impossible to efficiently serve with public sewer (and sometimes public water) because of the cost to construct the lines for so few homes. Likewise, if a new development is located in a remote part of the county or in an area with rugged terrain, providing public utilities may be unfeasible.

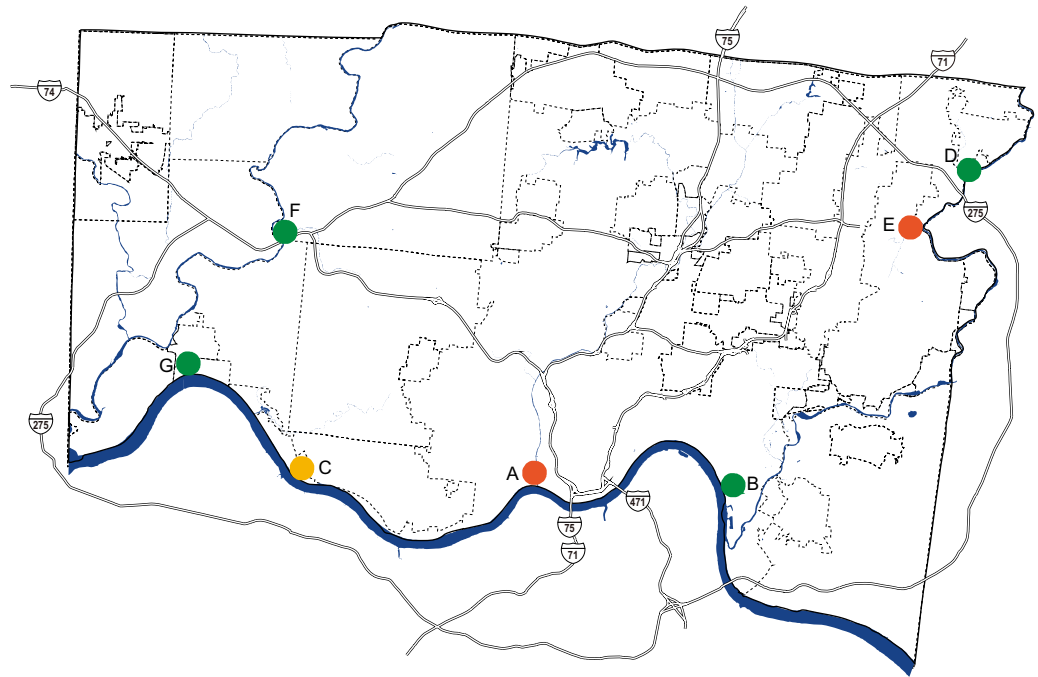
In cases where development takes place without public sewer and water service, the buildings

must use on-site wells or cisterns for water along with some form of home sewage treatment systems. The latter can be a private treatment unit that uses electricity to run a motor that aerates the waste, a septic tank or leach field, or connection to a private package treatment plant for a grouping of homes. On-site sewage disposal systems generally are not an ideal situation for new development, and can lead to public health and environmental problems.

Figure 8
MSD TREATMENT
PLANT CAPACITY, 2004

- Over Design Capacity
- Nearing Design Capacity
- Within Design Capacity

Source: Ohio Environmental Protection Agency



Plant Name	Design Capacity (MGD)	Used Capacity (MGD)
Mill Creek (A)	130.0	131.7
Little Miami (B)	55.0	31.0
Muddy Creek (C)	15.0	14.6
Polk Run (D)	8.0	4.5
Sycamore Creek (E)	6.0	8.7
Taylor Creek (F)	5.5	1.9
Indian Creek (G)	1.5	0.4

Why Is This Important?

Sewer and water service extensions in Hamilton County appear to be primarily driven by demand for new development. Having a demand-driven utility expansion policy can lead to problems in prioritizing where funding and efforts for service expansion will do the most public good, and often prevents progress in achieving adopted community goals. This policy can also lead to development that consumes sewer and water system capacity faster than capital improvements can create new capacity. Figure 8 illustrates the seven large regional sewer treatment plants operated by MSD and their remaining capacity as of July 2004. Two plants are already exceeding their design flow capacity and another one is close to doing so.

Ideally, Hamilton County's utility extension policy and land use policies should coordinate and reinforce one another. Capital improvements to public sewer and water service are some of the best tools a community has for shaping future development. In 1963, the sanitary sewer plan prepared by the County specifically referenced the *1964 County Master Plan* (draft prepared in 1961 but not adopted until 1964) as the guiding policy for future development.

Although MSD's 1993 *Quality Upgrades for Effective Sewage Treatment* (QUEST) plan identifies sewer status and potential for the county, it does not prioritize or recommend new sewers in certain areas over others. In the 1999 *Western Hamilton County Collaborative Plan*, sewer phasing is a major factor in identifying areas for higher growth and those that should remain rural in character. The county growth plan recommended as an initiative in Community COMPASS should continue the linkage of public utility growth and land use goals.

Key Indicators:

- *Number of miles of sewer construction annually (Figure 7)*
- *MSD treatment plant capacity (Figure 8)*

FINDING 2

THE NUMBER OF FAILURES OF ON-SITE SEWAGE TREATMENT SYSTEMS IS INCREASING FOR MECHANICAL SYSTEMS AND DECREASING FOR NON-MECHANICAL SYSTEMS.

Typically in urban areas public sewer is provided to homes. However, approximately 19,000 housing units in Hamilton County have on-site private septic (non-mechanical) or aeration (mechanical) wastewater treatment systems. Most on-site systems are located in the western townships. This is due to the rural nature and the complex topography of western Hamilton County which makes sewer line construction difficult. Low-density

developments in the Village of Indian Hill and Terrace Park account for approximately 1,300 septic systems at the eastern edge of the County.

The Hamilton County Board of Health must approve all on-site wastewater treatment systems before they can operate. Beginning in 1996, the Board of Health began regular inspections of existing systems to ensure they are functioning properly.

This inspection program has been vital in discovering problems with on-site sewage disposal before they become larger public health issues.

Approximately ten percent of the County's on-site wastewater treatment systems completely fail every year (see Figures 9 and 10) Furthermore, the Hamilton County General Health District estimates that as many as 50 percent of septic and aeration systems are not functioning properly. Many of these failures are the result of a faulty mechanical part and are relatively simple to repair. However, in the case of a non-mechanical failure such as a septic tank, the on-site system must be completely replaced at a huge expense to the property owner. Non-mechanical failures can be caused by the soil where a septic field is located becoming saturated and unable to absorb additional wastewater.

