

# Sustainability

## INTRODUCTION

Sustainability is one of the most difficult Elements of the Comprehensive Plan to quantify because it means different things to different people and is a part of every Element in the plan. A conscious decision was made to have a separate section on sustainability instead of incorporating aspects of sustainability into each section. This will provide the framework for the general ideas of sustainability to be incorporated and tailored to fit each Element as necessary.

For the purposes of this section and this overall document, sustainability will be defined as:

*The use of public facilities, infrastructure, and resources in an efficient and cost-effective manner to extend their usable life span and limit capital impact on the residents of the Centre Region.*

The Sustainability Element is organized into the following sections:

- **Key Issues and Findings**
- **Goals, Objectives and Policies**
  - **Water and Sewer Services - Map M14**
  - **Transportation - Maps M10 and M11**
  - **Energy Efficiency**
  - **Municipal Resources - Map M12**
  - **Communications**





## KEY ISSUES AND FINDINGS

Through the development of the Inventory and Assessment of Existing Conditions on sustainability, several items were noted as the key findings. These facts will be used as the basis to determine the most appropriate goals, objectives, and policies for the 2012 Centre Region Comprehensive Plan.

1. Land-use consumption per capita has increased since 1980
2. The Centre Region's municipalities are working to adopt regulations to protect critical resources such as riparian areas and ridges from development pressure.
3. The Regional Growth Boundary and Sewer Service Area continue to be key growth management tools to help encourage density, prevent sprawling development patterns, and concentrate urban services such as commercial centers and public transit.
4. Current trends in neighborhood development call for greater residential density through smaller lot sizes as well as the mixing of uses, such as single-family dwellings, multi-family dwellings, commercial, and office; and transportation options such as bicycle routes and transit stops. This trend has been identified at state, local, and national levels.
5. Providing options for all forms of transportation will help maintain and extend the usable life of the existing infrastructure network by helping to reduce single-occupancy vehicle trips and encourage alternative transportation methods that are less distressing to the existing transportation network.
6. Continued demand to purchase locally grown foods and locally made products may increase the need for urban agriculture or more permanent space for farmer's markets to help reduce the distances needed to acquire local foods and products.
7. Increased, updated, and emerging technology will expand the variety of communication options to include a wider variety of digital options for distribution and storage, reducing the need for physical documents.

This Element will address a variety of topics and how sustainability relates to each one. In some cases, information intentionally overlaps with other sections of this document to ensure issues related to sustainability are identified.

## GOALS, OBJECTIVES, AND POLICIES

### Water & Sewer Services

The Regional Growth Boundary and Sewer Service Area have been established to identify where growth and development should occur to take advantage of existing infrastructure and services such as public transit, public water, public sewer, and retail centers. By encouraging growth and development within the Regional Growth Boundary and Sewer Service Area, the Centre Region can limit the need to expand services prematurely and protect sensitive resources outside of the established growth areas. Additional goals, objectives, and policies related to water and sewer services can be found in the Community Facilities and Services Element.



The State College Borough Water Authority is one of three entities that provide public water service to the Centre Region. The College Township Water Authority and Upper Halfmoon Water Company serve portions of College Township and Patton Township respectively.

**GOAL 1** - Adequate supply and infrastructure for water service is available within the Centre Region to support growth and development for the foreseeable future.

#### Objective 1.1

**Ensure a safe and efficient water supply is available prior to land development.**

##### Policy 1.1.1

Consultation with the relevant public water service providers should be done prior to land-development activity to ensure service is available.

##### Policy 1.1.2

Interconnection of water systems should be explored to limit interruption in service for all customers within the Centre Region, where practical.

##### Policy 1.1.3

Coordination among the water-service providers should be done to ensure that overlap in service areas is limited.

##### Policy 1.1.4

Where appropriate and permitted by the local municipalities, signage identifying watershed boundaries and their tributary streams should be installed to raise awareness to the various watersheds and waterways throughout the Centre Region.



## Policy 1.1.5

Public and private water supplies should be protected by minimizing encroachment of land uses and development that are incompatible with source water protection areas based on local ordinances and PA DEP guidance to ensure quality and quantity will remain viable for the future.

## Policy 1.1.6

Periodically provide educational materials about wellhead protection and groundwater resources to Centre Region residents through municipal newsletters and websites, new homebuyer information, and other appropriate formats.

**Objective 1.2**

**Water conservation efforts for homes, businesses, and industrial users should be incorporated throughout local development or code requirements where appropriate.**

## Policy 1.2.1

Encourage high-efficiency fixtures and accessories to help reduce water usage in homes and businesses.

## Policy 1.2.2

Evaluate strategies for redevelopment or adaptive reuse that takes advantage of existing water service and infrastructure as an alternative to new development.

## Policy 1.2.3

Consider gray water from the beneficial reuse water system for use in homes or businesses for non-potable water needs where practical and available.

**GOAL 2 - Adequate infrastructure for sewer service is available within the Regional Growth Boundary and Sewer Service Area to support growth and development for the foreseeable future.**



The University Area Joint Authority provides centralized sewer treatment to the Centre Region's municipalities. Properties within the Sewer Service Area as defined by the Centre Region Act 537 Sewage Facilities Plan are eligible for public sewer service while properties outside of the Sewer Service Boundary must utilize on-lot sewage disposal methods.

**Objective 2.1**

**Adequate wastewater collection, conveyance, and treatment capacity is available for all properties within the Regional Growth Boundary and Sewer Service Area prior to land development.**



## Policy 2.1.1

Periodic reviews of available wastewater capacity at the University Area Joint Authority should be conducted in conjunction with updates to existing planning documents such as the Regional Development Capacity Report once every five years.

## Policy 2.1.2

Consultation with the Centre Regional Planning Agency and the University Area Joint Authority should be done prior to land development approval to ensure collection and conveyance capacity is available.

## Objective 2.2

**The Centre Region municipalities should continue to support the University Area Joint Authority's efforts to identify customers for the Beneficial Reuse water.**

### Policy 2.2.1

Support the Centre Region marketing efforts to recruit businesses that can utilize the Beneficial Reuse water.

### Policy 2.2.2

Identify long-term customers for the Beneficial Reuse Water provided by the University Area Joint Authority along the existing route of the water line.

## Objective 2.3

**Future developments that take advantage of existing infrastructure within the Regional Growth Boundary and Sewer Service Area, such as transportation routes, community services and facilities, or land-use patterns while minimizing land disturbance activities should be encouraged.**

### Policy 2.3.1

Encourage development regulations that provide creativity in design, including, but not limited to, clustering; provide alternative modes of transportation; and minimize impervious areas.

### Policy 2.3.2

Consider vacant or underutilized properties within the Regional Growth Boundary and Sewer Service Area for development or redevelopment, depending on the availability of existing infrastructure.

### Policy 2.3.3

Consider redevelopment or adaptive reuse of properties where wastewater service currently exists in lieu of new developments that require services to be extended.



#### Policy 2.3.4

Follow the Developments of Regional Impact (DRI) process for properties requesting expansion of the Regional Growth Boundary and Sewer Service Area to demonstrate that centralized sewer service and infrastructure is warranted or necessary beyond the existing Sewer Service Area.

#### Policy 2.3.5

Evaluate local regulations to provide expedited reviews of developments that take advantage of existing infrastructure in accordance with the Best Practices Manual for Development Review and Permitting.

## Transportation

Transportation options for Centre Region residents are paramount to providing variety in daily travel and allowing residents to choose sustainable options for their trips. Establishing a connected network that includes safe, convenient, and sustainable options, including bicycle, pedestrian, and transit facilities, will encourage alternatives to single-occupancy vehicle trips. Additional goals, objectives, and policies related to transportation can be found in the Transportation Element.



Multiple modes of transportation provide options for residents to travel around the Centre Region. Bicycle, pedestrian, and transit amenities provide safe and convenient access connecting neighborhoods with retail centers and activity nodes.

### GOAL 3 - Safe and efficient transportation options exist for all residents of the Centre Region.

#### Objective 3.1

Transportation options such as walking, bicycling, and public transit are encouraged to reduce the source of greenhouse gases and should be incorporated into the overall transportation network to help improve air quality and overall public health.



