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# ENVIRONMENT

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HAMILTON, OHIO  
COMPRENEHSIVE PLAN



# ENVIRONMENT

## LONG-TERM GOAL:

There is a complex relationship between physical geography and human life. Humans continually have a significant impact upon the environment through actions such as construction, litter, resource consumption and pollution. In order to make informed decisions for smart/sustainable growth and to be ever mindful of public health, safety and general welfare the City of Hamilton must consider the environment. The City should identify and adopt a variety of programs to conserve and protect environmental resources with specific regard to ground and surface water quality, air quality, native and naturalized flora and fauna, and construction practices. This will be accomplished through education, land use controls, and cooperative agreements with other governmental jurisdictions.

## INTRODUCTION:

This document will serve as the City of Hamilton's roadmap for environmental issues for the next twenty years. The City's Comprehensive Plan is meant to help create a sustainable community through its environmental objectives and actions.

This update of the City of Hamilton's Comprehensive Plan merges concepts with the recently adopted Ohio-Kentucky-Indiana (OKI) Regional Council of Governments' Strategic Regional Policy Plan. This regional policy plan lays the framework for regional convergence of coordinated, comprehensive planning by all 190-member jurisdictions of OKI.

"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." (OKI, Strategic Regional Policy Plan p.50)

"In broader 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, and enhanced economic vitality." (OKI, Strategic Regional Policy Plan p.50)

# POLICIES STRATEGIES AND ACTIONS

## Overall Objectives:

### Section 5.1

In an effort to meet the goals of the environmental plan and coordinate efforts with the region, the Ohio-Kentucky-Indiana Regional Council of Governments (OKI) concepts are utilized to support the objectives. The OKI ideas utilized within the plan are italicized and documented. Ideas and quotations from the Vision 2020 Comprehensive Plan, Smart Growth Sustainable Hamilton 2001 are also italicized. In order to integrate public concerns and ideas, recommendations have been taken from the Hamilton Vision 2020 “Steering A Course to the Future” document.

- A. The Comprehensive Plan should serve as a guide linking the protection and enhancement of the City of Hamilton’s natural systems to transportation, land use, economic development, public utilities, housing, recreation, and intergovernmental coordination.
- B. “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.” (OKI, Strategic Regional Policy Plan p.18)
- C. The City of Hamilton should “...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.” (OKI, Strategic Regional Policy Plan p.55)
- D. The City of Hamilton should meet Federal, State and Local environmental protection standards for water and air quality through land use and transportation decisions and implementation of best management practices.
- E. Natural environmental resources within the City should be enhanced and protected to ensure the sense of both residents and visitors alike that they are close to nature rather than at odds with it.
- F. The City of Hamilton should encourage and support energy efficient and sustainable construction practices such as the U.S. Builders Green Build Council’s Leadership in Energy and Environmental Design (LEED) standards ([www.usgbc.org](http://www.usgbc.org)) and the U.S. Environmental Protection Agency and U.S. Department of Energy’s ENERGY STAR standards for residential development ([www.energystar.gov](http://www.energystar.gov)).
- G. The City of Hamilton should continue to support and carryout the goals and objectives of the Hamilton to New Baltimore Ground Water Consortium and their Source Water/Well Head Protection Programs.

# Ground and Surface Water

Section 5.2

## OBJECTIVES

- A. The City of Hamilton should protect water quality through land use decisions and implementation of best management practices for stormwater run-off.
- B. The City of Hamilton should strive to preserve, protect and enhance the quality of its drinking water supply by enforcing all applicable state law and local regulations and establishing cooperative efforts with adjacent governmental jurisdictions, such as Butler County and the townships.
- C. The City of Hamilton should remain a leading participant in the Hamilton to New Baltimore Ground Water Consortium's Source Water/ Well Head Protection Programs.
- D. The City of Hamilton should actively promote, regulate and enforce erosion and sediment control.

