**SUSTAINABLE COMMUNITY ESSENTIALS:**
Environmentally Sensitive, Civic, and Historic Places

**Why are Environmentally Sensitive, Civic, and Historic Places Essential to a Sustainable Community?**

Open space, civic and historic places are major attributes that contribute to a community’s character. Communities which respect and celebrate these assets are likely to be successful in creating vibrant neighborhoods with strong connections between people, and with a unique sense of place. The community’s livability, which attracts and retains people of all ages, can be created and enhanced by the way its distinctive open spaces, civic and historic places are treated and featured.

Integration of open space including environmentally sensitive places such as hillsides, wetlands, waterways and their buffers, and landslide prone land can save tax dollars by preventing or reducing the impacts of flooding and landslides, help shape a community’s image and visual character and provide passive recreation opportunities. Clean streams that do not flood are community assets that can enhance and sustain property values and subsequently the tax base. Polluted flood prone waterways are a liability that threaten property, public health and drain municipal resources.

Woodlands can retain most of the rainwater that falls on them – 75 percent of the annual precipitation in the case of a mature woodlands. When mature woodlands are displaced with roads, roofs, and lawns the increase in the amount of water entering the watershed from the same area can be 300 percent. The natural capacity of woodlands to provide this service should be economically quantified so the losses are accounted for when displaced.

Citizens realize physical and psychic health benefits from the retention of green space that can be used for active and passive recreation. Clean streams and wildlife habitat are also important to the fishing and hunting community and industry too. It is critical to maintain the biodiversity that is essential to sustaining the natural systems that benefit the economy, environment, community and public health.

Public and private investment in existing urbanized places strengthens and increases the attractiveness of the urban core, which reduces the pressure on open space. Limited funding can be better spent on upgrading existing infrastructure rather than on new infrastructure that will ultimately require maintenance and replacement. Automobile dependency and the air pollution vehicles create are reduced when people live close to employment centers. In this way elected officials can fulfill their charge to protect the public health.

Limiting urbanization of headwater lands, especially wooded areas that work efficiently to retain rainfall, can reduce the chance of flooding in older struggling communities downstream. In this way the sustainability goal of community equity is served.

Conserving historic buildings has many benefits. First it maintains the community character prized by residents. Rehabilitating these buildings produces more jobs than new construction. Rehabilitation to historic standards also uses natural materials such as wood in contrast to plastic common to much new construction. Rehabilitation instead of demolition conserves landfill space. It also conserves embodied energy – the total expenditure of energy involved in the creation of the building and its materials. This is in positive contrast to the energy required for demolition and new construction. Adapting old buildings for businesses and residences is an increasingly common approach to conservation. Studies have shown that properties in historic districts appreciate at rates faster than those in non-designated neighborhoods. Conservation of civic and historic buildings and places can create a base for tourism and the dollars this brings to a community.

A number of studies have shown that proximity to green space and trees can elevate property values – an economic benefit to the family and to the municipality.

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*Photo: Jason Cohn*
SUSTAINABILITY CASE STUDY—Wingfield Pines

The Township of Upper Saint Clair is located southwest of Pittsburgh in Allegheny County. In 2001, the Upper Saint Clair Citizens for Land Stewardship (USC CLS), a local nonprofit, approached the Allegheny Land Trust (ALT) about purchasing a parcel of land known as Wingfield Pines, initiating the process of preserving this environmentally sensitive area. Wingfield Pines consists of 80 acres of land in the Chartiers Creek floodplain. The site was used for strip mining in the 1940s and was later turned into the Wingfield Pines Golf and Swim Club. These uses led to significant problems including stormwater/watershed disruption, loss of native biodiversity, and abandoned mine drainage, according to a report prepared by University of Michigan graduate students. In December 2001, Allegheny Land Trust purchased the site for the purpose of restoration and permanent ecological conservation.

Project Overview:

Planning:
- Research conducted by ALT and graduate students from the University of Michigan School of Natural Resources and the Environment.
- Design charrettes held in 2002.
- Created a restoration and conservation plan.

Site restoration and enhancement beginning in Feb. 2009:
- Removal of buildings and other hazards.
- Planting of 400 wetland species of trees and shrubs.
- Development of passive, all-natural treatment system of settling ponds and wetlands over 20-25 acres of site to remove harmful iron sulfide from mine drainage.