## Policy 3.1.1

Municipalities should incorporate requirements for sidewalks in new land developments and redevelopment projects where appropriate.

## Policy 3.1.2

Add bicycle facilities to new land developments and redevelopment projects where appropriate and give priority to locations where bicycle facilities will provide logical connections to existing paths; activity centers; and community amenities such as schools, libraries, parks, or other municipal facilities.

## Policy 3.1.3

Winter maintenance of existing and proposed multi-use paths should be conducted where appropriate and within fiscal constraints of the municipalities.

## Policy 3.1.4

Consult with the Centre Area Transportation Authority (CATA) to help identify any gaps in service delivery that could be accommodated through new land development.

## Policy 3.1.5

Periodically evaluate existing transportation systems to ensure they meet current demands for transportation alternatives.



Walkers on a shared use path in Slab Cabin Park.

## Energy Efficiency

Providing municipal services such as waste collection, brush collection, road maintenance, and similar services will ensure the citizens of the Centre Region maintain a high standard of living. These services, however, require a significant expense in terms of energy consumption to operate and maintain the various systems. While it may cost more financially, establishing renewable or alternative fuel sources may help offset the impacts of these services on the environment and help ensure the Centre Region will continue to receive high-quality services.

**GOAL 4** - The Centre Region utilizes a variety of renewable or alternative sources to meet its energy needs, such as wind, solar, geothermal, nuclear, hydrogen, or similar sources.



## Objective 4.1

**Alternative energy sources that take advantage of renewable or alternative technologies should be considered for the Centre Region when practical.**

### Policy 4.1.1

Encourage the Centre Region to explore a diversity of options for energy that includes renewable or alternative sources such as wind, solar, nuclear, or geothermal.

### Policy 4.1.2

Encourage municipalities or vendors serving the municipalities to use alternative fuel sources such as electricity, compressed natural gas, or other alternative fuel technology in their vehicles to help mitigate issues related to air quality when appropriate.

### Policy 4.1.3

Encourage community service organizations such as the State College Area School District and associated schools, Centre LifeLink, and the Alpha Fire Department, as well as private-sector companies to consider using alternative-fuel vehicles where practical.

### Policy 4.1.4

Encourage techniques or practices that support conservation of resources where practical.

### Policy 4.1.5

Encourage residents to explore alternative energy sources in accordance with accepted emergency management practices that can help them be self-reliant during times of limited emergency services after natural disasters or other emergencies when extended electrical outages are expected.



Penn State University's Center for Sustainability runs the Ecological Systems Laboratory at the University Park Campus' Site for Ecological Technologies. Here, various technologies that address sustainability are tested. The solar tracker array pictured above follows the sun's path throughout the day to collect the maximum possible sunlight for use as a power source.

## Objective 4.2

**The Centre Region municipalities should work to reduce barriers to alternative energy uses to help decrease dependence on finite natural resources.**



## Policy 4.2.1

Review and update land-development ordinances when appropriate to allow for alternative energy options to be incorporated into land uses. This should include, but not be limited to, wind, solar, geothermal, or other advanced technologies.

## Policy 4.2.2

Encourage existing businesses, new businesses, or redevelopment opportunities that use alternative energy sources in their day-to-day operations to locate in the Centre Region through the use of land-development incentives or standards and other techniques that recognize alternative energy use.

## Policy 4.2.3

Establish best practices to address the inclusion of alternative energy infrastructure such as geothermal in land developments where appropriate.

## Policy 4.2.4

Encourage municipalities to amend land development ordinances as appropriate to allow for the necessary density that is conducive to alternative energy infrastructure, such as natural gas or similar resources.



## Municipal Resources

The Centre Region Council of Governments was formed in an effort to reduce or eliminate the duplication of services among the Region's six municipalities. To this end, the Centre Region municipalities share multiple services, including land-use planning, code administration, parks and recreation, refuse and recycling, library services, and several other community services. The sharing of these services allows for the municipalities to limit their overall impact on individual resources and community resources that may have environmental implications. Conservation, protection, and sharing of resources can help ensure the longevity and continued availability of sensitive local resources that are used or impacted by the Centre Region municipalities. Additional goals, objectives, and policies related to environmentally significant resources can be found in the Natural, Environmental, Cultural, and Historic Resources Element and the Community Facilities and Services Element.

**GOAL 5** - The Centre Region's conservation efforts continue to reduce adverse impacts on community resources and services.



### Objective 5.1

**Sharing of services should be explored or maintained when practical to reduce duplication of efforts, increase efficiency, and reduce the economic impacts to the Centre Region.**

#### Policy 5.1.1

Centre Region municipalities should support the Regional Planning Agency, Regional Parks and Recreation, Regional Code Administration, Schlow Centre Region Library, regional refuse collection, Alpha Fire Company, and other multi-municipal initiatives, consistent with Objective 5.1.

#### Policy 5.1.2

Identify additional areas where cooperative engagement will be beneficial to the community.



The Whitehall Road Regional Parklands is being developed as a cooperative effort among the participating members of the Centre Region Parks & Recreation Authority to provide additional playing fields and recreational facilities for the Centre Region's residents.

### Objective 5.2

**Conservation efforts, including protection of sensitive environmental areas, natural habitats, hydric or colluvial soils, or other environmentally significant resources, should be incorporated into municipal ordinances to ensure the long-term protection of resources.**

#### Policy 5.2.1

Evaluate and amend, as necessary, municipal ordinances and regulations to ensure they do not adversely impact natural resources and environmentally sensitive areas.

#### Policy 5.2.2

Identify environmentally significant resources throughout the Centre Region to ensure a comprehensive inventory exists and is updated as appropriate.



Natural habitat area of the Millbrook Marsh Nature Centre in College Township.

### Objective 5.3

**The Centre Region community should be encouraged to use locally sourced goods and services.**

#### Policy 5.3.1

Encourage farmer's markets or other outlets that provide opportunities for locally grown produce and locally made products to be sold to be in convenient locations that are accessible to the residents of the Centre Region.



## Policy 5.3.2

Update land-use regulations to ensure agricultural areas that are actively farmed remain protected from incompatible uses, as appropriate.

## Policy 5.3.3

Encourage urban agriculture or community gardens on vacant, underutilized, or neglected lots within the Centre Region with the property owner's permission.

## Communication

The Centre Region has maintained a significant structure whereby communication among the six municipalities exists on an open and regular basis. This occurs through the various COG committees, the COG General Forum, and participation in C-NET. The COG structure also allows for the inclusion of other significant community representatives, such as Penn State University and the State College Area School District.



Government and Education Access for Centre County, also known as CNet, is local public access programming that broadcasts community meetings including municipal elected official meetings, planning commission meetings, school board meetings, and other special interest meetings throughout Centre County. Streaming video of all the meetings taped by CNet can be viewed at <http://cnet.pegcentral.com/index.php>.

**GOAL 6.0** - Communication among the Centre Region municipalities is a cornerstone to successful coordination and implementation of regional initiatives.

## Objective 6.1

**Maintaining communication among the Centre Region municipalities will ensure sound planning and coordination of projects to maximize community resources and reduce duplication of services.**

## Policy 6.1.1

Continue to involve major community partners such as Penn State University, the State College Area School District, and the Centre County Planning and Community Development Office in the COG General Forum, Centre Regional Planning Commission, and COG Committees such as the Transportation and Land Use Committee; the Centre County Metropolitan Planning Organization; the Office of Emergency Management; and other offices or organizations, as appropriate.



## Policy 6.1.2

Continued support and participation in the various COG committees and COG General Forum should be a priority for the Centre Region municipalities.

## Policy 6.1.3

Significant discussion and communication should be facilitated by the COG committees to provide guidance on policy issues that impact the Centre Region.

## Objective 6.2

**Utilizing alternative communication techniques that take advantage of advanced technologies should be a priority for the Centre Region municipalities.**

### Policy 6.2.1

Utilize electronic communications to reduce the number of printed materials being distributed for municipal meetings where appropriate.

### Policy 6.2.2

Support the use of electronic communications for inter-office and inter-agency correspondences, as appropriate.