## STRATEGIES

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

- "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." (OKI, Strategic Regional Policy Plan p.51)
- "Trees perform a variety of functions that reduce runoff volumes and improve water quality. Leaf canopies intercept and hold large quantities of rainwater on the leaf surface, preventing it from reaching the ground and becoming runoff. Root systems create voids in the soil that facilitate infiltration. Trees also absorb and transpire large quantities of ground water, making the soil less saturated, which allows more stormwater to infiltrate. Through the absorption process, trees remove pollutants from stormwater and stabilize them. Finally, tree canopies shade and cool paved areas." (Stormwater Guidelines for Green, Dense Redevelopment, p.21)
- "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." (OKI, Strategic Regional Policy Plan p.58)

## **ACTIONS**

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- A. The City of Hamilton should update zoning and subdivision regulations to encourage and support implementation of adopted comprehensive plan objectives and actions such as conservation design practices for residential and commercial developments, such as Low Impact Development techniques, tree replacement along with preservation or riparian buffers, and LEED standards for ground and surface water conservation and protection.
- B. Support the management of all aspects of the Hamilton to New Baltimore Ground Water Consortium by recommending management procedures to protect water supplies from potential sources of ground water contamination within the Source Water/ Wellhead Protection Areas established by the Consortium throughout the multi-jurisdictional area.
- C. Identify specific areas critical to groundwater recharge that should be developed in low-density uses; in these areas the City should provide density incentives to developers to allow sensitive areas to be designated common ground/open space.
- D. The City of Hamilton should periodically review and update the Wellhead Protection Area Regulations in cooperation with other jurisdictions that have adopted the same language regarding its usefulness in preventing the creation or establishment of non-compatible land uses that have the potential to degrade or otherwise negatively impact groundwater and surface water resources, impairing the utility of the Great Miami Buried Valley Aquifer.
- E. The City of Hamilton should consider prohibiting preconstruction clearance of land until such time development is ready to begin in order to prevent soil erosion and increased storm water run-off onto adjacent properties.
- F. During planning, preconstruction, and construction phases of development the City of Hamilton should strongly encourage through ordinance or incentives the preservation of existing trees with an established root system to facilitate infiltration of stormwater runoff.

# Floodplains

Section 5.3

## OBJECTIVES

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- A. The City of Hamilton should take measures to preserve the flow capacity of the floodplains and to protect the functioning of these floodplains as ecological systems.
- B. The City of Hamilton and the Miami Conservancy District should continue to work cooperatively together on any issues regarding the Great Miami River and floodplain.

## STRATEGIES

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

- All land use planning within the city should consider the implications of actions with respect to the creation of new, or the aggravation of existing floodplain management problems.
- The flood standard used to define floodplain limits for regulation purposes are 100-year flood maps produced by the Federal Emergency Management Agency (FEMA).
- Any new development in floodplain areas should be protected by acceptable flood proofing actions and measures, or in accordance with adopted building regulations.

## ACTIONS

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- A. The City of Hamilton should consider reinstating floodplain management policies within the Zoning Ordinance for new development along the Great Miami River.

# Wetlands

Section 5.4

## OBJECTIVES

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- A. Conserve Hamilton's wetlands particularly through the promotion of their ecological, cultural, economic and social values.

## STRATEGIES

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

- The City should consider the regional impact of the function(s) a wetland performs when determining whether degradation of the wetland can be authorized.
- Landowners of existing significant wetlands should be encouraged to seek assistance for the purpose of formulating management plans.

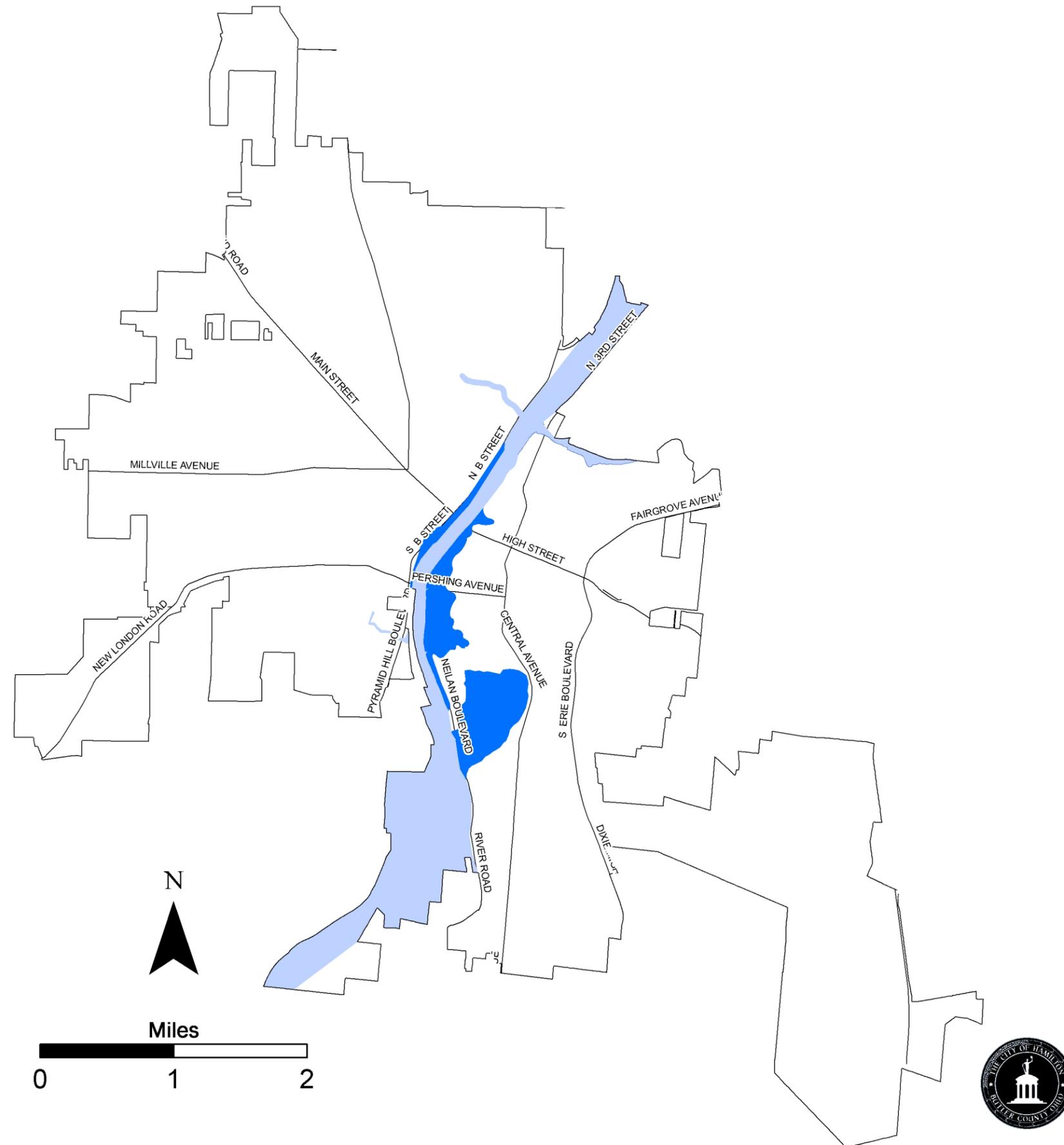
## ACTIONS

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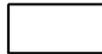
- A. The City should require a full Environmental Study of any project where designated wetlands (from ODNR wetland maps) may be located.
- B. Educate developers, builders, and landowners on the importance of wetlands.
- C. Determine the most appropriate actions to protect wetlands within the City's limits, based on the State of Ohio (ODNR) wetland maps.

# Floodplains Map

Figure 5.3



### Legend

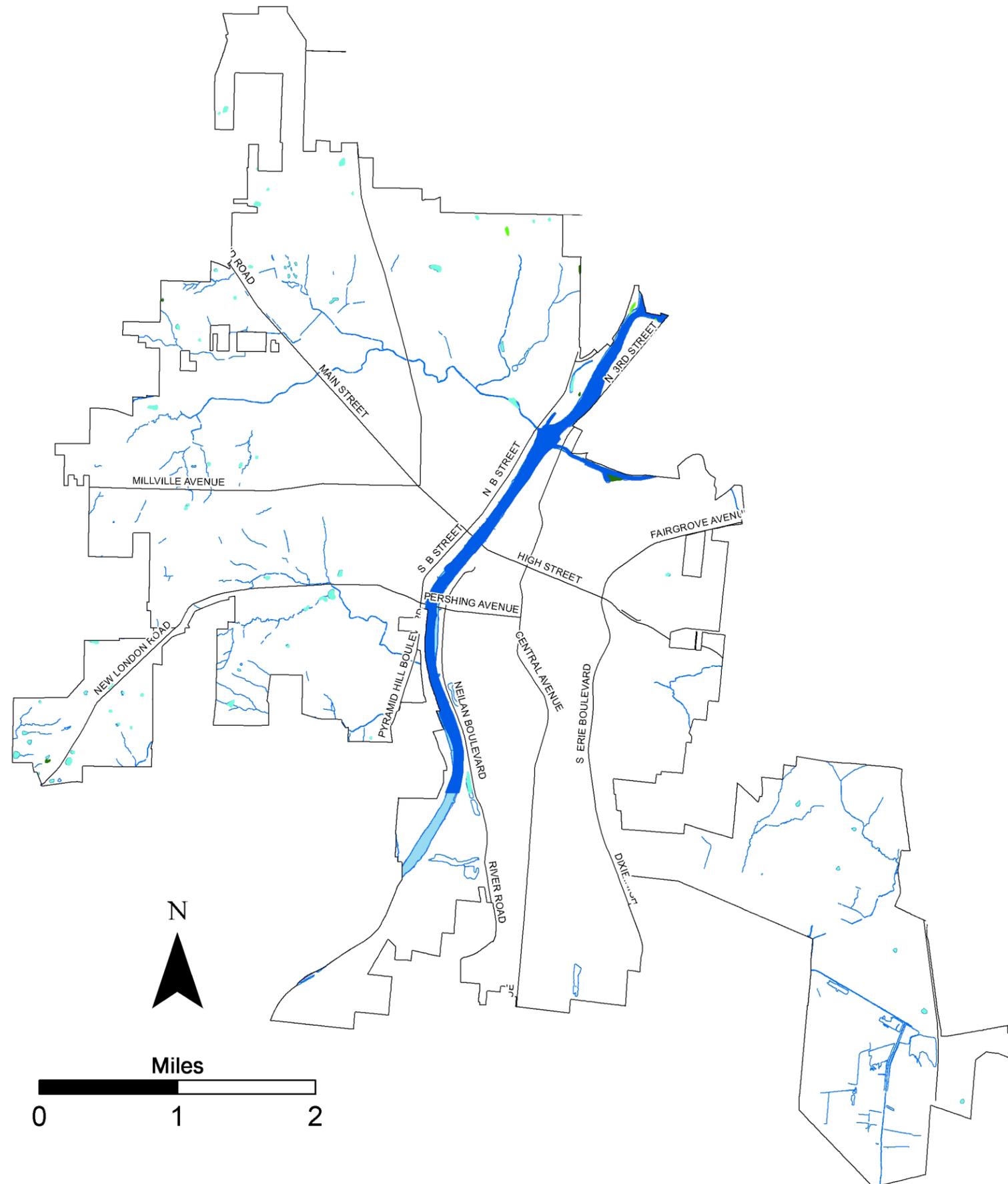
-  City Boundary
-  100 year floodplain
-  500 year floodplain
-  Main Streets

**Date: 01.01.2008**

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# Wetlands Map

Figure 5.4



### Legend

-  City Boundary
- Wetland Areas**
-  Freshwater Emergent Wetland
-  Freshwater Forested/Shrub Wetland
-  Freshwater Pond
-  Lake
-  Riverine
-  streams
-  Main Streets