Project Benefits—Cost Savings through Prevention:

In 2004, the remnants of Hurricane Ivan struck the region, causing severe flooding and damage. Over the course of the storm the Wingfield Pines property was inundated with 15 feet of water (estimated at 50 million gallons). Had the site been developed rather than conserved (it was zoned for residential use at the time of purchase), the properties would have sustained severe flood damage. If Chartiers Creek had been banked to prevent flooding locally, already hard-hit downstream communities would have suffered further damages.

In the end, the cost of storing the stormwater from Hurricane Ivan was approximately one cent per gallon. It costs 2-3 dollars per gallon to construct a water detention facility, significantly lower than the cost of the potential flood damages. For example, the Township of Shaler required more than $3.5 million in FEMA funding alone to purchase 42 properties within the community’s floodplain after Hurricane Ivan.

However, municipal cost savings may not be limited to the occurrences of natural disasters. The Township of Upper St. Clair has applied to its insurance carrier to reduce its flood insurance rates because ALT’s conservation of Wingfield Pines has eliminated potential development in the floodplain, thus reducing risk stemming from claims.

Other Project Benefits:
- The site is open to the public, which creates outdoor recreational opportunities.
- Passive treatment system will prevent 43 tons of iron oxide per year from entering Chartiers Creek, which will improve local water quality and stream ecology.

Challenges
- While in this case the municipality was open to the project, municipal codes and ordinances that favor development can stand in the way of green space preservation.
- Local communities often believe they are losing significant potential revenues if they forego development opportunities.

Success Factors
Community involvement
- USC CLS was involved in recruiting ALT and raising funds for the project.
Community support
- Upper Saint Clair was generally supportive of the project, which helped overcome the aforementioned challenges that sometimes occur.

Ability to utilize key expertise and other resources
- Upper Saint Clair was able to partner with ALT and benefit from its expertise in land preservation.
- Project organizers were able to secure research assistance from the University of Michigan.

Project Funding
- Costs: $450,000 to purchase site, $45,000 for design services, and $600,000 for construction/remediation.
- Funding Sources: Allegheny Land Trust, Henry Hillman Foundation, PA Dept. of Conservation and Natural Resources grant, PA Growing Greener Fund grant, USC CLS, and the William and Francis Aloe Charitable Trust.

Recommendations:
- While in this case actions were undertaken by nonprofit organizations, municipalities have the authority to manage land for the greater good of its citizens. Municipalities should use this authority when appropriate.
- Municipalities can conserve land and protect sensitive areas through the legislative process. For example, a municipality can restrict new development within a floodplain. Municipalities should enact and enforce codes/ordinances for land conservation in sensitive areas.
- When possible, environmentally sensitive areas should be preserved while they are still green; this method is less costly than having to acquire and stabilize these properties, or pay for costly remediation projects after a flood or other natural event occurs.

Case courtesy of Allegheny Land Trust

Aerial view of Wingfield Pines
Photo: Ace Aerial Photography
Actions for Implementation

- Adopt a written policy of commitment to conduct a study to define, identify and conserve key natural assets and green infrastructure.
- Engage in a public education campaign to demonstrate the economic, environmental and equity benefits of the policy.
- Adopt architectural and site design guidelines to ensure development, redevelopment or restoration respects the natural and architectural qualities worthy of preservation.
- Create a comprehensive plan – preferably a multi-municipal one – that reflects the conservation policies, goals and objectives of the elected officials and citizenry.
- Adopting zoning and subdivision/land development ordinances, along with operating and capital budgets consistent with the plan, that include specific actions to implement the conservation policies articulated in the community vision. These land use management tools should specifically address protection of beneficial natural infrastructure and provide incentives and investment for mixed use and sustainable development in the core urban area and disincentives for urbanization of highly functional natural infrastructure.
- Other specific actions include requirements for tree inventory and replacement when reviewing development proposals and for stockpiling and reusing top soil when preparing a development site.
- Use the authority provided in the Pennsylvania Municipalities Planning Code such as the ability to designate Rural Resource Areas in which public facilities will not be located to conserve highly functional natural infrastructure.
- Invest in and encourage high quality gray infrastructure and facilities serving the core community such as transit and biking and hiking trails inter-connecting the community.
- Be aggressive in defining and implementing the future vision. Review and shape any development proposal against the conservation and land use policies.
- Consider using the Transfer of Development Rights program.
- Dedicate a revenue source to managing public open space.
- Support programs that preserve productive farmland.
- Monitor the actions of municipal boards and authorities to ensure their actions are consistent with the municipality’s policies and plan.
- Ensure that entrepreneurs who wish to start, expand or improve a business in the core are welcomed and supported and face the most minimal bureaucratic hurdles.
- Create an Environmental Advisory Council.
- Inventory historic structures.
- Create a Historic Review Commission.

