Ohio | Balanced Growth

Lower Mosquito Creek

Watershed Balanced Growth Plan 2011

Prepared by the Trumbull County Planning Commission
on behalf of the Trumbull County Commissioners and Watershed Planning Partnership

Ohio Lake Erie Commission

OWRC Ohio Water Resources Council

Ohio Water Development Authority

Serving Ohio Since 1968...

OEPA – Ohio Environmental Protection Agency; ODNR – Ohio Department of Natural Resources; OLEC – Ohio Lake Erie Commission; OWRC – Ohio Water Resources Council; and SAWG – State Assistance Work Group.

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Ohio Lake Erie Commission

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Department of Natural Resources | Department of Transportation
Environmental Protection Agency

Ohio Water Resources Council

Office of the Governor of Ohio | Department of Agriculture | Department of Development
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Introduction

Introduction

The Balanced Growth program's intent is to help move Ohio in a new direction in its thinking about growth and development. The intent is to raise the stewardship of our watersheds to a higher level, promote new forms of regional cooperation, and help everyone in the state envision how conservation of natural resources will be an essential part of Ohio's progress.

What is Balanced Growth?

- Balanced Growth is a voluntary, incentive-based strategy to protect and restore Lake Erie and Ohio River watersheds, to assure long-term economic competitiveness, ecological health and quality of life.
- Balanced Growth defines the areas where we want to support development and areas where we want to support conservation.
- Balanced Growth implementation recommendations focus on reducing urban sprawl, protecting natural resources and encouraging redevelopment in urbanized areas.
- Balanced Growth is to be implemented by local jurisdictions through integration with their planning processes.

The balanced growth initiative does not place restrictions on where development can occur, it simply takes a regional approach that highlights priority development areas. Through state incentives, local governments are encouraged to come together regionally in a common watershed to identify where development would be most appropriate, while preserving natural areas critical functions.

Elements of a Watershed Balanced Growth Plan

Planning by watersheds is the most practical approach to address water quality and quantity issues, because it uses a clearly defined geographic area that includes every parcel of land that water flows across on its way to a particular stream. The "balance" in the plan happens because we are also designating areas most appropriate for development in the same plan. Incorporating the balanced growth strategy into a watershed based plan leads us to the following key elements:

- A watershed balanced growth plan is a voluntary locally developed plan that designates Priority Conservation Areas (PCAs) and Priority Development Areas (PDAs) within communities in a common watershed.
- A balanced growth plan identifies local planning and development goals and priorities and communicates them to state agencies.
- Implementation of balanced growth plans is undertaken by local jurisdictions through integration with local planning processes.
- A balanced growth plan is an opportunity for local governments to direct state incentives and programs to support their locally defined land use objectives.

Project Tasks

- Creation of Watershed Planning Partnership (WPP)
- Designation of Priority Conservation Areas (PCAs)
- Designation of Priority Development Areas (PDAs)
- Designate any Local Preference Areas
- Mapping of PCAs and PDAs
    - GIS-based decision support system
    - Data-driven plan
    - Beginning with the end in mind
- Local and state participation and approval
- Recommendations for implementing the plan

Benefits of participating in a Watershed Balanced Growth Plan

Benefits of participating in a Watershed Balanced Growth Plan include enhanced access to state programs and funding in the form of balanced growth special incentives for Priority Conservations Areas (PCAs) and Priority Development Areas (PDAs).

The benefits of planning on a watershed scale have positive impacts on both the natural and built environments, taking advantage of existing infrastructure:

- Reduce infrastructure costs and impacts on surrounding agricultural and natural areas by utilizing the capacity of existing and planned road and utility infrastructure.
- Allows natural floodwater retention and protects wildlife by preserving floodplains and riparian corridors.
- Promotes communication and collaboration between governmental entities that are competing for the limited public funding for infrastructure, economic development and community development projects.

Project Background

The value of preserving the natural area of the Mosquito Creek floodplain corridor, has been recognized by local elected officials and area planners for many years. For more than a decade, the Trumbull County Planning Commission and its partners have continued to promote and implement ideas and projects that balance development with preservation. Continued success requires all units of government in the watershed work collaboratively towards balanced growth. This award from the Lake Erie Commission, the Ohio Water Resources Council (OWRC) and the Ohio Water Development Authority (OWDA) will advance the consortium of communities through a formal plan that clearly depicts and describes the watershed's Priority Conservation Areas (PCAs) and Priority Development Areas (PDAs).

This plan includes formalized maps identifying and delineating PDAs in which development and redevelopment are the most economically sensible, while protecting the PCAs that are more costly to develop and more valuable when set aside - allowing them to continue to perform their natural functions.

Watershed Description

I. Name and size.
Lower Mosquito Creek, Acreage = 26163

II. Hydrologic Unit Code.
12-digit HUC = 050301030503
NOTE: The 12-digit Watershed Boundary Dataset (WBD) is a revised and enhanced replacement of the previous 14-digit dataset. The old 14-digit HUC was 05030103060040, and the watershed was previously known as "Mosquito Creek below Mosquito Cr Lake Dam to Mahoning R" and before that, as "Mosquito Creek at Niles".

III. Major geographic elements in the watershed.
The entire watershed lies within Trumbull County, Ohio. Mosquito Creek and its floodplain/riparian corridor run through Howland Township, Bazetta Township, Niles City and Warren City. The watershed has three major tributaries: Confusion Run, Big Run and Spring Run, which have their headwaters in Vienna Township and Fowler Township and flow westward through Bazetta and Howland Townships and into Mosquito Creek. Very small parcels of land in the watershed are located in Cortland City and Weathersfield Township. From Mosquito Lake, Mosquito Creek flows south and empties into the Mahoning River, which later combines with the Shenango River to form the Beaver River, which empties into the Ohio River and eventually ends up in the Gulf of Mexico via the Mississippi River Watershed Basin.

IV. Land Uses.
The watershed's land uses include a good mix of industrial, professional office, commercial, residential and open space. See land use section of plan.


Lower Mosquito Creek Watershed Balanced Growth Plan
Mosquito Lake
BAZETTA
FOWLER
Confusion Run
Big Run
Mosquito Creek
Spring Run
Lower Mosquito Creek
HOWLAND
WARREN CITY
VIENNA
NILES CITY
WEATHERSFIELD
Mahoning River
MCDONALD
0 0.25 0.5 1 1.5
Miles
TRUMBULL COUNTY PLANNING COMMISSION
Est. 1800
OHIO
Trumbull County assumes no legal responsibility for the information contained on this map. This information does not take the place of legal, printed maps, nor does it take the place of an actual field survey of property to determine actual flood elevations, nor does it replace onsite wetland delineations or other onsite investigations. The Trumbull County Planning Commission (TCPC) makes no guarantee(s) or warranty(ies) as to the accuracy, completeness, or timeliness of the information contained herein. While much of the data contained herein is compiled from public records, the official records of the public office or agency from which they were compiled remains the official record of any such public office or agency. TCPC further makes no warranties, either expressed or implied, as to the condition of the product, or its fitness for any particular purpose. The burden for determining fitness for use lies entirely with the user. In no event shall the TCPC have any liability whatsoever for payment of any consequential, incidental, indirect, special, or tort damages of any kind, including, but not limited to, any loss of profits or injury arising out of, use of, or reliance on, the geographic data or analytical results contained herein.
Sources: Trumbull County Geographic Information Systems (G.I.S.) Orthos, Cadastral and Plan Tops, 2021. ODNR Metadata Coverages digitized from the following sources: FEMA Flood Hazard Boundary Maps and Flood Insurance Rate Maps, 2573. Trumbull County Soil Survey, March 1992, Ohio Wetlands Inventory (OWI).
Prepared by: Trish A. Nuskievicz, Trumbull County Planning Commission, September 2003/ Updated October 2009.


Shaded Relief - Lower Mosquito Creek Watershed BGP
Mosquito Lake
BAZETTA
FOWLER
Confusion Run
Big Run
Mosquito Creek
Spring Run
Lower Mosquito Creek
HOWLAND
WARREN CITY
VIENNA
NILES CITY
WEATHERSFIELD
Mahoning River
0 0.25 0.5 1 1.5
Miles
High
Low
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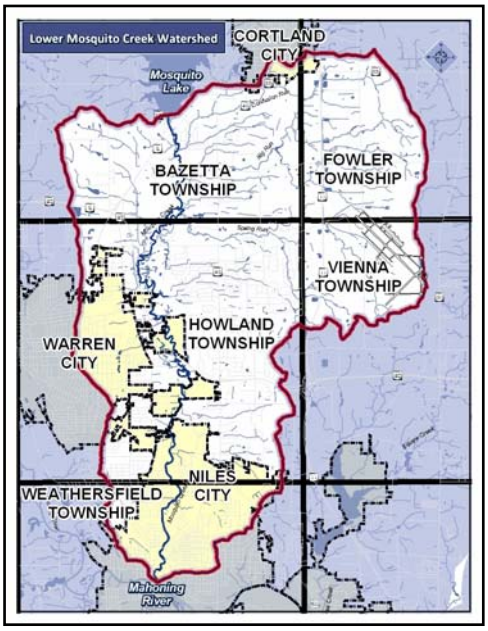
Prepared by: Trish A. Nuskievicz, Trumbull County Planning Commission, September 2002/ Updated May 2011.

Land Use and Demographics

Land Use and Demographics

Summary of Political Jurisdictions

The Lower Mosquito Creek Watershed, located entirely within Trumbull County, crosses the political boundaries of three cities and five townships in the central portion of the county. The watershed covers portions of the townships of Bazetta, Fowler, Howland, Vienna, and Weathersfield and also portions of the incorporated cities of Cortland, Niles, and Warren. Total acreage of the watershed is approximately 26,163 acres. Bazetta and Howland Townships have ownership of 22.82 percent and 30.72 percent of the watershed acreage respectively and are the largest stakeholders of property in the watershed.



Bazetta Township

Bazetta Township is the center township in a county originally divided into 25 townships, each roughly five square miles. The primary geographical feature in the township is Mosquito Lake, a man-made lake constructed in the 1940s with the damming of Mosquito Creek. Cortland City is situated in the northeastern corner of the township. Bazetta is home to the annual Trumbull County Fair and in 2009 had an estimated population of 5,954.

Fowler Township

Fowler Township is located in the northeastern corner of the watershed. Fowler is very rural and historically has been one of the slowest growing townships in the county. First settled in 1799, the township had an estimated population of 2,721 in 2009.

Howland Township

Howland Township has the highest township population in the county; an estimated 16,266 persons resided in the township in 2009. Over 77 percent of Howland Township is located within the watershed. Portions of Warren City and Niles City are also located within the township causing the unincorporated areas of Howland to be geographically divided. A significant portion of residents in the watershed area reside in the township boundaries.

Vienna Township

Though not as rural as Fowler Township, Vienna is still primarily rural with pockets of development. The population of Vienna Township was estimated at 3,870 in 2009. The single most prominent feature both economically and geographically in the township is the Youngstown Warren Regional Airport and the Youngstown Air

Reserve Station located in the northwestern portion of the township. The airport/airbase is located almost entirely within the watershed area and is a significant resource to the entire watershed and surrounding county.

Weathersfield Township
Weathersfield Township is located in the southern reaches of both the county and the watershed project area. A significant portion of the township consists of the City of Niles and the Village of McDonald, a smaller portion of Girard City also reaches into the township. The bulk of the remainder of the township was historically the Village of Mineral Ridge which has since dissolved although the name has remained. The population of Weathersfield Township was estimated at 8,143 in 2009.

Cortland City
The City of Cortland is located in northeastern Bazetta Township. Like Weathersfield Township, Cortland has only a marginal geographical stake in the watershed area. The population of Cortland was estimated at 6,317 in 2009.

Niles City
The City of Niles is located in both Howland and Weathersfield Townships. The most prominent commercial center in the county, the Eastwood Mall Complex and surrounding retail and service developments, are located within the city boundaries. Known historically as the birthplace of the 25th president of the United States, William McKinley, the city had an estimated population of 19,124 in 2009.

Warren City
The county seat of Trumbull County and the historical capital of the Connecticut Western Reserve, Warren City is the largest center of population in the county. In 2009, the population was estimated at 43,402 persons. The city has and continues to suffer from population decline due to the struggling economic conditions in the Mahoning Valley. Despite the struggle against economic stressors, the city and surrounding communities have continued to persevere and plan for the future.

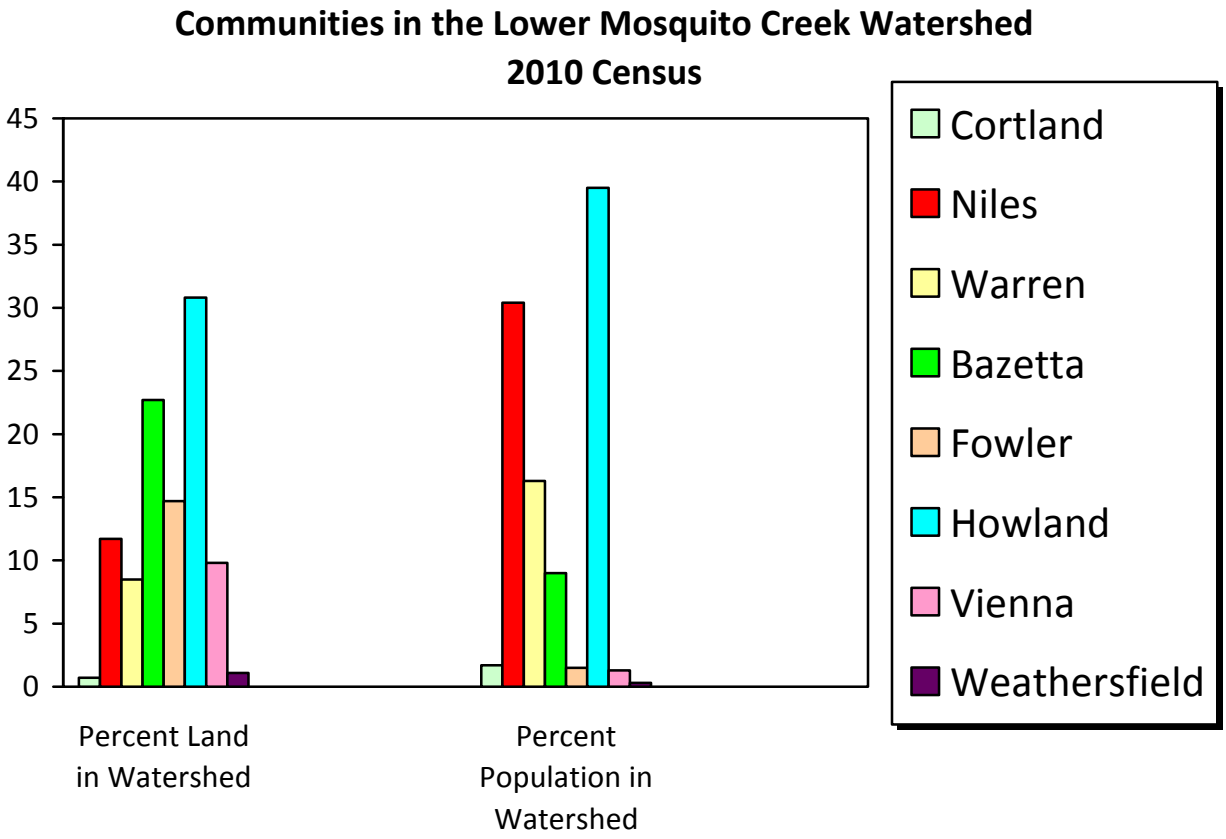
Summary of Land Use

The primary land use in the watershed area is residential. Roughly 10.47 percent of the land is used commercially and 5.35 percent is used for industrial purposes. The Youngstown Warren Regional Airport is also located within the watershed. The airport shares runways with the Youngstown Air Reserve Station. The air base is one of the largest employers in Trumbull County. The airport and airbase makeup roughly 4.08 percent of the land use in the watershed. Nearly 650 acres of ecologically sensitive land in the watershed has been preserved, primarily through targeted usage of Clean Ohio Funding.

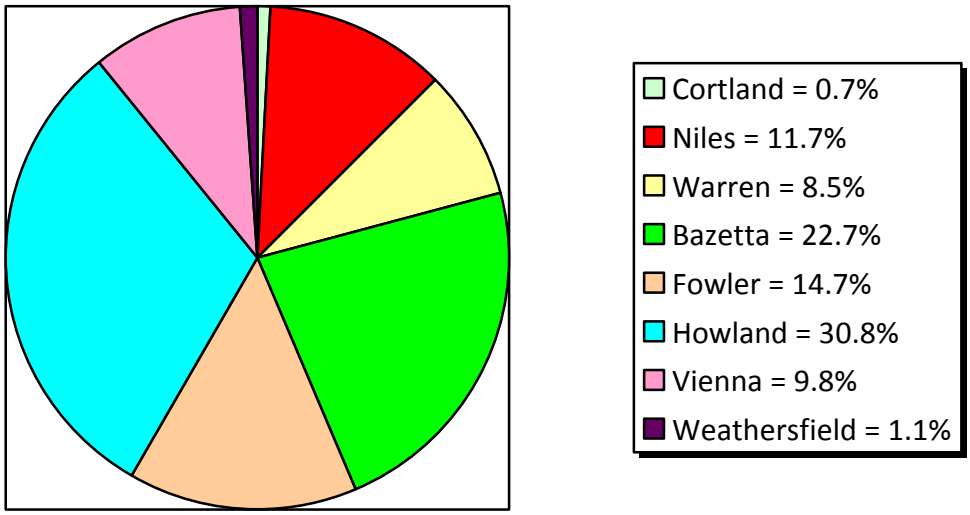
Summary of Population

As demographic boundaries do not follow watershed boundaries, population information is not collected by watershed region. As a result a perfectly accurate count of the population residing with the Lower Mosquito Creek Watershed is not available. An estimate of the population was

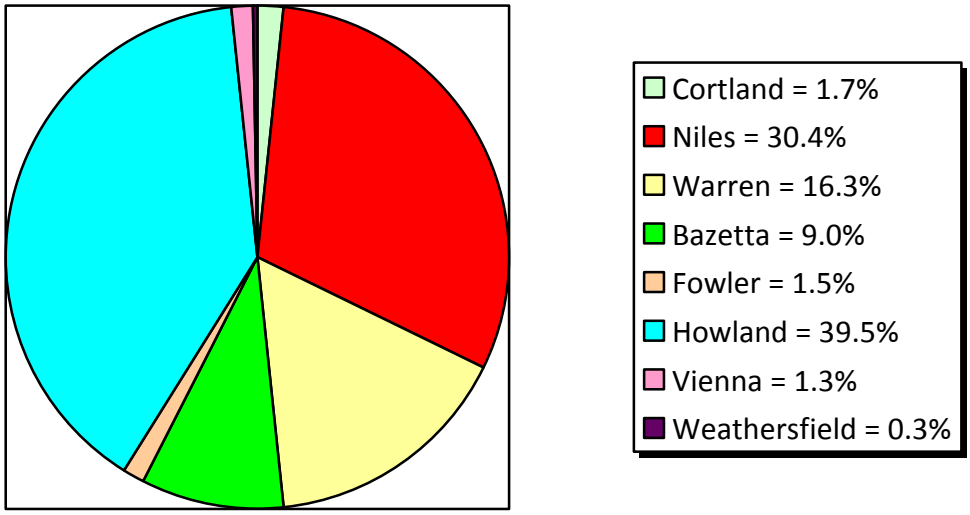
derived using Census Tract and Census Block Group boundaries. These are smaller units of data collection than political jurisdictions and allow for a more accurate estimate. Utilizing this methodology, the Lower Mosquito Creek Watershed had an estimated population of 46,699 residents as of the 2000 Census.



Percent of Land for Communities in the Lower Mosquito Creek Watershed - 2010 Census



Percent of Population for Communities in the Lower Mosquito Creek Watershed - 2010 Census



Lower Mosquito Creek Watershed Balanced Growth Plan
2010 Census Information
Trumbull County, Ohio

Name	Total Land (acres)	Land in Watershed (acres)	Percent of Land in Watershed	Total Population	Population in Watershed	Percent of Watershed Population	100% Support
Trumbull County	407,032	26,103		210,312	39,488		YES
City							
Cortland	2,757	190	0.7%	7,104	661	1.7%	YES
Niles	5,451	3,049	11.7%	19,266	12,024	30.4%	YES
Warren	10,302	2,228	8.5%	41,557	6,427	16.3%	YES
Township	**Unincorporated Area**						
Bazetta	15,612	5,926	22.7%	5,874	3,544	9.0%	YES
Fowler	16,354	3,843	14.7%	2,595	591	1.5%	YES
Howland	10,370	8,027	30.8%	17,546	15,599	39.5%	YES
Vienna	14,667	2,555	9.8%	3,997	509	1.3%	YES
Weathersfield	11,539	285	1.1%	8,667	133	0.3%	YES

Population estimates are released yearly by the Census Bureau; however data are not collected for anything smaller in scope than by political jurisdiction. In 2009, the estimated population of all eight participating jurisdictions was 105,817, down from 113,914 in 2008. As the overall population of Trumbull County and the population of each individual jurisdiction with land in the watershed have shown a slow, but steady population decline with each annual population estimate released by the Census Bureau, it safe to assume that the watershed has also experienced a steady decline in population as well.

Population projections for the next twenty years support this continued slow decline in population. However, it is unlikely that the population of the area will decline until the greater part of the population disappears. Typically the population of an area will stabilize to a number that the surrounding economy can support. Additionally, should the local economy begin to see gains in jobs it is possible that the population will stabilize earlier.

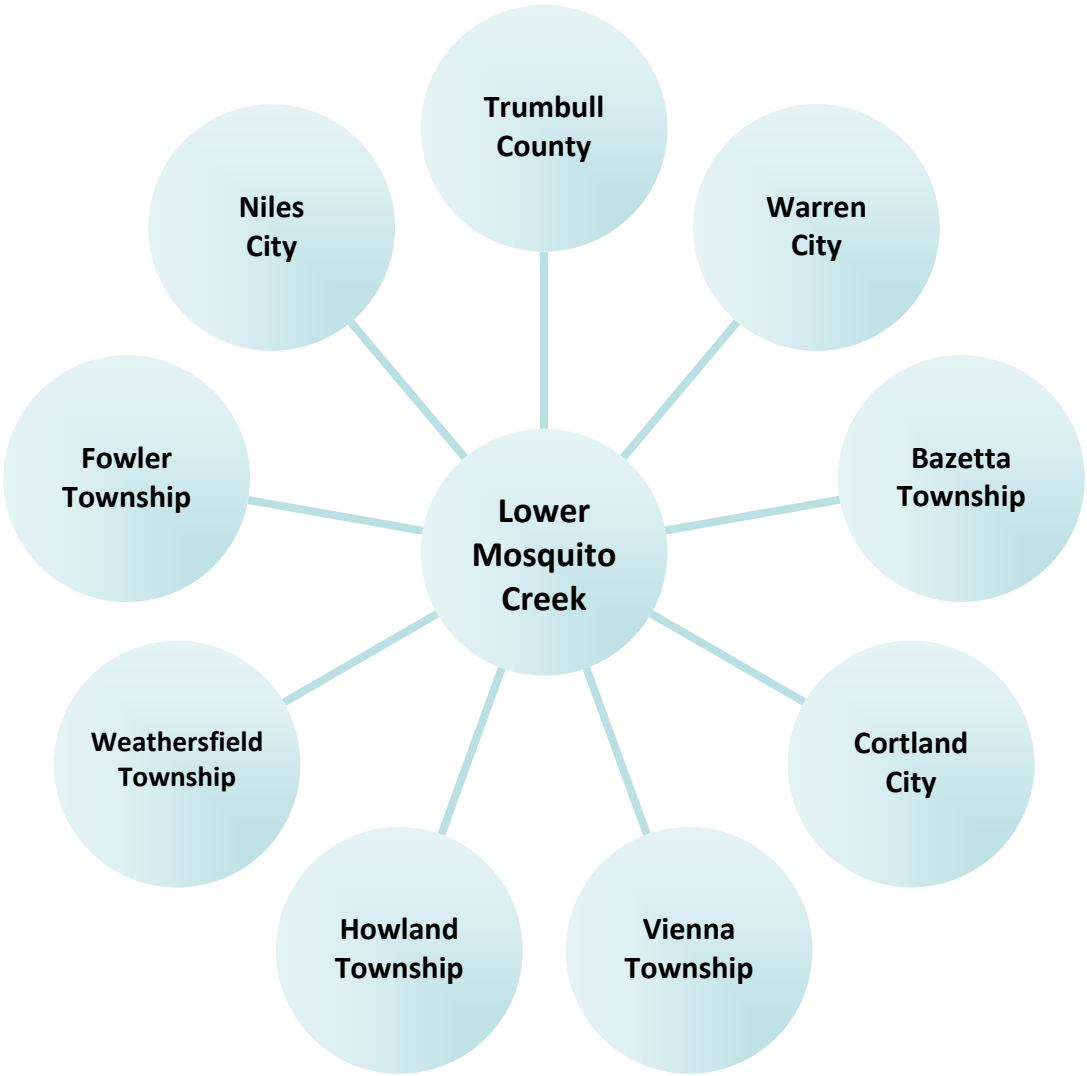
20 Year Population Projections

Year	Bazetta	Cortland	Fowler	Howland	Niles	Vienna	Warren	Weathersfield
2000	6,306	6,830	2,733	17,546	20,932	4,021	46,832	8,677
2005	6,132	6,527	2,767	16,849	19,791	3,978	45,216	8,442
2009	5,954	6,317	2,721	16,266	19,124	3,870	43,402	8,143
2010	5,874	7,104	2,595	17,546	19,266	3,997	41,557	8,667
2015	5,864	6,431	2,636	16,140	17,929	3,845	39,596	8,088
2020	5,467	6,344	2,584	15,717	16,873	3,782	36,598	7,897
2025	5,250	6,257	2,532	15,287	15,767	3,719	33,451	7,705
2030	5,031	6,170	2,480	14,849	14,607	2,655	30,148	7,512

Watershed Planning Partnership

Watershed Planning Partnership (WPP)

The Watershed Planning Partnership (WPP) is a locally organized group of government bodies that formed to produce the Lower Mosquito Creek Watershed Balanced Growth Plan. The WPP is nine (9) communities in the Lower Mosquito Creek Watershed, including Trumbull County, Niles City, Warren City, Howland Township, Bazetta Township, Vienna Township, Fowler Township, Cortland City and Weathersfield Township, all of which have passed resolutions of support (see Appendix B) and participated in this planning process. The WPP was organized, facilitated and led by the Trumbull County Planning Commission.



The Trumbull Soil and Water Conservation District, Trumbull County Engineer's Office, the Trumbull County Sanitary Engineer's Office, Trumbull County Metroparks, Eastgate Regional Council of Governments, Youngstown-Warren Chamber of Commerce, Western Reserve Port Authority, residents and other groups have collaborated on this initiative. The WPP believes

that the more participation, consensus and input goes into in this plan, the more ownership communities will have in its implementation.

Although this is a new partnership, the Trumbull County Planning Commission has shared in multiple previous successes with several of WPP members on an ad hoc basis. The greatest successes to date involve land acquisition and preservation projects. The main recipients of these lands have been the Trumbull County MetroParks, which has a mission "to preserve, conserve, protect and promote Trumbull County, Ohio's land and water resources, and provide the opportunity for people to enjoy and appreciate these open spaces" and Howland Township. The long-standing goal is to acquire as much open space as possible in critical resource areas such as wetlands, floodplains and streamside forest (riparian) setbacks in order to protect these areas from encroachment, degradation and/or destruction.

The Watershed Balanced Growth Plan (WBGP) is fully in line with the ideas for protection, preservation and passive recreational use where appropriate in the Mosquito Creek Corridor. The County Planning Commission and its project partners know the many benefits of protecting these areas, including enhancing water quality, maintaining ecological diversity and protecting wildlife habitat and the life cycles of wildlife. There are also indirect economic benefits in preserving open space for recreation, such as quality of life issues and attracting businesses to less sensitive areas near these aesthetically pleasing environments. The Trumbull County Planning Commission often works on projects that promote a watershed approach to land use planning, smart growth and could also provide an opportunity for environmental education. Land preservation in the Mosquito Creek Floodplain Corridor is a part of many larger plans.

The Mosquito Creek Corridor has been identified as an important area to protect and as a key location in several studies and plans including the:

- City of Niles Comprehensive Plan;
- Weathersfield Township Comprehensive Plan;
- Howland Township Comprehensive Plan;
- Bazetta Township Comprehensive Plan; and
- Vienna Township Comprehensive Plan

Other significant area-wide projects have furthered conservation and preservation, improving water quality, providing recreational opportunities and enhancing aesthetic and ecological values for the broader area. These projects included:

- Purchase of 119.6 acres on Mosquito Creek through the Clean Ohio Fund, 2002;
- Purchase of 135 acres on Mosquito Creek through the Clean Ohio Fund, 2003;
- Purchase of 100 acres on Mosquito Creek through the Clean Ohio Fund, 2004;
- Private land donation of 65.89 acres on Mosquito Creek in Bazetta Township, 2007-08;
- Purchase of 12 acres on the Mahoning River in Braceville through Clean Ohio Fund, 2005;
- Removal of Lover's Lane Dam on the Mahoning River, 2005;

- Removal of North River Road (former Copperweld, Inc.) Dam on the Mahoning River, 2005;
- Purchase of 100 acres in Grand River Watershed on Coffee Creek through Clean Ohio Fund, 2006;
- Purchase of 72 acres on the Mahoning River through Clean Ohio Fund, 2006;
- Purchase of 263 acres on Swine Creek in the Grand River Watershed through Clean Ohio Fund, 2006;
- Purchase of 136 acres on the Mahoning River through Clean Ohio Fund, 2006;
- Purchase of 142 acres on Mosquito Creek through Clean Ohio Fund, 2009; and
- Purchase of 84 acres on Mosquito Creek through Clean Ohio Fund, 2010.

Priority Conservation Areas

Priority Conservation Areas (PCAs)

Humans should use natural resources to meet the needs of society today, while conserving resources for the benefit and enjoyment of future generations. The protection of natural systems should be balanced with the need for development. The optimum balance will be achieved when protection enhances the value of development. Virtually all phases of design and construction of projects depend on a basic knowledge of the areas' natural features. Being aware of the naturally occurring characteristics of the land, such as whether the site is in an area prone to flooding, whether wetlands are present, and what types of soils are present, can save time, money and possibly lives. This section will identify and locate some valuable Priority Conservation Areas in the Lower Mosquito Creek Watershed, mapping the way forward in a sustainable manner.

Priority Conservation Areas (PCAs) are locally designated areas targeted for protection and restoration. PCAs have been designated by the local Watershed Planning Partnership in consultation with local and state governments as part of this Lower Mosquito Creek Watershed Balanced Growth Plan. The map found on page 45 was blown up to poster size and taken to each individual community so they could visualize exactly where each individually colored PCA criteria was located. This greatly enhanced and facilitated discussions of criteria.

The purposes of designating PCAs is to identify the local priorities to protect the ecological health of the watershed and tributaries from substantial deterioration or loss; to protect and enhance public health, safety and welfare; and to guide state programs, policies and investments that influence the location of conservation and/or development activities.

Criteria

The criteria the Watershed Planning Partnership used for determining PCAs in the Lower Mosquito Creek Watershed includes:

- Criterion #1: Surface Water – Mosquito Creek and tributaries
- Criterion #2: Special Flood Hazard Areas – Floodplains
- Criterion #3: Wetlands (National and Ohio Wetland Inventories)
- Criterion #4: Hydric Soils
- Criterion #5: Soils frequently flooded or prone to flooding
- Criterion #6: Steep Slopes
- Criterion #7: Preserved Lands - Critically important ecological, recreational and public access areas
- Criterion #8: Riparian Setback areas of 120 feet from Mosquito Creek; 75 feet from Confusion Run, Big Run and Spring Run; 65 feet from outer boundaries of 100-year floodplain; and 25 feet from all other tributaries to Mosquito Creek. Distance is measured from bank-full outer edges, providing setbacks for all waterways.
- Criterion #9: Locally preferred areas targeted for protection or restoration of natural resources.