**Date: 01.01.2008**

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## **OBJECTIVES**

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- A. Achieve and maintain an air quality level that will protect the environment for the benefit of all.
  - B. The City of Hamilton should explore Intelligent Transportation Systems (ITS) and Congestion Management Air Quality (CMAQ) grant opportunities through OKI to improve air quality and improve transportation efficiency.
  - C. The City of Hamilton should encourage and support development that uses mixed-use, multi-modal transportation design practices.
  - D. Increase canopy cover to provide additional trees needed to help cleanse the air and produce oxygen.
  - E. “Trees further help to reduce air pollution in urban areas by absorption of pollutants.” (OKI, Strategic Regional Policy Plan p.54)
- “Air quality is a key criterion for OKI in making decisions for transportation plans, programs, and projects.” (OKI, Strategic Regional Policy Plan p.54)
  - As trees help to reduce air pollution in urban areas by absorption of pollutants the city should continue to comply with the Tree City USA standards. “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.” (OKI, Strategic Regional Policy Plan p.54-55)

## **STRATEGIES**

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In order to meet the objectives outlined in the Comprehensive Plan’s Environment Section, the following strategies should be pursued by the City of Hamilton:

- Follow and enforce the State Implementation Plan (SIP) to improve the air quality in non-attainment areas. The plan outlines the measures that the state will take in order to improve air quality.
  - “In April 2004, the National Ambient Air Quality Standards changed from 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” ... 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.” (OKI, Strategic Regional Policy Plan p.54)
- A. The City of Hamilton should continue to support and work with OKI and adjacent regional governments on improving air quality.
  - B. The development of mixed-use projects that follow Smart Growth principles for multi-modal transportation can help improve air quality in the City of Hamilton and should be encouraged.
  - C. The City of Hamilton should continue to adopt policies that promote the protection and preservation of open space, old growth trees and develop programs and incentives to encourage new tree plantings. One such example is the agreement with a local cemetery to plant trees for future location into public areas.
  - D. As part of the Tree City USA Program, the City should increase tree planting along all streets and public spaces.
  - E. The City should enforce regulations that require property developers to plant trees and other types of suitable vegetation.
  - F. The City of Hamilton should explore the replacement of fleet vehicles with Hybrid or other low emission vehicles.

# Overall Environmental Quality

## Section 5.6

### **OBJECTIVES**

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- A. The City should promote and adopt a variety of programs to conserve and protect environmental resources, especially through education, land use controls, and cooperative agreements with other governmental jurisdictions.
- “The value of the environment to the community has true economic and social issues. Some of these are as follows:
  - Landscaping increases property market value. The Wall Street Journal reported that landscape investments are recovered fully, and sometimes doubled, by the increased home value.
  - Good landscaping increases community appeal - Parks and street trees have been found to be second only to education in residents’ perceived value of municipal services offered.
  - Landscaping is one of the most cost effective tools for improving and sustaining the quality of life, whether in the city, the suburbs, or the country.
  - Landscaping renews business districts. Greening of business districts increases community pride and positive perception of an area, drawing customers to the businesses.
  - Proper landscaping reduces soil erosion. A dense cover of plants and mulch holds soil in place, keeping sediment out of lakes, streams, storm drains, and roads; and reducing flooding, mudslides, and dust storms.
  - Plants improve air quality. One tree can remove 26 pounds of carbon dioxide from the atmosphere annually, equaling 11,000 miles of car emissions. Landscape plants, including shrubs and turf, remove smoke, dust, and other pollutants from the air. One study showed that one-acre of trees has the ability to remove 13 tons of particles and gases annually.” (The Value of Landscaping)

### **STRATEGIES**

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In order to meet the objectives outlined in the Comprehensive Plan’s Environment Section, the following strategies should be pursued by the City of Hamilton:

- The City should continue to work with real estate developers to secure and preserve green space, open space, and natural environments as part of the common ground requirements for new residential areas. Density incentives could be used to promote concentration of development in selected areas and provide remaining acreage for open space.
- The City of Hamilton should promote recycling among its residents. Recycling services in Hamilton, which are provided by Rumpke, are funded by the City and available to residents free of charge. Promoting and encouraging the use of recycling programs will help the City of Hamilton meet its objective of conserving and protecting environmental resources.

## **ACTIONS**

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- A. Develop Land Use Policies that are conducive to protecting the environment in ways that enhance the quality of life for residents.
- B. The City should continue to work with real estate developers to secure and preserve green space, open space, and natural environments as part of the common ground requirements for new residential areas.
- C. Density incentives should be used to promote concentration of development in selected areas and provide remaining acreage for open space.
- D. Preserve and protect open space and natural environments that provide opportunities for active and passive recreation, visual amenities, as well as for the enhancement of the environment including wildlife, ground and surface water protection.



Local examples of preserved environment

# Development and Construction

## Section 5.7

### OBJECTIVES

- A. All development and construction in the City of Hamilton should be encouraged to include energy efficient features that will improve building quality, comfort, and environmental benefits.
- B. Adopt and amend plans, policies and ordinances to support and encourage energy efficiency and green building design.

### STRATEGIES

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

- "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." (OKI, Strategic Regional Policy Plan p.18)
- "Energy used in our homes often comes from the burning of fossil fuels at power plants, which contributes to smog, acid rain, and global warming. Simply put, the less energy we use in our homes, the less air pollution we generate." (Benefits of ENERGY STAR Qualified New Homes)

### ACTIONS

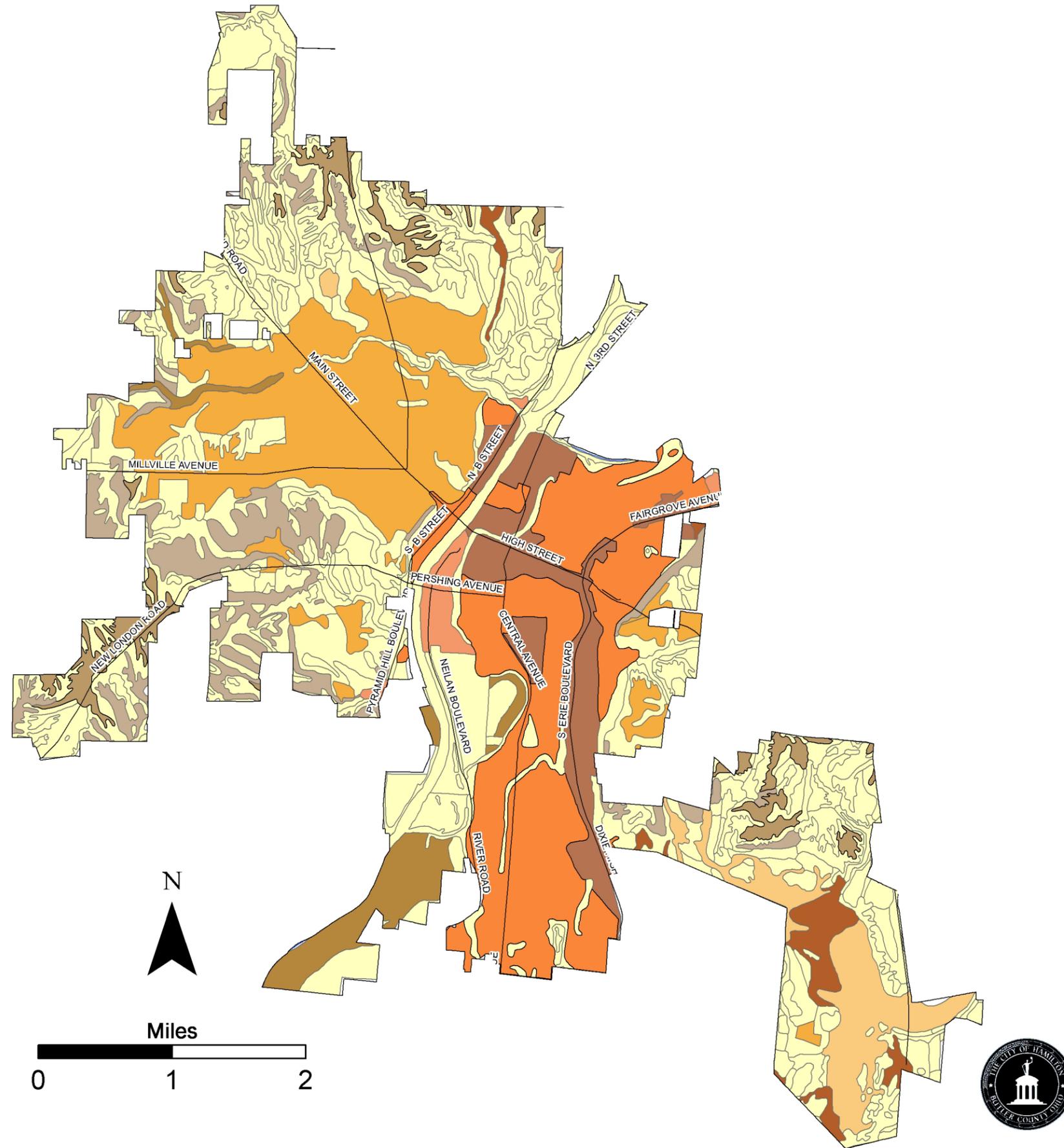
- A. The City of Hamilton should adopt the Leadership in Energy and Environmental Design (LEED) principles and become an active participating member of the U.S. Green Build Council and their local chapter. In doing this, the City should consider expanding on the adopted design principals and encourage natural design features and landscaping provisions for development.
- B. The City of Hamilton should revise and adopt zoning, subdivision and building codes and regulations to require energy efficiency and green design techniques for buildings.
- C. The City of Hamilton should research methods to offer incentives to developers and builders who construct projects that meet U.S. Green Build Council "LEED certification" or comply with the U.S. Environmental Protection Agency's ENERGY STAR program for housing.



