

Brandywine Creek Watershed Balanced Growth Plan Information Sheet

Introduction

Over the past several years, representatives of communities in the Brandywine Creek Watershed, assisted by the Cuyahoga River Community Planning Organization (CRCPO), have compiled data and information characterizing the watershed. The purpose was to create a *Brandywine Creek Balanced Growth Initiative Watershed Plan* linking local watershed and land use practices. The ultimate goal is to protect and restore Lake Erie and its watersheds, yet support sustainable economic development. In 2010, a draft Plan was completed. In order to complete this Plan, participation from each community in the watershed is necessary.

The goal of the watershed communities and CRCPO is to complete the Plan by the end of 2013 and submit it to the State for review and endorsement. Upon endorsement of the Plan by the State, technical advice and financial incentives are available to communities for implementation of the Plan.

What is a Balanced Growth Plan?

Balanced Growth is a strategy to protect and restore Lake Erie and its watersheds to ensure long-term economic competitiveness, ecological health and quality of life. A Balanced Growth Plan is a community-driven land suitability plan that will assist in balancing economic growth while



conserving critical natural resources that provide flood and erosion control and protect water quality. The Plan identifies Priority Conservation Areas and Priority Development Areas using criteria defined by the watershed communities. It also provides guidance to member communities for their comprehensive master plans and improvements to their land development codes and engineering standards.

Cuyahoga River Watershed

Watersheds are an area of land from which surface water drains into a common outlet, such as a river, lake, or wetland. The Cuyahoga River watershed drains 812 square miles in northeastern Ohio. Although the watershed occupies only 2% of Ohio's land area it is home to roughly 10% of the state's population.

Brandywine Creek Watershed

The Brandywine Creek watershed covers approximately 26 square miles and drains portions of nine communities: Boston Heights Village, Boston Township, Hudson, Macedonia, Northfield Center Township, Sagamore Hills Township, and Twinsburg Township, with a small portion of Oakwood Village. It is one of the fastest-urbanizing watersheds in the Cuyahoga River watershed and is experiencing drastic changes to its natural storm water management and water quality infrastructure. Major issues within the Brandywine Creek Watershed include the loss of wetlands and the loss and fragmentation of forest canopy and natural area.

Approximately 70% of the watershed remains undeveloped. These areas are filled with critical natural features, notably some of the last large wetlands in the basin. Suburban development and

the related polluted runoff and stream encroachment have impacted the headwater streams and biological community.



The Creek is designated a Warm Water Habitat. This designation means that it should be able to support a well-balanced population of fish and aquatic insects. The majority of Brandywine Creek does not meet Ohio EPA's water quality standards; however, the Creek does steadily improve as it flows into the Cuyahoga Valley National Park. Phosphorous levels just downstream of Hudson remain high, possibly due to fertilizer runoff from lawns, failing septic systems and nutrient-laden lakes in the area.

In September 2008, the Ohio Lake Erie Commission awarded a Lake Erie Protection Fund grant to the CRCPO to develop a Brandywine Creek Balanced Growth Watershed Plan. CRCPO collaborated on three state-endorsed Balanced Growth plans for the Furnace Run, Big Creek and Chippewa Creek watershed partnerships. A number of meetings involving representatives from the Brandywine watershed communities were held through 2010. The result was the draft *Brandywine Creek Balanced Growth Initiative Watershed Plan*. This draft was accepted as fulfillment of the grant to CRCPO by the Lake Erie Commission, but has not been formally ratified by member communities or recognized as complete by the State of Ohio.

Why should communities within a watershed produce and implement a Balanced Growth Plan?

The short answer is that managing community development and growth based upon a Balanced Growth Plan is economically and ecologically beneficial.

A watershed is home to a system of many natural water control elements. Wetlands store and release water into the system at a proper, slower rate. They also provide filtration of sediment and contaminants as well as recharge aquifers. Tree canopy and grassland capture and release rainwater into the atmosphere, thereby reducing runoff into streams.

Development in the Brandywine watershed has destroyed or negatively impacted these natural control elements. Tree canopy has been lost. Brandywine has been channelized and straightened which has increased the water velocity and decreased water storage capacity. Impervious surface has dramatically increased from more rooftops, streets, parking lots, and driveways, which prevents water from soaking into the ground and increases the volume and rate of flow into the stream. All of this accelerates the rate of erosion and flooding downstream, impacting public infrastructure, private property and aquatic life.