The PCAs include small portions of PDAs that are landlocked on Mosquito Creek by any of the PCA criterion listed above.

Importance of Criteria

Criterion #1: Surface Water – Mosquito Creek and Tributaries

From the smallest creeks to the largest rivers, streams are some of Ohio's most valuable natural resources. Since the time of Native Americans until today, streams have provided Ohioans with many uses and benefits. More than 1,400 species of wildlife also depend on how well Ohioans understand, use and care for their streams.

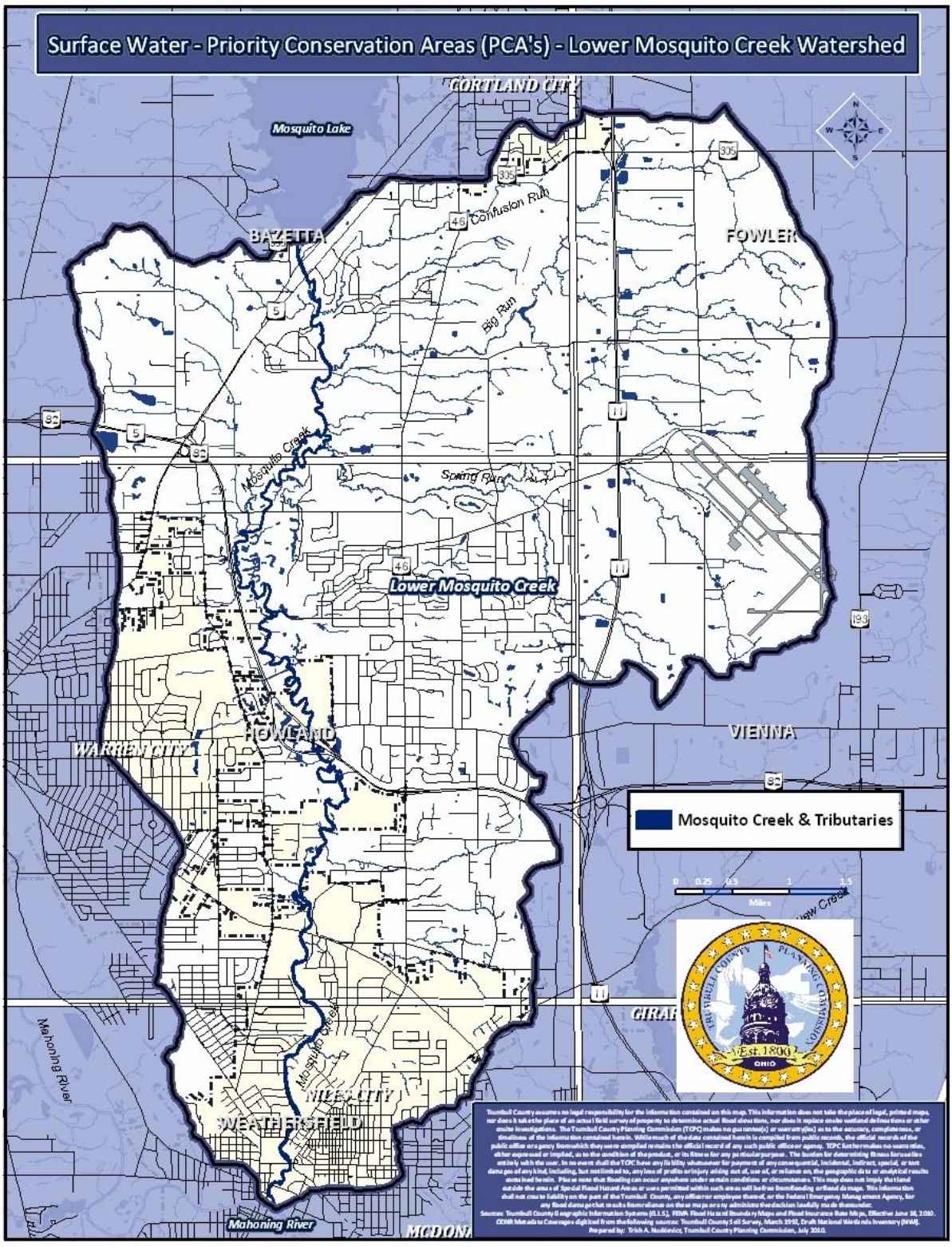
Generally, streams and their corridors are inhabited by a rich diversity of wildlife species that includes more than 153 fishes, 63 mussels, 1,200 aquatic insects, 170 birds, 12 mammals, 10 reptiles and 14 amphibians. Streams also benefit all Ohioans by providing water supply, recreational opportunities, beautiful scenery and drainage. The physical alteration and degradation of these habitats, however, can negatively impact both resource and resource users in many ways.

The structural variability of streams creates highly diverse habitats that are inhabited by many aquatic species, and over 90% of Ohio's state-listed aquatic species are primarily stream-dwelling. Unfortunately, the rich diversity of streams is imperiled by a multitude of stressors. Habitat loss and degradation, changes to hydrology, excessive sedimentation, channelization and loss of floodplain connectivity all impact aquatic communities. Consequently, resource agencies and conservation groups realize that habitat protection and restoration must be done at the watershed level to be most effective.

While water quality in many streams has improved as the result of the federal Clean Water Act, only half of monitored stream miles currently meet their aquatic life use designations. While the emphasis of this act is on the restoration and protection of physical habitats in and adjacent to streams, these strategies will also result in improved water quality, more miles meeting use designations, and increased benefits to all Ohioans.

ODNR Strategies:

- Protect high quality stream habitats and restore others based on the presence of a high aquatic diversity, rare and endangered species, good sport fishing, biological integrity and other related criteria;
- Through partnerships, collaboration and coordination, participate in and support stream and watershed efforts by other agencies, non-governmental organizations and groups;
- Protect and restore forested riparian corridors, floodplains and wetlands through conservation easements, acquisition and landowner programs and incentives;
- Remove dams that are no longer needed or justified;
- Develop and support programs and incentives that encourage and maintain good stewardship practices for riparian and in-stream habitats.


Surface Water - Priority Conservation Areas (PCA's) - Lower Mosquito Creek Watershed
CORTLAND CITY
Mosquito Lake
BAZETTA
FOWLER
Confusion Run
Big Run
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Spring Run
Lower Mosquito Creek
HOWLAND
WARREN CITY
VIENNA
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WEATHERSFIELD
Mahoning River
Mosquito Creek
Mosquito Creek & Tributaries
Miles
0 0.25 0.5 1 1.5
TRUMBULL COUNTY PLANNING COMMISSION
Est. 1800
OHIO

Criterion #2: Special Flood Hazard Areas – Floodplains

Floodplains are integral to the function of our river systems. The alteration or development of a floodplain eliminates or degrades their vital values and resources. By planning wisely and affording protection to natural floodplains, communities can balance economic growth and urbanization. A floodplain's functions and processes can be protected to create and maintain a better quality of life and living environment for the future generations that will work and live here.

Natural events such as heavy precipitation during storms or snow/ice melt in the spring produce large volumes of water that are released onto the land surface. Once the soil becomes saturated and excess water can no longer be absorbed into the ground, it then becomes surface runoff. This runoff then accumulates in streams and rivers. Sometimes this volume of water is so large that it actually exceeds the capacity of the stream or river channel. It is at this point that flooding occurs. The water spills over the banks onto the land along the course of the channel. This land is referred to as the floodplain, a natural safety valve to relieve the channel of its excess burden. In other words, the floodplain is the nearly flat plain along the course of the stream that is usually dry and naturally subject to flooding.

Floodplains are found in valley and lowland areas along major streams and stream tributaries. The stream and its adjacent land (riparian area) together form the most vital and diverse feature of our landscape. Without trees in this land-water transition zone, streams typically become wide and shallow, habitat is degraded and water quality drops.

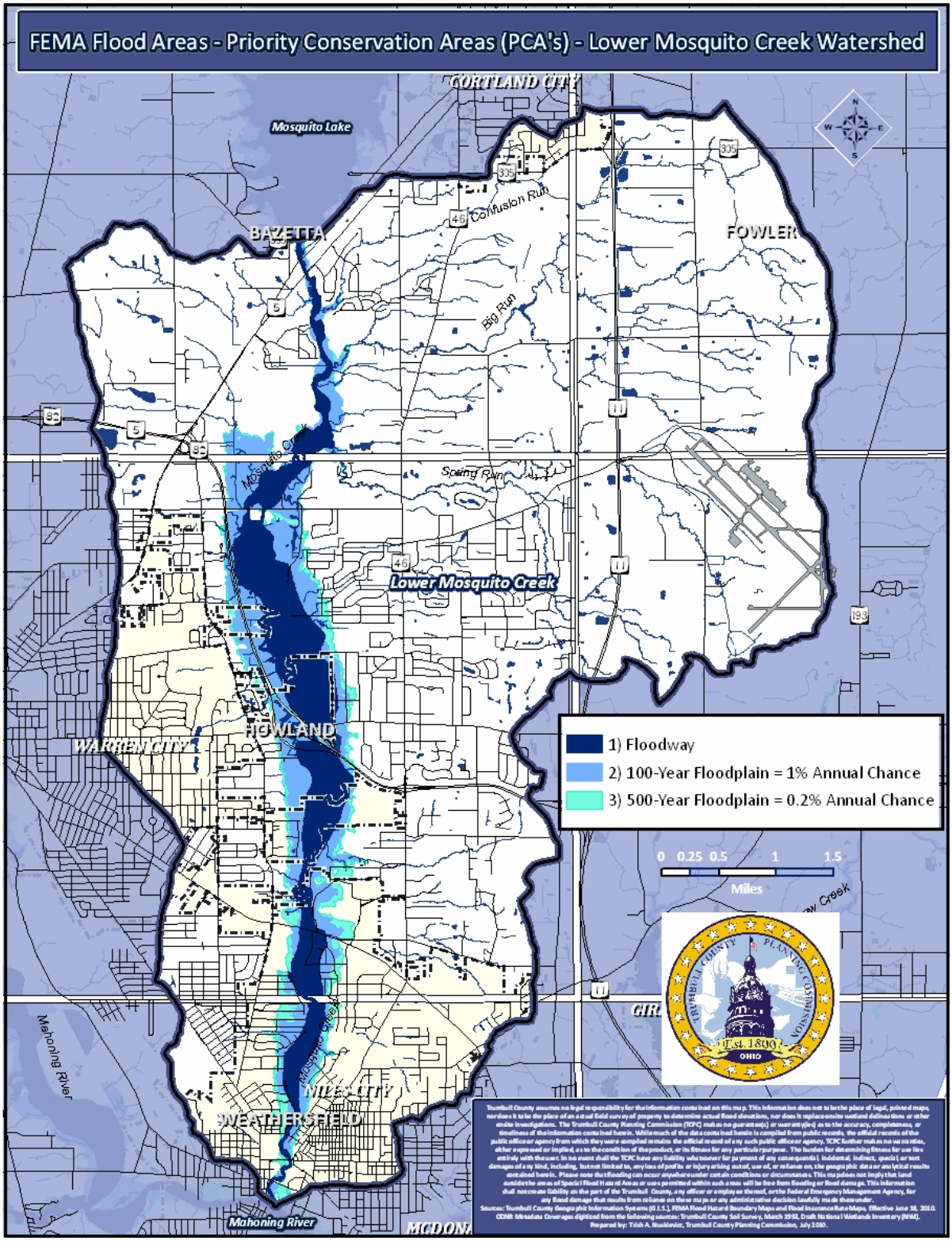
> Trumbull County has special flood hazard areas that are subject to periodic inundation, which may result in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base. Additionally, structures that are inadequately anchored, elevated, flood-proofed or otherwise protected from flood damage also contribute to the flood loss. To minimize the threat of such damages, Trumbull County has adopted flood regulations to promote the public health, safety and general welfare, and to:
>
> A. Protect human life and health;
> B. Minimize expenditure of public money for costly flood control projects;
> C. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
> D. Minimize prolonged business interruptions;
> E. Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard;

F. Help maintain a stable tax base by providing for the proper use and development of areas of special flood hazard in order to protect property and minimize future areas of flood blight;
G. Minimize the impact of development on adjacent properties within and near flood prone areas;
H. Ensure the flood storage and conveyance functions of the floodplain are maintained;
I. Minimize the impact of development on the natural, beneficial values of the floodplain;
J. Prevent floodplain uses that are hazardous or environmentally incompatible; and
K. Meet community participation requirements of the NFIP.

Flood Insurance Rate Map (FIRM): An official map on which the Federal Emergency Management Agency or the U.S. Department of Housing and Urban Development has delineated the areas of special flood hazard.

Floodway: A floodway is the channel of a river or other watercourse and the adjacent land areas that have been reserved in order to pass the base flood discharge. A floodway is typically determined through a hydraulic and hydrologic engineering analysis such that the cumulative increase in the water surface elevation of the base flood discharge is no more than a designated height. The floodway is an extremely hazardous area, and is usually characterized by any of the following: Moderate to high velocity floodwaters, high potential for debris and projectile impacts, and moderate to high erosion forces.

Base Flood: The flood having a one percent chance of being equaled or exceeded in any given year. The base flood may also be referred to as the 1% chance annual flood or one-hundred (100) year flood.


FEMA Flood Areas - Priority Conservation Areas (PCA's) - Lower Mosquito Creek Watershed
CORTLAND CITY
Mosquito Lake
BAZETTA
FOWLER
Confusion Run
Big Run
Spring Run
Lower Mosquito Creek
HOWLAND
WARREN CITY
NILES CITY
WEATHERSFIELD
Mahoning River
1) Floodway
2) 100-Year Floodplain = 1% Annual Chance
3) 500-Year Floodplain = 0.2% Annual Chance
0 0.25 0.5 1 1.5
Miles
TRUMBULL COUNTY PLANNING COMMISSION
Est. 1899
OHIO

Criterion #3: Wetlands (National & Ohio Wetland Inventories)

The U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency define wetlands as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

The presence of hydric soils, hydrophytic vegetation and hydrology make up the three criteria necessary for an area to be considered a wetland.

Wetlands are an important component of Priority Conservation Areas because they exhibit an array of ecological benefits including:

1. Functioning like natural tubs or sponges, storing floodwater or storm water that collects in isolated depressions and slowly releasing it;
2. Allowing for the gradual recharge of groundwater;
3. Providing critical habitat for plants, fish and wildlife;
4. Reducing the water's erosive potential;
5. Helping improve water quality, including that of drinking water, by intercepting surface runoff and removing or retaining its nutrients, processing organic wastes, and reducing sediment before it reaches open water;
6. Providing food;
7. Providing opportunities for popular activities such as hiking, fishing, birding and boating; and
8. Contributing to a healthy water cycle.

Many federal, state and private programs are available to protect wetlands and fit the needs of landowners and their properties. Landowners may choose programs applicable to their financial needs, specific restoration and conservation goals, federal and state regulations, and more important, the existing management or creation of wetlands on their properties. The following agencies are resources for addressing watershed issues:

U.S. Army Corps of Engineers
This agency administers the day-to-day Clean Water Action program and issues permits and denials of projects involving filling in wetland. Contact the Corps when reporting wetland fill violations.

Ohio Department of Natural Resources
This agency restores more wetland than any other entity in Ohio and serves as Ohio's largest wetland landowner. Contact ODNR for information about wetland restoration, acquisition and invasive plant removal.

Ohio Environmental Protection Agency
Ohio EPA issues or denies Clean Water Act 401 certifications and state isolated wetland permits. It monitors mitigation wetlands and qualitatively assess wetlands. Contact the Ohio EPA regarding wetland dredge and fill violations.

U.S. Fish and Wildlife Service

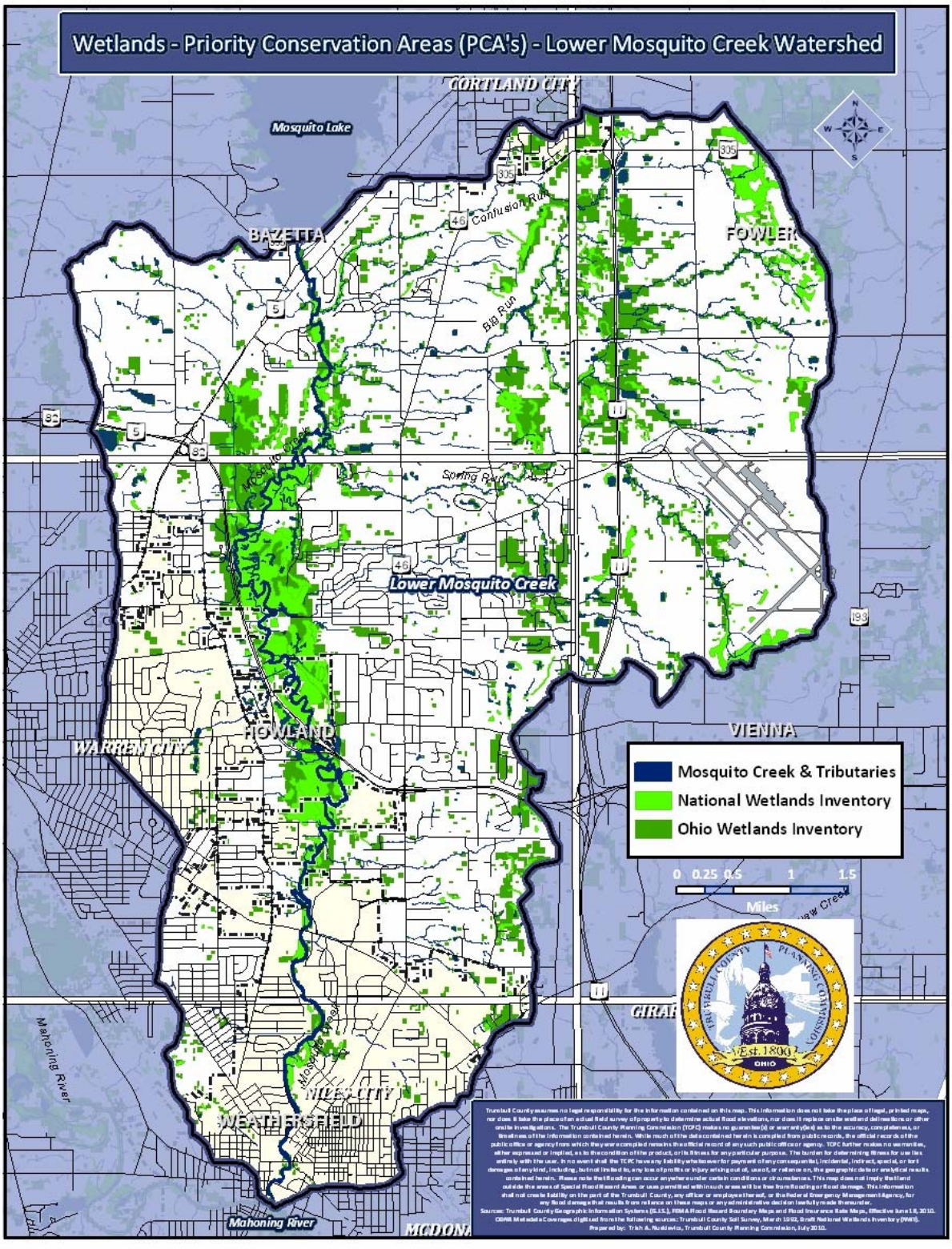
USFWS provides comments on permit applications and manages federally endangered and threatened species, including wetland plants and animals. It also provides technical assistance to landowners.

Natural Resources Conservation Service

NRCS administers several programs designed to cost-share with agricultural landowners to protect and/or restore wetlands. It also performs wetland determinations on agricultural lands under the Food Security Act.

U.S. Environmental Protection Agency

USEPA provides comments on individual permit applications and has the authority to veto the Corps permit decisions. USEPA provides wetland education and information materials as well.


Wetlands - Priority Conservation Areas (PCA's) - Lower Mosquito Creek Watershed
CORTLAND CITY
Mosquito Lake
BAZETTA
FOWLER
Confusion Run
Big Run
Spring Run
Lower Mosquito Creek
HOWLAND
WARREN CITY
VIENNA
GIRARD
NILES
WEATHERSFIELD
MCDONALD
Mahoning River
Mosquito Creek & Tributaries
National Wetlands Inventory
Ohio Wetlands Inventory
0 0.25 0.5 1 1.5
Miles
Trumbull County assumes no legal responsibility for the information contained on this map. This information does not take the place of legal, printed maps, nor does it take the place of an actual field survey of property to determine actual flood elevations, nor does it replace on-site wetland delineations or other on-site investigations. The Trumbull County Planning Commission (TCPC) makes no guarantee(s) or warranty(ies) as to the accuracy, completeness, or timeliness of the information contained herein. While much of the data contained herein is compiled from public records, the official records of the public office or agency from which they were compiled remain the official record of any such public office or agency. TCPC further makes no warranties, either expressed or implied, as to the condition of the product, or its fitness for any particular purpose. The burden for determining fitness for use lies entirely with the user. In no event shall the TCPC have any liability whatsoever for payment of any consequential, incidental, indirect, special, or lost damages of any kind, including, but not limited to, any loss of profits or injury arising out of, use of, or reliance on, the geographic data or analytical results contained herein. Please note that flooding can occur anywhere under certain conditions or circumstances. This map does not imply that land outside the areas of Special Flood Hazard Areas or uses permitted within such areas will be free from flooding or flood damage. This information shall not create liability on the part of the Trumbull County, any officer or employee thereof, or the Federal Emergency Management Agency, for any flood damage that results from reliance on these maps or any administrative decision lawfully made thereunder.
Sources: Trumbull County Geographic Information Systems (GIS), FEMA Flood Hazard Boundary Maps and Flood Insurance Rate Maps, Effective June 18, 2010.
OSMR Metadata Coverages digitized from the following sources: Trumbull County Soil Survey, March 1992, Draft National Wetlands Inventory (NWI).
Prepared by: Trish A. Rusilovic, Trumbull County Planning Commission, July 2010.

Criterion #4: Hydric Soils

The definition given by the USDA Natural Resources Conservation Service of a hydric soil is a soil that formed under conditions of saturation, flooding or ponding long enough during the growing season to develop anaerobic conditions in the upper part. A field survey may reveal wetlands according to the Trumbull County Soil Survey.

Criterion #5: Flooding Soils

Soils that are frequently flooded or prone to flooding by definition according to the Trumbull County Soil Survey. Although these areas may not be included in Criterion #2 as FEMA mapped special flood hazard areas, they are equally important to protect for all of the same reasons.

Criterion #6: Steep Slopes

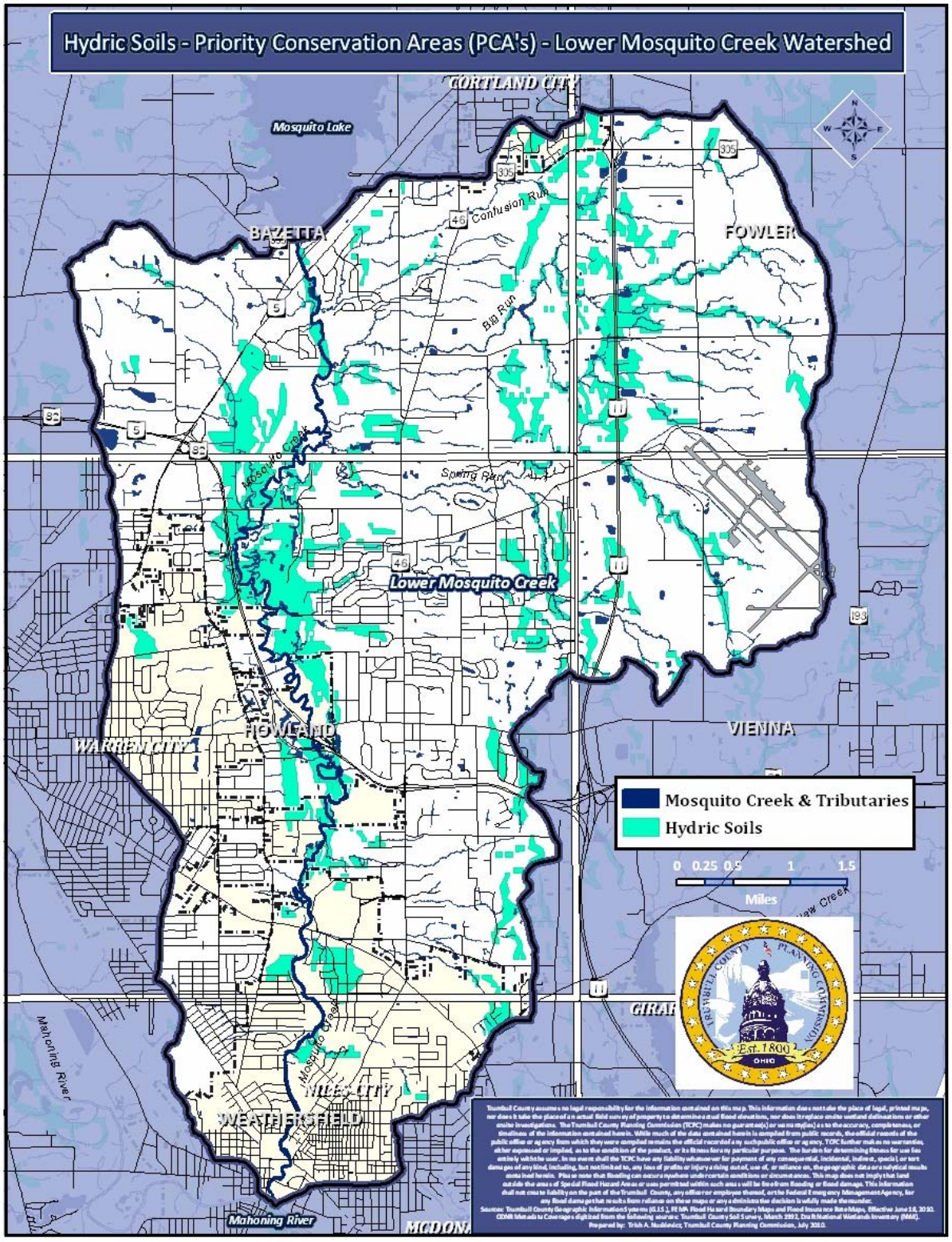
For mapping purposes, these are soils with slopes of 12%-18%, 18%-50% or 25%-50% according to the Trumbull County Soil Survey. Steep slope development presents a number of health, safety and environmental challenges for communities. Steep slope alteration can lead to increased erosion, landslides and sedimentation. Construction on steep slopes is costly. The costs associated with the cut and fill, earthwork, retaining walls, erosion prevention, etc., is often prohibitive. In cases where cost is not an issue, the maintenance of roads and utilities must be addressed. Cities and towns may be left holding the bill for maintenance costs unless prior arrangements with developers and homeowners have not been made. On the other hand, protecting hillsides and steep slopes preserves the natural scenic beauty of the native landscape, adds value to property, and can provide educational and recreational opportunities.

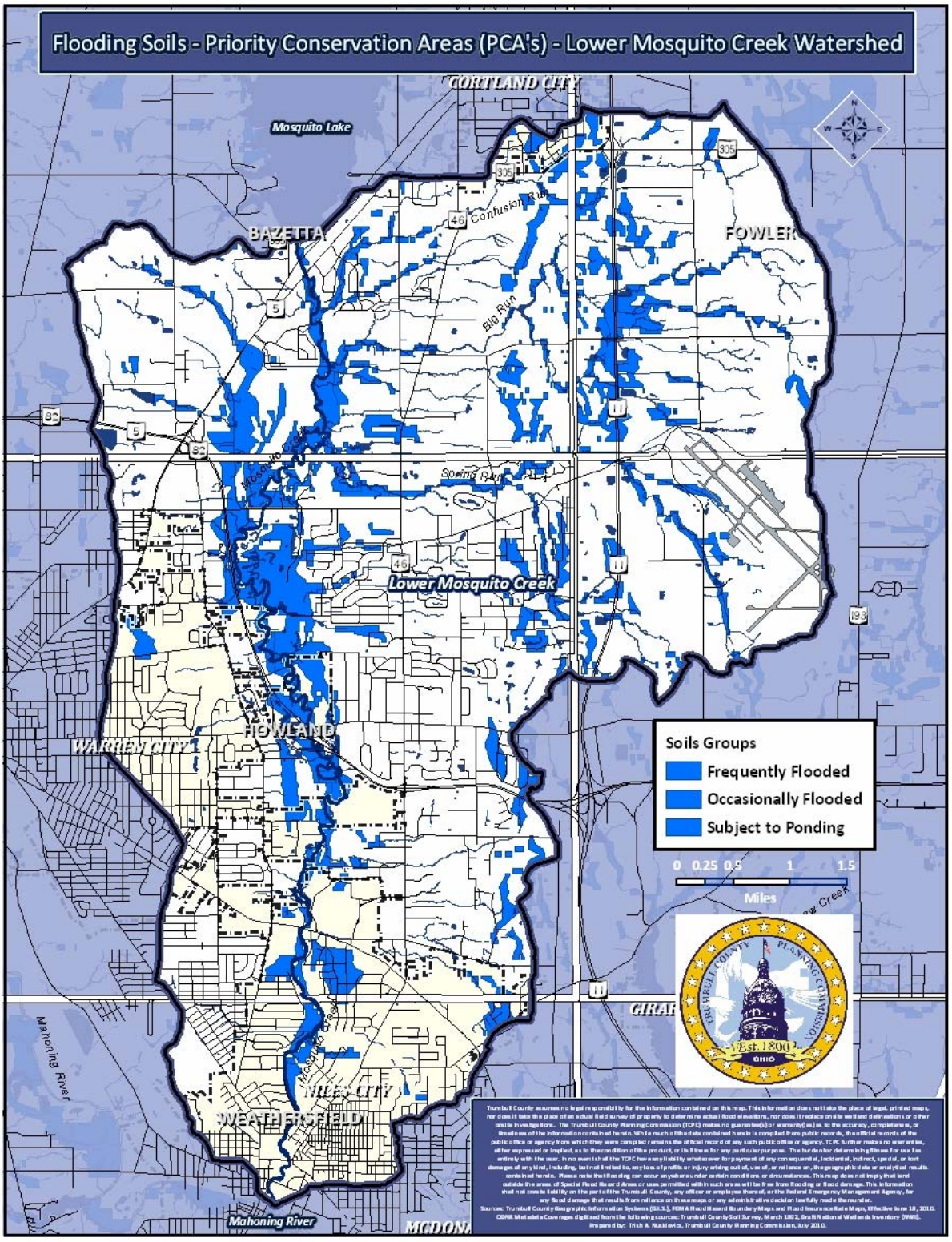
Criterion #7: Preserved Lands

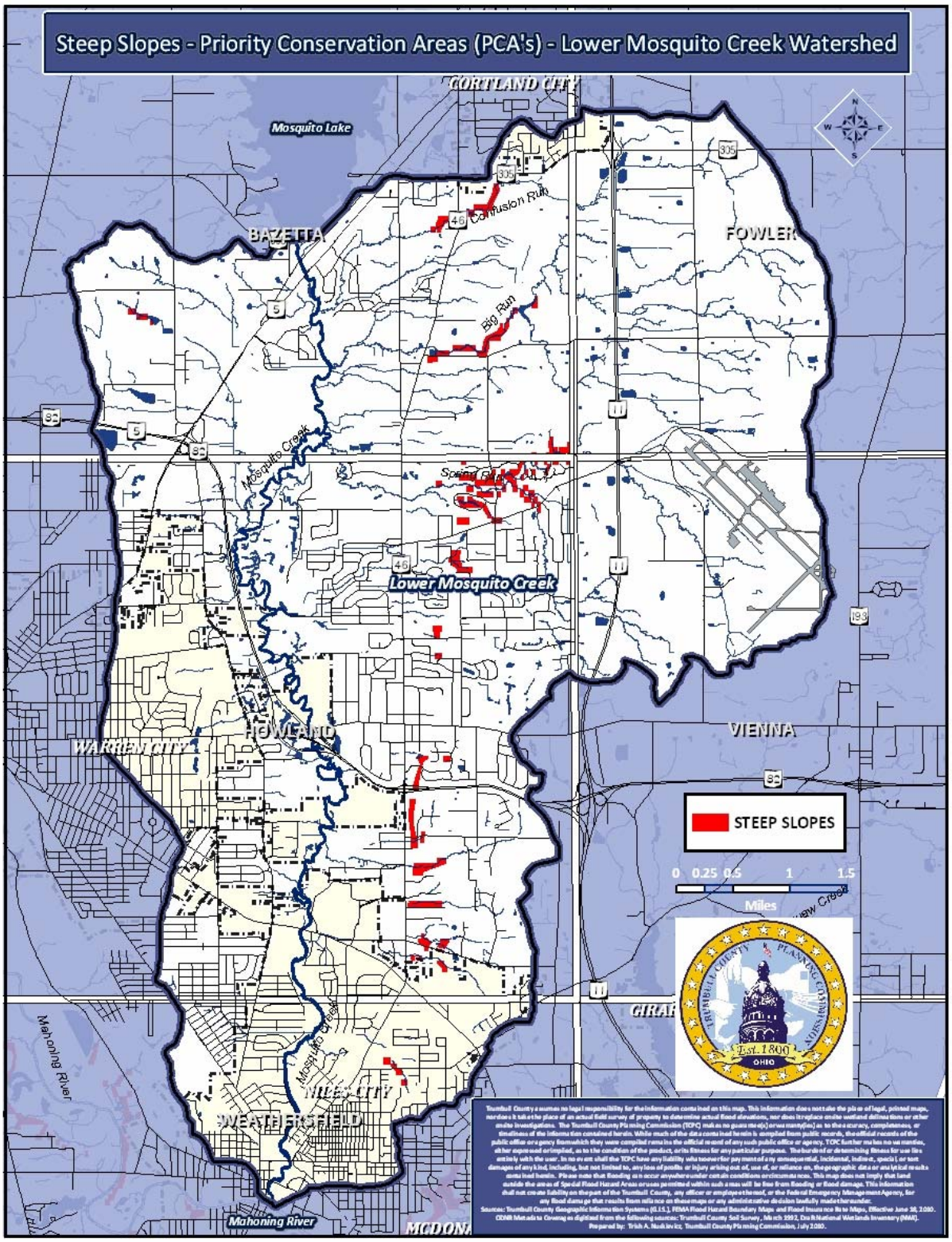
Preserved lands along Mosquito Creek meet multiple criteria that define a Priority Conservation Areas. These lands have been preserved because they are critically important ecological, recreational and public access areas that lie in the Mosquito Creek Floodplain Corridor, which is a long-term targeted area for protection by the Trumbull County Planning Commission.