Resources for Communities

Allegheny Land Trust
http://www.alleghenylandtrust.org/; 412/741-2750

Local Government Academy
http://www.localgovernmentacademy.org/; 412/237-3171

PA Department of Community and Economic Development
http://www.newpa.com/index.aspx; 866/GO-NEWPA

PA Department of Conservation and Natural Resources
http://www.dcnr.state.pa.us/

Pennsylvania Environmental Council
http://www.pecpa.org/; 412/481-9400

Pittsburgh History and Landmarks Foundation

Sustainable Pittsburgh
http://www.sustainablepittsburgh.org/; 412/258-6642

Western Pennsylvania Conservancy
http://www.paconserve.org/; 412/288-2777

Young Preservationists Association of Pittsburgh
http://www.youngpreservationists.org/; 412/205-3385
How can this essential be measured?

- To ensure vibrant neighborhoods a municipality must have a commitment to involving all citizens in a transparent decision making process. This will help to assure stakeholders that their concerns are being heard which would, in turn, lead to their buy-in and participation during implementation.

- A citizen participation process should start with a vision for the future which is the basis for the creation of a comprehensive plan – preferably a multi-municipal comprehensive plan. Open space, environmentally sensitive, civic and historic places should be specifically addressed in the plan. A sustainable approach to the plan is to inventory environmentally sensitive and desirable open space, civic and historic places and develop programs and incentives that support their long-term existence and contribution to the community.

- The plan should then be implemented through zoning and subdivision/land development ordinances plus the operating budget and capital program all of which are consistent with the plan.

- Public programs, investments and incentives for the private sector should focus on enhancing the existing urbanized places. They should not support new and redundant roads, water and sewer systems and other infrastructure that fosters urbanization of the open spaces that are important to conserve for the public benefits they provide the host and downstream communities.

- Annually citizens should be asked to help judge if municipal actions are consistent with the vision and plan and to suggest changes to them or to the implementation process as appropriate. This is especially important to stem any incremental loss of environmentally sensitive places.

SUSTAINABILITY CASE STUDY – Vandergrift Improvement Program

The Borough of Vandergrift is located in Westmoreland County. Its six block downtown was designed in the 1890s by the firm of Frederick Law Olmstead, and has a distinctly Victorian character. The National Register of Historic Places and the Pennsylvania Historical and Museum Commission have recognized the historical significance of the Borough’s design and architecture. However, when the region’s economy began to suffer the Borough began to experience local decline which included an increase in storefront vacancy in the historical downtown. In response, concerned citizens became active and formed several organizations dedicated to the district’s revitalization, including the Vandergrift Improvement Program (VIP).

VIP has focused on enhancing the downtown area by:
- Ensuring projects correspond with Vandergrift’s Victorian character
- Operating a facade improvement matching grant program
- Operating a Real Estate Revolving Loan Fund of more than $400,000. This was capitalized by the Allegheny Foundation and funds secured by State Senator Jim Ferlo.
- Working in partnership with the Borough and the Pittsburgh History and Landmarks Foundation to implement the community’s Main Street Program
- Initiating an aggressive real estate strategy, in which

VIP takes ownership of buildings, undertakes historically appropriate repairs, and returns the buildings to productive use.

These activities have resulted in the revitalization of several historical structures and have led to new business development, increased investment, facade improvement, and increased demand for downtown real estate.

Vandergrift is taking additional steps to improve its sustainability. The community is working with the University of Pittsburgh’s Mascaro Center for Sustainable Innovation to create and implement energy efficiency technologies that will reduce the costs of business operation in the historical buildings which generally experience higher utility costs as a result of their age.

Finally, VIP’s efforts contribute to a regional effort to connect historical and natural assets. The Borough is working with the Freeport Leechburg Apollo Group (which represents three nearby Kiski Valley Main Street communities) to promote outdoor recreational assets by connecting their historical downtowns to hiking/biking trails and the Kiskiminetas River. This is an example of corridor development, an important element of sustainable development that improves the connectivity and quality of life of a community.

Case study courtesy of Dave Farkas,
Vandergrift Main Street Manager

This resource sheet was produced by: