

## Natural Environment ■ ■ ■ ■ ■



Photo by: Branden Beachy

### VISION

Goshen will meet the needs of today's generations without compromising the needs of future generations. The City will respect and manage natural resources in a way that sustains, restores and enhances the natural environment and protects parks, wildlife, waterways, wetlands and open spaces.

### GOALS & OBJECTIVES

#### NE-1: Protect, preserve and enhance natural habitats and resources

A natural habitat is the area or environment in which a species or community of species normally lives. Sensitive lands are those areas containing natural features that are environmentally significant and easily disturbed by human activity. Examples include rare species habitat, wetlands and riparian areas, woodlands, steep slopes, and geologically unstable areas. Restoring degraded ecosystems allows them to regain their natural diversities and functions.

1. Preserve and protect wetlands and natural water areas as open space, including lakes, ponds, rivers, streams, creeks, marshes, fens, swamps, floodplains, and wet prairies
2. Minimize visual and ecological impacts of development on the river, open space, parks, or other natural resources
3. Encourage landscaping with native plants
4. Promote the community's environmental assets for tourism
5. Preserve ecological integrity in riparian corridors
6. Use Geographic Information System (GIS) to identify areas in need of protection
7. Partner with relevant agencies to develop restoration projects
8. Evaluate ordinances to require consideration of ecological impacts in site plans
9. Identify grants for river cleanup and natural landscaping

#### NE-2: Maintain and increase open spaces and parks

Parks are areas of land, often in a natural state or improved with facilities for rest and recreation, set aside for the enjoyment of the public. Greenways are strips of undeveloped land that provide corridors for environmental and recreational use and connect areas of open space. These facilities offer a range of benefits to residents, including opportunities for increased physical activity.

### Types of Wetlands

**Riparian Zone:** plant community consisting of vegetation growing near a river, stream, lake or lagoon or other natural body of water

**Marshes:** periodically saturated, flooded or ponded with water and characterized by herbaceous (non-woody) vegetation adapted to wet soil conditions

**Swamp:** fed primarily by surface water inputs and dominated by trees and shrubs

**Fen:** lands where saturation with water is the dominant factor determining the nature of soil development and the types of plant and animal communities living in the soil and on its surface

**Bogs:** freshwater wetlands characterized by spongy peat deposits, a growth of evergreen trees and shrubs, and covered by a thick carpet of sphagnum moss

1. Develop the Elkhart River and the Goshen Millrace as a residential, commercial, recreational and environmental asset
2. Manage existing public open space and parks in a manner that preserves and enhances the ecological, recreational, and aesthetic value
3. Maintain and expand the pedestrian/ bicycle trail system to make it accessible to destinations throughout the City
4. Direct growth toward existing development and away from undeveloped space such as farmland, wetlands and forests
5. Encourage property owners along waterways to increase the aesthetic and natural value of land adjacent to the river system
6. Promote low-impact recreational uses on land not suitable for development
7. Support regional efforts to preserve the Elkhart River, floodplain and tributaries as an open space corridor
8. Purchase land or development rights along the river system
9. Plan riverfront development to respect and enhance waterways as community resources
10. Support the ecological, recreational and aesthetic values of the Goshen Parks and Recreation Master Plan
11. Identify locations for the expansion and addition of open space
12. Amend ordinances to include green space requirements in new development

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### **NE-3: Promote environmental education**

Environmental education teaches children and adults how to learn about and investigate their environment. Environmental education is taught in classrooms, communities, nature centers, museums and parks. Goshen offers environmental education through the Rieth Interpretive Center with a focus on interpreting the natural, cultural and industrial heritage of the community.

1. Develop environmental education programs through the Parks Department, with support from the Utilities and Planning Departments
2. Work with Elkhart County Soil and Water Conservation District (ECSWCD) to promote regional environmental education
3. Work with property owners along the river system to promote appropriate and low-impact land use
4. Use partnerships with school classes, the Parks Department, ECSWCD and volunteers to expand opportunities for environmental education
5. Provide ongoing education for City staff, residents, and developers regarding landscaping and irrigation practices that protect the urban forest
6. Develop educational programs and technical assistance for residents and businesses in best practice approaches in solid waste disposal



## NE-4: Maintain, grow and promote Goshen's urban forest program

Trees are an integral component of the City's infrastructure and urban environment. They provide shade and act as windbreaks, helping to decrease residential energy consumption. They act as reservoirs, helping to reduce the amount of stormwater that reaches storm drains, rivers, and lakes. They help reduce noise levels, cleanse atmospheric pollutants, produce oxygen and absorb carbon dioxide, stabilize the soil by controlling wind and water erosion, and provide habitat for wildlife. Trees also provide significant economic benefits, including increased real estate values and more attractive settings in which to locate commercial businesses.

1. Encourage new residential and commercial development to identify and preserve existing beneficial large trees
2. Encourage new development to provide indigenous street trees and related irrigation systems, and practice water conservation strategies
3. Maintain a citywide tree inventory
4. Expand the existing tree nursery utilizing volunteers and other resources
5. Administer and provide a cost sharing program for new street trees
6. Initiate a twice-a-year tree planting campaign
7. Continue the City's designation as a "Tree City USA"
8. Update the City's Tree Ordinance 4008
9. Maintain cooperation between Planning and the City Forester to jointly review landscape plans for new development

## NE-5: Reduce toxins in the community

Toxins are poisonous substances capable of causing disease in living organisms. Pollutants are waste substances or forms of energy (noise, light, heat) that can contaminate air, water, and soil, causing adverse changes in the environment. Examples include carbon monoxide and other gases along with soot and particulate matter produced by fossil fuel combustion; toxic chemicals used or created in industrial processes; pesticides and excess nutrients from agricultural operations; or toxic gases released by paints or adhesives.

1. Model sustainable practices for the maintenance of community green space
2. Work with industry to monitor and develop alternatives to toxic products
3. Work with the Environmental Protection Agency (EPA), Indiana Department of Environmental Management (IDEM), Soil & Water Conservation Societies (SWCS) and the Natural Resources Conservation Service (NRCS) to reduce point source pollution
4. Minimize the use of toxic and hazardous materials by encouraging the use of alternative materials and practices that are environmentally-friendly

## What is Goshen's Urban Forest?

All the trees that live and grow in our city make up Goshen's Urban Forest. This includes trees on private property, in backyards, parks, public forests and along streets. An urban forest is unique from a wild or natural forest because people live in very close community with trees in an urban forest.

The City of Goshen recognizes the significant value of our urban forest. Trees on public property alone contribute more than \$1.12 million annually to our economy by keeping stormwater out of our sewer system, reducing energy consumption, removing airborne pollutants and carbon dioxide and by beautifying our neighborhoods. Our trees help to draw shoppers to our downtown, and make our parks comfortable places to visit.

A 50/50 Street Tree Maintenance Program and a 50/50 Street Tree Planting program help residents to care for and plant trees in Goshen. Additionally, state and federal grants – such as a 2012 USDA tree-planting grant for \$100,200 – allow the City to expand Goshen's urban forest, and its benefits, to more and more residents.

-Aaron Kingsley,  
City Forester



## NE-6: Improve water and air quality

Providing safe and clean drinking water, natural waterways and clean air is essential for a healthy environment and healthy community. The City will protect and improve water and air quality by ensuring that land use practices, codes and standards are up-to-date with best management practices. Goshen will adhere to state and federal water and air quality standards.



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1. Maintain a reliable, long-term supply of clean water for Goshen
2. Protect groundwater from adverse impacts
3. Limit impervious surface area in new developments and public improvement projects to reduce urban runoff into storm drains and waterways
4. Work with developers to promote awareness of key principals for erosion control and stormwater management
5. Partner with county/regional organizations and landowners to reduce non-point source pollution from rural runoff
6. Support regional, state, and federal programs that improve air quality in Elkhart County
7. Reduce the effect of auto emissions on air quality
8. Work to reduce emissions from private industry
9. Encourage developers to provide alternatives to automobile use, such as public transportation, sidewalks, and bicycle paths

## NE-7: Use best practices to reduce and dispose of solid waste

Solid waste is garbage or refuse resulting from human activities. It can include food scraps, yard waste, packaging materials, broken or discarded household items, and construction and demolition debris. Many common solid waste items, such as glass, aluminum and other metals, paper and cardboard, certain plastics, and food scraps and other organic materials, can be diverted from the waste stream and recycled into new products or composted.

1. Encourage the use of reusable, returnable, recyclable and repairable goods through incentives, educational activities and City purchasing practices
2. Promote the salvage and reuse of materials to reduce or divert waste that would otherwise be placed in a landfill
3. Encourage government, business and residents to participate in source reduction programs
4. Encourage government, businesses and residents to purchase low-impact products
5. Promote policies to encourage the reduction of consumer and business waste
6. Develop incentives for commercial source reduction, reuse, and recycling
7. Explore the feasibility of backyard, neighborhood and citywide composting and yard waste recycling programs



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## **NE-8: Encourage sustainable living and business practices**

Sustainable cities meet the needs of the present generation, without compromising the needs of future generations. The City can play an important role in achieving greater sustainability and reducing pollution in communities. The maintenance of City buildings represents an area in which the City can improve its own operations and model behavior for residents and the private sector.

1. Evaluate the City's conservation programs and policies, internal and external
2. Evaluate and encourage the use of renewable energy sources (solar, wind, hydroelectric, geothermal, biomass, conservation, etc.)
3. Develop and market informational resources for sustainable living and business practices including but not limited to construction, waste reduction, recycling, reuse, health and safety