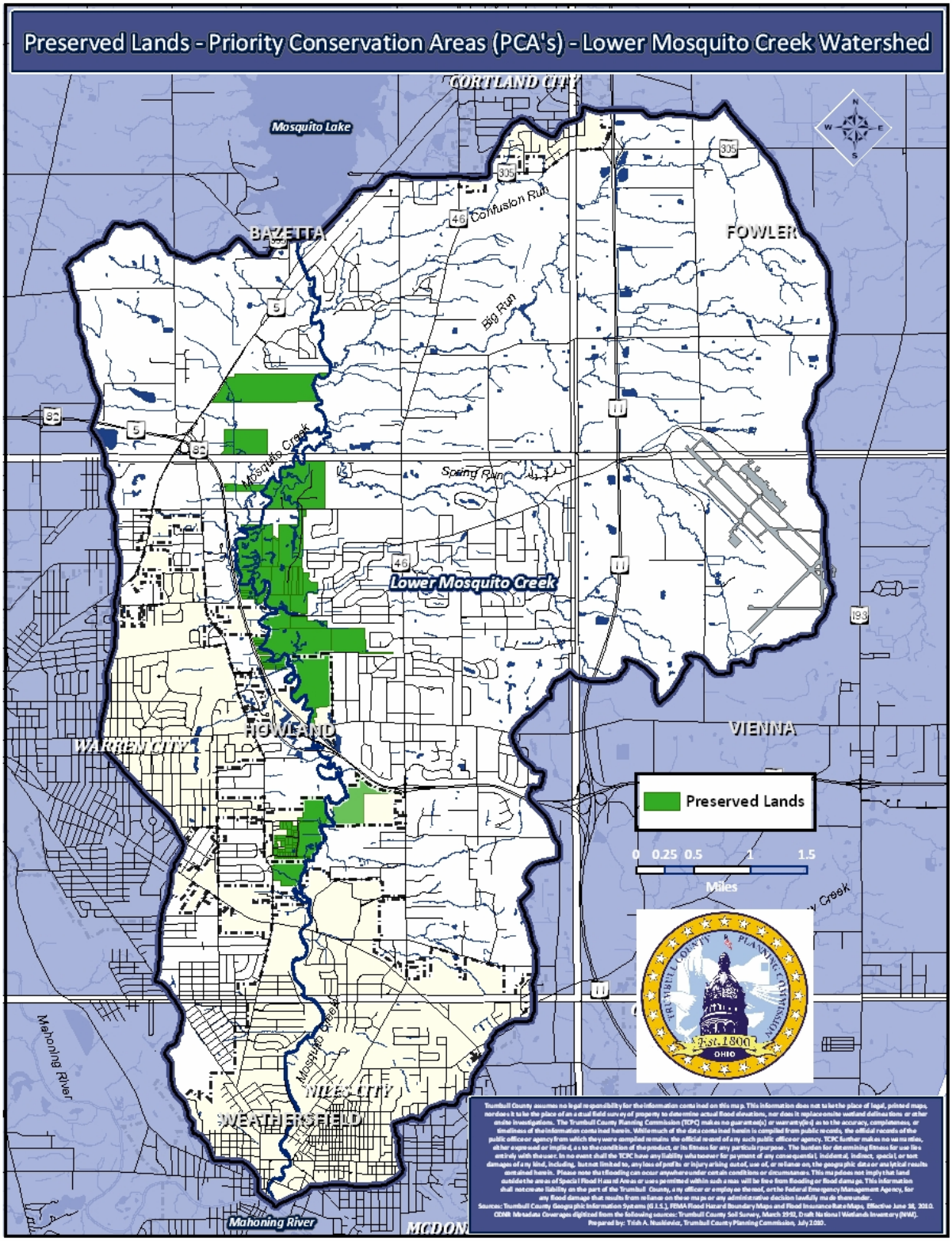
The following preserved lands continue to be an important component of Priority Conservation Areas in the Lower Mosquito Creek Watershed:

- Purchase of 119.6 acres on Mosquito Creek through the Clean Ohio Fund, 2002;
- Purchase of 135 acres on Mosquito Creek through the Clean Ohio Fund, 2003;
- Purchase of 100 acres on Mosquito Creek through the Clean Ohio Fund, 2004;
- Negotiated private land donation of 65.89 acres on Mosquito Creek in Bazetta Township, 2007-08;
- Purchase of 142 acres on Mosquito Creek through Clean Ohio Fund, 2009;
- Purchase of 85 acres on Mosquito Creek through Clean Ohio Fund, 2010.


Hydric Soils - Priority Conservation Areas (PCA's) - Lower Mosquito Creek Watershed
CORTLAND CITY
Mosquito Lake
BAZETTA
FOWLER
Confusion Run
Big Run
Mosquito Creek
Spring Run
Lower Mosquito Creek
HOWLAND
WARREN CITY
VIENNA
GIRARD
NILES CITY
WEATHERSFIELD
Mahoning River
McDONALD
Mosquito Creek & Tributaries
Hydric Soils
0 0.25 0.5 1 1.5
Miles
TRUMBULL COUNTY PLANNING COMMISSION
Est. 1800
OHIO


Flooding Soils - Priority Conservation Areas (PCA's) - Lower Mosquito Creek Watershed
CORTLAND CITY
Mosquito Lake
BAZETTA
FOWLER
Confusion Run
Big Run
Lower Mosquito Creek
HOWLAND
WARREN CITY
NILES CITY
WEATHERSFIELD
Mahoning River
Soils Groups
Frequently Flooded
Occasionally Flooded
Subject to Ponding
0 0.25 0.5 1 1.5
Miles
Est. 1800
OHIO


Steep Slopes - Priority Conservation Areas (PCA's) - Lower Mosquito Creek Watershed
CORTLAND CITY
Mosquito Lake
BAZETTA
FOWLER
Confusion Run
Big Run
Mosquito Creek
Lower Mosquito Creek
HOWLAND
WARREN CITY
VIENNA
GIRARD
NILES CITY
WEATHERSFIELD
MCDONALD
Mahoning River
STEEP SLOPES
0 0.25 0.5 1 1.5
Miles
TRUMBULL COUNTY PLANNING COMMISSION
Est. 1800
OHIO


Preserved Lands - Priority Conservation Areas (PCA's) - Lower Mosquito Creek Watershed
CORTLAND CITY
Mosquito Lake
BAZETTA
FOWLER
Confusion Run
Big Run
Mosquito Creek
Spring Run
Lower Mosquito Creek
HOWLAND
WARREN CITY
VIENNA
Preserved Lands
0 0.25 0.5 1 1.5
Miles
Mahoning River
NILES CITY
WEATHERSFIELD
Mahoning River
MCDON
Trumbull County assumes no legal responsibility for the information contained on this map. This information does not to be the place of legal, printed maps, nor does it to be the place of an actual field survey of property to determine actual flood elevations, nor does it replace onsite wetland delineations or other onsite investigations. The Trumbull County Planning Commission (TCPC) makes no guarantee(s) or warranty(ies) as to the accuracy, completeness, or timeliness of the information contained herein. While much of the data contained herein is compiled from public records, the official records of the public office or agency from which they were compiled remains the official record of any such public office or agency. TCPC further makes no warranties, either expressed or implied, as to the condition of the product, or its fitness for any particular purpose. The burden for determining fitness for use lies entirely with the user. In no event shall the TCPC have any liability whatsoever for payment of any consequential, incidental, indirect, special, or tort damages of any kind, including, but not limited to, any loss of profits or injury arising out of, use of, or reliance on, the geographic data or analytical results contained herein. Please note that flooding can occur anywhere under certain conditions or circumstances. This map does not imply that land outside the areas of Special Flood Hazard Areas or uses permitted within such areas will be free from flooding or flood damage. This information shall not create liability on the part of the Trumbull County, any officer or employee thereof, or the Federal Emergency Management Agency, for any flood damage that results from reliance on these maps or any administrative decision lawfully made thereunder.
Sources: Trumbull County Geographic Information Systems (G.I.S.), FEMA Flood Hazard Boundary Maps and Flood Insurance Rate Maps, Effective June 18, 2010.
ODNR Metadata Coverages digitized from the following sources: Trumbull County Soil Survey, March 1992, Draft No Name I Wetlands Inventory (NWI).
Prepared by: Trish A. Nuskiewicz, Trumbull County Planning Commission, July 2010.

Criterion #8: Riparian Setbacks

Riparian areas are definitive landforms. They are transition zones between channels and uplands where the land influences the stream and the stream influences the land. It is in this zone that 'setback strips' of forest vegetation have special importance for the quality of streams. Riparian areas correspond very well with the active floodplain.

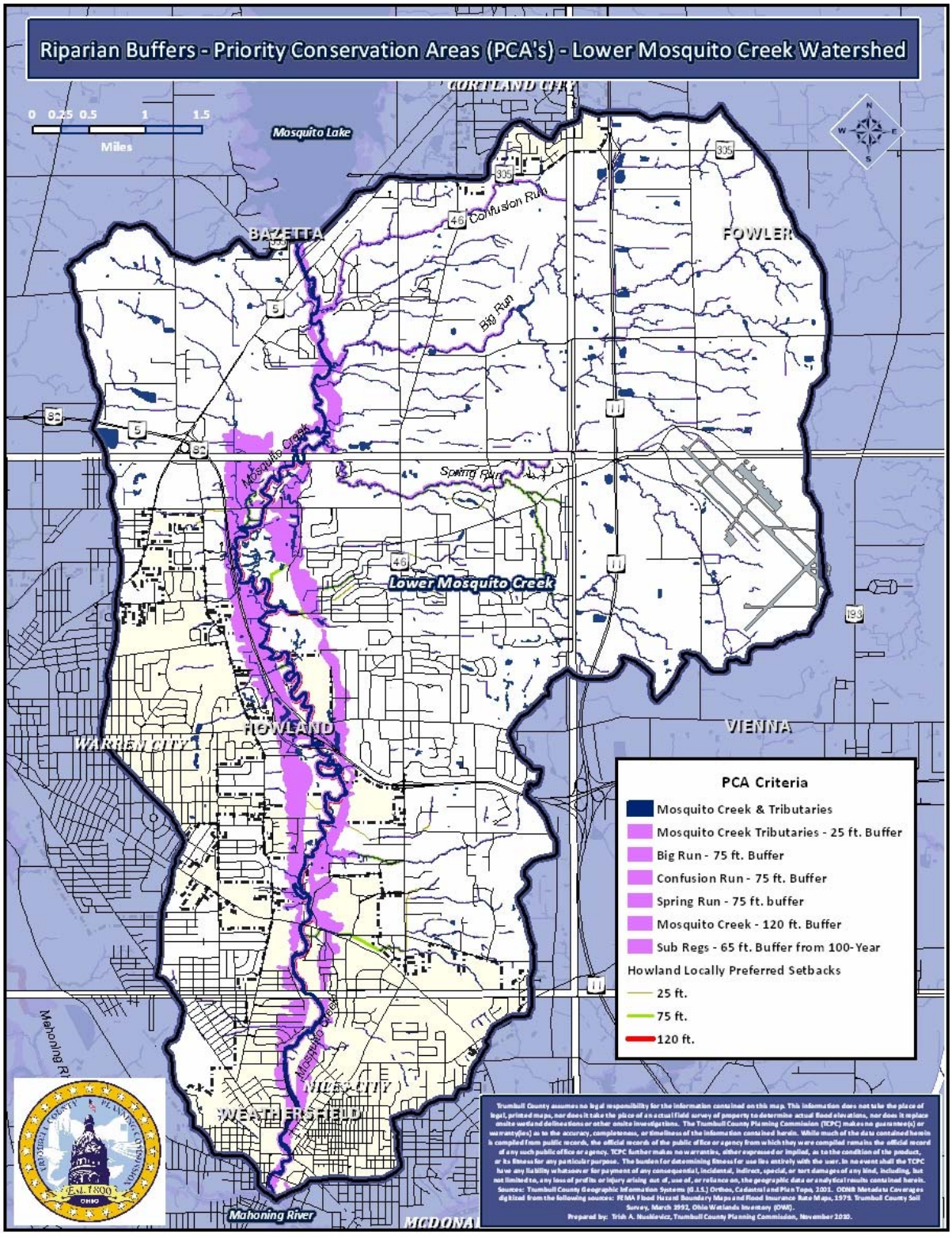
Riparian setbacks of 120 feet from Mosquito Creek; 75 feet from Confusion Run, Big Run and Spring Run; 65 feet from outer boundaries of 100-year floodplain; and 25 feet from all other tributaries to Mosquito Creek. Distance is measured from bank-full outer edges, providing buffers for all waterways.

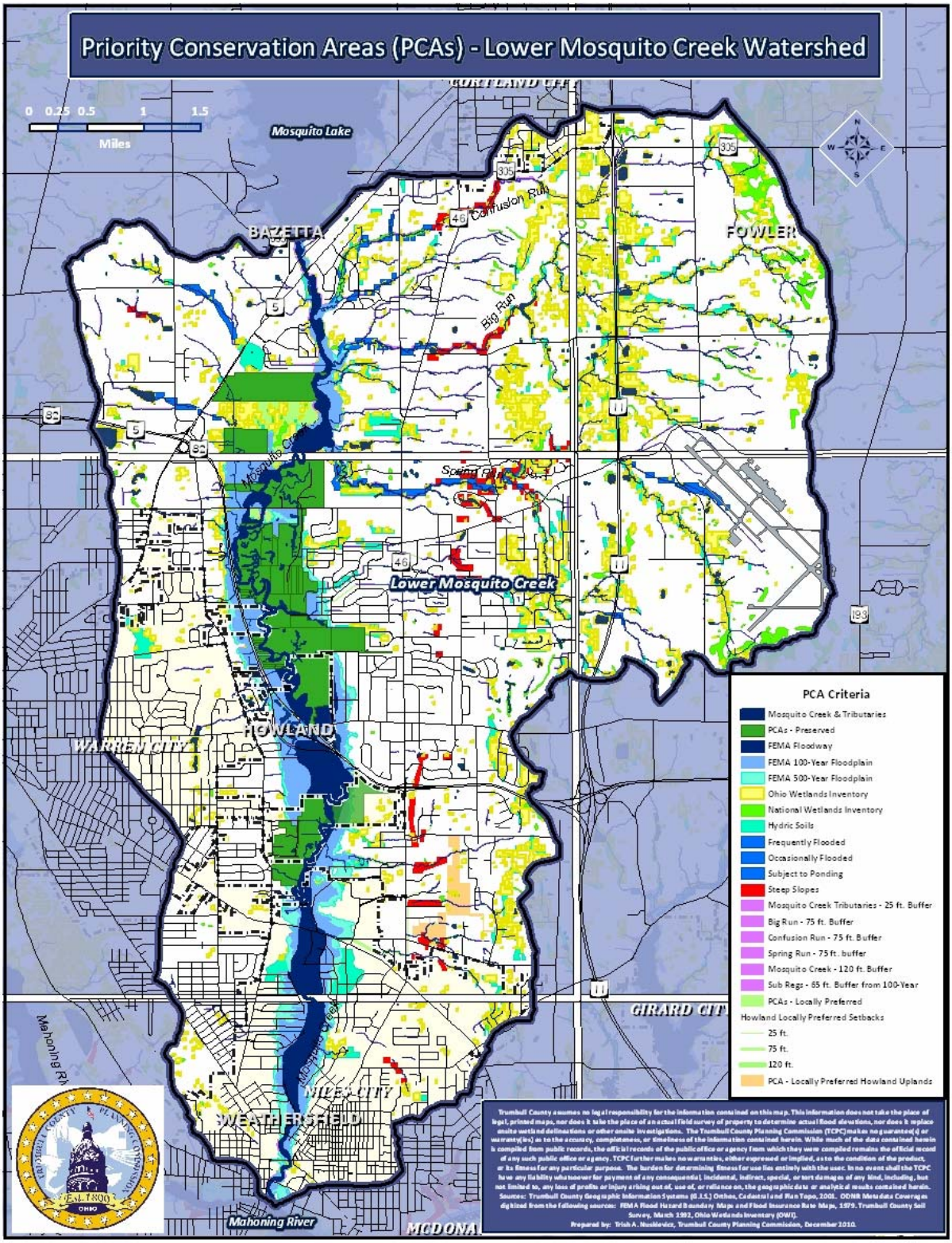
Riparian Areas are important Priority Conservation Areas because they:

1. Reduce flood impacts by absorbing peak flows, slowing the velocity of floodwaters and regulating base flow;
2. Assist in stabilizing the banks of designated watercourses to reduce woody debris from fallen or damaged trees, stream bank erosion and the downstream transport of sediments eroded from such watercourse banks;
3. Reduce pollutants in designated watercourses during periods of high flows by filtering, settling and transforming pollutants already present in such watercourses;
4. Reduce pollutants in designated watercourses by filtering, settling and transforming pollutants in runoff before they enter such watercourses;
5. Provide designated watercourse habitats with shade and food;
6. Reduce the presence of aquatic nuisance species to maintain a diverse aquatic system.
7. Provide riparian habitat with a wide array of wildlife by maintaining diverse and connected riparian vegetation;
8. Minimize encroachment on designated watercourses and limiting the potential need for invasive measures that may otherwise be necessary to protect buildings, structures and uses as well as to reduce the damage to real property and threats to public and safety within the affected watershed;
9. Preserve and conserve the quality and free flowing condition of designated watercourses in the interest of promoting and protecting public health and safety.

Criterion #9: Locally preferred areas targeted for protection or restoration of natural resources.

Members of the WPP have the opportunity to designate areas for protection and restoration based on their community-specific standards.


Riparian Buffers - Priority Conservation Areas (PCA's) - Lower Mosquito Creek Watershed
0 0.25 0.5 1 1.5
Miles
Mosquito Lake
CORTLAND CITY
BAZETTA
FOWLER
Confusion Run
Big Run
Spring Run
Mosquito Creek
Lower Mosquito Creek
HOWLAND
WARREN CITY
VIENNA
WEATHERSFIELD
MCDONALD
Mahoning River
PCA Criteria
Mosquito Creek & Tributaries
Mosquito Creek Tributaries - 25 ft. Buffer
Big Run - 75 ft. Buffer
Confusion Run - 75 ft. Buffer
Spring Run - 75 ft. buffer
Mosquito Creek - 120 ft. Buffer
Sub Regs - 65 ft. Buffer from 100-Year
Howland Locally Preferred Setbacks
25 ft.
75 ft.
120 ft.


Priority Conservation Areas (PCAs) - Lower Mosquito Creek Watershed
0 0.25 0.5 1 1.5
Miles
Mosquito Lake
BAZETTA
FOWLER
Confusion Run
Big Run
Spring Run
Lower Mosquito Creek
HOWLAND
WARREN CITY
GIRARD CITY
NILES CITY
SWEATHERFIELD
Mahoning River
MCDONALD
PCA Criteria
Mosquito Creek & Tributaries
PCAs - Preserved
FEMA Floodway
FEMA 100-Year Floodplain
FEMA 500-Year Floodplain
Ohio Wetlands Inventory
National Wetlands Inventory
Hydric Soils
Frequently Flooded
Occasionally Flooded
Subject to Ponding
Steep Slopes
Mosquito Creek Tributaries - 25 ft. Buffer
Big Run - 75 ft. Buffer
Confusion Run - 75 ft. Buffer
Spring Run - 75 ft. buffer
Mosquito Creek - 120 ft. Buffer
Sub Regs - 65 ft. Buffer from 100-Year
PCAs - Locally Preferred
Howland Locally Preferred Setbacks
25 ft.
75 ft.
120 ft.
PCA - Locally Preferred Howland Uplands
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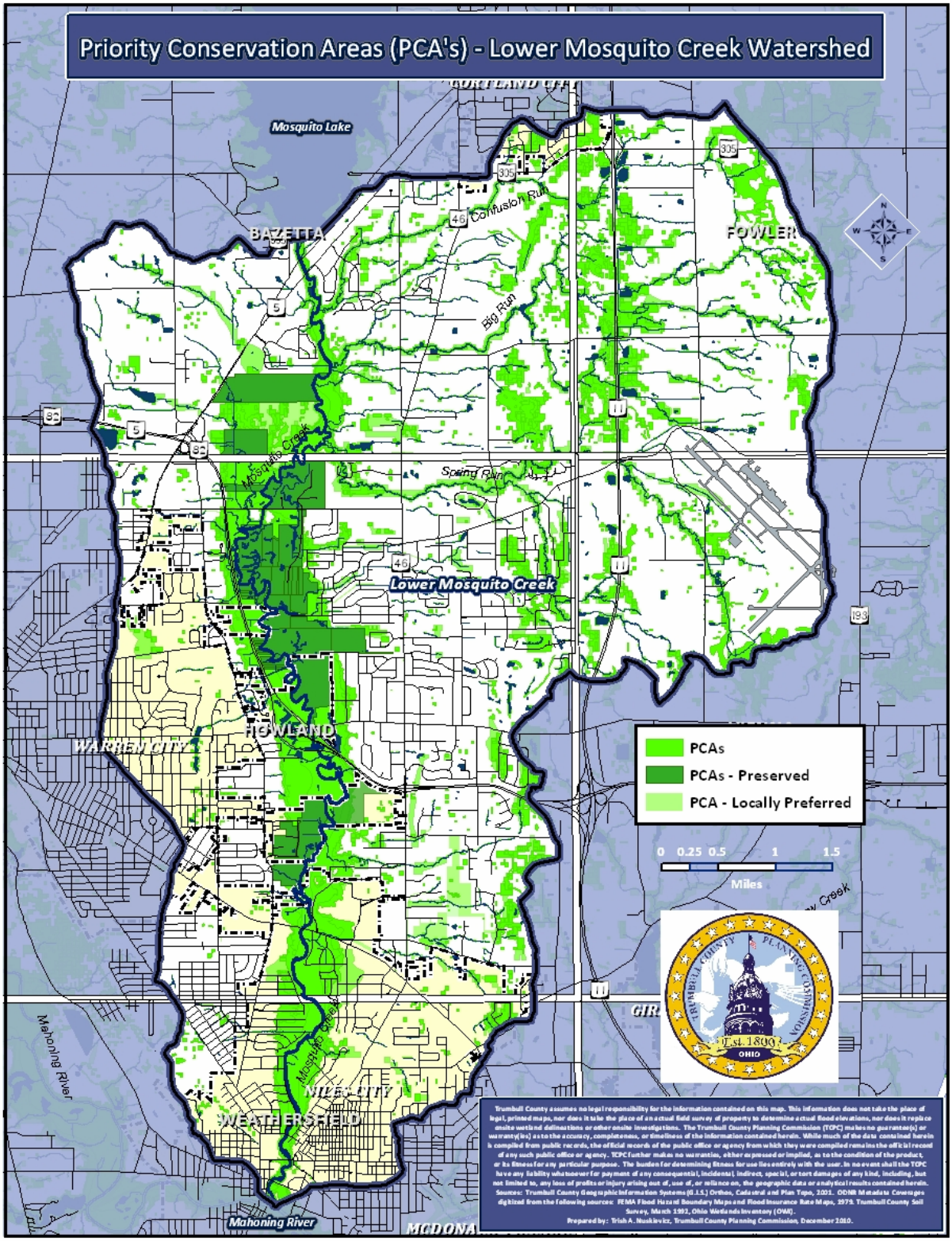
Sources: Trumbull County Geographic Information Systems (G.I.S.) Orthos, Cadastral and Plan Topo, 2001. ODNR Metadata Coverages digitized from the following sources: FEMA Flood Hazard Boundary Maps and Flood Insurance Rate Maps, 1979. Trumbull County Soil Survey, March 1992, Ohio Wetlands Inventory (OWI).
Prepared by: Trish A. Nuskiewicz, Trumbull County Planning Commission, December 2010.


Priority Conservation Areas (PCA's) - Lower Mosquito Creek Watershed
Mosquito Lake
BAZETTA
FOWLER
Confusion Run
Big Run
Spring Run
Mosquito Creek
Lower Mosquito Creek
HOWLAND
WARREN CITY
NILES CITY
WEATHERSFIELD
Mahoning River
PCAs
PCAs - Preserved
PCA - Locally Preferred
0 0.25 0.5 1 1.5
Miles
Trumbull County assumes no legal responsibility for the information contained on this map. This information does not take the place of legal, printed maps, nor does it take the place of an actual field survey of property to determine actual flood elevations, nor does it replace onsite wetland delineations or other onsite investigations. The Trumbull County Planning Commission (TCPC) makes no guarantee(s) or warranty(ies) as to the accuracy, completeness, or timeliness of the information contained herein. While much of the data contained herein is compiled from public records, the official records of the public office or agency from which they were compiled remains the official record of any such public office or agency. TCPC further makes no warranties, either expressed or implied, as to the condition of the product, or its fitness for any particular purpose. The burden for determining fitness for use lies entirely with the user. In no event shall the TCPC have any liability whatsoever for payment of any consequential, incidental, indirect, special, or tort damages of any kind, including, but not limited to, any loss of profits or injury arising out of, use of, or reliance on, the geographic data or analytical results contained herein.
Sources: Trumbull County Geographic Information Systems (G.I.S.) Ortho, Cadastral and Plan Tops, 2021. ODNR Metadata Coverages digitized from the following sources: FEMA Flood Hazard Boundary Maps and Flood Insurance Rate Maps, 1978. Trumbull County Soil Survey, March 1992, Ohio Wetlands Inventory (OWI).
Prepared by: Trish A. Nuskievicz, Trumbull County Planning Commission, December 2010.

Priority Development Areas

Priority Development Areas (PDAs)

A Priority Development Area is a locally designated area where growth and/or redevelopment is to be promoted to maximize development potential, efficiently utilize infrastructure and revitalize existing cities and towns. A PDA designation does not supersede existing zoning, subdivision or building regulations.

PDAs are designated by the Watershed Planning Partnership in consultation with local and state governments as part of the Lower Mosquito Creek Watershed Balanced Growth Plan.

The purpose of designating PDAs is to provide information whereby a Watershed Planning Partnership and local governments may coordinate future development in a mutually efficient and complementary manner. PDAs are intended to encourage a pattern of efficient, contiguous and/or nodal development and adaptive reuse of urban infrastructure, and to protect agricultural and forest lands, scenic areas and other natural resources from scattered, untimely, poorly planned development in urban fringe and rural areas. These patterns are typically manifested in one or more of the following ways: leapfrog development; ribbon or strip development; and large expanses of low-density, single-dimensional development. PDAs encourage growth where infrastructure capacity is available or committed, reduce the costs of providing urban services and help guide state policies and investments that influence the location of development.

The Lower Mosquito Creek Watershed is extensively urbanized. Major developed areas in the watershed include:

- Youngstown-Warren Regional Airport and surrounding properties
- Eastwood Mall complex
- The US 422 commercial corridor
- Newer commercial development along SR 46 & SR 82
- The City of Niles

The criteria for PDAs in the Lower Mosquito Creek Watershed were established through data collected from, and meetings with, technical advisors including the Chamber of Commerce, the Western Reserve Port Authority, Mahoning Valley Economic Development Corporation, Congressman Tim Ryan's Office, the County Commissioners Office, the Sanitary Engineer's Office, the County Engineer's Office, Eastgate Regional Council of Governments, North East Ohio Trade and Economic Consortium, townships, cities and other sources. PDA criteria were ultimately chosen by local communities. The map found on page 60 was blown up to poster size and taken to each individual community so they could visualize exactly where each individually colored PDA criteria was located. This greatly enhanced and facilitated discussions of criteria.

PDA Criteria

PDAs in the Lower Mosquito Creek Watershed will include new development on vacant infill sites, and redevelopment of already-developed sites and buildings. The criteria considered by the Watershed Planning Partnership for designating PDAs in the Lower Mosquito Creek Watershed were based on the best available existing data, including:

- Access to collector roads or arterials for commercial, industrial or mixed uses;
- Traffic counts adequate to support commercial uses;
- Planned roadway improvements by state, regional and local authorities;
- Access to rail or multimodal facilities for industrial uses;
- Adjacent to Youngstown-Warren Regional Airport for commercial or industrial uses;
- Land served by sanitary sewers and public water facilities;
- Developed land having industrial, commercial, residential or mixed use designations as described and depicted in the respective community's comprehensive plan;
- Industrial, commercial, residential or mixed-use zoning consistent with the respective community's official zoning resolution and map;
- Land appropriate for infill development;
- Lands described above that are not designated as a Priority Conservation Area

In addition, all of the watershed's PDAs are located within:

- The 201/208 Boundary;
- An enterprise zone;
- An area served by natural gas (entire watershed serviced);
- An area served by an electric utility (Ohio Edison or, in Niles, AMP Ohio)

Every community in the Mosquito Creek Watershed, except Fowler Township, has a comprehensive plan that was adopted or updated within the last seven years. All PDAs in this Watershed Balanced Growth Plan are consistent with adopted future land use designations and zoning districts. PDAs will generally have lower development costs, relative to the cost of building in PCAs (avoiding, minimizing or mitigating impacts on floodplains, wetlands, waterways, and steep slopes in certain PCAs).

