

# UTILITIES AND ENERGY



HAMILTON, OHIO  
COMPRENEHSIVE PLAN



# UTILITIES AND ENERGY

## LONG-TERM GOAL:

The City of Hamilton should provide to all its citizens and businesses an efficient, reliable and competitive utility system providing potable water, gas, wastewater, waste removal and electrical services that support existing and future land use patterns and densities in an environmentally sustainable method.

## INTRODUCTION:

The management of public utilities and services can not only preserve the health and well being of the City of Hamilton and its natural resources, it is also an important planning tool which can provide both opportunity and control over how and where future development and redevelopment in the community should occur.

# POLICIES STRATEGIES AND ACTIONS

## Overall Objectives:

Section 9.1

- A. The City of Hamilton should maintain and upgrade existing infrastructure and expand it where reasonable to serve the needs of current clients and new development to meet established efficiency standards.

# Energy Efficiency Through Land Use

Section 9.2

## OBJECTIVES

- A. Promote land use patterns, consistent with the future land use map, that increase energy efficiency in building and transportation systems by making energy efficiency a critical element.
- B. Promote intensity, location, and mix of land uses that increases multi-modal transportation options for required daily trips.
- C. Urban development should occur only where urban public facilities and services exist or can be reasonably made available so as not to create long-term financial liability for the City.

## STRATEGIES

In order to meet the objectives outlined in the Comprehensive Plan's Utilities and Energy Section, the following strategies should be pursued by the City of Hamilton:

- *"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."* (OKI, Strategic Region Policy Plan p.38)

## ACTIONS

- A. Determine where appropriate planned municipal growth can occur to maximize the current existing public utilities.
- B. Create a Master Plan in conjunction with the City's Future Land Use Plan to determine acceptable points of connection into the existing public utility system.
- C. Maintain a citywide utilities demand model in the City's GIS system for future maintenance, upgrades, etc. of the facilities.



An example of a local power plant

# Wastewater Management

Section 9.3

## OBJECTIVES

- A. Continue to maintain and upgrade wastewater treatment standards to fulfill Ohio and U.S. E.P.A. mandates.
- B. Continue to maintain and upgrade the wastewater collection and treatment systems' ability to collect, transport, and treat wastewater flows.
- C. Continue to comply with regulatory agencies by increasing the control of materials discharged into lakes, rivers, streams, and aquifers.

## STRATEGIES

In order to meet the objectives outlined in the Comprehensive Plan's Utilities and Energy Section, the following strategies should be pursued by the City of Hamilton:

- "The costs associated with retrofitting centralized wastewater treatment highlight the need to time and locate infrastructure concurrently with development." (OKI, Strategic Region Policy Plan p.40)
- "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... Cincinnati region's growth is straining both its natural and service infrastructure." (OKI, Strategic Region Policy Plan p.41)

## ACTIONS

- A. Map, evaluate, and upgrade wastewater infrastructure.
- B. Investigate alternative strategies for funding wastewater infrastructure improvements.
- C. Maintain wastewater infrastructure data in the GIS system.
- D. Continue to improve the City's wastewater collection and trunk sewer system to reduce instances of infiltration and inflow of storm water and groundwater.



An example of a wastewater plant

# Water Services to the Community

Section 9.4

## OBJECTIVES

- A. Continue to maintain and upgrade water services to provide water to the community in the most cost effective manner.
- B. Continue to meet the water quality standards established by the State of Ohio and U.S. E.P.A. guidelines.
- C. Continue to maintain and upgrade the water treatment and distribution systems' ability to treat, and distribute water.
- D. Improve existing water and water services delivery infrastructure and consider opportunities to interconnect system with neighboring municipalities.
- E. Maintain working relationships with neighboring water systems.
- F. Ensure existing quality of the aquifer is protected.