A failing on-site sewer system can be disastrous for a single property owner. In some cases, entire neighborhoods contain homes with private systems that begin to fail at the same

Figure 9
MECHANICAL ON-SITE SEWAGE SYSTEM FAILURES IN HAMILTON COUNTY, 1997-2003

Source: Hamilton County Board of Health

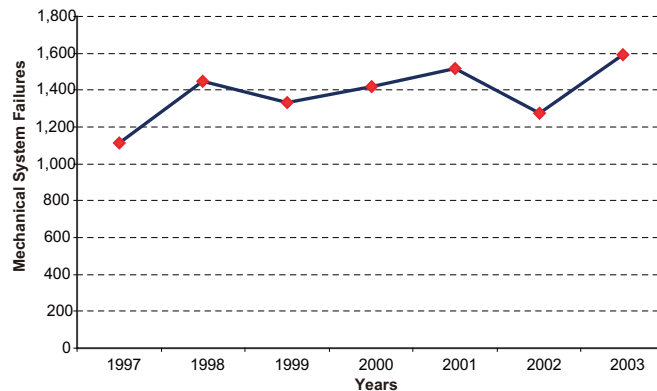
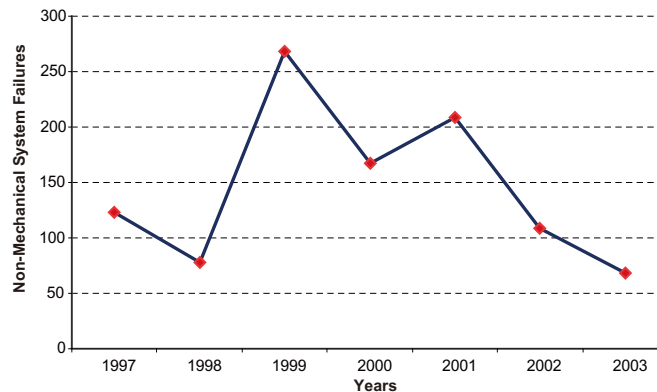


Figure 10
NON-MECHANICAL ON-SITE SEWAGE SYSTEM FAILURES IN HAMILTON COUNTY, 1997-2003

Source: Hamilton County Board of Health



time. When this happens, the problem can escalate into a public health crisis requiring action by the Board of Health, MSD, and the County Commissioners. Public sewer may then be extended to the area, allowing properties to switch from private systems to public sewer. However, it can be very costly to extend sewer service. Tap-in fees for homeowners can be several thousand dollars. MSD and Hamilton County have offset some of these expenses with various financial assistance programs. Between 1993 and 1999, about 540 houses converted from on-site sewage treatment to public sewer. Between 2000 and 2004, 460 houses converted.

Due to the number of on-site sewage systems that fail each year, there is a strong incentive to extend sewer lines throughout much of the County. MSD's *QUEST Plan* identifies opportunities along with limitations for sewer line extensions. The *QUEST Plan* was created in part to address some of the problems associated with on-site sewage systems and water contamination by identifying the feasibility of constructing sewers. As discussed previously, though, public sewer service is not feasible in areas with low density populations or where the topography is very rugged.

Why Is This Important?

Expanding public utility service enables development to spread further out into rural areas. On the other hand, public utilities are the best method to provide sanitary water and sewer service for urban and suburban development. Allowing development of any density greater than one unit per acre to occur with on-site sewage treatment systems is setting the stage for eventual problems. A poorly maintained or faulty on-site sewage system can leak untreated wastewater into the soil, thereby contaminating nearby streams, ponds, or rivers as well as drinking wells. This can lead to public health hazards, environmental damage, property damage, and increased insurance costs for property owners.

Key Indicators:

- *Number of mechanical on-site sewage disposal failures per year (Figure 9)*
- *Number of non-mechanical sewage disposal failures per year (Figure 10)*
- *Number of homes on private sewage systems that convert to public sewer*

FINDING 3

POLLUTION FROM STORM WATER RUNOFF AND SANITARY SEWER PROBLEMS IS BEING ADDRESSED THROUGH GOVERNMENT MANDATES AS WELL AS LEGAL SETTLEMENTS.

Storm water runoff from rain or melting snow carries pollutants from roads, parking lots, driveways, and rooftops into local water bodies. As a result, "...it can lead to fish kills, destruction of wildlife habitat, excessive siltation, loss of aesthetic value, impaired recreational areas, and contaminated drinking water resources."¹ Since drainage patterns do not follow jurisdiction lines, storm water management works better if administered from a watershed perspective. As can be seen in Figure 11, Hamilton County's 49


political jurisdiction lines arbitrarily slice through watersheds.

It is estimated that 40 percent of rivers, streams, and lakes in the United States do not meet water quality standards.² In an effort to address this situation, the U.S. Environmental Protection Agency created the NPDES Phase II Permit Program (National Pollutant Discharge Elimination System) requiring urban counties to adopt programs to improve storm water quality. Accordingly, the Hamilton County Storm

Water District (HCSWD) was formed in 2003 with 45 of the County's 49 communities (plus Hamilton County) joining together to work on a watershed basis. Working independently to meet these EPA requirements are the Cities of Forest Park, Harrison, Loveland, Reading, and Springdale.

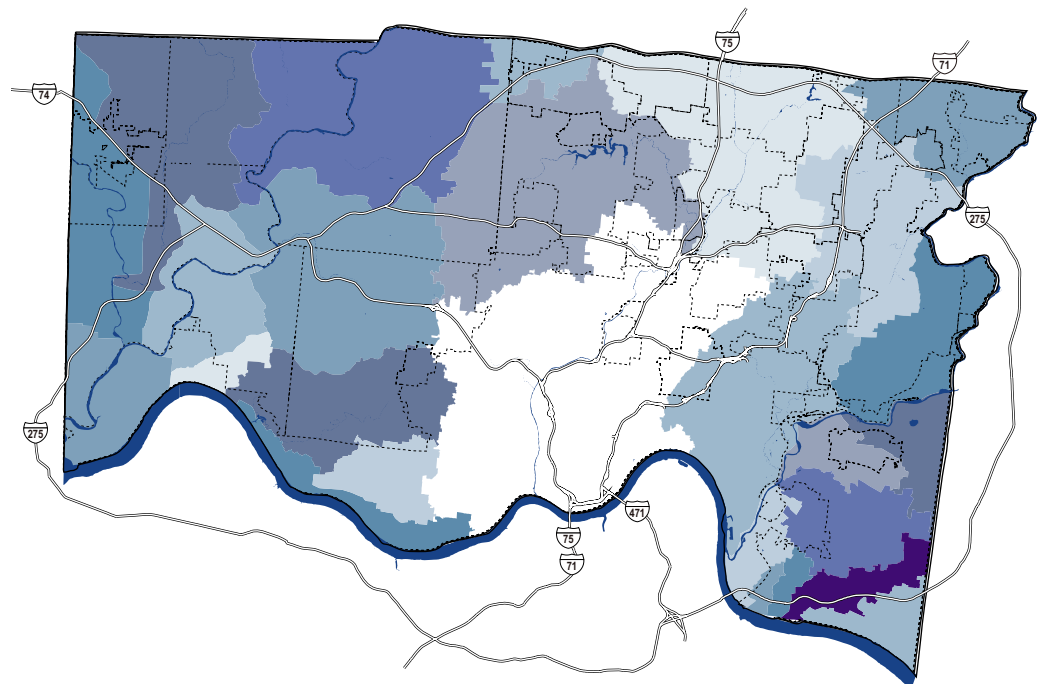
The NPDES II requirements, which spell out how the County will implement six minimum control measures, are as follows:

Figure 11
**DRAINAGE BASINS,
2004**

 Jurisdiction Boundary

Note: Shading indicates different drainage basins

Source: Metropolitan Sewer District



1. Public Education and Outreach on Storm Water Impacts
2. Public Involvement/Participation
3. Illicit Discharge Detection
4. Construction Site Storm Water Runoff Control
5. Post Construction Storm Water Management
6. Pollution Prevention/Good Housekeeping for Municipal Operators

HCSWD has a five year program for phasing in the above measures. It is important to note that HCSWD will issue guidance, ordinances, and procedures manuals for member communities, but regulations for storm water will remain under local control. Also, the NPDES II Program encourages communities to work together on improving storm water “quality” rather than the “quantity” of storm water released into the environment. Therefore, in Hamilton County storm water quality and quantity will still be regulated at the local level rather than on a watershed basis.

Responsibility for administering this storm water plan falls on a variety of agencies. The Hamilton County Engineer’s Office is the lead agency ultimately responsible for submitting progress reports to the

EPA. However, successful management of Hamilton County’s storm water will require coordination among the County’s Soil and Water Conservation District, Public Works, General Health District, as well as the City of Cincinnati’s Storm Water Management Utility, and MSD.

Combined storm water and sanitary sewers are prevalent in many of Hamilton County’s older neighborhoods. When severe weather occurs, overflows of rainwater and raw sewage are released into the environment. Such an event is called a combined sewer overflow (CSO). When sewers designed solely for sanitary waste overflow due to major storms or an improper system operation, it is known as a sanitary sewer overflow (SSO). As Figure 12 shows, Hamilton County experiences a large number of these overflows.

The Clean Water Act in the late 1980s and amended in the 1990s called for elimi-

nation of SSOs as well as reduction of discharges from CSOs. In response to a 1992 lawsuit by the U.S. Department of Justice charging MSD to end sanitary sewage overflows, a formal remediation agreement was reached with MSD, EPA, the Department of Justice, and the State of Ohio. Two decrees resulted from the agreement – an Interim Partial Consent Decree to phase out SSOs by 2022 and a Global Consent Decree requiring reduction of CSO discharges and creating the “Water-in-Basement response program.”

The City of Cincinnati and Hamilton County both reviewed and approved the Consent Decree in 2003. Final court review occurred in June 2004. MSD is beginning capital improvement projects expected to cost approximately \$1.5 billion and take until 2022 to complete.

MSD started the Water-In-Basement (WIB) program in January 2004. With a

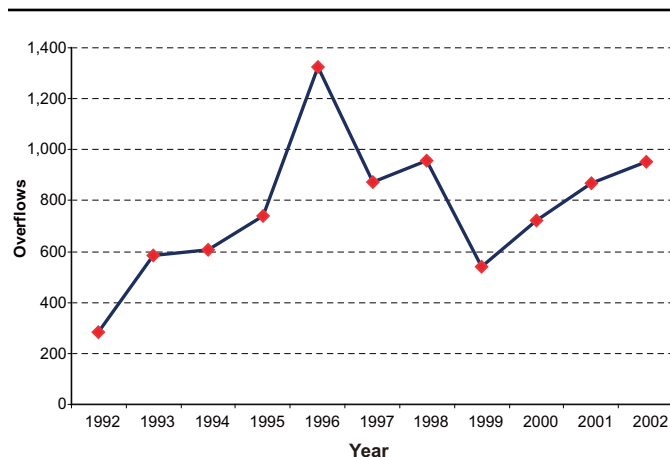


Figure 12
ANNUAL COMBINED SEWER OVERFLOWS AND SANITARY SEWER OVERFLOWS IN HAMILTON COUNTY, 1997-2003

Source: Metropolitan Sewer District

goal of eliminating sewer back-ups into basements, the WIB program provides emergency assistance, reimburses for limited property damages, helps with insurance claims, and installs preventative measures to avoid future basement flooding projects. Other projects proposed by MSD include:

- Eliminate the 90 most active SSOs by 2022.
- Complete 23 capital improvement projects aimed at reducing and eliminating CSO discharges.
- Implement comprehensive water quality testing, cost/benefit analysis of various solutions for fixing CSOs, and extensive public review of potential solutions.
- Invest \$5.3 million in local environmental enhancement projects including in-stream habitat improvement along the Mill Creek, stream bank stabilization and greenway development, and brownfield remediation.

Why Is This Important?

Storm water runoff and sewer overflows into rivers, streams, and buildings are longstanding problems in Hamilton County. Hundreds of overflows

and discharges each year cause enormous damage to our environment and property, to say nothing of the public health hazards. Polluted waters also discourage recreation such as swimming and fishing. This multitude of impacts can diminish the economic health of the County.

Storm water management in Hamilton County needs to advance from an engineering problem to a multi-jurisdiction planning initiative with long-range perspectives and solutions. The measures taken by HCSWD over the next years are a first step in working together to address watershed issues. Although the authority of HCSWD is limited to issues dealing with NPDES II, the benefits of collaboration among jurisdictions could provide incentive for cooperation on a variety of other storm water issues such as amount of run-off.

The Hamilton County Planning Partnership has a role to play in storm water management as well. In collaboration with the NPDES II program, the Partnership developed an educational storm water management workshop for planning commissions of member jurisdictions. Several communities have participated in the workshop and some have subsequently revised their storm drainage requirements.

Sewer improvements required by MSD can further turn the tide on past environmental, health, and property degradation. Although, storm water and sewer “fixes” are long-term approaches that will cost billions of dollars, these improvements will strengthen Hamilton County’s quality of life.

Key Indicators:

- *Number of measurable goals implemented by the HCSWD per year*
- *Number of combined sewer overflows (CSO) and sanitary sewer overflows (SSO) per year (Figure 12)*
- *Number of reports of water in basements*

FINDING 4

HAMILTON COUNTY'S SOLID WASTE RECYCLING NOW EXCEEDS THE AMOUNT OF WASTE DEPOSITED IN THE AREA'S SANITARY LANDFILLS.

Recycling is an increasingly important part of solid waste management in Hamilton County. As more materials are recycled, less solid waste is being sent to the Rumpke Sanitary Landfill. That landfill, operating since the 1930s in Colerain Township, has 440 acres of land. It has the capacity to handle 8,600 tons of waste per day or approximately 3.1 million tons per year. Rumpke owns and operates other landfills in Ohio, Kentucky, and Indiana and manages solid waste disposal in all three states.

Hamilton County generates an average of 2.5 million tons of waste annually, 1.2 million of which is deposited in the Rumpke Sanitary Landfill,³ and the remainder is recycled. Between 1992 and 2002, the total amount of material collected for recycling in Hamilton County increased over 500 percent, from about 227,000 tons in 1992 to 1.4 million tons in 2002 (Figure 13). The largest gains have been in the industrial sector, which account for the majority of recycled material. After slowly increasing from 57,429 tons in 1992 to 206,175 tons in 1999, industrial recycling skyrocketed to 791,391 tons per

year in 2000 due to efforts by the Hamilton County Solid Waste District.

The amount of material recycled in 2002 in Hamilton County actually exceeds the amount of solid waste deposited in the Rumpke Sanitary Landfill (Figures 13 and 14). Rumpke and CSI Waste Services are responsible for residential recycling collection in Hamilton County. After collecting, consolidating, and sorting material, they then sell the material to

various companies across the region. Unless the recycling stream is contaminated at collection points - residential garbage mixed with recyclables for instance - Rumpke and CSI are able to re-sell virtually all the materials they collect.

Commercial and industrial recycled materials are usually marketed directly from business to business. There is a strong market for recycled industrial materials in Hamilton County, and

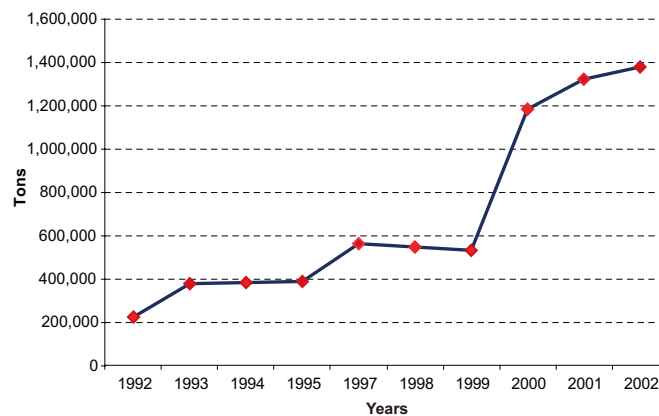


Figure 13
TOTAL WASTE RECYCLED IN HAMILTON COUNTY, 1992-2002*

*excluding 1996 because of an unusually large amount of industrial waste recycled that year

Source: Hamilton County Solid Waste District

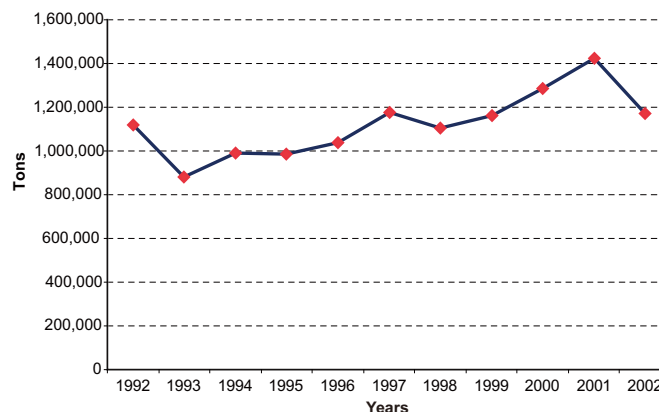


Figure 14
TOTAL WASTE LANDFILLED IN HAMILTON COUNTY, 1992-2002

Source: Ohio EPA, Hamilton County Solid Waste District

the Solid Waste District maintains a database with dozens of businesses that buy and sell all types of recyclables.

Cincinnati and Hamilton County offer a variety of recycling opportunities to residents. Over 60 percent of residents in Hamilton County have curbside recycling service through municipalities or townships. Typically, household recyclable materials are picked up on the same day as normal trash pickup. In places where curbside pickup is not available, drop off locations are available for residents to deposit their recyclable materials. While this option is not as convenient as curbside pickup, drop off recycling can still generate a substantial amount of recycled material.

The City of Cincinnati alone recycles approximately 12,000 tons of residential waste per year. This includes both curbside and drop off recycling programs. Columbus is the only large city in Ohio that collects more recyclables - about 12,700 tons. Dayton, Akron, and Cleveland all collect less recyclable material per year than Cincinnati. In 2003, the City considered dropping their residential recycling program as a cost-saving measure. The program is still in operation, but possible termination of the service would seriously

reduce the total amount of residential material recycled in the County.

Why Is This Important?

According to the Solid Waste District, Rumpke Sanitary Landfill provides a low-cost solid waste disposal option not only to Hamilton County but the entire metropolitan area. How long this landfill remains in operation has implications for every household and business in Hamilton County. Recycling has a direct effect on the life-span of the landfill. The more waste diverted from the landfill for recycling, the longer it can remain in operation.

Beyond the benefits to the environment and landfill operations, recycling activity brings benefits to the State economy. The State of Ohio had approximately \$22.5 billion in sales of recycled materials in 2002. According to Hamilton County Environmental Services, over 98,000 people work statewide in the recycling industry in 3,177 businesses making average salaries of \$36,600 (over \$8,000 more than the statewide average). Clearly, this industry is important to the State and has continued potential for growth.

Key Indicators:

- *Tons of total waste recycled annually (Figure 13)*
- *Number of years of capacity for Rumpke Sanitary Landfill (Hamilton County Solid Waste District)*

FINDING 5

ONCE IN DECLINE, CRIME RATES FOR THE CINCINNATI METROPOLITAN REGION ARE INCREASING, ALTHOUGH OVERALL CRIME LEVELS ARE LOWER THAN MOST OTHER MIDWESTERN METROPOLITAN AREAS.