Caveats – Differing Criteria for Differing Uses

PDA criteria in this watershed may not be appropriate for all types of development. For example, the existence of rail service may be more relevant for an industrial use than for a prime commercial project. Similarly, traffic counts may or may not be a factor for siting a new industrial use, versus a commercial use. While highway access is important, heavily traveled and congested roads are not typically desired by manufacturers, truckers or retailers.

Economic development tools available to Trumbull County Include low interest loans, loan guarantees, Tax Increment Financing (TIF), tax incentives for development, job training and job

creation grants and tax credits, grants for infrastructure development, Foreign Trade Zones and various other state and federal programs.

In addition to those tools, cities may designate Community Reinvestment Areas in their jurisdictions.

State of Ohio economic development tools used within the Lower Mosquito Creek Watershed have included:

- CDBG–ED Grants- used for low interest loans to businesses and infrastructure development including road, water and sewer expansion;
- Section 166 loans to small business;
- Enterprise Zone designation used for tax abatements on new industrial building construction and expansion of existing buildings;
- Section 629 roadway development fund;
- Enterprise Bond Fund – State bonding source for larger loan projects

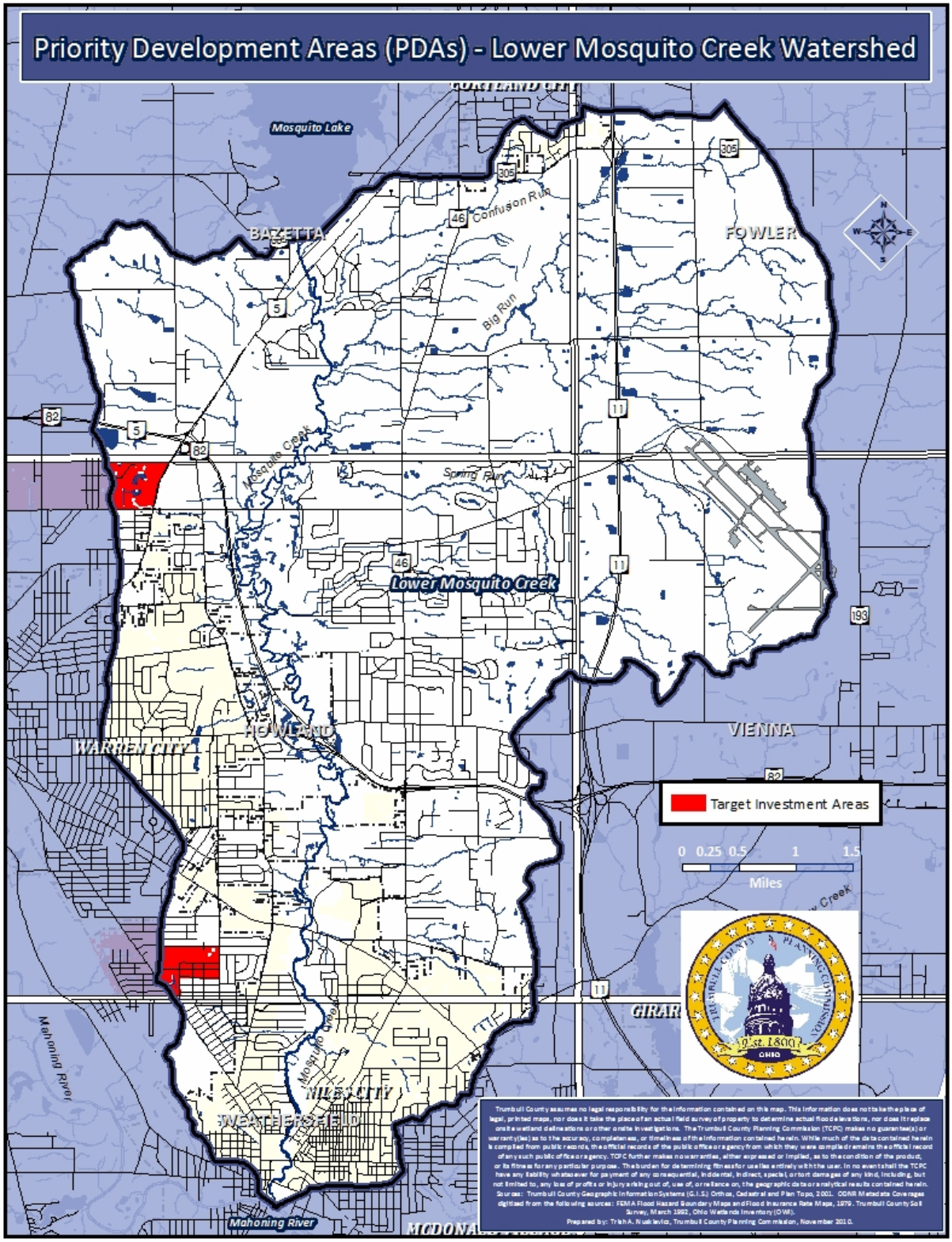
Federal economic development tools used within the Lower Mosquito Creek Watershed have included:

- United States Economic Development Administration (EDA) grants for infrastructure improvements;
- United States Department of Agriculture (USDA) loan guarantees;
- Federal Highway Administration funding;
- Base Realignment and Closure (BRAC) funds;
- Surface Transportation Program funds;
- HUD 108 Loan Program funds;
- U.S. Foreign Trade Zone designation

It would be counter-productive to designate specific areas in the Mosquito Creek Watershed where these funding sources were already used as anything but PDAs. Those discrete sites also meet most if not all of the criteria for a PDA. In addition, before these properties were developed or redeveloped with public assistance, considerable weight was given to potential environmental degradation, as most public funding requires an environmental review before tax dollars are invested.

Over the last 15 years, for example, approximately $200 million in public funds have been spent in the area surrounding the Youngstown-Warren Regional Airport in Vienna and Fowler townships. Federal, state and local government funds and private investment financed airport runway expansions, roadway improvements and construction, new entrance and exit ramps from State Route 11, water and sewer extensions, new building construction, new electrical sub-station and the development of an award winning, multi-modal business park known as Aero-Park. This area was also the home of the first and largest Foreign Trade Zone in Northeast Ohio, FTZ 181.

This one-of-a-kind airport complex features direct airport tarmac access, fully served greenfield sites and immediate highway access. The *AERO-Park* industrial area can accommodate all existing cargo and passenger aircraft. It provides a 9,003-foot runway, 24-hour FAA control tower operations, a Category 1 instrument landing system and complete corporate aircraft services. In addition, there are only four regular service commercial airline flights to and from the airport per week, which makes its limited air traffic an ideal location for the manufacturing and testing of aerospace and aviation–related products.


Priority Development Areas (PDAs) - Lower Mosquito Creek Watershed
Mosquito Lake
BAZETTA
FOWLER
Confusion Run
Big Run
Mosquito Creek
Spring Run
Lower Mosquito Creek
HOWLAND
WARREN CITY
VIENNA
NILES CITY
WEATHERSFIELD
Mahoning River
Target Investment Areas
0 0.25 0.5 1 1.5
Miles
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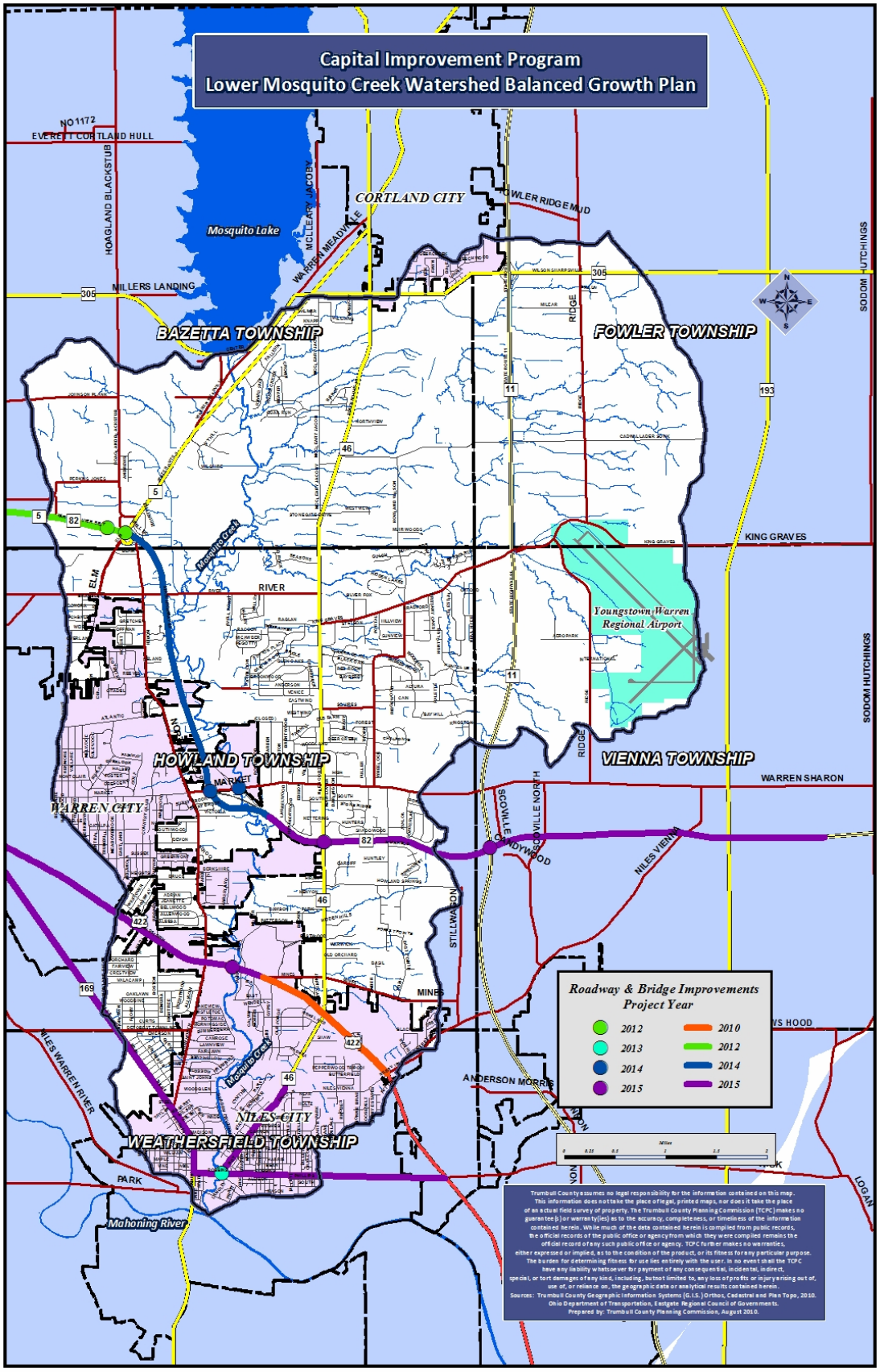
Prepared by: Trish A. Kustkevica, Trumbull County Planning Commission, November 2010.


Capital Improvement Program
Lower Mosquito Creek Watershed Balanced Growth Plan
CORTLAND CITY
Mosquito Lake
BAZETTA TOWNSHIP
FOWLER TOWNSHIP
HOWLAND TOWNSHIP
VIENNA TOWNSHIP
WARREN CITY
NILES CITY
WEATHERSFIELD TOWNSHIP
MILLERS LANDING
KING GRAVES
Youngstown Warren Regional Airport
WARREN SHARON
NILES VIENNA
ANDERSON MORRIS
Mahoning River
PARK
MINES
Roadway & Bridge Improvements
Project Year
2012
2013
2014
2015
2010
2012
2014
2015
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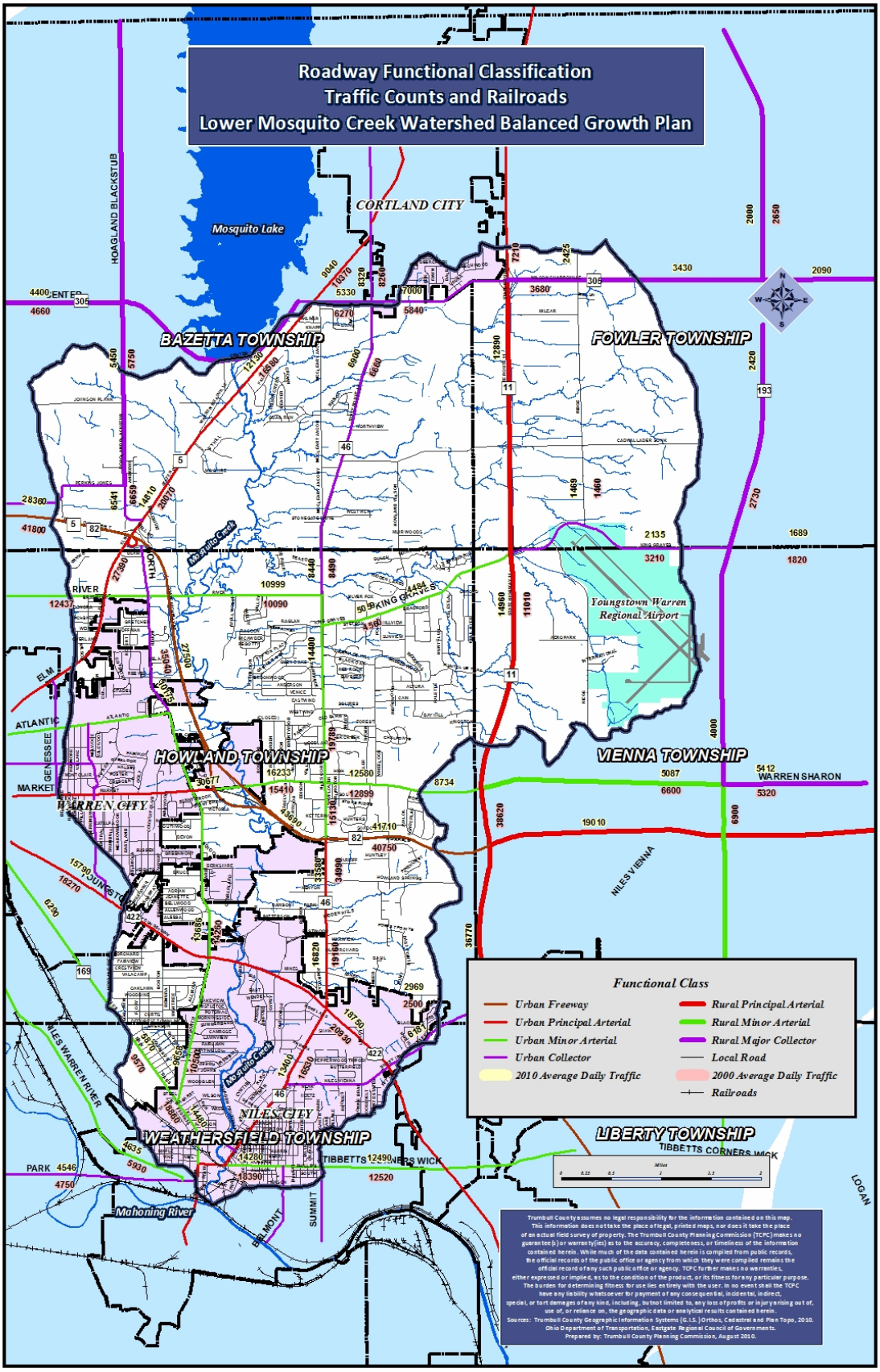
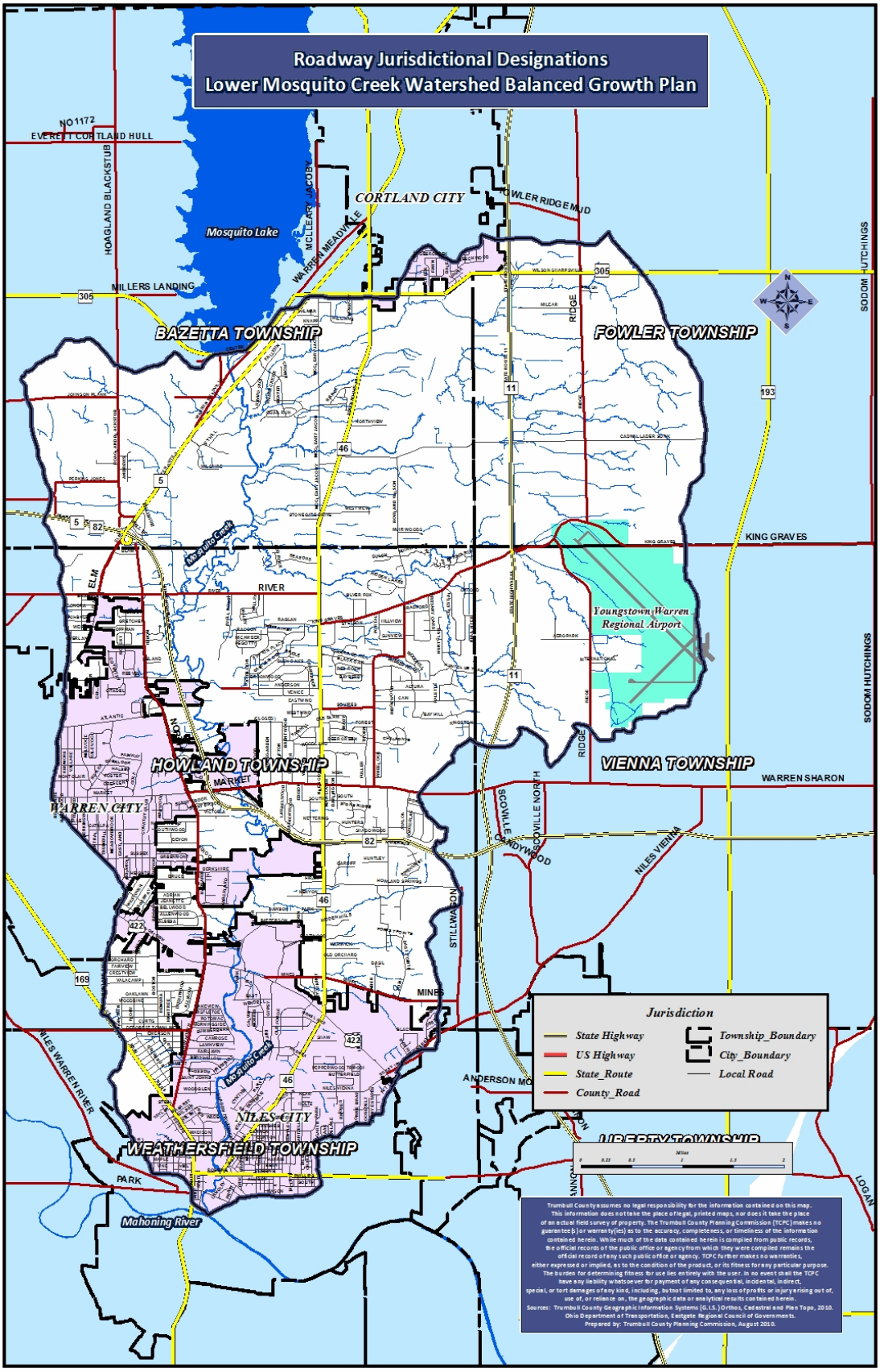
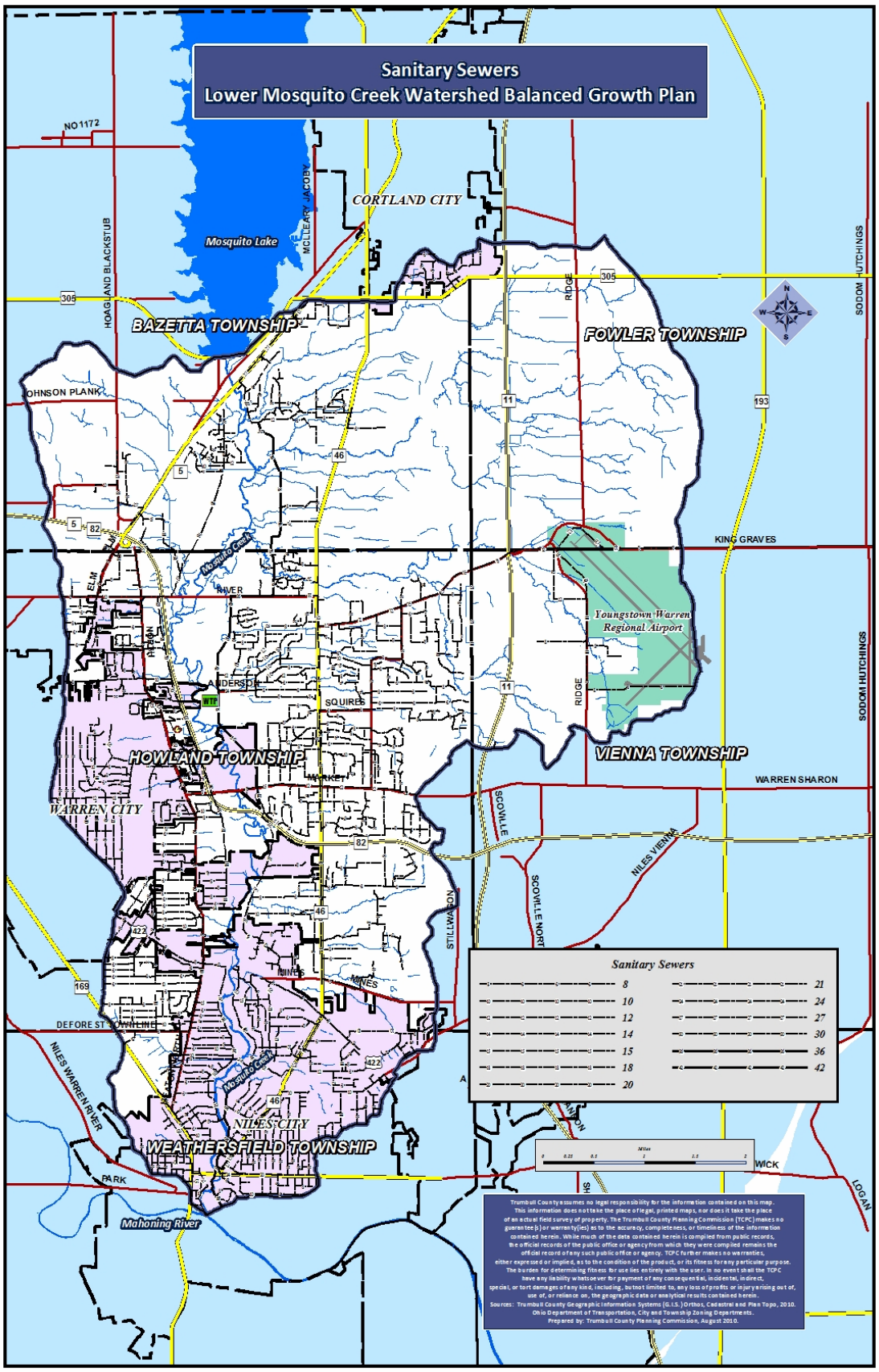

Roadway Functional Classification
Traffic Counts and Railroads
Lower Mosquito Creek Watershed Balanced Growth Plan
CORTLAND CITY
Mosquito Lake
BAZETTA TOWNSHIP
FOWLER TOWNSHIP
HOWLAND TOWNSHIP
VIENNA TOWNSHIP
WARREN CITY
NILES CITY
WEATHERSFIELD TOWNSHIP
LIBERTY TOWNSHIP
Youngstown Warren Regional Airport
Mahoning River
Functional Class
Urban Freeway
Urban Principal Arterial
Urban Minor Arterial
Urban Collector
2010 Average Daily Traffic
Rural Principal Arterial
Rural Minor Arterial
Rural Major Collector
Local Road
2000 Average Daily Traffic
Railroads


Roadway Jurisdictional Designations
Lower Mosquito Creek Watershed Balanced Growth Plan
Mosquito Lake
CORTLAND CITY
BAZETTA TOWNSHIP
FOWLER TOWNSHIP
HOWLAND TOWNSHIP
VIENNA TOWNSHIP
WARREN CITY
NILES CITY
WEATHERSFIELD TOWNSHIP
Youngstown Warren Regional Airport
Mahoning River
Jurisdiction
State Highway
US Highway
State_Route
County_Road
Township_Boundary
City_Boundary
Local Road


Sanitary Sewers
Lower Mosquito Creek Watershed Balanced Growth Plan
Mosquito Lake
CORTLAND CITY
BAZETTA TOWNSHIP
FOWLER TOWNSHIP
HOWLAND TOWNSHIP
VIENNA TOWNSHIP
WARREN CITY
NILES CITY
WEATHERSFIELD TOWNSHIP
Youngstown Warren Regional Airport
WARREN SHARON
KING GRAVES
SQUIRES
JOHNSON PLANK
DEFORE ST
PARK
WICK
Mahoning River
Mosquito Creek
NILES VIENNA
SCOVILLE
SODOM HUTCHINGS
RIDGE
HOAGLAND BLACKSTUB
MCLEARY JACOBY
ELM
STILLWATER
NILES WARREN RIVER
LOGAN
Sanitary Sewers
8
10
12
14
15
18
20
21
24
27
30
36
42
Miles
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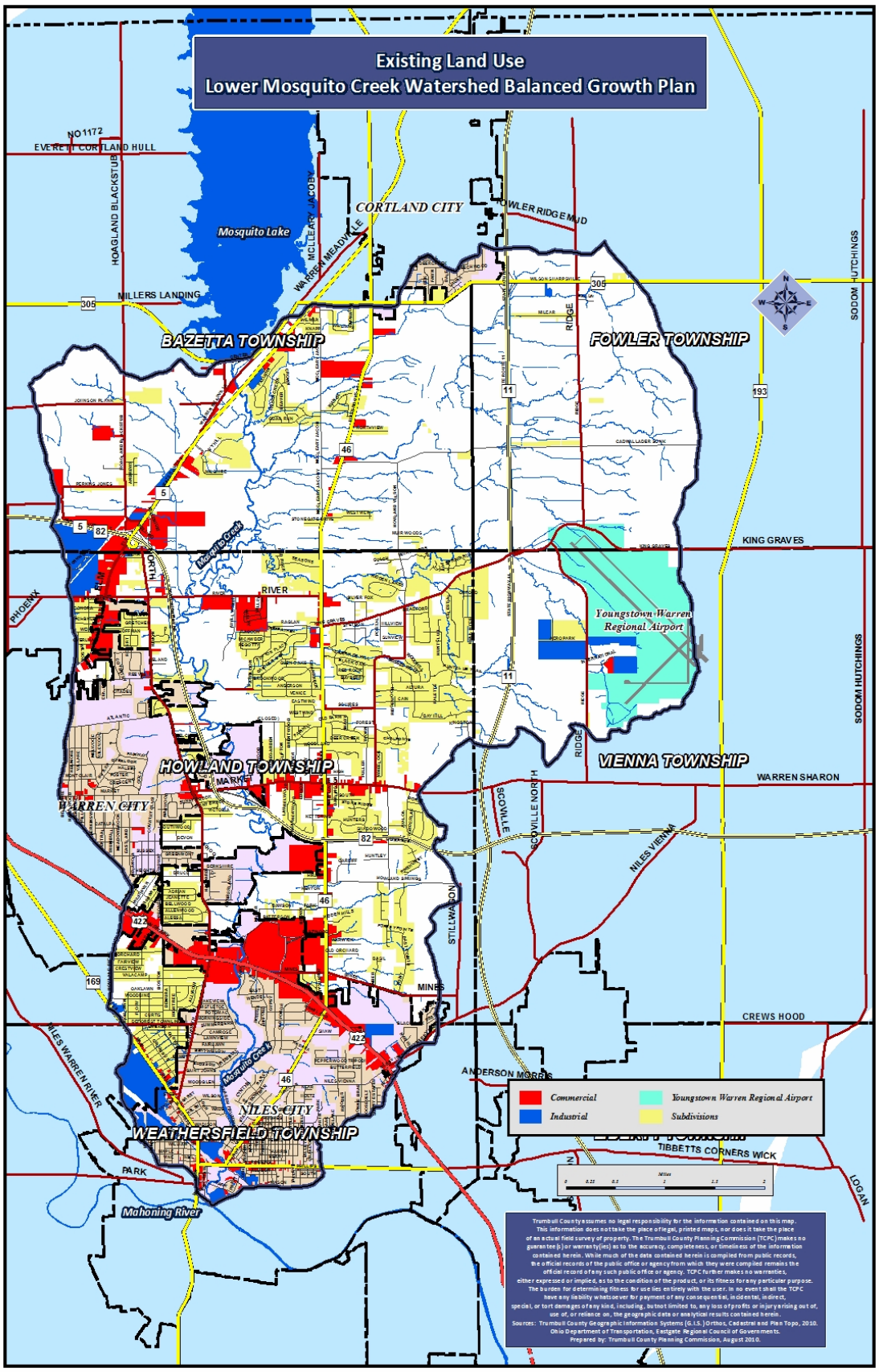
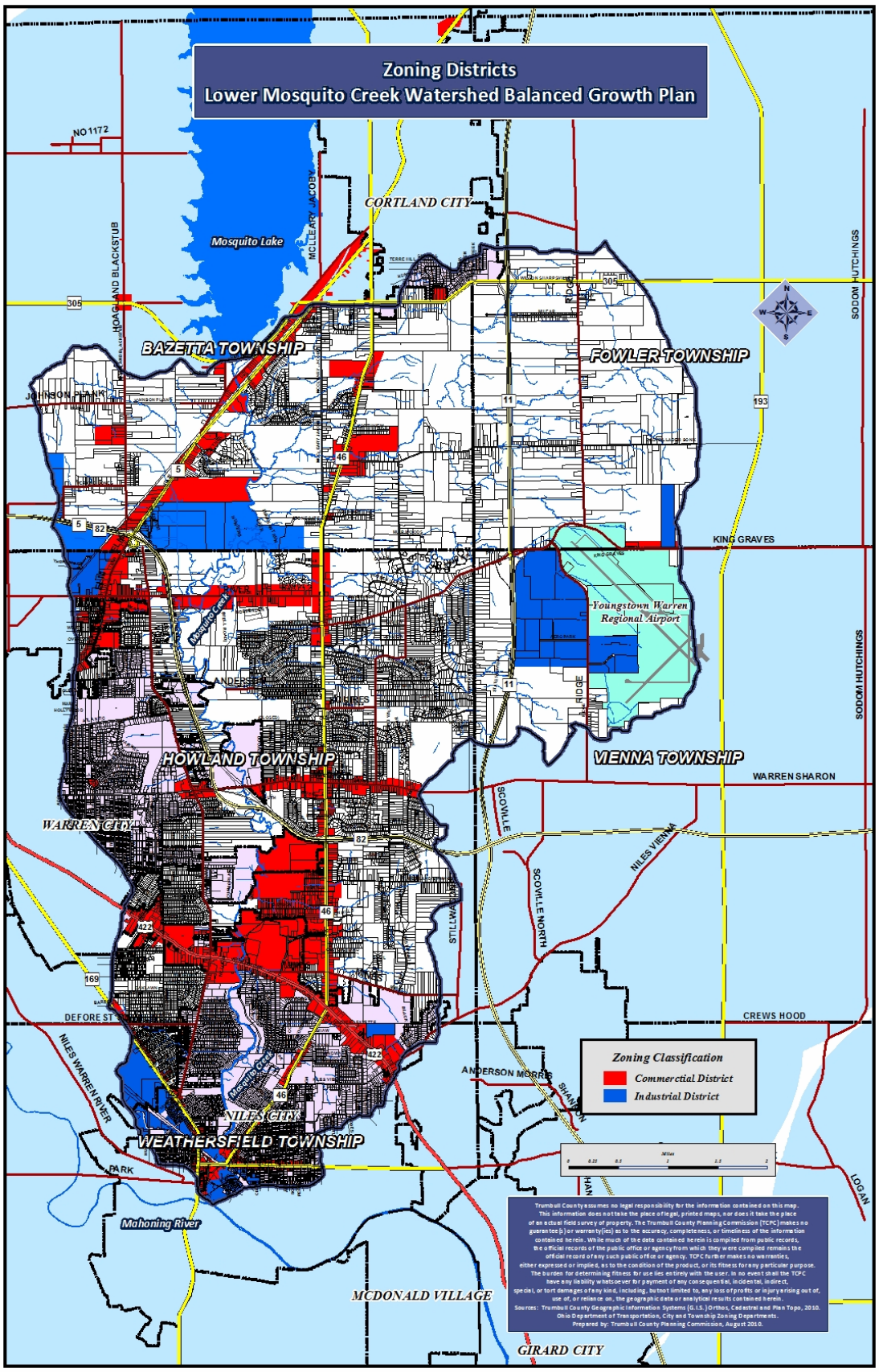