## STRATEGIES

In order to meet the objectives outlined in the Comprehensive Plan's Utilities and Energy Section, the following strategies should be pursued by the City of Hamilton:

- "A review of several local water system plans indicates there is little coordination among the system operators. The fact that water facilities planning is not an integral part of the comprehensive planning process is nothing new." (OKI, Strategic Region Policy Plan p.39)

## ACTIONS

- A. The City of Hamilton should maintain and update GIS capabilities to prioritize water services infrastructure improvements.
- B. In conjunction with neighboring partners, the City should continue to participate in the Hamilton to New Baltimore Groundwater Consortium.
- C. Expand Wellhead Protection Program efforts when warranted and ensure that appropriate regulations are implemented for water resource protection.
- D. Develop an asset management program and utilize that information to establish a water main replacement program.



An example of a water treatment plant

# Gas Services to the Community

Section 9.5

## OBJECTIVES

- A. Continue to maintain and upgrade gas services to provide reliable gas supply in the most cost effective manner.
- B. Improve energy efficiency while maintaining safety and security.
- C. Improve existing gas delivery infrastructure.

## STRATEGIES

In order to meet the objectives outlined in this Comprehensive Plan's Utilities and Energy section, the following strategies should be pursued by the City of Hamilton:

- Safe and efficient natural gas distribution systems are vital to economic development within the City.

## ACTIONS

- A. Utilize GIS capabilities to prioritize gas distribution system improvements.
- B. Maintain the gas model to establish a master plan for future maintenance, upgrades, etc. of the facilities.
- C. Work with federal and state utility regulators to facilitate code compliance.



An example of a district regulator station

# Telecommunications

## Section 9.6

### **OBJECTIVES**

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- A. The City of Hamilton should support telecommunication opportunities that can enhance the City's economy and quality of life.
- B. Continue to maintain and improve the City of Hamilton's "24-hour City Hall service" that provides information as well as tax and utilities payments by computer access.

### **STRATEGIES**

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In order to meet the objectives outlined in the Comprehensive Plan's Utilities and Energy Section, the following strategies should be pursued by the City of Hamilton:

- Telecommunications infrastructure is the gateway to future economic growth in the demanding world economy. In order for communities to effectively compete in this world economy, cutting edge telecommunications infrastructure is paramount.

### **ACTIONS**

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- A. Determine which telecommunications program is most beneficial to the future economic development of the City of Hamilton.
- B. Develop a citywide telecommunication plan that addresses existing and future needs for local businesses, agencies, developers, and citizens.

## **OBJECTIVES**

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- A. The City of Hamilton should have a program to reduce solid waste generated by citizens and businesses.
- B. Continue to provide residential refuse collection necessary to ensure public health and safety.
- C. Ensure that all residential and business uses in the City of Hamilton have access to recycling services.

## **STRATEGIES**

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In order to meet the objectives outlined in the Comprehensive Plan's Utilities and Energy Section, the following strategies should be pursued by the City of Hamilton:

- Communities that successfully integrate waste reduction programs into daily routines have found success in creating a more healthy and sustainable environment.

## **ACTIONS**

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- A. The City of Hamilton should explore and adopt policies and economic incentives to encourage reduction of consumer and business waste.
- B. Explore education options and programs that will encourage participation by government, business, and residents to reduce solid waste.

# Power Supply Services

Section 9.8

## OBJECTIVES

- A. Continue to maintain and upgrade power supply services to provide electricity to the community in the most cost effective manner.
- B. Continue to maintain and upgrade the power supply system's ability to generate and distribute electrical power.
- C. Improve existing electric services delivery infrastructure and consider opportunities to interconnect the system with neighboring utilities.

## STRATEGIES

In order to meet the objectives outlined in the Comprehensive Plan's Utilities and Energy Section, the following strategies should be pursued by the City of Hamilton:

- Achieving high standards of service to the community will encourage continued economic vitality.