An important aspect of an area’s quality of life is related to the safety of its citizens. Many factors impact the level of crime, some being employment rates, education levels, and stable family environments. In a recent national study it was found that low wages were an even greater factor than unemployment in terms of less-educated men turning to crime.⁴

Crime rates began dropping in the City of Cincinnati (see Figures 15 and 16) during the 1990s. However, those rates began rising with the 2000 recession. Another factor that may have impacted crime rates was welfare reform - the 1996 Personal Responsibility and Work Opportunity Reconciliation Act - that put a five year lifetime cap on federally funded cash assistance to recipients along with a host of other phased out benefits.

During the 1990s, overall crime rates declined in the Cincinnati metropolitan region and have stabilized over the past two years around 4,500 incidents per 100,000 residents (see Figure 17). Reductions in

both property crime rates and violent crime rates in the City of Cincinnati drove this trend. Because Cincinnati is the largest city in the region, increased and decreased amounts of crime drive the crime rate of the entire metropolitan area.

When compared with the Cleveland, Columbus, Indianapolis, Louisville, Pittsburgh, and St. Louis metropolitan regions, violent crime in the Cincinnati region is among the lowest

and the property crime rate has been steadily in the middle (see Figures 18 and 19).

Why Is This Important?

Crime rates and perception of crime activity have a profound impact on whether people feel comfortable living in a community. Potential homebuyers are far less likely to purchase in a community with higher crime rates or if the community seems un-

Violent Crime

- Murder
- Rape
- Robbery
- Robbery with gun
- Aggravated assault
- Assault with gun

Property Crime

- Burglary
- Larceny
- Motor vehicle theft

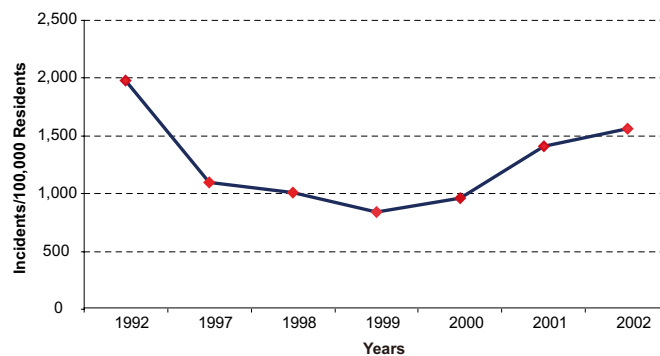


Figure 15
VIOLENT CRIME RATE IN THE CITY OF CINCINNATI, 1992-2002

Note: For Figures 14 through 18, data not available between 1992 and 1997

Source: FBI Uniform Crime Data

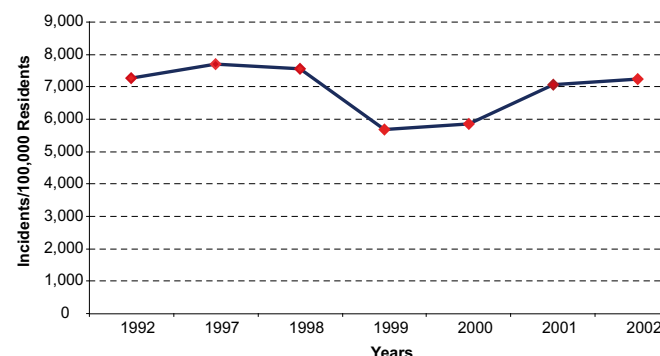


Figure 16
PROPERTY CRIME RATE IN THE CITY OF CINCINNATI, 1992-2002

Source: FBI Uniform Crime Data

safe. Likewise, people who already live in an area will withdraw from the community if they do not feel safe and will move out at their first opportunity.

The perception of crime operates on a larger scale as well. It impacts how people from outside the region view Hamilton

County and factors into the decision of whether to move here, bring a business here, or otherwise invest in the area. Competition today among urban areas is fierce, and being saddled with a crime problem is a serious handicap. Cincinnati is still wearing a tarnished label internationally as a result of the 2001 riots and sub-

sequent economic boycott called for by the Coalition for a Just Cincinnati.

The various causes of crime and strategies for reducing crime are complex and therefore beyond the scope of this report. However, dealing with a crime problem is not simply a matter of more police officers arresting and locking up more criminals. Many other issues including local economics, the criminal justice system, racial issues, and social and family structures factor into crime activity.

Key Indicators:

- *City of Cincinnati violent crime incidents per 100,000 residents (Figure 15)*
- *City of Cincinnati property crime incidents per 100,000 residents (Figure 16)*
- *Violent crime incidents per 100,000 residents in the Cincinnati metropolitan region (Figure 18)*
- *Property crime incidents per 100,000 residents in the Cincinnati metropolitan region (Figure 19)*

Figure 17
TOTAL CRIME RATE IN HAMILTON COUNTY, 1992-2002

Source: FBI Uniform Crime Data

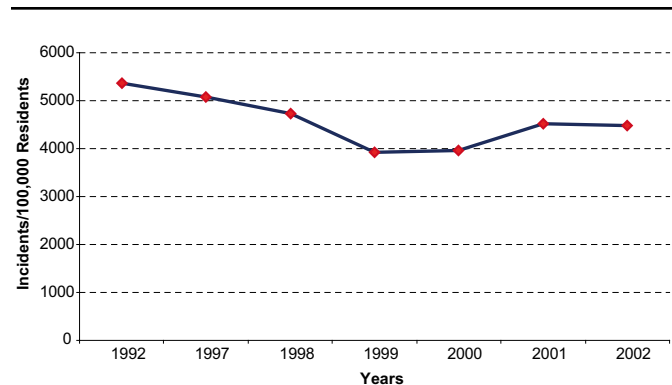


Figure 18
VIOLENT CRIME RATE BY METRO REGION, 1992-2002

Metropolitan Region
 ◆ Cincinnati
 ■ Cleveland
 ▲ Columbus
 ◆ Indianapolis
 ◆ Louisville
 ● Pittsburgh
 ◆ St. Louis

Source: FBI Uniform Crime Data

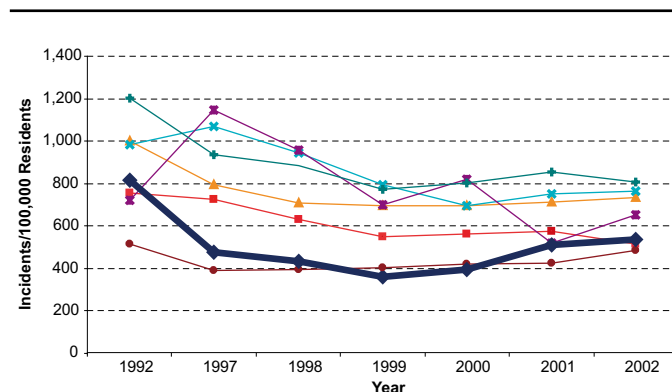
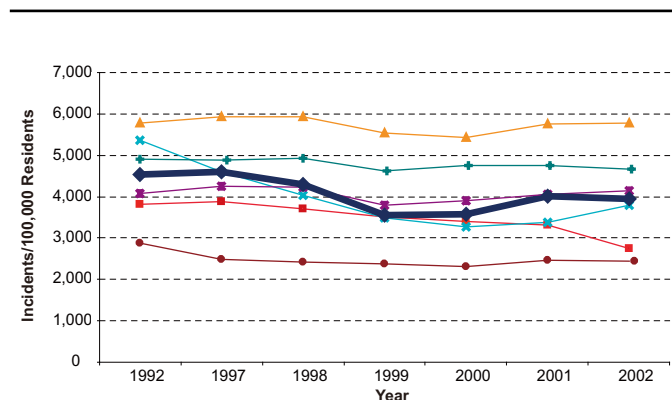


Figure 19
PROPERTY CRIME RATE BY METRO REGION, 1992-2002

Metropolitan Region
 ◆ Cincinnati
 ■ Cleveland
 ▲ Columbus
 ◆ Indianapolis
 ◆ Louisville
 ● Pittsburgh
 ◆ St. Louis

Source: FBI Uniform Crime Data



FINDING 6

HOMELAND SECURITY PLANNING IS AN IMPORTANT NEW CONCERN IN HAMILTON COUNTY.

It goes without saying that since Autumn 2001 questions of how to protect our cities and population from terrorist attacks is on the mind of almost every elected official and public safety worker across the County. Indeed, many state and national priorities have been re-arranged and entire new agencies created to deal with domestic and foreign terrorist threats. Providing for the public safety has always been an important function of local governments. What is different is the magnitude of potential threats and the money and resources that must be allocated to address those threats. September 11, 2001 altered the reality of what is possible to be done to us and how vulnerable our cities are.

In order to create a plan for security preparedness, the Hamilton County Homeland Security Commission was formed in March 2003. Commission members come from the private and public sectors and include elected officials, department heads, utility managers, public safety administrators, and business leaders. The final *Hamilton County Homeland Security Commission Report* includes 11 recommendations organized into

three categories: communications, capital needs, and equipment. Projects to improve communication and information sharing among public safety agencies and the general public receive highest priority. Top capital improvement projects are a regional emergency operations center and a consolidated facility for the Cincinnati Board of Health and the County General Health District to store materials and conduct operations. Equipment recommendations center on providing first response personnel with hazardous materials equipment. Recommendations for short-term projects include general improvement of first response operations, extra protective measures against possible threats to different facilities and locations in Hamilton County, and equipment purchases. Longer term projects include administrative measures for better coordination among public safety agencies and expansion of the new Emergency Operations Center for region-wide security coordination.

The U.S. Department of Homeland Security (DHS) allocated over \$8 billion nationwide since March 2003 to assist first respond-

ers, state, and local governments with terrorism and other potential disasters. In 2004, DHS awarded Cincinnati and Hamilton County \$12.7 million in federal funds through the Urban Area Security Initiative grant program. Ohio received \$68.2 million from the Counterterrorism Grant Program to distribute statewide. While these are generous allotments, they fall short of the \$135 million estimated to carry out all the recommendations in the *Hamilton County Homeland Security Commission Report*. In fact, funds allotted to Hamilton County are less than 10 percent of this amount. Continued federal allotments as well as other funding sources will likely be required in order to complete the work described by the report.

Why Is This Important?

Implementing homeland security measures in Hamilton County will mean spending a lot of money. And as the situation stands now, local and state funds have to fill the gap between assessed security needs and federal funds allocated to fulfill those needs. As with any expensive program, setting priorities and al-

locating money will be difficult, complex, and undoubtedly political. To truly address the security needs of the County, many different agencies are going to have to do things differently. With the stakes as high as they are, hopefully these security concerns can be a catalyst for greater cooperation across jurisdiction and administrative boundaries.

Building a spirit of cooperation needs to extend outside of Hamilton County and into the surrounding region as well. As individual counties within the Cincinnati metropolitan region craft their own security plans, the Ohio-Kentucky-Indiana Regional Council of Governments (OKI) Regional Homeland Security Task Force is working to coordinate these efforts and identify where resources overlap or where gaps in individual counties' plans occur.

Key Indicator:

- *Percent of required funds allocated in Hamilton County to meet federal DHS guidelines*

FINDING 7

TECHNOLOGICAL ADVANCES IN COMMUNICATIONS WILL BRING ECONOMIC, EDUCATION, AND SOCIAL CHANGES OVER THE NEXT YEARS.

As the information age matures, knowledge is becoming a primary factor of production in addition to capital, labor, and land.⁵ New communications technologies and cheaper acquisition costs are shrinking distance, eroding borders, and saving time. According to a recent E-Com-Ohio report, "...telecommunications infrastructure is the highway of the future and Ohio is on board."⁶

With its Third Frontier Project launched in 2002, the State of Ohio has made technology-based economic growth a top priority. This project matches \$1.6 billion in State investment with an additional \$4.5 billion in federal and private funding to create a \$6 billion, ten-year initiative (eight years remaining as of 2004).⁷ The Third Frontier aims to expand Ohio's high-tech research capacity and promote start-up companies with the intent of building high-wage jobs. A second component of the Third Frontier Project, a \$500 million bond program to create new, high-paying jobs, was narrowly defeated in the 2003 election. Hamilton County seems to be doing quite well, though, with high-

tech jobs. That sector increased dramatically from 1987 to 2001 as shown in Figure 20, and that growth is likely to continue.

The Cincinnati region has benefited from \$27.4 million in awards from the Third Frontier in 2003. The largest one, \$25.2 million, was presented to a team led by Cincinnati Children's Hospital Medical Center to establish the Center for Computational Medicine to benefit children with cancer and other diseases. The Center is expected to create 500 new jobs and five new companies in Ohio. Three other organizations in Hamilton County received a total of \$2.2 million in 2003 for creation of high-tech internships.⁸

Network infrastructure growth in Ohio is also on a major fast track. The State of Ohio has laid a 1,600 mile fiber-optic network as the groundwork for competing in research and economic development. It is expected that all of Ohio's 13 public colleges and universities will be connected to the "Third Frontier Network" by the end of 2004.⁹ Additionally, to spur research and education, several business partners and hospitals will be linked to the network.

A local effort to accelerate technology development is underway by Main Street Ventures, a non-profit formed in 1999 under the Regional Technology Initiative of the Greater Cincinnati Chamber of Commerce. With support from local and computer technology sponsors, one of the nation's first public high-speed wireless networks - the Digital Rhine District - was constructed in the 1200 block of Main Street in Cincinnati. As of May 2004, Main Street Ventures has been instrumental in the development of over 30 high-tech start-up companies that have collectively raised more than \$90 million in venture, angel, and seed capital investment, along with creation of approximately 200 jobs.

Broadband (high-speed) access to the internet for Hamilton County residents is through Cincinnati Bell's ZoomTown (as DSL digital subscriber lines) as well as Time Warner Cable's

Total Mid-March Employees

1987	28,679
1997	33,470
2001	48,545

Figure 20
THIRD FRONTIER HIGH-TECH¹⁰ JOBS IN HAMILTON COUNTY, 1989-2001

Source: Innovation- The Future of Ohio's Economy- Battelle Report May 2002 (Appendix A p. 18 "Technology Subsectors" chart)

RoadRunner (see Figure 21 for coverage areas). Broadband access is high-speed “always-on internet” with data transfer rates of at least 200 kilobytes per second (kbs). Slower, telephone “dial up” internet access at 56 kbs is available virtually anywhere in Hamilton County. The *Cincinnati Post* reported on October 22, 2003 that about 30 percent of homes in the Cincinnati Region have high-speed internet service compared to the national average of 20 percent.

Always at issue with internet connectivity are data transfer speed and the ability to communicate from any geographic location. Three emerging options are likely to address these communication obstacles in Hamilton County: wireless broadband networking, voice over internet protocol service, and broadband over power lines.

a stationery modem. Wi-Fi can be used for wireless home networking or at any location that has installed this technology. In Hamilton County, wireless access is available at approximately 45 locations as of May 2004. This means a wireless internet connection can be made from a laptop at Fountain Square, college campuses, hotels, and the Greater Cincinnati Northern Kentucky Airport as well as a number of coffee houses and office copy stores. Unfortunately,

1. Wireless Networking

Wireless networking, commonly known as “Wi-Fi” (short for wireless fidelity), enables internet access free from

Figure 21
BROADBAND INTERNET COVERAGE, 2004

- Future Broadband Internet Coverage
- Current Broadband Internet Coverage

Source: Ohio Department of Development

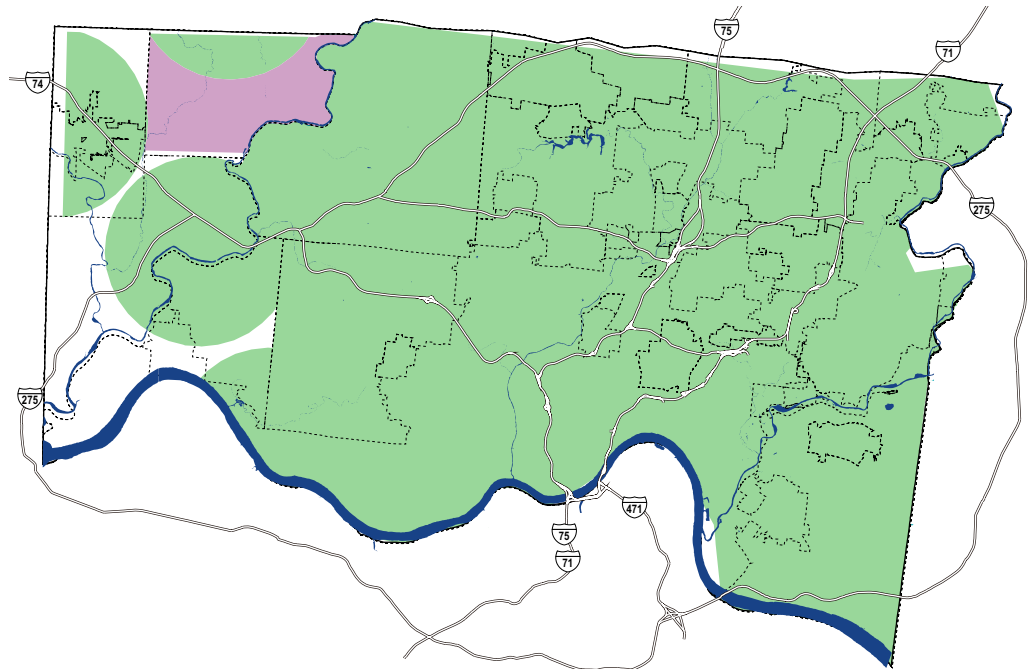


Figure 22
TOP UNWIRED METRO AREAS IN MIDWEST, 2004

Source: Intel's 2nd annual "Most Unwired Cities" survey

Metro Area	Rank
Columbus	36
Indianapolis	46
St. Louis	50
Cincinnati	52
Pittsburgh	54
Cleveland	61
Louisville	63
Dayton	65

most of the downtown Cincinnati wi-fi providers do so with pay-to-play hot spots – Columbus and Cleveland have many free connections in their downtowns¹¹. The Cincinnati region is about in the middle of the pack for Midwest areas that are the most unwired (wireless access) (see Figure 22). The San Francisco Bay region ranked the highest for unwired access in the country.

2. Voice Over Internet Protocol (VoIP)

Voice Over Internet Protocol (VoIP) is a technology that enables local as well as long-distance telephone calls to be made over the internet. This technology has been around since the internet boom in the mid-1990s, but is becoming more popular because of widely available broadband service and the backing of some large telecommunications companies.

Recent advances in VoIP technology allows normal telephone handsets to be used for calls instead of a computer as the telephone is plugged directly into a modem (or a wireless connection). Recognizing the potential of VoIP, AT&T announced in December 2003 that it would begin selling internet phone service. Time-Warner

Cable also is beginning to provide this service along with Comcast Cablevision and Cox Communications.

3. Broadband Over Power Lines (BPL)

Until very recently, users could only choose between cable and DSL for receiving broadband internet service. Cinergy customers in Hamilton County now have a third choice. In March 2004 Cinergy, in conjunction with Current Communications, began offering broadband internet service over its existing electrical powerlines. This BPL project is the largest deployment of this technology anywhere in the United States.

BPL provides “symmetric” data transfer, meaning that moving information to and from the internet happens at the same high speed. Current cable and DSL broadband service allow users to receive data at high speeds when downloading, yet are significantly slower when sending data via uploading. With data carried over power lines, a building or home with BPL service is essentially a local area information network without any additional wiring.

BPL does have its share of critics though. The set-up for BPL appar-

ently produces radio interference that cripples the operations of amateur (ham) radio stations. The Federal Emergency Management Agency is also concerned with radio interference problems since some of the affected frequencies are reserved for emergency use.

Why Is This Important?

Information technology infrastructure in Hamilton County is closely related to future economic development and quality of life for residents. With more wireless options opening up, communication can be accessed even in rural areas (especially through BPL). Increasingly, companies need and demand broadband internet access for communication and information sharing.

The Office of Technology Policy in the U.S. Department of Commerce sees the economic benefits of broadband as promoting jobs, productivity, and sustained growth.¹² In its report, *Understanding Broadband Demand: A Review of Critical Issues*, the Office identifies benefits as follows:

- Reduced traffic congestion and automobile pollution with increase in telecommuting
- More successful indus-

trial growth, recruitment, and retention with information businesses having freedom of location

- Improved K-12 education systems as students have more access to data
- More productive research and development
- Increased start-up and entrepreneurial activities due to networking and ability to compete on more level playing field with large companies
- Urban core revitalization as broadband-enabled cyber districts become post-industrial hubs in former empty manufacturing and warehousing space
- Improved government efficiencies through e-government

Key Indicators:

- *Percent of homes with broadband internet access (30 percent in Hamilton County in 2003)*
- *Number of wireless access locations (45 in May 2004)*
- *Grant dollars from Third Frontier Network (\$27.4 million in 2003)*
- *Number of high-tech jobs (Figure 20)*
- *Number of start-up technology based companies in the Digital Rhine (200 as of May 2004)*

Appendix A

Endnotes

1. Hamilton County Storm Water District. *Storm Water Management Plan*. 2003.
2. Ibid.
3. Division of Solid and Infectious Waste Management. Ohio Environmental Protection Agency.
4. Gould, Eric D., Weinberg Bruce A., and David B. Mustard, "Crime Rates and Local Labor Market Opportunities in the United States: 1979-1997". *The Review of Economics and Statistics*. Vol. 84, Issue 1, Feb. 2002.
5. "Knowledge for Development." *World Development Report*. The World Bank. Oxford University Press, Inc. N.Y., N.Y., 1999.
6. E-Com-Ohio. www.osc.edu.
7. "Jobs & Prosperity: Ohio's Strategy for the Third Frontier." *A Report to the Ohio Business 2000* ." October 2002
8. Ohio Third Frontier Update. www.ohio3rdfrontier.org/documents/10-29-033FPCincinnati.DOC.
9. Goetz, Kristina. "High Tech Link Joins all of Ohio" *The Cincinnati Enquirer*. 27 April, 2004.
10. High-Tech Jobs include advanced manufacturing, aerospace, bioscience, digital infrastructure, digital services, and plastics and chemicals as identified in "Innovation - The Future of Ohio's Economy," Battelle Report May 2002.
11. Wessels, Joe. "Cities use Free Wi-Fi as Draw, while Cincinnati Lags Behind." *Cincinnati Business Courier*. 13 August, 2004.
12. "Understanding Broadband Demand: A Review of Critical Issues." *Office of Technology Policy*. U.S. Department of Commerce. 23 September, 2002.

Appendix B

Community COMPASS Publications

The following Community COMPASS reports are components of Hamilton County's Comprehensive Master Plan and Strategies. The reports are available at the Hamilton County Regional Planning Commission and can be downloaded at www.communitycompass.org.

1. Project Design -- Scope and Process (Oct. 2001)
2. The Community Values Survey (Jan. 2001)
3. Special Research Reports
 - 3-1. Inventory of Research (2002)
 - 3-2. Conflicting Views on Suburbanization (Sept. 1999)
 - 3-3. Spreading Out: The March to the Suburbs (Oct. 1999; revised 2003)
 - 3-4. Summary Report -- Spreading Out: The March to the Suburbs (Oct. 1999; revised 2003)
 - 3-5. The Use of Public Deliberation Techniques for Building Consensus on Community Plans: Hamilton County Perspectives on Governance (A Guide for Public Deliberation) (Dec. 2002)
 - 3-6. Hamilton County's Comparative and Competitive Advantages: Business and Industry Clusters (Oct. 2003)
 - 3-7. Census 2000 Community Profiles: Political Jurisdictions of Hamilton County
 - 3-8. Community Revitalization Initiative Strategic Plan (Aug. 2003)
4. The Report of the Community Forums --Ideas, Treasures, and Challenges (Nov. 2001)
5. The Report of the Goal Writing Workshop (2001)
6. The Countywide Town Meeting Participant Guide (Jan. 2002)
7. Hamilton County Data Book (Feb. 2002)
8. A Vision for Hamilton County's Future --The Report of the Countywide Town Meeting (Jan. 2002)
9. The CAT's Tale: The Report of the Community COMPASS Action Teams (June 2002)
10. Steering Team Recommendations on The Vision for Hamilton County's Future (Jan. 2002)
11. Planning Partnership Recommendations on The Vision for Hamilton County's Future (Jan. 2003)
12. The Vision for Hamilton County's Future (Brochure) (Feb. 2003)
13. Initiatives and Strategies
 - 13-1. Steering Team Recommendations on Community COMPASS Initiatives and Strategies (2002)
 - 13-2. Steering Team Prioritization of Initiatives -- Methodology and Recommendations (Aug. 2002)
 - 13-3. Planning Partnership Recommendations on Community COMPASS Initiatives and Strategies (revisions, findings and reservations) (Dec. 2002)
 - 13-4. Community COMPASS Initiatives and Strategies -- Hamilton County Regional Planning Commission Recommendations (Jul. 2003)
14. External Influences: The Impact of National Trends on Hamilton County's Future (Mar. 2003)
15. Population
 - 15-1 Summary Report (Nov. 2004)
 - 15-2 Atlas / comprehensive report (2005)
16. State of the County Reports (Key trends, Issues, and Community Indicators) (Nov. 2004)
 - 16-1 Civic Engagement and Social Capital
 - 16-2 Community Services
 - 16-3 Culture and Recreation
 - 16-4 Economy and Labor Market
 - 16-5 Education
 - 16-6 Environment
 - 16-7 Environmental and Social Justice
 - 16-8 Governance
 - 16-9 Health and Human Services
 - 16-10 Housing
 - 16-11 Land Use and Development Framework
 - 16-12 Mobility
 - 16-13 Executive Summary
17. 2030 Plan and Implementation Framework (Nov. 2004)

**Hamilton County Regional
Planning Commission**

138 E. Court Street, Rm 807
Cincinnati, OH 45202
(513) 946-4500

www.communitycompass.org

**Community
COMPASS**



HAMILTON COUNTY
Regional
Planning
Commission

**Planning
Partnership**



HAMILTON COUNTY
Regional
Planning
Commission