Existing Land Use
Lower Mosquito Creek Watershed Balanced Growth Plan
Mosquito Lake
CORTLAND CITY
BAZETTA TOWNSHIP
FOWLER TOWNSHIP
HOWLAND TOWNSHIP
VIENNA TOWNSHIP
WARREN CITY
NILES CITY
WEATHERSFIELD TOWNSHIP
Youngstown Warren Regional Airport
Mahoning River
Commercial
Industrial
Youngstown Warren Regional Airport
Subdivisions


Zoning Districts
Lower Mosquito Creek Watershed Balanced Growth Plan
CORTLAND CITY
Mosquito Lake
BAZETTA TOWNSHIP
FOWLER TOWNSHIP
KING GRAVES
Youngstown Warren Regional Airport
HOWLAND TOWNSHIP
VIENNA TOWNSHIP
WARREN SHARON
WARREN CITY
NILES VIENNA
SCOVILLE
SCOVILLE NORTH
CREWS HOOD
DEFORE ST
NILES WARREN RIVER
ANDERSON MORRIS
NILES CITY
WEATHERSFIELD TOWNSHIP
PARK
Mahoning River
MCDONALD VILLAGE
GIRARD CITY
SODOM HUTCHINGS
LOGAN
Zoning Classification
Commercial District
Industrial District
Miles
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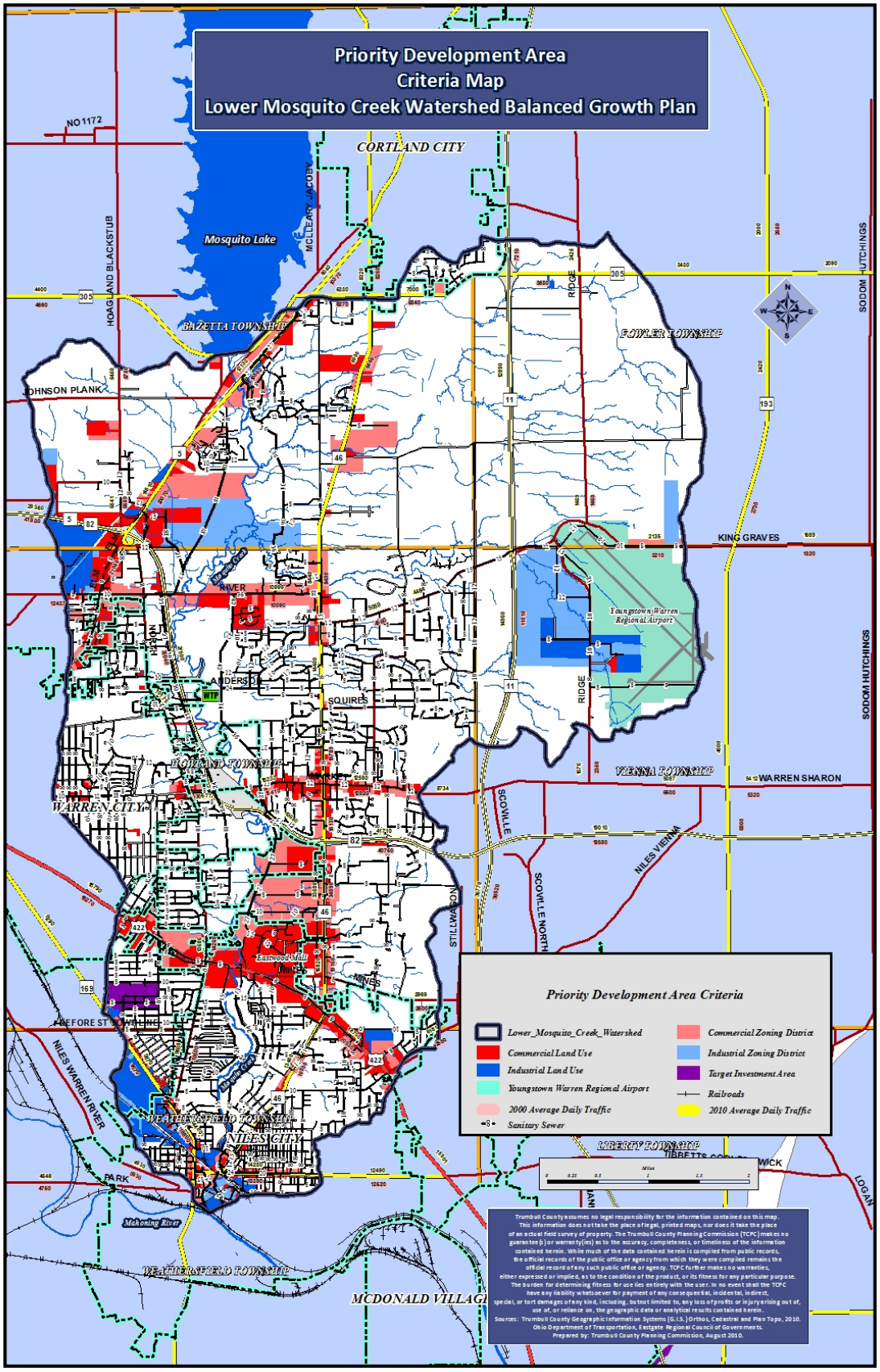
Priority Development Area
Criteria Map
Lower Mosquito Creek Watershed Balanced Growth Plan
CORTLAND CITY
Mosquito Lake
BAZETTA TOWNSHIP
FOWLER TOWNSHIP
JOHNSON PLANK
KING GRAVES
Youngstown Warren Regional Airport
VIENNA TOWNSHIP
WARREN SHARON
WARREN CITY
SQUIRES
EASTWOOD MALL
NILES CITY
WEATHERSFIELD TOWNSHIP
LIBERTY TOWNSHIP
MCDONALD VILLAGE
Mahoning River
Priority Development Area Criteria
Lower_Mosquito_Creek_Watershed
Commercial Land Use
Industrial Land Use
Youngstown Warren Regional Airport
2000 Average Daily Traffic
Sanitary Sewer
Commercial Zoning District
Industrial Zoning District
Target Investment Area
Railroads
2010 Average Daily Traffic
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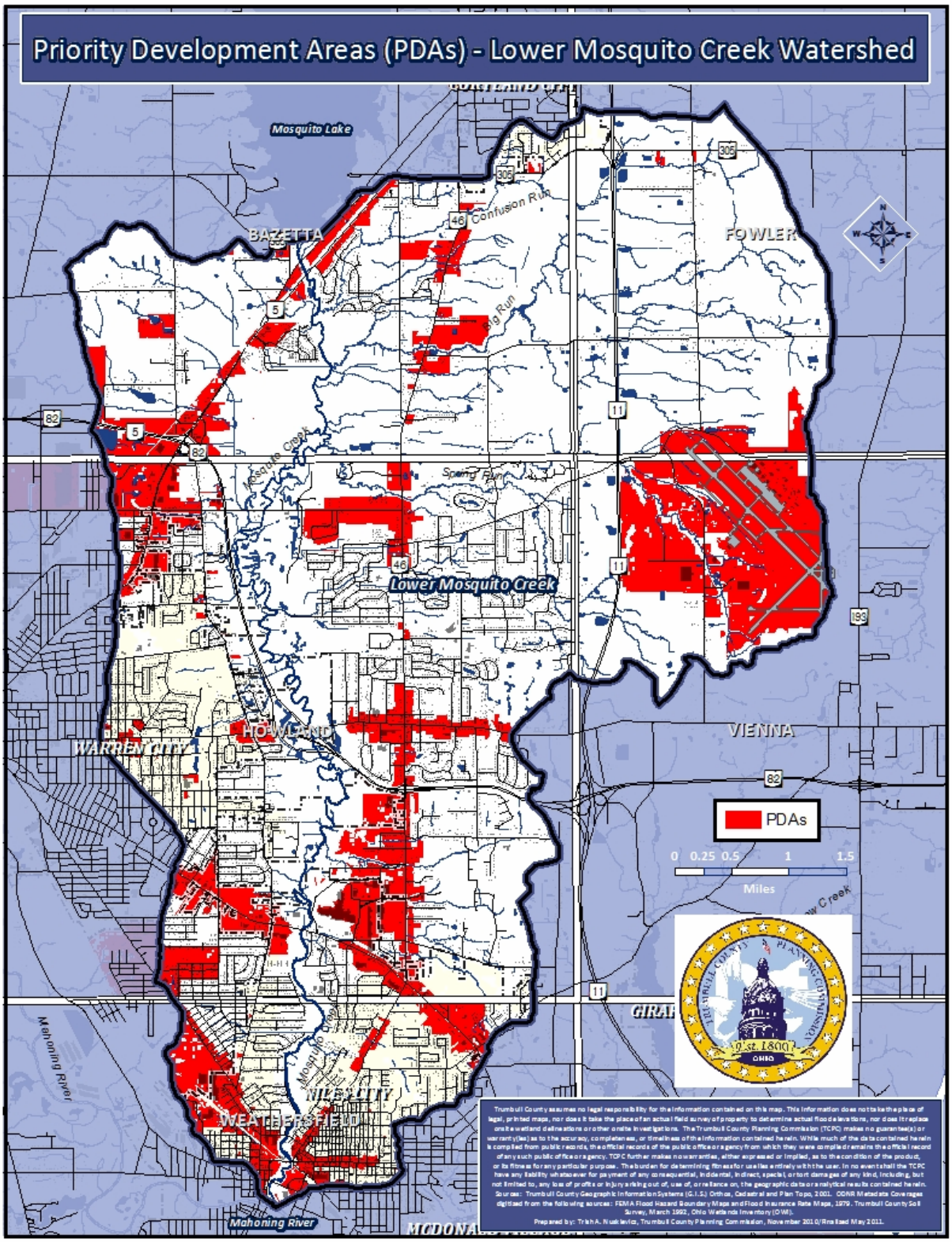
Priority Development Areas (PDAs) - Lower Mosquito Creek Watershed
Mosquito Lake
BAZETTA
FOWLER
Confusion Run
Big Run
Mosquito Creek
Spring Run
Lower Mosquito Creek
HOWLAND
WARREN CITY
VIENNA
NILES CITY
WEATHERSFIELD
MCDONALD
Mahoning River
PDAs
0 0.25 0.5 1 1.5
Miles
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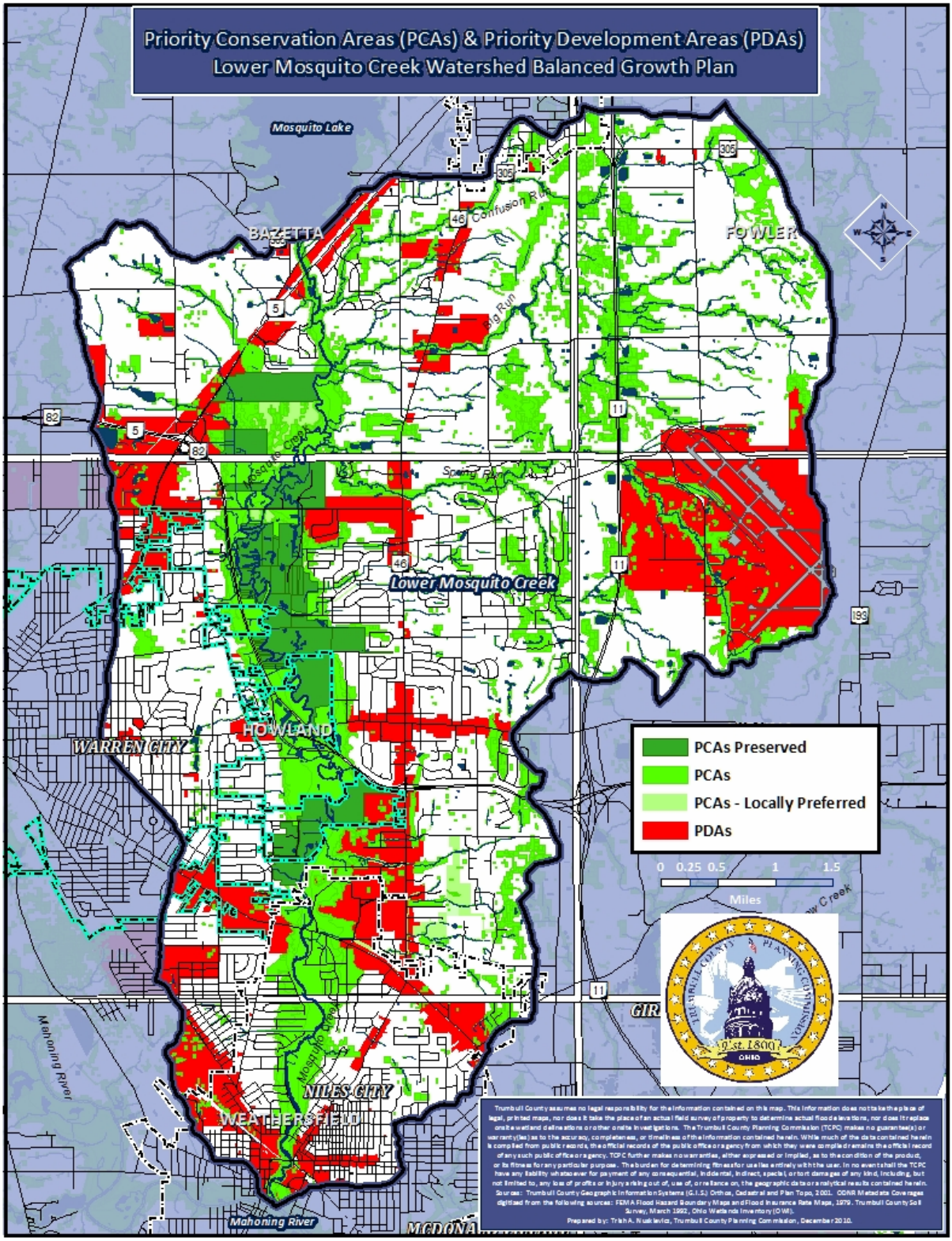
Prepared by: Trish A. Nuskievicz, Trumbull County Planning Commission, November 2010/Revised May 2011.

Combined PCA and PDA Map


Priority Conservation Areas (PCAs) & Priority Development Areas (PDAs)
Lower Mosquito Creek Watershed Balanced Growth Plan
Mosquito Lake
BAZETTA
FOWLER
Confusion Run
Big Run
Spring Run
Lower Mosquito Creek
HOWLAND
WARREN CITY
NILES CITY
WEATHERSFIELD
Mahoning River
PCAs Preserved
PCAs
PCAs - Locally Preferred
PDAs
0 0.25 0.5 1 1.5
Miles
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Prepared by: Trish A. Nuskiewicz, Trumbull County Planning Commission, December 2010.

Tools and Strategies for Implementation

TOOLS AND STRATEGIES FOR IMPLEMENTATION

Trumbull County and Lower Mosquito Creek Watershed communities are implementing several items considered by the state to be Best Local Land Use Practices (BLLUPs). The Best Local Land Use Practices document is summarized in this section under "State Support, Guidance and Training for Best Local Land Use Practices" with more complete descriptions included as Appendix A. In addition to current practices in the watershed, Appendix A offers potential implementation tools that include state support, guidance on model ordinances and other guidance documents for interested communities.

Stormwater Management Program

Trumbull County currently has an unfunded stormwater program, primarily run through the Trumbull Soil and Water Conservation District with multiple county agencies as technical partners. The county stormwater program provides an umbrella of services and offers contracted services to Phase II participating communities. This includes the Lower Mosquito Creek Watershed communities of Bazetta Township, Howland Township, Vienna Township, Weathersfield Township, Cortland City and Niles City. The stormwater management program currently addresses the six Minimum Control Measures (MCMs) of Public Education and Outreach on Storm Water Impacts (MCM #1), Public Involvement/Participation (MCM #2), Illicit Discharge Detection and Elimination (MCM #3), Construction Site Storm Water Runoff Control (MCM #4), Post-Construction Storm Water Management in New Development and Redevelopment (MCM #5) and Pollution Prevention/ Good Housekeeping for Community Operations (MCM #6). Warren City has established its own Phase II program that is funded through a utility and includes capital improvement projects.

A variety of zoning and land management tools are available to local governments to manage storm water and protect floodplain, riparian and wetland functions. These tools include floodplain overlay districts (currently adopted in Niles City and Bazetta Township), riparian overlay districts (currently adopted in Howland Township), wetland setbacks and erosion and sediment control regulations. The Trumbull Soil and Water Conservation District created Erosion and Sediment Control regulations which have been adopted by the Trumbull County Commissioners.

These tools can have a direct return in cost savings to communities and landowners for flood, erosion and storm water management. Natural vegetation and landforms slow, store and filter storm and flood waters. As land is developed, the maintenance of these features provides a low cost alternative to costly human-made remediation structures. Avoidance or minimization of flooding, erosion, sedimentation and other water quality problems through good site design and construction management can greatly reduce the cost of remediation after a problem has developed.

Floodplain Management

Trumbull County has special flood hazard areas that are subject to periodic inundation, which may result in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base. Additionally, structures that are inadequately anchored, elevated, flood-proofed, or otherwise protected from flood damage, also contribute to the flood loss. To minimize the threat of such damages, flood hazard regulations have been adopted and are administered by the county, the City of Niles and Warren City within the Lower Mosquito Creek Watershed.

In addition to continuation of floodplain management, an important implementation tool is acquisition of the PCA lands within floodplain corridors. These acquisitions will preserve the important natural functions of these areas at a minimal expense when compared to the potential expense of losses mentioned above. See land acquisition and Subdivision Regulations.

Land Acquisition

The Trumbull County Planning Commission and local communities will continue to work on projects that promote a watershed approach to land use planning and target PCA acquisitions. Land preservation in the Mosquito Creek Floodplain Corridor is a part of every plan produced by the Planning Commission in the Lower Mosquito Creek Watershed for over a decade. The County Planning Commission and its project partners know the many benefits of protecting these areas, including enhancing water quality, maintaining ecological diversity and protecting wildlife habitat and the life cycles of wildlife.

One of the best tools for implementation of PCAs is land acquisition. Significant property acquisitions in the Lower Mosquito Creek Watershed have furthered conservation and preservation efforts. These acquisitions targeted the Mosquito Creek Floodplain Corridor to help improve water quality, provide recreational opportunities and enhance aesthetic and ecological values for the broader area. These projects have included:

- Purchase of 119.6 acres on Mosquito Creek through the Clean Ohio Fund, 2002;
- Purchase of 135 acres on Mosquito Creek through the Clean Ohio Fund, 2003;
- Purchase of 100 acres on Mosquito Creek through the Clean Ohio Fund, 2004;
- Facilitating private land donation of 65.89 acres on Mosquito Creek in Bazetta Township, 2007-08;
- Purchase of 142 acres on Mosquito Creek through Clean Ohio Fund, 2009; and
- Purchase of 84 acres on Mosquito Creek through Clean Ohio Fund, 2010.

It is expected that county and local community efforts will continue to preserve PCA lands within this watershed, although these efforts depend on the continuation of the Clean Ohio Fund and other sources of funding.

Other tools that can be used in the watershed include the Wetland Reserve Program (WRP) and placing conservation easements on PCA lands.

The WRP is a voluntary conservation program that offers landowners the means and opportunity to protect, restore, and enhance wetlands on their property through perpetual easements, 30 year easements or Land Treatment Contracts. The USDA Natural Resources Conservation Service (NRCS) manages the program as well as provides technical and financial support to help landowners who participate in WRP. For more information on the USDA, Natural Resource Conservation Services program visit:
http://www.oh.nrcs.usda.gov/programs/wrp/wetlands_reserve_program.html

Subdivision Regulations

Multiple implementation tools are available under the Trumbull County Subdivision Regulations, specifically Article 7, Environmental and Resource Protection. Please note that these regulations are subject to periodic updates and you should contact the Trumbull County Planning Commission directly for the most recent version. Article 7 of the Subdivision Regulations addresses the following:

700.00 Floodplain Areas

Review of floodplain areas falls under the jurisdiction of the Federal Emergency Management Agency (FEMA) and/or the County Floodplain Administrator. The Planning Commission shall consider the recommendation of the Federal Emergency Management Agency (FEMA) and/or the County Floodplain Administrator on matters pertaining to floodplains. All construction and improvements within a proposed subdivision shall comply with the provisions of the Trumbull County Floodplain Regulations on file in the Planning Commission office.

The Planning Commission may require a developer to obtain a Standard Flood Hazard Determination from the Federal Emergency Management Agency and/or the County Floodplain Administrator, if existing conditions in a proposed subdivision suggest the likely presence of floodplain areas that may require adjustments in design.

The determination shall identify any areas where permits or other approvals of activity are required to be obtained by the developer from the Federal Emergency Management Agency and/or the County Floodplain Administrator. Evidence of said permits or other approvals shall be provided by the developer prior to approval of improvement plans by the County Engineer.

If any portion of land in a proposed subdivision is located within the one hundred (100) year flood zone as indicated on the Federal Emergency Management Agency - Flood

Insurance Rate Maps or determined from the Federal Emergency Management Agency and/or the County Floodplain Administrator, the limits of the floodplain boundary shall be shown on the Improvement Plans and Final Plat, including permit or other approval numbers.

A proposed subdivision may be denied if access to the subdivision is periodically blocked by floodwaters.

701.00 Riparian Buffer Areas

It is hereby determined that the system of rivers, streams and other natural watercourses within the county contribute to the health, safety and general welfare of the residents of the County. The following requirements protect these services by providing reasonable controls governing uses in riparian areas. In addition, the specific purpose and intent of this Section is to regulate uses and developments within the riparian buffer area that would impair the ability of the riparian area to:

- Reduce flood impacts by absorbing peak flows, slowing the velocity of floodwaters and regulating base flow.
- Stabilize the banks of watercourses to reduce bank erosion and the downstream transport of sediments eroded from watercourse banks.
- Reduce pollutants in watercourses by filtering, settling and transforming pollutants in runoff before they enter watercourses.
- Provide high quality watercourse habitats with shade and food.
- Provide habitat to a wide array of wildlife by maintaining diverse and connected riparian vegetation.
- Benefit the community economically by minimizing encroachment on watercourse channels and the need for costly engineered solutions such as dams, retention basins and rip rap to protect structures and reduce property damage and threats to the safety of watershed residents; and by contributing to the scenic beauty and environment of the County, and thereby preserving the character of the County, the quality of life of the residents of the County and corresponding property values.

701.10 Establishment of Riparian Buffer Areas

A. The Riparian Buffer Area shall apply to all streams or surface water courses as herein defined and are indicated on one of the following maps;

1. Unites States Geological Survey (USGS) topographical maps.
2. Soils maps located in the Soil Survey for Trumbull County, Ohio.

Streams or surface water courses: Are those with a well defined bed and bank, either natural or artificial, which confines and conducts continuous or periodical

flowing water in such a way that terrestrial vegetation cannot establish roots within the channel.

B. Width of the Riparian Buffer Area shall be measured in a horizontal direction outward from the ordinary high water mark on each side of the stream and shall be established as follows;

   1. A minimum of 65 feet on either side of all streams draining an area greater than ½ square mile.

   2. A minimum of 25 feet on either side of all watercourses draining an area less than ½ square mile with a defined bed and bank as determined by the County.

C. Where the 100-year floodplain is wider than the Riparian Buffer Area on either or both sides of the watercourse, the Riparian Buffer Area shall be extended to the outer edge of the 100-year floodplain. The 100-year floodplain shall be defined by FEMA or a site-specific floodplain delineation in conformance with standard engineering practices and approved by the County.

D. Where wetlands are identified within the Riparian Buffer Area, a 50 foot minimum buffer shall be established from the outer boundary of the wetlands and around the entire wetland area. Wetlands shall be delineated by a qualified professional under guidelines established by the U.S. Army Corps of Engineers and the Ohio Protection Agency and the delineation approved by the appropriate agencies.

E. When slopes in excess of 15 percent (being 15 foot change in elevation in a 100 foot horizontal distance) are located within the Riparian Buffer Area, the Riparian Buffer Area shall be extended an additional distance equal to one half the vertical distance of the slope located within the Riparian Buffer Area but shall not be less than 10 feet.

F. The following are exempt from the terms and provisions of this Section: grassy swales, roadside ditches, drainage ditches created at the time of a subdivision to convey stormwater to another system, tile drainage systems and stream culverts.

701.20 Conditions

The following conditions shall apply to the Riparian Buffer Area:

A. It is encouraged to preserve the Riparian Buffer Area in its natural state. Modifications to the vegetation and trees in the Riparian Buffer Area may be permitted for the purpose of landscaping that will increase the aesthetic value of the subdivision. Any modifications shall require approval via preliminary plan approval as outlined in Article 3.

B. The developer, applicant or designated representative shall be responsible for delineating the Riparian Buffer Area, including any expansions or modifications as required by this Section, and identifying this area on all subdivision, land development plans, and/or building permit applications submitted to the County. This delineation shall be done through a metes and bounds survey and shall be subject to review and approval by the County. As the result of this review, the County may require further studies from the developer, applicant or designated representative.

C. Prior to land clearing, grading or grubbing, the Riparian Buffer Area shall be delineated by the landowner on the construction site by silt fences, snow fences, or other similar device as approved by the County, and such delineation shall be maintained throughout construction.

D. Upon completion of an approved subdivision, land development or other improvement, the Riparian Buffer Area shall be permanently recorded on the plat records for the County.

702.00 Wetland Areas

Review of Wetlands falls under the jurisdiction of the applicable District (Buffalo, NY, or Pittsburgh, PA) of the U.S. Army Corps of Engineers and/or the Ohio Environmental Protection Agency. The Planning Commission shall consider the recommendation of the U.S. Army Corps of Engineers and/or the Ohio Environmental Protection Agency on matters pertaining to wetlands.

The Planning Commission may require a developer to submit a wetland study for a proposed subdivision where, as determined by the U.S. Army Corps of Engineers and/or the Ohio Environmental Protection Agency, existing conditions in a proposed subdivision suggest the likely presence of wetlands that may require adjustments in design. The study shall be performed by a person qualified, as determined by the U.S. Army Corps of Engineers and/or the Ohio Environmental Protection Agency, to gather such information.

The study shall identify any areas where the developer is required to obtain permits or other approvals of activity from the U.S. Army Corps of Engineers and/or the Ohio Environmental Protection Agency. Evidence of said permits or other approvals shall be provided by the developer prior to approval of improvement plans by the County Engineer.

If any wetland areas are located within a proposed subdivision as determined by the U.S. Army Corps of Engineers, the Ohio Environmental Protection Agency and/or the wetland study, the areas shall be identified on the Improvement Plans and Final Plat including permit or other approval numbers.

703.00 Soil Erosion and Sediment Control

As part of submitting Improvement Plans, the developer shall prepare an Erosion and Sediment Control Plan according to the format and principles described in the Ohio Environmental Protection agency's general permit for storm water discharges associated with construction activity under the National Pollutant Discharge Elimination System (NPDES). Such plan shall be submitted to the Soil and Water Conservation District and the County Engineer as part of the Improvement Plan. Sediment control shall follow the standards and specifications in RAINWATER AND LAND DEVELOPMENT (Ohio Department Of Natural Resources, USDA Natural Resources Conservation Service, Ohio Environmental Protection Agency).

When a proposed development area consists of one (1) or more acres of earth disturbing activity, the owner of record shall prepare and submit an Erosion and Sediment Control Plan. When a proposed development area involves less than one (1) acre, it is not necessary to submit an Erosion and Sediment Control Plan. However, the developer shall comply with the standards and specifications in RAINWATER AND LAND DEVELOPMENT (ODNR, NRCS, OEPA).

The following items provide a checklist for what shall be included in the Erosion and Sediment Control Plans:

703.10 Site Description

1. A description of the nature and type of the construction activity.
2. Total area of the site and area that is expected to undergo excavation, filling, or grading.
3. Calculation of the runoff coefficients for both pre and post construction conditions.
4. Describe the soil and quality of any discharge from the site.
5. Schedule of construction operations.

6. The name and/or location of the immediate receiving stream or surface water(s).
7. Site map showing limits of earthmoving, existing contours, proposed contours, future drainage patterns, surface water locations (wetlands, streams, etc.), existing locations of buildings, proposed building locations and dimensions, erosion and sediment control practices, permanent storm water management practices.

703.20 Vegetative Practices

A description of control practices designed to preserve existing vegetation where attainable and re-vegetate disturbed areas as soon as practicable after grading or construction shall be provided. Appropriate vegetative practices shall be initiated on all disturbed areas within (7) days if the area(s) are to remain undisturbed for more than forty-five (45) days. In addition, permanent or temporary soil stabilization shall be applied to disturbed areas within seven (7) days after final grade is reached on any portion of the site. Such vegetative practices may include temporary seeding, permanent seeding, sod, mulching, phasing and protection of trees, and vegetative buffer strips. When seasonal conditions prohibit the application of temporary or permanent seeding, non-vegetative soil stabilization practices such as mulching and matting shall be used.

703.30 Structural Practices

A description of structural practices that shall store runoff allowing sediments to settle and /or divert flows from exposed soils or otherwise limit runoff from eroding exposed areas of the site shall be provided. Structural practices shall be used to control erosion and trap sediment from all sites remaining disturbed for more than fourteen (14) days. Such practices may include: sediment traps, sediments basins, silt fences, earth diversion dikes, check dams, storm drain inlet protection.

Sediment control structures shall be functional throughout earth disturbing activity. Sediment ponds and perimeter sediment barriers shall be implemented as the first step of grading and within seven days from the star of grubbing. They shall continue to function until the upslope development area is re-stabilized. Before any land disturbing activities begin, the county engineer and the Soil and Water conservation District shall have approved the Erosion and Sediment Control Plan. The Soil and Water Conservation District will review the erosion control provisions of the plan and the County Engineer will review the stormwater management aspect of the Plan. Any fees charged for reviews of a proposed subdivision by the Soil and Water Conservation District shall be borne by the developer.

The County Engineer and the Soil and Water Conservation District will work jointly to inspect the work, to ensure that the developer has installed the vegetative and structural practices as indicated on the approved plan. The developer and /or contractor shall take necessary procedures to prevent soil erosion and downwash of sediment onto adjoining properties or into existing drainage facilities. The County Engineer may require stoppage of work during construction if proper controls for soil erosion, siltation and sedimentation are not being provided by the developer or contractor. The County Engineer may take the necessary steps to provide corrective measures, and the cost of such services will be charged to the developer. This does not relieve the developer or contractor of downstream liabilities. No project will be released from bond for failure to comply with this regulation and without cleanup and repair of damages. Final inspection requires all drainage facilities to be free of depositions from erosion, siltation, and construction debris.

703.40 Final Clean Up

Upon completion of the work and before acceptance, the developer and /or contractor shall clean all ground occupied of affected by the work. The entire area shall be left in a neat and presentable condition.

704.00 Site Protection

704.10 Topsoil Preservation

Topsoil shall be temporarily stored and later redistributed on all regarded surfaces so as to provide at least (4) inches of even cover to all disturbed areas of the development and shall be stabilized by seeding or planting.

704.20 Removal of Debris

All stumps and other tree parts, litter, brush, weeds, excess or scrap building materials or other debris shall be removed from the site and disposed of in accordance with the law. No tree stumps, or portions of tree trunks or limbs shall be buried anywhere in the development. If trees and limbs are reduced to chips, they may be used as mulch in landscaped areas, subject to approval by the planning commission.

704.30 Protection of Existing Plantings

Maximum effort should be made to save fine or exceptional plant specimens. No material or temporary soil deposits shall be placed within four (4) feet of shrubs or ten (10) feet of trees designated on the landscape plan to be retained. Protective barriers or tree wells shall be installed around each plant and/or group of plants that

are to remain on the site. The plants they are protecting, but shall be self-supporting shall not support barriers. They shall be a minimum of four (4) feet high and constructed of a durable material that will last until construction is completed. Snow fences and silt fences are examples of acceptable barriers.

704.40 Protection of Natural Features

The planning commission may reserve the right to deny approval to a subdivision if such subdivision disregards the preservation of natural features such as wooded areas, water courses, beaches, areas of natural or historical significance and similar irreplaceable assets which add value to residential development and the community.

705.00 Landscaping

Landscaping shall be provided as part of the site plan and subdivision design for planned unit developments and for commercial, industrial, and medium and high-density residential subdivisions. Careful thought shall be given as to how best to preserve existing plant material at the site. Landscaping may include plant materials such as trees, shrubs, and ground covers, perennials, and annuals, and other materials such as rocks, water, sculpture, art, walls, fences, paving materials and street furniture.

705.10 Landscape Plan

A landscape plan shall be submitted with each site plan application for planned developments, commercial, industrial, and/or high-density residential subdivisions, unless an exception is granted by the planning commission pursuant to these Regulations. The landscape plan shall identify existing and proposed trees, shrubs, and ground covers; natural features such as rock outcroppings; and other landscaping elements. Where existing plants are to be retained, the applicant shall include in the plans proposed methods of protecting them during construction.

705.20 Slope Plantings

Landscaping of all cuts and fills and/or terraces shall be sufficient to prevent erosion, and all roadway slopes steeper than one (1) foot vertically to three (3) feet horizontally shall be planted with ground cover appropriate for the purpose and for soil conditions, water availability, and environment.

705.30 Planting Specifications

Deciduous trees shall have at least a two-inch caliper at planting. Size of evergreens and shrubs shall be allowed to vary depending on setting and type of shrub. All

trees, shrubs, and ground covers shall be planted according to accepted horticultural standards. The developer shall replace dead and dying plants during the following planting season.

705.40 Plant Species

The plant species selected shall be hardy for the climate and appropriate in terms of function and size.

705.50 Shade Trees

Shade trees shall be installed in accordance with the approved landscape plan. When trees are planted at predetermined intervals along streets, spacing shall depend on tree size (at maturity), as follows:

Table 14 : Spacing Between Shade Trees	
Growth Diameter (feet)	Planting Interval (feet)
Large Trees (40 +)	50 - 70
Medium Trees (30 - 40)	40 -50
Small Trees (to 30)	30 - 40

When the spacing interval exceeds 40 feet, small ornamental trees can be placed between the larger trees. If a street canopy effect is desired, trees may be planted close together, following the recommendations of a registered landscape architect. The planting of trees shall be coordinated with utilities, roadways, sidewalks, sight easements, or streetlights.

705.60 Maintenance

Plantings shall be watered regularly and in a manner appropriate for the specific plant species through the first growing season, and the applicant shall replace dead and dying plants during the next planting season. No building structure, storage or materials, or parking shall be permitted within any buffer area. Buffer areas shall be maintained and kept free of all debris, rubbish, weeds, and tall grass.

705.70 Additional Landscaping

Additional plantings or landscaping elements may be required throughout the subdivision where necessary for climate control, privacy, or other reasons in accordance with the landscape plan approved by the planning commission taking

cost constraints into consideration. In non-residential developments, all areas of the site not occupied by buildings and required improvements shall be landscaped by the planting of grass or other ground cover, shrubs, and trees as part of the landscape plan approved by the planning commission.

706.00 Buffering

Buffering is the provision of an area between different land uses that attempts to minimize negative environmental impacts from one to the other. Buffers shall provide a year-round visual screen in order to minimize adverse impacts. They may consist of fencing, evergreens, berms, rocks, boulders, mounds, or combinations thereof to achieve the same objectives. Every developer shall provide sufficient buffering when topographical or other barriers do not provide reasonable screening and when the planning commission determines that there is no need to shield (1) neighboring properties form any adverse external effects of a development; or (2) the development from negative impacts of adjacent uses such as streets or railroads. In high-density developments, when building design and siting do not provide privacy, the planning commission may require landscaping, fences, or walls to screen dwelling units for privacy. Buffers shall be measured from side and rear property lines, excluding driveways. Plant materials shall be sufficiently large and planted in such a fashion that a year-round screen at least eight (8) feet in height shall be produced within three (3)-growing seasons. All plantings shall be installed according to accepted horticultural standards.

Table 15 : Buffer Strip Width	
Parking lots, garbage collection, utility areas and loading and unloading areas	5 feet width minimum
All other land uses	25 feet width minimum

Riparian Buffers shall follow the requirements set forth in the Riparian Buffer Ordinance which can be found in the appendix of the Subdivision Regulations.

707.00 Parking Lot Landscaping

In parking lots, at least five (5%) percent of the interior parking area shall be landscaped with plantings, and one (1) tree for each eight (8) spaces shall be installed. Parking lot street frontage screenings and perimeter screening shall be a minimum of five (5) feet wide. Planting required within the parking lot is exclusive of other planting requirements, such as shade trees planted along the street.

Landscaping should be located in protected areas, such as along walkways, in center islands, at the ends of bays, or between parking stalls. All landscaping in parking areas and on the street frontage shall be placed so that it will not obstruct sight distance. Plantings in parking areas and on streets shall pay particular attention to sun position during the summer months so that maximum cooling effects can be gained from well-placed trees.

A mixture or hardy flowering and /or decorative evergreen and deciduous trees may be planted. The evergreens should be used along the perimeter of the lot for screening, and the deciduous trees for shade within the lot. The area between trees shall be mulched or planted with shrubs or ground cover. Any area that will be under the overhang of vehicles shall be mulched or covered with paving material.

Comprehensive Planning

A comprehensive plan is a guide for future development in a community, establishing the area's vision for new growth or preservation of the environment. Planning is necessary in helping decision makers anticipate the future and provide for its needs. The Trumbull County Planning Commission has contracted and prepared such plans for cities, villages, townships, and other similar organizations within the county. The Trumbull County Planning Commission will continue to contract with communities to prepare their comprehensive plans incorporating balanced growth initiatives into critical resources mapping and future land use decisions.

Sewers

The Trumbull County Sanitary Engineer's Office operates and maintains the Mosquito Creek Wastewater Treatment plant (WWTP) in Howland Township. The Mosquito Creek WWTP serves large parts of Howland Township, the area that includes the Youngstown-Warren Regional Airport in Vienna Township, the City of Cortland and Bazetta Township. At one time, the City of Cortland had a WWTP on Mosquito Creek Reservoir, but it was closed when an interceptor was constructed to link Cortland to the county's WWTP in Howland Township. The City of Niles operates a large WWTP on the Mahoning River in the southern part of the city.

It is important that the WWTPs have the capacity to support PDAs, although the Trumbull County Sanitary Engineer's Office noted that any additional lines in the watershed may require additional capacity at the Mosquito Creek WWTP.

Source Water Assessment and Protection

The Ohio Environmental Protection Agency's (OEPA) Source Water Assessment and Protection Program identifies drinking water protection areas for both ground and surface water sources and provides information on how to reduce the potential for contaminating the waters within those areas. Watershed and source water protection planning protect Trumbull County's

drinking water supplies including surface water and groundwater aquifers. Surface waters such as rivers, lakes and reservoirs provide ample amounts of drinking water as they are recharged by the streams that flow into them. However, due to their open nature, surface waters are accessible and can easily be contaminated by chemicals or pathogens. Protection of drinking water sources has become a critical issue across the nation as more sources are being degraded by activities within their watersheds. The need to protect our drinking water is critical not only to those that drink it, but to those that live within their watersheds and adjacent to water resources. Keeping drinking water clean makes economic sense as potential businesses look at the quantity and quality of local water supplies.

Drinking Water Source Assessment Reports have been completed by the OEPA for Trumbull County. This program is intended to identify drinking water protection areas and provide information on how to reduce the risk of contamination of the waters within those areas. The goal of the program is to ensure the long-term availability of abundant and safe drinking water for the present and future citizens of Trumbull County. OEPA published a guide entitled "Developing Source Water Protection Plans for Public Drinking Water Systems Using Inland Surface Waters" in November 2006. Completion of Source Water Protection Plans and Watershed Action Plans for Trumbull County result in lower interest rates on federal and state loans and additional points on competitive grant applications. There are funds available for source water protection, non-point pollution prevention and water and sewer construction. These financial benefits, in addition to the natural benefits of source water protection and watershed management, are incentives for Trumbull County to continue on a path of finding solutions to non-point source pollution.

Economic Development Tools

Economic development tools available for PDA implementation to Trumbull County include low interest loans, loan guarantees, Tax Increment Financing (TIF), tax incentives for development, job training and job creation grants and tax credits, grants for infrastructure development, Foreign Trade Zones and various other state and federal programs.

In addition to those tools, cities may designate Community Reinvestment Areas in their jurisdictions.

State of Ohio economic development tools used within the Lower Mosquito Creek Watershed have included:

- Community Development Block Grant-Economic Development (CDBG–ED) Grants, used for low interest loans to businesses and infrastructure development including road, water and sewer expansion;
- "Section 166" loans to small business;
- Enterprise Zone designation used for tax abatements on new industrial building construction and expansion of existing buildings;
- "Section 629" roadway development fund; and
- Enterprise Bond Fund; State bonding source for larger loan projects

Federal economic development tools used within the Lower Mosquito Creek Watershed have included:

- United States Economic Development Administration (EDA) grants for infrastructure improvements;
- United States Department of Agriculture (USDA) loan guarantees;
- Federal Highway Administration (FHWA) funding;
- Base Realignment and Closure (BRAC) funds;
- Surface Transportation Program (STP) funds;
- HUD Section 108 Loan program funds;
- U.S. Foreign Trade Zone designation

These programs and potential new sources of funding can be used for PDA implementation, depending on the nature of site-specific projects.

Brownfields

Trumbull County is in the early stages of helping the Western Reserve Port Authority set up a brownfields program, which will be managed by the Port Authority. Activities will focus on creating a brownfields inventory and using state and federal programs to promote brownfield redevelopment.

Farmland Preservation

Agriculture has played a significant role in the history and development of present day Trumbull County. According to the Ohio Department of Agriculture, Trumbull County has seen over 180,000 acres of agricultural land transition to non-agricultural use. In 1935, the county had 302,322 acres of farmland, compared to 122,000 acres in 1998; a 60 percent reduction of farmland.

According to the American Farmland Trust, the United States is losing two acres of farmland every minute to new development. From 1992 to 1997, America converted more than six million acres of agricultural land to developed uses. This is roughly an area the size of Maryland.

The Trumbull County Commissioners adopted a Farmland Preservation Plan in 1999. One of the recommendations presented in the plan is to support urban redevelopment, including brownfields redevelopment, throughout the county.

Although this watershed is highly urbanized and no Priority Agriculture Areas were identified by technical advisors or communities, the county would like to keep this option open for future discussion. If PAAs are identified in the watershed in the future, the Planning Commission will send the PAA map to the state. This addition would not require new resolutions from the watershed communities, but letters of support written by communities with PAAs. Trumbull

County will continue to support efforts of the Western Reserve Land Conservancy and other groups to preserve farmlands through the Clean Ohio Fund and other programs.

State Support, Guidance and Training for Best Local Land Use Practices

In addition to supporting local decisions about the location of growth and providing incentives for watershed based planning, the state will supply guidance and training on best local practices for minimizing development impacts on water quality wherever the expansion of developed areas occurs. This includes a set of model zoning ordinances and resolutions recommended for voluntary adoption by local communities, a set of guidance documents for a range of additional best practices, and training opportunities for local government elected officials and staff.

The Best Local Land Use Practices (BLLUP) document prepared for the Watershed Balanced Growth Program contains three model regulations and eleven guidance documents that can be used by local governments to guide the location of development and improve its design. The document also contains recommendations to consider as local governments prepare comprehensive plans.

These model regulations have been thoroughly researched, drawing from actual practices in Ohio and other states. They constitute some of the very best land-use practices available for protecting and restoring sensitive areas and contributing to economic growth.

These model regulations are intended as guides. To be effective, any new regulation should only be adopted after consideration and modification to reflect specific local conditions and after a careful review by the local government's legal advisor and others prior to adoption and use. This ensures that they will suit the individual needs of the community.

The complete presentation of these materials, which are applicable to watersheds statewide, is provided in Appendix A *Linking Land Use and Lake Erie: Best Local Land Use Practices.* The BLLUP is currently being updated by the state to expand from the Lake Erie Watershed to include all watersheds statewide. Upon its completion it will replace the current document found in Appendix A. The most current version and any updates to the BLLUP document are posted on the web at: *www.balancedgrowth.ohio.gov/BestLocalLandUsePractices.aspx*

And the toolkit for model ordinances can be found on the web at:
www.balancedgrowth.ohio.gov/BestLocalLandUsePractices/ToolkitModelOrdinances.aspx

BLLUP Model Ordinances

These models and basic standards for best local land use practices could be adopted by local governments voluntarily and would be encouraged through incentives (funding, awards, etc.). The model land use regulations and guidance could be used by Ohio's local governments to

implement land use plans that would be more protective of watersheds while at the same time providing clear direction for continued development.

The models address the following issues:

Stormwater and aquatic area protection. Includes stormwater management, erosion and sediment control, and protection of riparian areas, floodplains and wetlands. Zoning measures to reduce stormwater impacts and protect aquatic areas can show a direct saving of community dollars from managing stormwater and floods.

Meadow protection. In conservation developments and large private lots, meadow protection can generally improve the environment, especially water quality. Since lawns often cover an area compacted during construction or by traffic over time, their runoff is similar to that of many paved areas. By contrast, a natural meadow area absorbs a large percentage of the water that falls on it, filters it before it runs into local waterways, and supports a larger diversity of wildlife.

BLLUP Guidance Documents

The task force also developed guidance documents for other best local practices as a source of technical assistance to local governments. These guidance documents are accompanied by one or more examples of regulations which have been used elsewhere (Ohio examples are presented whenever possible). These regulations may be adopted and used by local governments to implement the Watershed Balanced Growth Plan or to pursue growth and development objectives in their existing comprehensive plans. Guidance documents are available for:

Conservation development: Conservation development most often applies to residential development, where the number of homes normally permitted on a specific parcel of land is grouped together on smaller lots, while a sizeable proportion of the property – at least 40% - is set aside as open space. The open space serves as a buffer to protect vegetation, streams, wetlands, and floodplains on the property, and helps to manage storm water effectively on site.

Compact development: Principles of compact development include mixed land uses, hierarchy of scale from street to city, traditional street design, smaller sized but larger numbers of commercial establishments, inclusion of civic spaces, shared parking, and well established structural design guidelines.

Source water protection: The Ohio EPA's Source Water Assessment and Protection Program identifies drinking water protection areas for both ground and surface water sources and provides information on how to reduce the potential for contaminating the waters within those areas.

Agricultural lands protection: Principles of agricultural land protection include storm water management, preservation of farm economies and efficient development of farmlands being converted to urban use.

Tree and woodland protection: Woodland areas absorb and filter runoff, provide valuable climate control functions by cooling surfaces and water bodies and pollutants in the air, provide habitat and shade, and enhance property values significantly. Principles of tree and woodland protection include site design guidelines, construction protection, and post-construction monitoring.

Scenic protection: Scenic resources contribute to local quality of life and may encourage or contribute to the tourism component of local economy. Principles include considering scenic issues in comprehensive planning, designating and protecting scenic resource areas, and developing guidelines for design and setbacks.

Historic preservation: Historic resources can be addressed through comprehensive planning following an inventory, evaluation, and prioritization of historic sites. Implementation may include designation of significant sites. Other practices include the delineation of historical boundaries and design guidelines.

Steep slopes protection: The development of areas containing steep slopes should generally be discouraged due to negative impacts on flooding, water quality and habitat. In situations where this is not feasible, development should be done with the intent of minimizing soil disturbances, maximizing retention of trees and vegetation, and complementing steep slope character.

Transfer of development rights (TDR): TDR allows rural landowners the flexibility to choose to develop or to sell the development rights on their land to another landowner who can apply them to a more compact development proposal located closer to existing urban infrastructure such as roads, schools, and sewer. This can decrease costs to the community while enabling the rural landowner to achieve a maximum value for their property.

Brownfields redevelopment: Core activities include creating an inventory, incorporating the redevelopment of brownfield sites into comprehensive planning, and using state and federal programs to promote brownfield redevelopment.

Access management: Access management regulations reduce crashes and maintain good traffic flow by controlling the number and spacing of driveways, traffic signals, medians and intersections. In addition to improving safety and mobility, properly implemented access management can discourage wasteful land use practices that can be aesthetically unpleasing and environmentally harmful.

It should be noted that the adoption of model BLLUP regulations are ***voluntary*** and are presented as guides to assist interested communities with implementation. To be effective, new regulations should only be adopted after consideration and modification to reflect specific local conditions, and after a careful review by the local government's legal advisor and others prior to adoption and use. This ensures that they will suit the individual needs of the community.

Incentives

Incentives*

What is the fundamental principle to guide state agencies under the Balanced Growth Program?

If local governments can agree on areas within a watershed where development is to be encouraged (PDAs) and areas where conservation activities are to be promoted (PCAs), the State of Ohio will support those decisions by aligning state programs to support those decisions, and conversely will not utilize state programs to violate those locally based decisions.

What are the objectives of the state incentives package?

- Promote economically and environmentally sound watershed-based planning by local governments
- Provide incentives for development in PDAs
- Promote redevelopment in PDAs
- Provide incentives to promote conservation activities in PCAs (including agricultural protection in PAAs)

What is included in the state incentive package for local governments?

- Opportunity to work with state agencies through the State Assistance Work Group – this group is charged with assisting the participating local governments in identifying and obtaining technical and financial resources that can be used to support PCAs and PDAs.

Streamlining and Predictability.

- The State Assistance Work Group will develop methods to provide more advance predictability and streamlining for site related decisions in PCAs and PDAs.

State Program Inventory.

- A list of all state programs and funding sources that could be used to support conservation in the PCAs and development or redevelopment in the PDAs.

Financial and Technical Special Incentives.

- These special incentives are a subset of the state programs inventory and include specific grant and technical assistance programs that offer added consideration for projects that are within PCAs and PDAs within participating local government jurisdictions. A list of these special incentives is provided in the Ohio Balanced Growth Strategy.

*Information from the Ohio Balanced Growth Program Fact Sheet on Incentives.

Future Role and Updates

Future Role and Updates

Trumbull County Planning Commission's Future Role

The Trumbull County Planning Commission (TCPC) will remain an advisory body to the local jurisdictions and continue to promote well-planned growth that is supported by the principles of sustainable planning and zoning, economic vitality, environmental responsibility and social equity.

The TCPC will continue to build proactive partnerships and alliances that range from the federal government to village councils and from business organizations to community groups.

The TCPC will continue to provide land use and infrastructure planning, economic development, affordable housing, zoning and subdivision reviews, floodplain administration, mapping and information services.

Updates to this plan

Requests for modifications to the plan's composite map may arise that reflect jurisdictional desires (such as changes in land use, zoning, designation of local preference areas, etc.). Updates to the PCA and PDA designations will be completed by the TCPC at the direction of each endorsing community. If a community determines their priorities for PCA or PDA designations have changed, the maps will be revisited through the same process that the maps were developed originally. This will involve review by WPP communities and bringing suggested revisions to the TCPC. The TCPC will provide any updates to map to the appropriate state agency. It should be noted that no revision to a community's original Resolution of Support would be required to enact such changes.

Appendix A
Best Local Land Use Practices

Ohio Balanced Growth Program

BEST LOCAL LAND USE PRACTICES

UPDATE October, 2011

BLLUP Interviews

Over the last year, Program Manager Kirby Date has traveled across the state, talking with over 100 planners, developers, county and local government officials in eight regions. There have been many lessons learned about the current status of development and conservation in all parts of the state, key issues related to the Best Practices, and recommendations for future steps to achieve a balance of conservation and development in Ohio. In particular, the range of local projects incorporating urban infill, conservation development, stream and floodplain protection, development incentives, and other practices was impressive. We hope to continue the interview process by phone and in person, over the coming year, and to find a way to make the project information available to everyone via the Balanced Growth web site.

BLLUP Technical Assistance and Education

The BLLUP Program provides 24 hours' free technical assistance for Best Practice implementation to requesting communities and organizations; and is also available to provide presentations to local communities. Technical Assistance projects in the past have included a review of a first-ring suburb PUD code with recommendations for infill development on vacant sites; providing advice on best practices to implement a river restoration plan; and assisting with evaluation of conservation development options in a village. This year's projects and education efforts to date include: Assistance to the Village of Galena in updating their subdivision regulations to incorporate Best Practices; a partnership with the Summit County SWCD, the City of Norton, and Coventry Township to develop a checklist for evaluating township and city codes, and presenting recommendations at a workshop in October; work with Graham Parlin, developer, Clermont County SWCD, and Batavia Township, Clermont County, to make recommendations for a proposed development project; work with the Medina County SWCD to identify scenarios for the changing real estate market, and incorporating recommendations into a workshop on January 31, 2012; advising the Cuyahoga County Greenspace project on local government implementation; and a presentation to the Clermont County Planning Commission. For more information, visit balancedgrowth.ohio.gov and select Balanced Growth Technical Assistance under the Best Local Land Use Practices menu item.

BLLUP Recommendations Update

We are partway through an extensive project to update the BLLUP recommendations and example codes, currently on the Balanced Growth web site, which were adopted in 2004. The update's goals are to address issues in eight Ohio regions, address the current development market, and provide better resources for urban and suburban communities. We are also looking at exemplary codes and practices around the state and Great Lakes region, and incorporating new practices

such as rural Common Access Drives, urban infill, and state of the art floodplain protection measures. We are in the midst of the early drafts of this information, and are reviewing them with our state agency Steering Committee members. The next step will be to review the changes with members of our statewide Advisory Committee, before presenting the updated recommendations to our sponsoring agencies, the Ohio Lake Erie Commission and the Ohio Water Resources Council, for endorsement. We are hoping the final documents and a full set of example codes will be available on the web by spring 2012.

Ohio Case Studies

In the course of our travels around the state, we have learned of many exciting and excellent projects and example codes incorporating the Best Local Land Use Practices. We are hoping over the next year to create a searchable online source of case studies of the best of these projects, representing many of the practices, and all regions of the state. Where possible, we want to highlight the lessons learned from these projects, the costs and benefits, and ongoing implementation management. We will keep you informed – and you may hear from us! – as we begin to put this database together.

The Best Local Land Use Practices (BLLUP) part of the Ohio Balanced Growth Program encourages implementation of a set of Best Practices, on a voluntary basis, to improve environmental quality and economic development opportunities in local governments across the state.

Top Priority Best Practices Include:

***Comprehensive Planning**
*** Compact Development**
*** Conservation Development**
*** Stream, Floodplain, and Wetland Protection**
*** Storm Water Management/Erosion and Sediment Control**
*** Natural Areas Establishment and Management**
*** Source Water Protection**

Additional Best Practices Include:

*** Woodland Protection**
*** Steep Slope Protection**
*** Brownfield Redevelopment**
*** Agricultural Protection**
*** Transfer of Development Rights**
*** Historic Protection**
*** Scenic Protection**
*** Access Management**

Photo: City Architecture

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Ohio | Balanced Growth

LEGAL REVIEW

The Office of the Attorney General has reviewed the Model Ordinances and Guidance Documents developed by the Balanced Growth Task Force of the Ohio Lake Erie Commission and found they are not inconsistent with federal and state law. However, that review is not a guarantee that some or all of these documents will withstand every legal challenge to their adoption or will be without possible legal risks to the governmental entity utilizing them upon their implementation. **IT IS IMPERATIVE THAT ANY GOVERNMENTAL ENTITY SEEKING TO ADOPT OR IMPLEMENT ANY ORDINANCE OR GUIDANCE DOCUMENT BASED IN WHOLE OR IN PART UPON THE MODELS DEVELOPED BY THE OHIO LAKE ERIE COMMISSION SEEK INDEPENDENT LEGAL REVIEW BY THEIR OWN COUNSEL.**

A number of ongoing practical and legal concerns make independent review upon consideration and adoption of these Models or Guidance Documents an absolute requirement. First, laws of all sovereigns change constantly. Any review previously provided may be out of date given changes in legislation or judicial interpretation. Second, each local sovereign, be it city, county, township or other entity, may have specific procedural or substantive requirements that may change what can or should be adopted or might compromise the ability to adopt the models as drafted. Finally, as with any legal review, it is impossible to anticipate all factual and legal variables.

The Models and Guidance raise a number of legal issues about which communities should be aware as they consider development, adoption and/or implementation of them. Without limitation, a few of the most obvious concerns include:

Authority to adopt/Home Rule. The authority of any governmental entity to act is set forth by the Constitution of the State of Ohio and Chapters 1 through 7 of the Ohio Revised Code. In the adoption of these recommendations, a governmental entity, acting alone or in concert with other such entities, must confirm that the authority to do so is consistent with these authorities.

Appropriations/Takings. In as much as some of the recommendations may be seen as impacting upon the ownership of real property, property owners may believe that they amount to a taking of such property for which the property owners may seek compensation. As such**,** both the process for the adoption of the recommendations and the substance of them should be reviewed closely. As one way to minimize concerns regarding appropriations/takings, it is strongly recommended that governmental entities adopting these recommendations include clear and reasonable criteria for the implementation of the ordinances or guidance, coupled with administrative and/or legal procedures to review the decisions of the implementing entity. In addition, it is recommended that any procedures adopted include an administrative procedure for seeking variances from the adopted requirements or procedures in appropriate cases.

Consistency with existing authority. When adopting any new legislation, the governmental entity must consider whether the proposed new laws are consistent with the body of existing law in that jurisdiction.

There may be other legal concerns that could be relevant to the specific application of any of these proposed items. While they have all been reviewed in the abstract prior to the recommendation of the Ohio Lake Erie Commission, each must be considered individually by the adopting entity in order to insure correct procedures for their

implementation, minimize potential legal liability for the adopting entity and minimize subsequent litigation among members of the community impacted by any models that may be adopted.

RESOURCES

Your Local County Planning Commission

Your Local OSU Extension Office
http://www.ag.ohio-state.edu/

Your Local County Soil and Water Conservation District Office

American Planning Association
122 S. Michigan Ave., Ste. 1600
Chicago, IL 60603
312-431-9100
http://www.planning.org

Smart Growth America
1200 18th Street NW Suite 801
Washington, DC 20036
202-207-3350
http://www.smartgrowthamerica.com

Joseph H. And Mary M. Chadbourne,, *Common Groundwork: A Practical Guide to Protecting Rural and Urban Land*, Chadbourne & Chadbourne Inc., 18554 Haskins Rd., Chagrin Falls, Ohio 44023; Tel:440-543-7303

Stuart Meck, FAICP, Gen. Editor, *Growing Smart Legislative Guidebook: Model Statutes for Planning and the Management of Change*, American Planning Association, 122 South Michigan Avenue, Suite 1600, Chicago, IL 60603; Tel: 312-431-9100; Web: http://www.planning.org/

Ohio State University, Fact Sheet *Comprehensive Planning*; Web: http://ohioline.osu.edu/

Office of Land Information Services, Wisconsin Department of Administration, 17 South Fairchild St, 7th Floor, Madison, WI 53703-3219; Tel: 608-264-6180; Web: http://www.doa.state.wi.us/; See *Wisconsin: Comprehensive Planning Law Fact Sheet* at Web: http://www.doa.state.wi.us/dir/

STORM WATER MANAGEMENT & RIPARIAN/WETLAND PROTECTION

BACKGROUND

Storm Water Management and Riparian/ Wetland Protection

Storm water management and riparian/wetland protection encompasses a range of subjects that have a significant impact on flooding, erosion, and water quality. The topics involved include long-term storm water management for quantity and quality, erosion and sediment control on construction sites, and management of riparian areas, floodplains, and wetlands.

The benefits of storm water, riparian, and wetland management are well documented in Ohio and nationwide. The quantity of storm water runoff to streams and other water resources has increased as communities throughout the Lake Erie drainage grow and increase parking lots, roads, rooftops, and other impervious surfaces, while impacting riparian areas and wetlands. Riparian areas and wetlands naturally control flooding, limit erosion, and protect water quality. The results of this increase in impervious cover and loss of natural resource services are increases in storm water runoff volume and velocity and decreases in storm water quality. These impacts are apparent in more flooding, increases in stream bank erosion, and decreases in urban water quality. Flooding, erosion, and water quality problems result in property and infrastructure loss and the degradation of water resources.

A variety of zoning and land management tools are available to local governments to manage storm water and protect riparian and wetland functions. These tools include:

- Riparian Setbacks
- Wetland Setbacks
- Storm Water Management
- Erosion and Sediment Control

These tools can have a direct return in cost savings to communities and landowners for flood, erosion, and storm water management. Natural vegetation and landforms slow, store, and filter storm and flood waters. The maintenance of these features as land is developed provides a low cost alternative to costly human-made remediation structures. Prevention of flooding, erosion, and sedimentation and other water quality problems through good site design and construction site management can greatly reduce the cost of remediation after a problem has developed.

OEPA NPDES Phase II Storm Water Requirements

Regulates: Owners or operators of Municipal Separate Storm Sewer (MS4) in Urbanized Areas, includes townships, villages, cities, counties, and non-traditional MS4s such as park districts.

Requires: Storm Water Management Program detailing how community will complete:

- ❑ Public Education and Outreach
- ❑ Public Involvement & Participation
- ❑ Illicit Discharge Detection & Elimination
- ❑ Construction Site Runoff Control
- ❑ Post Construction Runoff Control
- ❑ Pollution Prevention on Municipal Operations

OEPA NPDES Construction Site General Permit

Regulates: Owners or operators of construction activities disturbing 1 acre or more, or less than 1 acre if part of a larger common plan of development.

Requires: Storm Water Pollution Prevention Plans detailing how applicant will:

- ❑ Minimize erosion
- ❑ Control sediment
- ❑ Control nonpoint pollution
- ❑ Treat storm water quality

Implementation of the tools discussed above will have a direct effect on improving the quality of life and recreation opportunities along the Lake Erie shoreline, its tributary rivers, and throughout the Lake Erie drainage, and it is critical to the economic development of the basin. In many communities implementation of these tools will also help in their compliance with Ohio EPA's Phase II storm water requirements for construction site erosion and sediment control and long-term storm water management.

The Role of Low Impact Development

The first three of the tools discussed above – riparian and wetland setbacks and storm water management – can collectively be achieved through Low Impact Development (LID). LID is a site design approach to storm water management that seeks to integrate hydrologically functional design with pollution prevention measures to compensate for land development impacts on hydrology and water quality. LID's goal is to mimic natural hydrology and processes by using small-scale, decentralized practices that infiltrate, evaporate, detain, and transpire storm water. LID storm water controls are uniformly and strategically located throughout the site.

LID is achieved by:

- Minimizing storm water runoff impacts to the extent practicable through preservation of existing landscape features, such as streams and wetlands, and their hydrologic functions.
- Maintaining predevelopment time of concentration through strategic routing of flows using a variety of site-design techniques.
- Dispersing runoff storage measures through a site's landscape with the use of a variety of detention, retention, and runoff practices.

LID is a design approach that must be implemented early in the site-design process and represents a collection of storm water management practices that may be used together to manage storm water. LID measures provide post-construction water quality benefits and are often used as a supplement to conventional storm water practices designed to ensure water quantity control in conformance with the critical storm criteria.

The LID principles are designed to minimize disturbance and manage storm water as close to its source as possible. Specific low impact development controls, called Integrated Management Practices (IMP's), are tools for developers to use to manage storm water at its source rather than relying solely on centralized Best Management Practices (BMP's), such as detention basins. These IMPs include a variety of non-structural and structural practices such as:

- Impervious surface reduction through alternative site layouts
- Riparian and wetland setbacks
- Biofiltration facilities
- Vegetated swales
- Cistern & rain barrels
- Infiltration trenches
- Green roofs
- Soil amendments to increase permeability

ISSUES

Communities should consider the following points as they implement the attached model regulations for storm water management and riparian and wetland protection.

Riparian and Wetland Setbacks

- **Setbacks not Buffers:** Protective areas along riparian corridors and around wetlands are best provided through local zoning setbacks. These setbacks are implemented similar to front, side, and rear yard setbacks and keep development activities a certain distance from rivers and wetlands. The term buffers has historically been used to describe agricultural areas not used for row crops and does not have a direct link to local zoning terminology and approach. Buffers, for example, tends to imply a prohibition on a range of uses and does not imply flexibility for non-conforming uses as well as variances to ensure lots remain

buildable. By contrast, the term setback has a more clear meaning and history in local zoning regulations. The use of the term is more precise than buffers to explain that the riparian and wetland setback model regulations are simply requiring that structures and a limited number of uses be kept back a certain distance from watercourses and wetlands and that these model ordinances contain non-conforming use and variance sections.

- **Flexibility and Buildability:** When implementing riparian and wetland setbacks, it is essential that communities include a variance section to ensure that, to the extent possible, lots remain buildable and subdivision lot yields are maintained. This is best done by giving the Planning Commission, the Board of Zoning Appeals, or other appropriate body the ability to work with landowners to flex all applicable setbacks, such as front and side yard, to maintain the riparian or wetland setbacks to the maximum extent possible while allowing development.

- **NPDES Phase II:** Riparian and wetland setbacks are an essential step in complying with Phase II requirements for post-construction storm water management.

- **Erosion and Sediment Control & Storm Water Management**

- **Ohio EPA Has Set the Minimum Standard:** Ohio EPA recently issued its updated NPDES General Permit for Construction Sites. This applies to all owners and operators of construction sites disturbing 1 acre or more, or less than 1 acre if part of a larger common plan of development or sale and includes erosion and sediment control requirements and storm water quality requirements. Communities should ensure that their erosion and sediment control regulation and storm water management regulation meets these standards at a minimum.

- **Ohio EPA Has Increased Requirements for Storm Water Quality Control:** Ohio EPA's new requirements for storm water quality will necessitate that new storm water infrastructure be designed to effectively detain storm water runoff for a period sufficient to protect stream channels and water quality. This will result in increased maintenance and related funding requirements as storm water infrastructure, such as detention basins, will be intentionally designed to collect sediment.

- **Operation and Maintenance:** In light of these new requirements for storm water basins, it is important that communities ensure the long-term operation and maintenance of storm water management infrastructure by establishing procedures of inspection and funding when these facilities are constructed.

- **Limitations of Counties:** Counties are limited by the Ohio Revised Code to requiring erosion and sediment control and storm water management plans on lots of five acres or more. Townships can fill this gap through local zoning resolutions that require erosion and sediment control and storm water management, where appropriate, on sites less than five acres.

- **NPDES Phase II:** Erosion and sediment control regulations that include BMP requirements, site plan review, inspection, and enforcement, as well as storm water management requirements that address water quality protection and long term storm water control, are all required under Phase II.

Low Impact Development

- **Site Considerations:** High clay content soil, high water tables and other site-specific considerations may reduce cost-effectiveness of LID practices and should be considered during project review.

- **Deed Restrictions:** Maintaining distributed depression storage measures within residential subdivisions will require deed restrictions on individual parcels as well as homeowner education to ensure measures are maintained.

- **Zoning Variances:** Variances from zoning, subdivision, building, storm water management, and drainage regulations may be required unless LID is permitted under the storm water management regulations.

RECOMMENDATIONS

It is recommended that communities adopt zoning and other appropriate land-use and management provisions to address riparian and wetland protection, erosion and sediment control, and storm water management and to allow for the use of low impact development techniques by interested landowners. This may be done through a comprehensive regulation related to site development or a set of related regulations. Steep slope provisions and updates to building codes for floodplain standards may also be included.

STANDARDS

The following standards are required for a community's code to be considered in compliance with the recommended program.

Riparian and Wetland Setback Checklist

- **Apply to Streams and Wetlands:** Riparian setbacks are applied to all locally designated watercourses within a community and wetland setbacks apply, at a minimum, to Ohio EPA Category 2 and 3 wetlands.

- **Conform to Minimum Widths:** Minimum riparian setback widths should range from 25 feet to 300 feet on either side of locally designated watercourses, as measured from the ordinary high water mark, and depending on the drainage area. Minimum wetland setback widths should be 75 feet from Category 2 wetlands and 120 feet from Category 3 wetlands.

- **Include 100-year Floodplain and Riparian Wetlands:** Minimum riparian setback widths should be extended to the full extent of the 100-year floodplain and around riparian wetlands.

- **Prohibit Construction in Riparian Setbacks:** Riparian and wetland setback regulations should prohibit construction in the setback area.

- **Include Variance Provisions:** Variance provisions allowing communities to flex other setbacks, such as front and side yard, to maintain the riparian and wetland setbacks while allowing relief based on site constraints should be included.

- **Provide for Inspection and Enforcement:** Regulations should enable the zoning inspector or community engineer to inspect the riparian and wetland setbacks during construction and any time evidence of a violation is brought to the community's attention. These regulations should also provide the community with the ability to require riparian and wetland restoration for unpermitted impacts in the setback.

Erosion and Sediment Control & Storm Water Management Checklist

- **Meet Ohio EPA Standards:** Regulations should meet or exceed Ohio EPA minimum standards for erosion and sediment control and storm water management best management practices, as detailed in the most recent version of the NPDES General Permit for Construction Sites.

- **Erosion and Sediment Control and Storm Water Management Plan Review, Inspection, and Enforcement:** Regulations should have provisions for plan review prior to

construction, regular inspections during construction, and provide the community with the authority to stop work, where allowable by local laws, for activities not in compliance with an approved plan.

- **Allow for the Implementation of Low Impact Development Techniques:** A community's storm water management regulation should allow for the implementation of low impact development techniques and provide community staff with the resources necessary to review such proposals and ensure on-going operation and maintenance.

- **On-going Operation and Maintenance:** Under both erosion and sediment control regulations and storm water regulations, communities must ensure that contractors provide sufficient funds to stabilize sites if the contractor is unable to complete erosion and sediment control requirements. Similarly for storm water management, communities must ensure that landowners make provisions for on-going operation and maintenance of any structural or non-structural storm water best management practices. It is important that communities clarify long-term costs and have funds available for on-going operation and maintenance before problems develop. In general, delegating these responsibilities to homeowner associations is not an effective long-term solution.

MODEL CODES

The Chagrin River Watershed Partners, Inc., P.O Box 229, Willoughby, Ohio 44096-0229. (440) 975-3870

The model regulations **should never be adopted without careful local review** to assure that they are adapted to fit the needs of the specific local government. They will need to be adapted for use by the specific type of local government: city, village, township, or county. **The law director/ solicitor or county prosecutor should be consulted prior to adoption of any land use controls**. Questions about the models and guidance can be directed to the Ohio Lake Erie Commission.

RESOURCES

The Chagrin River Watershed Partners, Inc., P.O Box 229, Willoughby, Ohio 44096-0229. (440) 975-3870

A Review of Selected Functions of Riparian Buffer Zones and Some Widths Associated with Them, Divelbiss, Ohio Department of Natural Resources, 1994.

Wetland and Stream Buffer Size Requirements – A Review, Castelle et al. Journal of Environmental Quality, 1994.

Environmental Land Planning Series: Site Planning for Urban Stream Protection, Schueler, 1995.

Maryland Department of the Environment, 1999. *Maryland Storm Water Design Manual Volumes I and II.* Copy available at 1-800-633-6101 or http://www.mde.state.md.us.

Prince George's County, Maryland Department of Environmental Resources Programs and Planning Division, 2000. *Low-Impact Development Design Strategies: An Integrated Design Approach.* EPA 841B00003. Available from the National Service Center for Environmental Publications (NSCEP) 1800-4909198 or online at http://www.epa.gov/ncepihom/orderpub.html.

Low Impact Development Center on line at http://www.lowimpactdevelopment.org/

Tyne, Ron. 2000. *Bridging the Gap: Developers Can See Green* Land Development Spring/ Summer 2000: 27-31.

U.S. EPA http://www.epa.gov/owow/nps/urban.html

Prince George's County, Maryland http://www.goprincegeorgescounty.com

NAHB Research Center Toolbase Services http://www.toolbase.org/

Ohio Department of Natural Resources, Division of Water, Floodplain Management Program http://ohiodnr.com/water/floodpln/

Your Local Metropolitan Planning Organization (MPO): NOACA, TMACOG, NEFCO, etc.

Your Local County Soil and Water Conservation District

Your Local Watershed Group

COASTAL PROTECTION

The Coastal Protection model is still being developed.

MEADOW PROTECTION

BACKGROUND

In many communities, regulations have been put in place which restrict the height of mowed lawns in private residential and commercial landscapes seen from the road. Known as "weed laws," these were implemented in recent decades in response to community concern about property owners who would neglect their landscapes, leading to an influx of weeds and an appearance of poor care or absent owners, which would reduce the property values of surrounding homes. The regulations typically set a maximum height for lawns, and outlined procedures for notifying the delinquent property owner for permitting the community government to remedy a longstanding noncompliant situation, and for billing the property owner for any services involved.

These regulations typically evolved in communities with a number of standard postwar subdivisions, where the use of lawn was universal and lots were rather small. An unkempt lawn usually was the result of neglect, and could indeed have a negative effect on surrounding property. However, in recent years lots have enlarged, and many landowners have chosen to maintain part or all of their lots in natural meadow. Interest in native plants has expanded among homeowners, and there is a steadily increasing body of knowledge of native meadows and their culture and restoration. A parallel expansion in availability of many plants and seed mixes has added to this increasing sophistication.
Furthermore, a new pattern of subdivision design (conservation development) has resulted in an increase of large open space areas held in common by homeowners' associations. Many of these open spaces were specifically designed to be natural meadows. And yet, in many cases weed laws are still applied by the local community, resulting in the mowing of often carefully planned and tended native meadow areas.
While mowed lawn is often thought of as "soft space," absorbent and natural, it is in fact a surface treatment that has many detrimental effects on the environment. As it often covers an area that was compacted during construction or through traffic over time, its runoff coefficient is similar to that of many types of paved areas. It also is often overtended with fertilizers, herbicides and pesticides. The result is an impact to local waterways, with increased runoff quantity and increased pollutants in that runoff. Lawn has habitat impacts, as it creates a monoculture that supports large populations of plant pests and diseases, while providing no genetic diversity, and no cover, shelter or food for wildlife. In contrast, a natural meadow area absorbs a large percentage of the water that falls on it and filters it before it hits local waterways, both key components of effective storm water management. It is very low maintenance, and the use of polluting substances is limited. Furthermore, natural meadows support a huge diversity of wildlife, and can be managed to encourage wildlife habitat enhancement.

The expansion of natural meadow use in conservation development subdivisions and in large private lots is generally seen as an improvement to environmental quality, especially water quality. Many soil and water districts and park districts have active education programs to promote the use of native landscaping, including natural meadows. While problems with neglectful landowners will probably always exist, it is critical that weed laws be designed and applied not to prohibit the use of true, tended, natural meadows. A well-written regulation will permit both natural meadows and lawn in appropriate applications.

ISSUES

- Weed laws are not intended to permit noxious or invasive species to proliferate. State law requires communities, including townships, to control noxious weeds. In addition, there are many species not on the noxious weed list which are invasive and locally undesirable. A well-written regulation will be no less restrictive than state law and will prohibit additional species that are considered to be of local concern.

- Weed laws that provide for natural meadows fall into three general groups:
  (1) Permit laws – require an applicant to submit for approval a management plan, and require compliance with the plan
  (2) Exclusion laws – simply exempt native grass areas (species specified) from application of the law
  (3) Proactive laws – actually require a certain percentage or amount of native grass areas in new landscapes
- Permit and proactive laws are generally seen as more regulatory, requiring a review board qualified and authorized to review, condition, approve, and enforce a design and/or management plan submitted by the applicant. Both types are seen as more difficult and expensive to carry out by the government because of the need for an educated review board and a monitoring program which applies to every applicant.
- Exclusion laws are less regulatory, relying on the occurrence of a problem before the regulation applies. Exclusion laws typically rely on the designation of a "weed expert" – a person who is qualified and authorized to distinguish on a case-by-case basis between neglected sites and bona fide meadows.
- Some laws are set up as setback laws, establishing a setback line (which varies depending on lot size) beyond which natural meadows must be located.
- All laws enacted must address a means for enforcement of the requirements.
- Many communities, especially townships, have no restrictions at all concerning the landowners' choice and maintenance of landscaping, beyond their obligation to comply with state laws controlling noxious weeds. Where there is a lack of regulation, it is not necessary to enact a meadow-friendly weed law. No laws provide the maximum flexibility to the property owner, as long as property values will not be affected by lack of attention to land areas.
- Most of the general public are not aware of the value of natural meadow and often interpret meadow areas, particularly those in the early stages of succession from lawn to meadow, as unkempt, neglected sites. Education is critical to help people understand the water quality, habitat and rural-character value of natural meadow in the appropriate applications, and the process of natural succession.
- Communities need technical resources to consult to determine if an unmowed area is actually a meadow. In most counties SWCDs can provide this service.
- Communities need a maintenance section of the model regulation to ensure on-going maintenance of the meadow area.

RECOMMENDATIONS

Communities wishing to enact new mowing regulations should ensure that natural areas are protected and that lawn is required only in appropriate, limited situations. Those with weed laws should revisit them and insert language that permits and encourages natural meadows. Those without requirements are best left as is, unless there are compelling reasons to restrict the landscaping choices of the homeowner.

Communities with local concerns about natural meadows and weed control should work with local experts such as soil and water districts and park districts to educate the public about the benefits of natural areas and the process of natural succession. They should provide technical assistance to those who would like to implement natural meadow areas.

STANDARDS

- If a weed law exists, it must permit natural meadows
- Must protect against both noxious and nuisance weeds
- Must provide method for discerning natural meadows from neglected landscape
- Must allow for hearing/appeal procedure

MODEL REGULATIONS

Attached are three model regulations addressing

meadow protection that have been used elsewhere. The code from Madison, Wisconsin, is an example of a permit law. The White Bear Lake, Minnesota, model is an example of an exclusion code, while the model from Long Grove, Illinois, is a proactive code.

The model regulations **should never be adopted without careful local review** to assure that they are adapted to fit the needs of the specific local government. They will need to be adapted for use by the specific type of local government: city, village, township, or county. **The law director/ solicitor or county prosecutor should be consulted prior to adoption of any land use controls**. Questions about the models and guidance can be directed to the Ohio Lake Erie Commission.

OHIO'S NOXIOUS & REGULATED WEEDS

Ohio has 14 noxious weed and 2 regulated weeds:

Noxious

Musk Thistle
Oxeye Daisy
Canada Thistle
Poison Hemlock
Wild Carrot
Purple Loosestrife
Wild Parsnip
Mile-a-Minute
Russian Thistle
Cressleaf Groundsel
Shattercane
Johnsongrass
Grapevines (abandoned)

Regulated

Multiflora Rose
Purple Loosestrife
See: http://ohioline.osu.edu/b866/

Refer to your local SWCD for a list of invasive species and weeds of local concern. The ODNR Division of Natural Areas and Preserves can also provide a list of invasive species.

RESOURCES

City of White Bear Lake, 4701 Highway 61, White Bear Lake, MN 55110; Web: http://www.whitebearlake.org/

The Countryside Program, P. O. Box24825, Lyndhurst, OH 44124; Tel: 216-295-0511; Web: http://www.countrysideprogram.org/

Holden Arboretum, 9500 Sperry Road, Kirtland, OH 44094-5172; Tel: 440-946-4400; Web: http://holdenarb.org

Wild Ones Natural Landscapers, Ltd., P. O. Box 1274, Appleton, WI 54912-1274; Tel (920) 730-3986 Toll-free (877) FYI-WILD; Web: http://www.for-wild.org/

Society for Ecological Restoration International, 1955 West Grant Road #150, Tucson, Arizona 85745 USA
Tel: 520.622.5485, Web: http://ser.org/.

Your Local County Soil and Water Conservation District

Your Local Metropark Staff

CONSERVATION DEVELOPMENT

BACKGROUND

Over the last 10 years in Ohio, the quality of new development in rural areas has become a growing concern. Communities appreciate the need for continued growth and expansion, but also worry about the wide spread of new development across the countryside. In particular, they are concerned about the impact of this new development on the quality of life, rural and community character, and the protection of valuable resources. In the Lake Erie Watershed, balanced growth addresses the concern about the impact of new development on water quality and water quantity. The standard way of zoning new development not only results in a loss of resources and rural character, but also it substantially increases the quantity, and reduces the quality, of water in our waterways, leading to erosion, sedimentation, and nonpoint source pollution.

A good community plan will outline areas for concentration of new development to help offset the breadth of sprawl. It will also identify areas that are a high priority for maximum preservation, using the wide variety of tools that are available. Conservation development is a technique that applies to the in-between areas, those that we know are going to develop, but where we would like to balance the impact of the development with the protection of water and other resources, including community character.

Conservation development most often applies to residential development, where the number of homes normally permitted on a specific parcel of land is grouped together on smaller lots, while a sizeable proportion of the property – at least 40% - is set aside as open space. The open space serves as a buffer to protect vegetation, streams, wetlands, and floodplains on the property, and helps to manage storm water effectively on site. In exchange, the developer realizes a premium on the development because the results are high in quality and meet an underserved market.
Conservation development can also apply to commercial and institutional development, primarily to those types that are campus-like in nature, where buildings and parking can be rearranged to accommodate natural, agricultural, cultural, or scenic resources. Office parks, graduated living facilities, educational campuses, and the like all work well in a conservation-development scheme.

Standard patterns for retail or single parcel commercial development present a related set of problems, however, as any set-aside of open space constitutes a reduction in the development potential of the site, yielding a lower return for the developer. In these cases, open space set-asides are best incorporated when property is changing from residential to commercial zoning (the site under commercial zoning, even with open space, still has a higher value than under residential zoning) or when the overall value of the property in the neighborhood is significantly enhanced by the overall plan for the area. In some limited cases, significant benefits can be achieved by concentrating the building or parking into multi-story structures, permitting open space set-asides without reduction in value. To concentrate structures, often some community subsidy or financial involvement is a part of the arrangement in order to offset the cost of construction of multi-story structures.

It should also be noted that conservation development schemes, which provide for a patchwork of open space and development, are generally not suited to preservation of large blocks of land, as would be desired for a significant natural area or a designated area of farmland preservation. The resulting patchwork creates conflict among residents, workers, and farmers. It also presents access and management problems for the farmer, and increases the “hassle factor” of continuing to farm in a developed area. A patchwork of open spaces may also not provide the “critical mass” of farms to support farm-related businesses such as banks, supply and equipment stores, and professional advisors.
However, a patchwork of open spaces is well

suited to buffer views of development, provide for continuity in linear habitats such as along streams, reduce and filter storm water runoff from development, and ensure the long-term survival of wetlands, rural views, and historic features. Conservation development is an approach that should be available in the zoning toolbox of every community that still has open land that could yet be developed.

ISSUES

Communities considering the implementation of conservation development face several important decisions. These decisions are best made as part of a comprehensive planning process conducted before zoning is put in place.

Residential Conservation Development

- Residential conservation development often is based on the concept of "neutral density," i.e., that no additional units will be provided beyond those which could be built with a conventional zoning approach. Some communities choose to incorporate a modest density bonus (e.g., allowing 10% more units than current zoning allows) as an incentive for innovative design. They need to ask what the suitable level of development intensity is for the district(s) which will be zoned conservation development. How will density be calculated?
- A yield plan asks the developer to work out a suitable conventional subdivision plan, and then it applies that number of units to a conservation development design. This approach can be a disincentive; however, as twice the formal review time is involved for the community to examine first the yield plan, then the development plan.
- Statistical density merely involves the application of the mathematical lot size to the parcel size. So a 100-acre parcel zoned for 1-acre lots would be permitted 100 units. This incorporates an effective density bonus as lot layout inefficiencies for roads, topography, cul-de-sacs, etc., are not considered.
- Many communities come up with a formula that approximates neutral density based on typical subdivisions and site conditions in their location.

Commercial Conservation Development

- The level of intensity of development is similarly of concern, but it is calculated differently. After the amount of open space to be set aside is decided upon, including landscaped and storm water management areas, the amount of parking required can make a big difference in the level of intensity of the final development. It might be desirable to give developers parking reductions in exchange for innovative design, set-aside of open space, etc. It might also be desirable to allow a reduction in the required quantity of open space in exchange for more concentrated, village-like design.

Both types

- The structure of the regulation must be decided. Will a Residential Conservation Development or Commercial Conservation Development approach be used? Will the district be a permitted or conditional use? Will the zone be applied on the map to certain districts, or will it "float" until an applicant asks that it be applied to his parcel?
- In rural areas in particular, the provisions for wastewater and water supply must be addressed to allow more concentrated development on one part of the parcel in exchange for another.
- A decision must be made about whether roads will be public or private.
- Ideally, the desired linkage of open spaces between parcels will be worked out in a community planning process ahead of time.
- The location and protection of wetlands, floodplains, and desired riparian setbacks also need to be worked into the code.
- The requirements for open space must be weighed. How much open space will be required in each district, and what will be included in that open space? Will the land required for storm water retention be included? Will land required to be landscaped be

included? How much of the open space may include active play areas such as soccer fields and playgrounds? Will land that is unbuildable or inaccessible be included? Will it be acceptable for open space to be concentrated in the back of property, out of view?

- Perimeter distances are a consideration, since concentrating development on parts of a parcel may result in the placement of structures much closer to the parcel boundary than would result under conventional zoning. It is recommended that the conventional zoning perimeter distances be approximated in the conservation development approach to reduce the concerns of adjacent property owners.
- What approval criteria will be used for the district? What criteria will be objective standards, and what will be more subjective? What education might be needed on the part of zoning or planning officials to ensure an intelligent review according to the criteria?
- What will be the structure of the review process? This is especially important in townships where review must be dovetailed with the county subdivision review process. It is also especially important to ensure that the review process is streamlined and functional, and does not involve greater risk or time on the developer's part than would be provided under conventional zoning.
- Finally, it is important at the end of the drafting process to review the entire document from the incentives perspective. Are the requirements of the district encouraging or discouraging conservation development? A developer should not have to significantly increase his cost, risk, or approval time to "do the right thing". This is especially important in townships where a residential development approach is an option. Communities must decide how they can balance incentives with disincentives to achieve a measure of success.

RECOMMENDATIONS

It is recommended that communities implement conservation development, both residential and commercial, as a component of their zoning code. This must be done following a well-discussed planning process. As part of that planning process, recommended types of development, levels of development intensity, and areas for open space linkages and retention must be designated. Ideally, areas where the conservation development districts may apply should be mapped; other areas should be identified for more concentrated development in a traditional neighborhood environment. Areas that are a high priority for preservation, especially agricultural preservation, should be addressed with other tools than conservation development.

All development types

- □ Provisions should be made for permanent protection of open space, including provisions for maintenance and capital improvements.
- □ Provisions must be made to minimize fragmentation of open space,
- □ Provisions should provide for linkages of open space with other spaces in the community
- □ Requirement for developer to prove that highest quality resources on the site were evaluated and are protected via the open space
- □ A minimum project size should be designated
- □ Provisions for wastewater and well approval should be given
- □ Perimeter distance requirements
- □ Streamlined approval process
- □ Coordination between subdivision review and zoning review
- □ Clearly defined review criteria

Residential Conservation Development

- □ At least a 40% open space requirement must be included for lot sizes less than one acre, with 50% for lot sizes greater than one acre
- □ Density bonuses should not exceed 10-20%.
- □ Maximum access to the open space by private users should be required

Commercial Conservation Development – office parks

- □ At least 40% open space requirement, of

which 25% is natural open space
Planned Commercial Development

- For areas already zoned commercial, open space requirement is 25%
- For areas currently zoned residential or being rezoned, open space requirement is 40%
- Open space requirement should be at least half of the natural functioning open space

EXAMPLE REGULATIONS FOR GUIDANCE

The following is one example of a model code that meets the requirements listed above. The residential model is based on a model developed by the Countryside Program of Northeast Ohio. The Planned Commercial District is based on a code developed by D.B. Hartt, Inc., for Rootstown Township, Portage County, Ohio.

The example regulations **should never be adopted without careful local review** to assure that they are adapted to fit the needs of the specific local government. They will need to be adapted for use by the specific type of local government: city, village, township, or county. **The law director/ solicitor or county prosecutor should be consulted prior to adoption of any land use controls**. Questions about the models and guidance can be directed to the Ohio Lake Erie Commission.

RESOURCES

The Countryside Program, P. O. Box 24825, Lyndhurst, OH 44124; Tel: 216-295-0511; Web: http://www.countrysideprogram.org/
Rootstown Township, 3988 State Route 44, Rootstown, OH 44272; Tel: 330-325-9370; Web: http://www.rootstowntwp.com

City of Delaware, One South Sandusky St., Delaware, OH 43015; Tel (Planning Department): 740-368-1652; Web: www.delawareohio.com

COMPACT DEVELOPMENT

BACKGROUND

It is commonly recognized that balanced growth encourages new development and redevelopment, the quality and design of that development can have a major impact on the future of our watersheds, particularly the Lake Erie watershed. One of the ways to have the biggest impact is to encourage more compact development whenever possible. Concentrated development requires less road and impervious surface; allows infrastructure, including storm water management, to be provided in a more efficient fashion; and permits a wider range of cost-effective transportation options. Concentrated development can allow for the conservation of open space as well as natural and other resources that can fit in to the development. It also enhances the efficiency of business, the quality of neighborhoods, and the relationships (such as school and church) that develop within them. For these reasons, all communities are encouraged to explore ways in which they can make development more compact where appropriate.

Compact development regulations are sometimes identified as "traditional neighborhood design," or TND. However, these principles apply in a wide range of situations that may not include traditional neighborhoods. Compact development will have a very different character, depending on whether it is occurring in an urban neighborhood, a small town center, a rural crossroads, or a major retail center. Four sample development regulations are provided here to illustrate the range of possibilities that may be applied.

ISSUES

1. One of the primary principles of compact development is providing a mix of uses. In a traditional neighborhood, this means that several types of housing, commercial, and office space are provided in close proximity to each other to facilitate communication among them, good pedestrian access, and a balanced community.

2. Larger compact development areas will be designed to incorporate a hierarchy of scales, starting with individual streets at the smallest scale and moving up through neighborhoods, districts, and the town or city itself. Each sub-area will have its own recommendations for types of buildings and uses, travel distances, streets, central focus areas (such as a main street or neighborhood center), and open spaces. Smaller compact development areas might be designed around one such district or neighborhood, with associated guidelines for streets, center focus, and open spaces.

3. Compact development projects rely on careful attention to traditional street design, with a hierarchy of rectilinear streets, including alleys, to meet practical access needs without impacting pedestrian scale. Blocks are short and provide maximum street frontage for uses. Buildings are often located right at the curb or with a minimal setback, with more extensive parking provided behind the buildings.

4. Usually these uses are provided at a fairly small scale, although there has been a lot of recent exploration into providing larger scale retail uses in smaller spaces. The challenge is to provide a balance of pedestrian-friendly walking distances among establishments, while accommodating cars needed for some of the uses, such as major retail or residential parking.

5. Compact development design provides for civic spaces in the mix of uses, fostering a sense of community and providing opportunities for community interaction. Schools, meeting halls, parks, and recreation opportunities are woven into the fabric of the development area. Public waterfront access is often a keystone of these projects.

6. Mixed uses take into account the potential for shared parking, which can greatly reduce the

amount of space needed by various uses. For example, movie theaters can share parking with offices, one using the parking during daytime hours, the other at night. Restaurants can share parking with churches or schools.

7. Design guidelines are critical to maintain compactness, consistency, local and regional identity, and a lively street character. Many compact development regulations have a full set of illustrations accompanying guidelines for building location, parking area design, façade treatments, landscaping, and signage.

8. Specific parking requirements are highly individual to each situation, depending on expected uses and their anticipated markets. Parking requirements should be calculated for each community or district using the attached models as an example only.

RECOMMENDATIONS

1. Use the comprehensive planning process to identify development and redevelopment areas that would benefit from a compact development concept.
2. Look for ways to incorporate a mix of uses into districts that have traditionally been single-use, such as office districts and major retail uses.
3. Develop specific planning concepts for individual districts or neighborhoods that address land use; street hierarchy and parking; retail, office and residential markets; resource protection opportunities; and open space/ recreation needs.
4. Develop a street design and parking strategy that incorporates a range of transportation options besides the automobile. Look for opportunities for shared parking. Ensure that adequate parking is provided for the typical condition rather than the peak. Ensure that parking does not compromise pedestrian scale, short walking distances, and access to public transportation.
5. Develop design guidelines that enhance the vibrancy and quality of the development area.

EXAMPLE REGULATIONS FOR GUIDANCE

Urban: Columbus TND ordinance
Small town: Wisconsin ordinance
Rural/village: Mantua Village ordinance
Major retail: South Euclid/University Heights ordinance

The example regulations **should never be adopted without careful local review** to assure that they are adapted to fit the needs of the specific local government. They will need to be adapted for use by the specific type of local government: city, village, township, or county. **The law director/ solicitor or county prosecutor should be consulted prior to adoption of any land use controls**. Questions about the models and guidance can be directed to the Ohio Lake Erie Commission.

RESOURCES

Randall Arendt, *Crossroads, Hamlet, Village, Town: Design Characteristics of Traditional Neighborhoods, Old and New*, Report, American Planning Association Planning Advisory Series, No. 487/488, Planners Press, July 1999, ISBN No. 1884829333. Email: bookservice@planning.org

City of Fort Collins - Advance Planning Dept., PO Box 580, Fort Collins, CO 80522-0580; Tel: 970-221-6376
Web: http://www.ci.fort-collins.co.us/

1000 Friends of Wisconsin, 16 North Carroll Street, Suite 810, Madison, WI 53703; Tel: 608/ 259-9045; Web: http://www.1kfriends.org/.

City of Columbus, Department of Development, Planning Division, 109 North Front Street, Ground Floor, Columbus, OH 43215-9030; Tel: 614-645-6556; Web site: http:// www.columbusinfobase.org/

Mantua Village, Village Hall & Mayor's Office, 4736 East High St., Mantua, OH 44255; Tel: 330-274-3199; Web: http://mantuavillage.com/

City of South Euclid, 1349 South Green Rd, South Euclid, OH 44121; Tel: 216-381-0400; Web: http://www.cityofsoutheuclid.com/

SOURCE WATER PROTECTION

BACKGROUND

This document provides specific information on steps local governments can take to protect their drinking water sources from point and nonpoint source contamination. Drinking water comes from both surface water and ground water. Surface water sources include rivers, lakes, and reservoirs. Ground water is pumped from wells that are drilled into aquifers. State and federal regulations exist to assess and protect drinking water sources.