Integrating a Balanced Growth Plan and its recommendations into a community's comprehensive master plan, land development code and engineering standards protects and improves the critical natural features and generates tangible economic benefits for communities in the watershed, including:

- Higher taxable property values
- Reduced frequency and area of flooding resulting in lower property losses
- Less costly public drainage infrastructure
- Reduced pollution treatment from sewer system infiltration and ingress.
- Improved stream water quality yielding improved biological integrity and aesthetics
- Increased groundwater recharge.¹



Additional noneconomic benefits of social, cultural, and environmental value can also accrue if mitigation and restoration programs are successful.²

Once the Brandywine Creek Balanced Growth Plan is completed and endorsed by the State of Ohio, member communities will have a range of resources available to assist in implementing the Plan. Twenty-six (26) state programs are available to Balanced Growth participating communities

Summary

A Balanced Growth Plan offers many benefits to participating communities by linking local watershed and land use practices. The draft Plan has been finalized. In order to complete the Plan and receive State endorsement, the Plan must be endorsed by the communities, prior to receiving endorsement from the State. Once endorsed by the State of Ohio, communities will then be eligible for financial incentives to implement elements of the Plan.

EXAMPLES OF FINANCIAL AND TECHNICAL ASSISTANCE

These resources include financial incentives and technical support as summarized below and more fully detailed on this website:

<http://balancedgrowth.ohio.gov/Portals/0/BG%20Documents/Special%20Incentives%20Confirmed%202013-1-7.pdf>

Grants

Clean Water Act 319 Implementation - Provides financial assistance to local soil and water conservation districts, local watershed groups, local governments and others to implement watershed management actions designed to eliminate impaired waters and reduce nonpoint source pollution in Ohio.

Land and Water Conservation Fund & Nature Works - Two programs that both provide financial assistance to local governments to acquire and/or develop properties for outdoor recreation.

Ohio Coastal Management Assistance Grant Program - Provides financial assistance to local governments, state agencies, non-profits, and educational institutions for projects that preserve, protect and enhance Lake Erie coastal resources and/or support their sustainable use.

Technical Assistance

Floodplain Management Technical Assistance Program-Provides technical and planning assistance to local governments in order to reduce flood loss and preserve the natural benefit and function of floodplain resources in Ohio.

Streams and Storm Water Program-Provides technical assistance to local government, business and individuals in the areas of site development, storm water management, stream mitigation, rehabilitation and restoration.

Loans

State loans are also available to Balanced Growth communities.

ADDITIONAL RESOURCES

State of Ohio's Balanced Growth Website:

<http://balancedgrowth.ohio.gov/>

Comprehensive Planning - Best Local Land Use Practices

Video including interviews with community leaders about using Best Local Land Use Practices
<https://www.youtube.com/watch?v=YiwhoRsMhm0>

REFERENCES

1. Johnston, D. M., J. B. Braden, and T. H. Price. 2006. Downstream Economic Benefits of Conservation Development. *Journal of Water Resources Planning and Management* 132 (1): 32-43.
2. Visitacion, B. J., D. B. Booth, and A. C. Seinemann. 2009. Costs and Benefits of Storm-Water Management: Case Study of the Puget Sound Region. *Journal of Urban Planning and Development* 135 (4): 150-158.

GOALS FOR 2013-2014

The goal for the Brandywine Creek Watershed Partners in 2013-2014 is to complete the Balanced Growth Plan for Brandywine Creek Watershed, receive formal member community ratification of the Plan and submit the Plan for State endorsement.

Next Steps

2013

1. By mid-July, re-energize the planning effort and ensure that each member community has appropriate representation at future meetings
 - a. Each community will review the Partnership Agreement signed in 2007
 - b. Each watershed community will designate representatives to work on the Plan. Each community is authorized a number of seats at the planning table based on their share of the watershed as follows:

Community	% of Watershed	No. of Authorized Representatives
Boston Heights Township	12.44	4
Boston Township	1.34	2
City of Hudson	29.40	6
City of Macedonia	31.21	6
Village of Northfield	0.51	3
Northfield Center Township	17.03	4
Oakwood Village	1.28	3
Sagamore Hills Township	3.59	2
Twinsburg Township	3.84	2
CVNP	2	2
Metroparks Serving Summit County	2	2
Total		36

2. By the end of August, identify PCA/PDAs for the watershed
 - a. Confirm criteria for the identification of Priority Conservation and Development Areas
 - b. Identify preliminary PCA/PDAs for the watershed.
 - c. Bring in additional stakeholders to review selections.
3. By the end of October, make necessary revisions to the Plan.
4. By the end of November, present the Plan for community ratification
5. By the end of December, submit draft to State for review.

2014

6. By the end of February, make necessary revisions to the Plan based on comments from the State.
7. By the end of March, adopt a formal resolution from communities representing 75% of the geographic land area, local governments, and population.
8. By the end of May, submit the Balanced Growth Plan to the State for final review and endorsement.