## ACTIONS

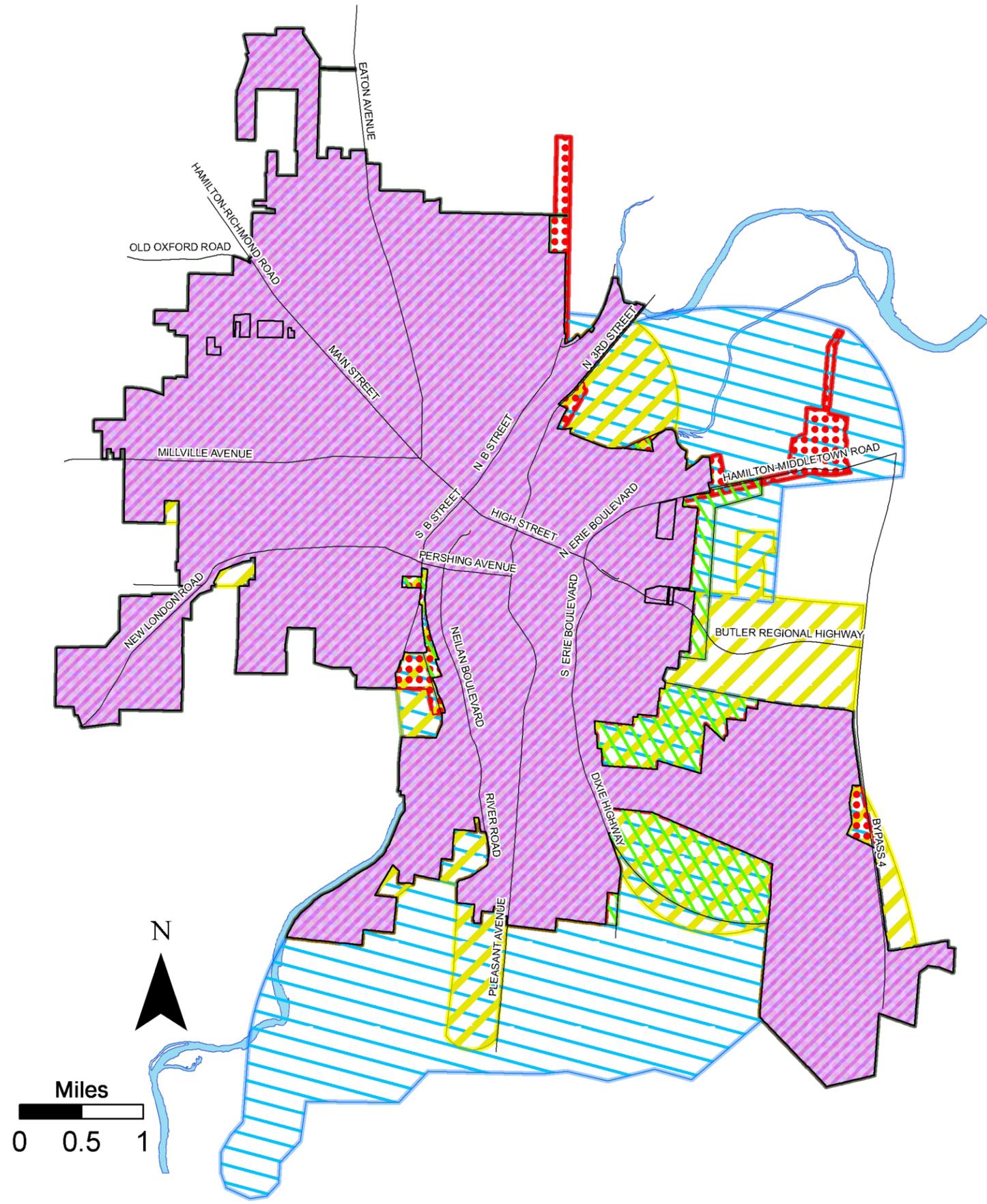
- A. Continue to pursue the joint venture to build the hydroelectric power plant on the Ohio River so to eventually be able to create additional power at a lower cost and environmentally sustainable method. The end result being lower public utility rates and greater economic development prospects.
- B. The City of Hamilton Utilities Department should reserve land along the Great Miami River for the proposed pedestrian/bike trail through town with any expansion of the North Hamilton Power Plant.



An example of a power substation

# Utilities Service Boundary Map

Figure 9.1



**Legend**

-  City Boundary
-  Main Streets
-  All Service Region
-  Sanitary Boundary
-  Gas Shapefile
-  Electric Boundary
-  Water Boundary

**Date: 01.01.2008**

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# Stormwater Management

Section 9.9

## OBJECTIVES

- A. Continue to maintain and upgrade stormwater management infrastructure to fulfill Ohio and U.S. E.P.A. mandates.
- B. Continue to maintain and upgrade the stormwater collection system's ability to collect and transport stormwater flows.
- C. Continue to comply with regulatory agencies by increasing the control of materials discharged into lakes, rivers, streams, and aquifers.
- D. Protect water resources and natural drainage systems by controlling the quality and quantity of stormwater runoff.

## STRATEGIES

In order to meet the objectives outlined in the Comprehensive Plan's Utilities and Energy Section, the following strategies should be pursued by the City of Hamilton:

- "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... Cincinnati region's growth is straining both its natural and service infrastructure." (OKI, Strategic Region Policy Plan p.41)
- "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." (OKI, Strategic Region Policy Plan p.96)

## ACTIONS

- A. Map, evaluate, and upgrade stormwater infrastructure.
- B. Investigate alternative strategies for funding stormwater infrastructure improvements.
- C. Maintain stormwater infrastructure data in the GIS system.
- D. Develop and administer stormwater management standards in accordance with federal, state and local regulations.
- E. Establish a stormwater maintenance program to assure that stormwater systems function at or near design capacity.
- F. Maintain a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants in storm water runoff.



An example of stormwater retention pond and outlet structure

# ACTION STEPS

## **Energy Efficiency Through Land Use:**

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- C. Maintain a citywide utilities demand model in the City's GIS system for future maintenance, upgrades, etc. of the facilities.

## **Wastewater Management:**

- A. Map, evaluate, and upgrade wastewater infrastructure.
- B. Investigate alternative strategies for funding wastewater infrastructure improvements.
- C. Maintain wastewater infrastructure data in the GIS system.
- D. Continue to improve the City's wastewater collection and trunk sewer system to reduce instances of infiltration and inflow of storm water and groundwater.

## **Water Services to the Community:**

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- C. Expand Wellhead Protection Program efforts when warranted and ensure that appropriate regulations are implemented for water resource protection.
- D. Develop an asset management program and utilize that information to establish a water main replacement program.

## **Gas Services to the Community:**

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- B. Maintain the gas model to establish a master plan for future maintenance, upgrades, etc. of the facilities.
- C. Work with federal and state utility regulators to facilitate code compliance.

## **Telecommunications:**

- A. Determine which telecommunications program is most beneficial to the future economic development of the City of Hamilton.
- B. Develop a citywide telecommunication plan that addresses existing and future needs for local businesses, agencies, developers, and citizens.

## **Solid Waste:**

- A. The City of Hamilton should explore and adopt policies and economic incentives to encourage reduction of consumer and business waste.
- B. Explore education options and programs that will encourage participation by government, business, and residents to reduce solid waste.

## **Power Supply Services:**

- A. Continue to pursue the joint venture to build the hydroelectric power plant on the Ohio River so to eventually be able to create additional power at a lower cost and environmentally sustainable method. The end result being lower public utility rates and greater economic development prospects.
- B. The City of Hamilton Utilities Department should reserve land along the Great Miami River for the proposed pedestrian/bike trail through town with any expansion of the North Hamilton Power Plant.

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# REFERENCES

OKI Regional Council of Governments. Strategic Regional Policy Plan. Cincinnati: 2005.