A LEED building

# Soils Map

Figure 5.7



### Legend

- City Boundary
- Main Streets
- Eden Silty Clay Loam
- Eldean Urban Land Complex
- Tippecanoe Silt Loam
- Genessee - Urban Land
- Patton Silty Clay Loam
- Russel Urban Land Complex
- Genessee Loam
- Urban Land - Eldian
- Xenia Silt Loam
- All Other Values

**Date: 01.01.2008**

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# Intergovernmental Cooperation

Section 5.8

## **OBJECTIVES**

- A. Understanding that decisions in Hamilton may affect the regional environment and the regional decisions may affect Hamilton's local environment, the city should increase its intergovernmental cooperation on environmental issues through collaborative efforts such as the Hamilton to New Baltimore Ground Water Consortium.

## **STRATEGIES**

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

- Communities have found it useful to work in a cooperative manner in order to promote and maintain a high quality environment that is advantageous for the mutual benefit of all residents.

## **ACTIONS**

- A. The City should work cooperatively with members of the Hamilton to New Baltimore Ground Water Consortium, the Miami Conservancy District, Butler County and other jurisdictions to protect the Great Miami River and its underlying aquifer system as a local, regional and state natural resource.
- B. The City of Hamilton should recognize that it is an integral part of the larger, expanding, interdependent OKI Region and continue participation in regional organizations concerned with protecting the environment.

# ACTION STEPS

## Ground Water and Surface Water:

- A. The City of Hamilton should update zoning and subdivision regulations to encourage and support implementation of adopted comprehensive plan objectives and actions such as conservation design practices for residential and commercial developments, such as Low Impact Development techniques, tree replacement along with preservation or riparian buffers, and LEED standards for ground and surface water conservation and protection.
- B. Support the management of all aspects of the Hamilton to New Baltimore Ground Water Consortium by recommending management procedures to protect water supplies from potential sources of ground water contamination within the Source Water/Wellhead Protection Areas established by the Consortium throughout the multi-jurisdictional area.
- C. Identify specific areas critical to groundwater recharge that should be developed in low-density uses; in these areas the City should provide density incentives to developers to allow sensitive areas to be designated common ground/open space.
- D. The City of Hamilton should periodically review and update the Wellhead Protection Area Regulations in cooperation with other jurisdictions that have adopted the same language regarding its usefulness in preventing the creation or establishment of non-compatible land uses that have the potential to degrade or otherwise negatively impact groundwater and surface water resources, impairing the utility of the Great Miami Buried Valley Aquifer.
- E. The City of Hamilton should consider prohibiting preconstruction clearance of land until such time development is ready to begin in order to prevent soil erosion and increased storm water run-off onto adjacent properties.
- F. During planning, preconstruction, and construction phases of development the City of Hamilton should strongly encourage through ordinance or incentives the preservation of existing trees with an established root system to facilitate infiltration of stormwater runoff.

## Floodplains:

- A. The City of Hamilton should consider reinstating floodplain management policies within the Zoning Ordinance for new development along the Great Miami River.

## Wetlands:

- A. The City should require a full Environmental Study of any project where designated wetlands (from ODNR wetland maps) may be located.
- B. Educate developers, builders, and landowners on the importance of wetlands.
- C. Determine the most appropriate actions to protect wetlands within the City's limits, based on the State of Ohio (ODNR) wetland maps.

## **Air Quality:**

- A. The City of Hamilton should continue to support and work with OKI and adjacent regional governments on improving air quality.
- B. The development of mixed-use projects that follow Smart Growth principles for multi-modal transportation can help improve air quality in the City of Hamilton and should be encouraged.
- C. The City of Hamilton should continue to adopt policies that promote the protection and preservation of open space, old growth trees and develop programs and incentives to encourage new tree plantings. One such example is the agreement with a local cemetery to plant trees for future location into public areas.
- D. As part of the Tree City USA Program, the City should increase tree planting along all streets and public spaces.
- E. The City should enforce regulations that require property developers to plant trees and other types of suitable vegetation.
- F. The City of Hamilton should explore the replacement of fleet vehicles with Hybrid or other low emission vehicles.

## **Overall Environmental Quality:**

- A. Develop Land Use Policies that are conducive to protecting the environment in ways that enhance the quality of life for residents.
- B. The City should continue to work with real estate developers to secure and preserve green space, open space, and natural environments as part of the common ground requirements for new residential areas.
- C. Density incentives should be used to promote concentration of development in selected areas and provide remaining acreage for open space.
- D. Preserve and protect open space and natural environments that provide opportunities for active and passive recreation, visual amenities, as well as for the enhancement of the environment including wildlife, ground and surface water protection.

# ACTION STEPS CONTINUED

## **Development & Construction:**

- A. The City of Hamilton should adopt the Leadership in Energy and Environmental Design (LEED) principles and become an active participating member of the U.S. Green Build Council and their local chapter. In doing this, the City should consider expanding on the adopted design principals and encourage natural design features and landscaping provisions for development.
- B. The City of Hamilton should revise and adopt zoning, subdivision and building codes and regulations to require energy efficiency and green design techniques for buildings.
- C. The City of Hamilton should research methods to offer incentives to developers and builders who construct projects that meet U.S. Green Build Council “LEED certification” or comply with the U.S. Environmental Protection Agency’s ENERGY STAR program for housing.

## **Intergovernmental Cooperation:**

- A. The City should work cooperatively with members of the Hamilton to New Baltimore Ground Water Consortium, the Miami Conservancy District, Butler County and other jurisdictions to protect the Great Miami River and its underlying aquifer system as a local, regional and state natural resource.
- B. The City of Hamilton should recognize that it is an integral part of the larger, expanding, interdependent OKI Region and continue participation in regional organizations concerned with protecting the environment.

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