The Safe Drinking Water Act (SDWA) was initially enacted in 1974 and authorized EPA to regulate contaminants in public drinking water systems. A public water system is defined as a system that serves piped water to at least 25 persons or 15 service connections for at least 60 days per year. Water which serves only one or a few homes are considered private supply and are not regulated at the state or federal level. The SDWA established primary and secondary standards and minimum standards on construction & operation of public water systems. The act has been amended twice, once in 1986 and again in 1996.

The 1986 amendments emphasized the protection of the water bodies being used to supply these systems and required every state to develop a wellhead protection program (WHP). The 1996 amendments expanded the concept of source water protection developed through the WHP Program to all public water systems, including those based on rivers, lakes and reservoirs and also required every state to develop and submit a Source Water Assessment and Protection (SWAP) program to the U.S. EPA and to complete a source water assessment of every public water system.

Following the 1996 amendments to the SDWA, Ohio developed the Source Water Assessment and Protection Program. The SWAP identifies drinking water protection areas for both ground and surface water sources and provides information on how to reduce the potential for contaminating the waters within those areas. The SWAP is a joint effort between Ohio EPA's Division of Drinking and Ground Water and the Division of Surface Water.

Ohio's Wellhead Protection (WHP) Program was approved by the United States Environmental Protection Agency in May 1992. This program is administered by the Ohio EPA Division of Drinking and Ground Water.
Ohio's WHP was designed to:

1. Protect public drinking water supplies using ground water by determining the area providing water to a well
2. Inventory potential contaminant sources within that area
3. Develop strategies to protect the ground water from those potential contaminant sources.

Assessment and protection typically is a greater effort for public water systems using surface water than for those using ground water. Surface water, such as lakes and streams, are more exposed to contaminants than ground water. Also, a spill into a stream may arrive rapidly to a public water system's intake. As a result, protection areas for public water systems using surface water are completed on a watershed scale which can be extensive. Protection areas for ground water-based systems range in size from an acre or so to over a square mile, depending on the amount of pumping. In Ohio there are about 6,000 ground water systems and about 150 surface water systems. Community public drinking water assessments were to be completed by June 2003. Further information on the status of assessments can be obtained by contacting the appropriate Ohio EPA District Office.

Ohio EPA completes Source Water Assessments on public drinking water sources. As a part of these assessments, the Ohio EPA recommends that communities complete a Source Water Protection Plan. These plans may include:

- Implementation of local regulations,
- A public education program,
- Acquisition of critical wellhead or riparian protection properties,

- Loans and incentive programs to existing industries to minimize potential contaminant sources.

While Ohio EPA has been completing assessments on public water supplies, the agency has limited authority to enforce implementation of recommended protection strategies. The Ohio EPA does require Source Water Protection Plans as a condition of new public system well approvals. Additional incentives and requirements to complete Source Water Protection Plans are not necessary as local governments' incentives to protect their drinking water sources are clear and abundant. Local incentives to protect drinking water are significant and include:

- Provide safe drinking water for residents
- Protection of sources to minimize or eliminate costs associated with investigation, clean up and remediation costs, which may include:
  - o Cost of purchasing a temporary water supply from another community or bottled water
  - o New wellfield development if the affected wells must be abandoned
  - o Real estate devaluation
  - o Decline in consumer confidence in water quality
  - o Potential lawsuits from the consumption of contaminated water
  - o Lost jobs

RECOMMENDATIONS

As detailed above, significant incentives exist for communities to complete Source Water Protection Plans. To further assist communities, the Blue Ribbon panel recommends that communities work with Ohio EPA to complete accurate drinking water assessments and adopt Source Water Protection Plans.

Completion of source water protection plans is not required for every community as many communities do not operate a public water supply. Occasionally the community public water supply will be located outside of the community jurisdiction, thus regulations may not be possible or appropriate, and source water protection plans may simply emphasize education and prevention. Within a community, numerous non-community public water supplies may exist. Public water supplies include transient and non-transient systems which may be operated by restaurants, schools, hotels, churches etc. Inclusion of these systems may not be appropriate. Based on the considerations above, each Source Water Protection Plan will differ based on:

- Source of drinking water (ground water versus surface water)
- Location and size of protection zones
- Current uses within protection zones
- Current contaminants within protection zones

Communities may decide to include a source water protection regulation as a part of their Source Water Protection Plan. If so, interactions among other regulations must be examined. Areas identified in the source water protection assessment may be similar to those identified in other community regulations such as riparian and wetland setbacks and conservation design subdivisions. For example, if a community's drinking water source is from a lake, reservoir or stream, delineation of protection areas may overlap with those identified in a riparian setback regulation. It may be possible for some communities to augment the riparian setback regulation to include protection of drinking water sources as opposed to drafting a separate regulation. If a community decides to include a source water protection regulation in their Source Water Protection Plan, the Blue Ribbon panel recommends the following items should be included in a source water protection regulation.

- Establish protection zones
- Establish prohibited and allowable uses within zones
- Include requirements for geotechnical and hydrologic analysis to determine potential impacts and spill control procedures, particularly for variances
- Detail enforcement mechanisms
- Require reporting of spills
- Require registration of industries within protection zones

Regulations might also include the following components:

- Delineate multiple protection zones with different uses
- Establish maximum impervious cover allowable
- Establish fees for loan programs (Dayton, OH)

Each community public water systems will have unique concerns, thus protection strategies must be individualized. The Blue Ribbon Panel recommends that communities should submit a Source Water Protection Plan tailored to each community's public water supply.

RESOURCES

Chagrin River Watershed Partners, Inc., P.O. Box 229, Willoughby Hills, OH 44096-0229; Tel: 440-975-3870; Web: http://www.crwp.org/

Ohio Environmental Protection Agency, Division of Drinking & Ground Waters
The following link will take you to a page where the Northwest and Northeast Districts are clickable, and then within each, offices may be clicked by county for contact information. Web: http://www.epa.state.oh.us/ddagw/staff.html

Ohio Environmental Protection Agency, Division of Surface Water, Source Water Assessment Program, Lazarus Government Center, P. O. Box 1049, Columbus, Ohio 43216-1049; Tel: 614-644-2001; Web: http://www.epa.state.oh.us/dsw/

Ohio Department of Natural Resources, Division of Water, 1939 Fountain Square, Columbus, OH 43224; Tel: 614-265-6758; Web: http://www.ohiodnr.com/water/

U. S. Geological Survey, Ohio GAP Analysis Project (with Ohio Department of Natural Resources & Ohio State University), & Great Lakes Aquatic GAP Analysis (with USGS, U. S. Department of the Interior, & Great Lakes Science Center), Busch Corporate Park, 6480 Doubletree Ave., Columbus, OH 43229; Tel: 614-430-7752; For Ohio GAP Analysis, Web: http://www.gap.uidaho.edu/Bulletins/11/Factsheet2000.asp?StateAbbreviation=oh; and Web: http://oh.water.usgs.gov/ohgap/ohgap.html; for the Great Lakes Aquatic GAP Analysis, Web: http://www.glsc.usgs.gov/research/aquaticGAP.asp

Hamilton to New Baltimore Groundwater Consortium, 5140 River Road, Fairfield, OH 45014; Tel: 513-868-5993; Web: http://www.gwconsortium.org/

U.S. Environmental Protection Agency, Source Water Protection
At the first link below, an email can be sent on questions regarding ground water and drinking water; the second link will take you directly to the Source Water Protection Home Page.
Web: http://www.epa.gov/safewater/drinklink.html
Web: http://www.epa.gov/safewater/protect.html

AGRICULTURAL LANDS PROTECTION

BACKGROUND

Agricultural preservation has been a much-discussed topic in recent years, particularly in communities that are on the edge where rural and urban areas intersect. There is much debate and discussion about the role of agricultural land in our state, regional, and local economies, and the costs and benefits of its preservation.

Sound watershed planning often includes policies related to the conservation of agricultural land due to the contribution it makes in reducing the quantity of storm water entering local waterways. While the quality of water running off agricultural land must be managed, agricultural land preservation, coupled with riparian setbacks and vegetation filters, can play a major role in water quality control in the Lake Erie watershed. Agricultural land preservation can also play a role as part of a balanced comprehensive plan, helping to focus new development on compact growth areas where infrastructure is easily provided and expanded, and where storm water impacts can be better mitigated. Finally, agricultural land preservation can play a role in recharge of groundwater sources, leading to better quality and quantity of drinking water within the watershed.

In recent years, a variety of tools have become available to assist communities in meeting their goals for agricultural land preservation. Agricultural zoning is one such tool, and it is the focus of this zoning-based document. Further information on other tools can be found in the resources list at the end of this section. It should be kept in mind that agricultural zoning is only one of a number of tools that can be used and that the most effective land preservation plans will use several tools working together to achieve preservation goals.

Agricultural zoning is a tool with very specific objectives. It is best used in combination with other tools. Its strengths are that it is inexpensive, flexible, and provides uniform protection to an entire district. The use of agricultural zoning in a community can provide significant weight to consideration of applications for other programs, such as the Clean Ohio Fund. Agricultural zoning has the potential to reduce conflict through requirements for buffers between agricultural land and notification of right to farm laws. It makes a strong community statement about intent to preserve land, and can be used to help implement policies for balanced growth in a comprehensive plan. And it can be used, as in Transfer of Development Rights programs, as an incentive to landowners to increase focus on development in appropriate places.

Agricultural zoning, however, is not a commonly used tool in Ohio. Its greatest drawback is that it reduces the value of land, which many landowners, particularly those in transition zones at the fringe of urban areas, may find undesirable in the absence of programs which compensate that loss in value. In these locations, landowners have a realistic sense that their property could increase in value with development pressure, and many count on that value for economic stability. In communities with strong farm economies, however, the land is seen as a necessary asset, which could be made less suitable for farm purposes by encroaching development. These communities often can make good use of agricultural zoning to achieve preservation goals.

ISSUES

- Agricultural zoning can only be implemented through the careful development of a strong climate of community support. It is best put in place as a follow-up to a thoroughly discussed comprehensive plan which sets goals for balanced growth, development, and preservation. Ideally, this discussion would take place before development pressure begins to build and would include all key landowners who would be affected by the regulation. A strong community education process, which is ongoing over time, is a critical component of any policies that include agricultural zoning.

- A comprehensive plan can similarly identify target areas for primary and secondary efforts for agricultural land preservation.

- Agricultural zoning codes vary widely in their provisions, which can be put in place to protect the landowner, adjacent landowners, and community members. If the entity enacting such an Agricultural Zoning ordinance is a county or a township, it should clearly state that the ordinance does not attempt to regulate agricultural purposes and is in accordance with R.C. Sections 303.21 or 519.21 as applicable. The following is a list of possible purposes and provisions of an agricultural zoning code:
    - Set the minimum size of a farm parcel as of a certain date (size of parcel varies widely from code to code)
    - Limit nonfarm uses
    - Give notice of right-to-farm laws
    - Separate agricultural uses from incompatible uses
    - Define different types of agricultural uses
    - Prohibit planting adjacent to agricultural fields
    - Create setbacks from agricultural property
    - Provide for homestead retention
    - Permit value added uses, such as in an "agricultural business overlay"
    - Restrict sizes of structures
    - Provide for resource protection in agricultural areas
    - Require conservation plans

- There is considerable debate at the present time about the ability of local governments to regulate the industrial impacts of factory farms and to limit their impacts on surrounding properties. Refer to the resources and your local planning commission for current information.
- Other programs which should be evaluated and implemented along with agricultural zoning include: purchase of development rights programs at the state, federal and local level; current agricultural use valuation (CAUV), agricultural districts, agricultural service areas, and transfer of development rights. Economic development programs are also beginning to be effective components of a comprehensive agricultural preservation plan.

- As they are often confused, the following table outlines the differences among three of the tools mentioned:

AGRICULTURAL DISTRICTS
- In place in Ohio
- Voluntary
- Landowner applies to the county auditor for inclusion in the district
- District can involve one or more properties
- Provides deferred relief from assessment for water and sewer improvements
- Recapture is provided upon conversion of the land to development, if it occurs

CAUV (current agricultural use valuation)
- In place in Ohio
- Voluntary
- Landowner applies to the county auditor to be given CAUV status
- Property taxes are based on agricultural value of the land, rather than on full development value
- Eligibility is based on parcel size, gross revenues, and soil type
- There is a 3 year recoupment if land is converted to development use

AGRICULTURAL SECURITY AREA
- Currently a proposal in the state legislature, not actively in use in Ohio
- Voluntary
- Intended to protect landowners from local government activities that promote development
- Usually designated in a comprehensive plan with significant support from involved landowners
- Landowner agrees not to develop in exchange for tax considerations
- A minimum acreage is usually required within the security area

RECOMMENDATIONS

Communities should develop a comprehensive plan through a sound citizen participation process that identifies goals for local economic stability, including the farm-based economy. The process should include a thorough public education effort about the various conservation and development tools that are available and their pros and cons. If goals are set that include farmland preservation, a range of tools should be explored and implemented to achieve those goals. Agricultural zoning should be considered with input from landowners and farmers.

EXAMPLE REGULATIONS FOR GUIDANCE

Included in this section are model agricultural regulations from Miami Township in Montgomery County, Ohio. Further information on this example may be obtained from the resources listed below.

The example regulations **should never be adopted without careful local review** to assure that they are adapted to fit the needs of the specific local government. They will need to be adapted for use by the specific type of local government: city, village, township, or county. **The law director/ solicitor or county prosecutor should be consulted prior to adoption of any land use controls**. Questions about the models and guidance can be directed to the Ohio Lake Erie Commission.

RESOURCES

Ohio State University Extension, Fact Sheet Series, 700 Ackerman Road, Suite 235, Columbus, OH 43202-1578; Tel; TDD No. 800-589-8292 (Ohio only) or 614-292-1868; Web: http:// ohioline.osu.edu

American Farmland Trust, 1200 18th St., NW, Suite 800, Washington, D.C. 20036; Tel: 202-331-7300;
Web: http://www.farmland.org/cgl/index.htm

American Farmland Trust, Central Great Lakes Region, Ohio Field Office, 50 West Broad Street, Suite 3250, Columbus, OH 43215; Tel: 614-469-9877;

Ohio Department of Agriculture, 8995 E. Main St., Reynoldsburg, OH 43068; Tel: 614-728-6200; E-mail: agri@odant.agri.state.oh.us

Ohio Office of Farmland Preservation (same address as Ohio Dept. of Agriculture, above); Tel: 614-728-6211

Miami Township, Planning & Zoning, 2700 Lyons Road, Miamisburg, OH 45342; Tel: (937) 433-3426; Web: http://www.miamitownship.com

TREE AND WOODLAND PROTECTION (On Development Sites)

BACKGROUND

The protection of trees and woodlands in developing areas is a critical issue from an environmental quality and community character standpoint. Woodland areas perform important water management services by absorbing and filtering runoff before it can impact local waterways. They provide valuable climate control functions by cooling surfaces and water bodies and processing pollutants in the air. They provide habitat for a variety of wildlife and shade to critical creek habitats. And, they enhance property values significantly when compared to open, non-wooded sites.

In spite of these benefits, it is a significant challenge to maintain wooded areas throughout the development process, and so most woodlands are lost to suburbanization. First, our typical spread-out pattern of development breaks up blocks of woodland, leaving only a few scattered trees. Trees which were once part of a woodland community fare very poorly once exposed, and can be expected to die within a few years; so even when a developer of a standard subdivision attempts to protect trees, he or she often fails. Even stand-alone trees in the midst of development are subject to drainage pattern alteration, soil and root compaction, and damage during construction, yielding a very low long-term survival rate. And even when subdivisions are well designed to reserve blocks of wooded areas, little attention is given to evaluating the trees prior to design in order to prioritize areas of varying woodland and habitat value.

Some communities have enacted regulations which attempt to address this problem. This document provides some background information on the different types of woodland and tree protection regulations and recommendations on their use.

ISSUES

- There are four stages of the development process at which tree protection provisions can be applied:
  - (1) Preliminary design – identifying woodland areas on a site or in a community which are of high value for preservation
  - (2) Specific design – identifying specific trees on the site which will be preserved and those which will be removed, and specifying methods for protection of those to remain
  - (3) Construction protection – implementation of the specifications for protection of trees during the construction process
  - (4) Post construction monitoring – ongoing evaluation of tree health after construction and implementation of recommendations for remedial care if necessary
- Most regulations only address the second stage. These regulations often make no distinction between trees of good health and high quality, and those of lower quality. Minimum size is used instead as a blanket requirement for identification of trees on the site. This can lead to extensive documentation of every tree with no evaluation or professional judgment of relative importance of various stands of trees, leaving a review board with little information on which to base decisions.
- Identification and evaluation of valuable tree stands at the preliminary stage assists the community in setting priorities for later development decision-making. This evaluation is best done generally as part of a comprehensive plan. At the site plan level, it can be done by a general review by a qualified professional. Size alone should not be used to determine the value of a tree for preservation.
- Professionals qualified to make tree protection recommendations include registered arborists and certified urban foresters. See model codes for specific qualifications.
- Most regulations require the development of a tree protection plan by a qualified professional.
- Enforcement and monitoring are critical elements of a well-written tree protection code

and provide for protection at stages three and four.

- Many communities have tree protection regulations which apply only to the protection of public trees in road rights of way. This is adequate for older areas, but more must be done in developing areas.
- Woodland protection along riparian areas is often provided by riparian setback regulations. See the section on riparian setbacks for more information.

RECOMMENDATIONS

Communities with developing areas should protect woodlands by both the comprehensive plan and controls during and after the development process. In the comprehensive plan, areas of woodland of likely high value to the community should be identified for further attention at the site design level. A zoning code should be developed which avoids the requirement for every tree on a site to be identified but which requires professional evaluation of blocks of woodland at the preliminary design stage. Then, the code should require a tree protection plan and its approval prior to permit, and assure that the plan is implemented and monitored during construction. Provisions for monitoring for at least a year after construction should be included.

As new areas are annexed to a community, some of the included woodlands may be enrolled in a working forest easement program or the Ohio Forest Tax Law (OAC 1501:3-10-01 to 1501:3-10-07) both of which may require forest management activities. It is recommended that the role and benefits of forest management to healthy forests, water quality, wildlife habitat on properties so enrolled, as well as forests not so enrolled should be recognized. It is further recommended that forest management activities can take place while protecting or enhancing the other benefits derived from forests.

EXAMPLE REGULATIONS FOR GUIDANCE

The code from Olmsted Falls is an example (stages 2-4) of a basic tree protection regulation for developing areas. Second, language developed by The Countryside Program is provided which outlines a possible preliminary woodland evaluation requirement (stage 1).

The example regulations **should never be adopted without careful local review** to assure that they are adapted to fit the needs of the specific local government. They will need to be adapted for use by the specific type of local government: city, village, township, or county. **The law director/ solicitor or county prosecutor should be consulted prior to adoption of any land use controls**. Questions about the models and guidance can be directed to the Ohio Lake Erie Commission.

RESOURCES

The Countryside Program, P. O. Box 24825, Lyndhurst, OH 44124; Tel: 216-295-0511; Web: http://www.countrysideprogram.org/

Shade Tree Commission, City of Olmsted Falls, 26100 Bagley Road, Olmsted Falls, OH 44138; Tel: 440-238-2691

International Society of Arboriculture, P.O. Box 3129, Champaign, IL 61826, Web: http://www.isa-arbor.com

Society of American Foresters, 5400 Grosvenor Lane Bethesda, MD 20814-2198; Tel: 301-897-8720; Web: http://www.safnet.org

SCENIC PROTECTION

BACKGROUND

Lake Erie's scenic viewsheds and other open space areas are important to many people in the region. These areas can increase recreational opportunities and ensure economic growth. In a survey completed for the Lake Erie Quality Index, it was found that the most popular coastal activity was scenic enjoyment of the lake. Ninety-nine percent of people surveyed stated that viewing the lake was an important and frequent pastime for them. This type of activity can also lead to increases in tourism. It has been found that nature-based tourism is one of the most promising industries in terms of its potential monetary benefit. This clearly indicates the strong need for preserving viewsheds in order to maintain quality of life in the region from both recreational and economic perspectives. The benefits attained from protecting viewsheds are not limited to only scenic enjoyment and tourism, as they may also increase property values in the area. In addition, protecting viewsheds allows for reductions in the conversion of open space into developed areas. This may aid in improving water quality by maintaining the natural hydrology and flow characteristics of streams, tributaries, and wetlands.

ISSUES

Communities should address the following points when developing scenic protection regulations.

1. Designation of scenic areas is an important component of comprehensive planning and visual assessments. Local comprehensive planning sets the context for designation through the state (e.g., scenic byways).
2. Design guidelines that include specifications for landscape development, signage requirements, and other relevant concerns intended to protect the integrity of the viewshed.
3. Permitted and prohibited uses within the designated scenic area.
4. Width requirements between boundaries of the viewshed are designated that operate similarly to setbacks and should include variance procedures.
5. A reviewing body may need to be established to act as an enforcer of specified guidelines. This may also require the development of penalties for violations.

RECOMMENDATIONS

It is recommended that communities consider scenic issues in comprehensive planning. Designated scenic resource areas should be protected by adopted zoning provisions to address scenic area preservation. Included in such a regulation should be guidelines for design, setbacks, enforcement, and penalties.

EXAMPLE REGULATIONS FOR GUIDANCE

The following model regulations are intended to provide an example of how to establish protection of scenic areas and viewsheds. The first model on visual management corridors is from Wisconsin and is a framework to help direct development and redevelopment activities along highways. The main focus of this model is on design guidelines. Provided within the discussion are several examples of types of development that can be used to maintain environmental sensitivity and aesthetic compatibility. The second model given is a billboard regulation from Missouri. It details permitted and prohibited uses, along with general design and construction standards.

The example regulations **should never be adopted without careful local review** to assure that they are adapted to fit the needs of the specific local government. They will need to be adapted for use by the specific type of local government: city, village, township, or county. **The law director/ solicitor or county prosecutor should be consulted prior to adoption of any land use controls**. Questions about the models and guidance can be directed to the Ohio Lake Erie Commission.

RESOURCES

The Countryside Program, P. O. Box 24825, Lyndhurst, OH 44124; Tel: 216-295-0511; Web: http://www.countrysideprogram.org/

Scenic Missouri, 401 Locust, Suite 302, Columbia, MO 65201-4262; Tel 573-256-2550; Web: http://www.scenicmissouri.org/ and http://www.scenicmissouri.org/bboardordinance2.htm

Scenic America, 801 Pennsylvania Ave., SE, Suite 300, Washington, DC 20003; Tel: 202-543-6200; Web: http://www.scenic.org/

Scenic Ohio, P. O. Box 5835, Akron, OH 44372; Tel; 330-865-9715; Web: http://www.scenicohio.org

Preserving Endangered Rural Character by Thomas K. Kindschi, ASLA, and Charles W. Causier, AICP, ©1999 (Sheboygan County, Wisconsin), 1999 Planning Conference Proceedings of the American Planning Association.

American Planning Association, 1776 Massachusetts Ave., Washington, D.C., 20036; Tel: 202-872-0611; Web: http://www.planning.org

HISTORIC PROTECTION

BACKGROUND

One of the main principles of creating a sustainable watershed is to encourage that all new development and redevelopment initiatives address the need to protect and preserve access to historic, cultural, and scenic resources. This provides a key reason for the creation of a historical protection regulation. The preservation of these areas also fulfills several other balanced growth objectives, including increased economic development. It has been determined that historical designations can increase property values by as much as 20% and often lead to reinvestment in the community. These sites can also increase tourism and employment opportunities by attracting visitors who are interested in exploring Lake Erie's heritage and culture. Another benefit of protection is that by promoting reuse of buildings in historical areas there is less need to build new infrastructure. This helps accomplish the goal of reinvestment in existing core urban areas, transportation, and infrastructure networks to enhance the economic viability of existing communities. The use of historical preservation can also contribute to minimizing the conversion of green space and open spaces by protecting areas from being developed in ways not compatible with balanced growth principles.

ISSUES

Two of the main components of regulations pertaining to historical areas are preservation and compatibility. For this reason, the following issues should be addressed when creating such a regulation.

1. Preservation is best achieved through inventory and classification of existing sites and designation of future ones. Delineation of boundaries is an important component of this process and should include an adequate buffer area surrounding the site to help protect against development activities that may not be compatible with the existing historical use.
2. Design guidelines should be established to preserve the character of the historic site or area. These guidelines should contain provisions for appeal and variance procedures.
3. A commission or body may be needed to develop review criteria and oversee the application process. This body may also act as an enforcer of penalties and to evaluate special cases such as phasing and demolition by neglect.
4. Another commission may be needed to deal with public relations and education for historic sites or to act in the role of a land bank.

RECOMMENDATIONS

It is recommended that communities address historic resources through comprehensive planning following an inventory, evaluation, and prioritization of historic sites. Implementation may include designation of significant sites. Zoning regulations designed to preserve historical sites should address the delineation of historical boundaries, design guidelines, variance procedures, and violation guidelines.

EXAMPLE REGULATIONS FOR GUIDANCE

Listed below are two example historic preservation model regulations. The first of these was developed for establishing historic districts in Pennsylvania. It provides guidelines for the granting or refusal of permits for the erection, alteration, restoration, reconstruction, demolition, or razing of any building within these districts. The second model code was developed by the Indiana Alliance of Historic District Commissions. This regulation establishes procedures for the creation of historic preservation commissions, visual compatibility, appeal provisions, and enforcement of adopted regulations.

The example regulations **should never be adopted without careful local review** to assure that they are adapted to fit the needs of the specific local government. They will need to be adapted for use by the specific type of local government: city,

village, township, or county. **The law director/ solicitor or county prosecutor should be consulted prior to adoption of any land use controls**. Questions about the models and guidance can be directed to the Ohio Lake Erie Commission.

A Model Historic District Regulation for Local Governments in Pennsylvania- Pennsylvania Historic and Museum Commission Bureau for Historic Preservation. http://www.phmc.state.pa.us/bhp/Community/model_ordinance.pdf

Model Ordinance for Historic Preservation. Indiana Alliance of Historic District Commissions. http://pages.prodigy.net/hlfinro/Model%20Ordinance.doc

RESOURCES

The Countryside Program, P. O. Box24825, Lyndhurst, OH 44124; Tel: 216-295-0511; Web: http://www.countrysideprogram.org/

Historic Landmarks Foundation of Indiana, State Headquarters, Indianapolis, 340 West Michigan Street, Indianapolis, IN 46202; Tel: 317-639-4534 or 800-450-4534; Web: info@historiclandmarks.org.

Pennsylvania Historical and Museum Commission, 300 North Street, Harrisburg, PA 17120; Tel: 717-787-0771 (Lefevre) (717) 787-3362; Web: http://www.phmc.state.pa.us/bhp/Community/

STEEP SLOPES PROTECTION

BACKGROUND

Riparian areas are naturally vegetated lands along rivers and streams. By slowing, storing, and gradually releasing storm flows, they prevent soil erosion, decrease the extent and duration of flooding, and filter and settle out pollutants. This process aids in protecting the ecological functioning of a watercourse. In areas where steep riparian slopes (>12%) are present, the ability to control storm flows is greatly diminished, increasing the potential for flood damage and deterioration in the watercourse's ecological health.

ISSUES

The impact of developing steep riparian slopes can often be significant. The main concern is that flood control in these areas is reduced because the developed land (1) provides less infiltration than a riparian zone, (2) increases flow velocity, and (3) may substantially alter the direction of flow. Following heavy rainfall, these three factors may all contribute to causing the soil to become unstable and erosion and/or slumping to occur. Impacts from these processes can seriously affect the surrounding ecosystem and human communities. Ecologically, one problem that may occur is that habitat in the stream receiving the runoff is destroyed by increases in sedimentation from larger and higher velocity storm flows. There is also the potential for water pollution to occur in these situations due to a lack of adequate filtering and settling out in the riparian areas. Human impacts from developed steep slopes include the aforementioned water pollution problems, and also economic costs. Because of the potential for slumping to occur in these areas, extra structural measures must be incorporated into buildings in order to minimize damage.

RECOMMENDATIONS

The development of areas containing steep slopes should generally be discouraged due to the issues given previously. In situations where this is not feasible, development should be done with the intent of minimizing soil disturbances, maximizing retention of trees and vegetation, and complementing steep slope character. In addition, the following three options can assist in establishing riparian setback widths that provide the same watercourse protection as flatter areas. Option 1 is the least recommended choice because it focuses mainly on structural integrity and not the functioning of the riparian area and watercourse. The recommendations given under this option may also not be appropriate for all areas of the watershed. Option 2 only focuses on the degree of sloping and does not take other important factors that play a role in riparian effectiveness into consideration. Option 3 provides the best alternative, as it based on site-specific conditions and recommendations.

Option 1: Permit Based Hillside Protection Zones

Regulations are passed that limit development activity in areas with slopes between 15% and 30%. In order for permits to be given for disturbances in these areas, additional information including topographic maps, grading and site plans, geotechnical reports, details on future and present site stability, and an erosion and sediment control plan must be submitted for review. Following this review, the Building Inspector issues permits based on conditions set forth by the Planning Commission. Some activities such as driveways on slopes greater than 10%, embankments above 33%, and excavations above 40% are prohibited, as are projects that may endanger public health, safety, or welfare.

Option 2: Expansion of Riparian Setback for % Slope

For many communities in the nation, minimum widths are usually established for riparian setbacks. In areas in which steep slopes exist within the designated riparian setbacks, these widths are expanded. The expansions to the original widths are as follows:

- Add 10 feet for slopes between 15-17%

- Add 30 feet for slopes between 18-20%
- Add 50 feet for slopes between 21-23%
- Add 60 feet for slopes between 24-25%

Option 3: Expansion of Riparian Setbacks Based on Analysis of Slope, Slope Length, Soil Erodibility and Existing Vegetation

Riparian setbacks are adjusted where steep slopes, 10% or greater, exist within 500 feet of a watercourse. In these areas, a plan is required that details information regarding the degree of sloping, the slope length, soil erodibility, vegetative cover, and sediment delivery. For each of these evaluation criteria, a score is given as seen in the following table. For areas with a score of 35 or greater, no development is allowed to take place. Scores of 25 and 30 require additional protective measures in order to be developed. Areas with a score of 20 or less can be developed with standard protective measures.

Table 1. Evaluation Criteria for Steep Slopes and Erodible Soils

Factors	Scores		
	High (10 points)	**Medium (5 points)**	**Low (0 points)**
Slope (S)	S >= 20%	10% < S < 20%	S <= 10%
Slope Length	SL >= 200 ft	50 ft < SL < 200 ft	SL <= 50 ft
Soil Erodibility (K)	K > = 0.32	0.24 < k < 0.32	K < 0.24
Vegetative Cover	Bare soil, fallow land, crops, active pasture in poor condition, orchard tree farm in poor condition	Active pasture in fair condition, brush-weeds in poor condition, orchard tree farm in fair condition, woods in poor condition	Active pasture in good condition, undisturbed meadow, brush weeds in fair condition, orchard tree farm in good condition, woods in fair condition
Sediment Delivery (distance from down slope limit of disturbance to outer edge of wetlands or top of stream bank	Adjacent to watercourses or wetlands (< 100 ft buffer)	Adjacent to watercourses or wetlands (100 ft – 300 ft buffer)	Not adjacent to watercourses or wetlands (> 300 ft buffer)

EXAMPLE REGULATIONS FOR GUIDANCE

The following model regulations provide examples of the options given above. The ordinance from Baltimore, Maryland, is an example of option 3. The Chagrin Falls Ordinance and Bath Township Zoning Resolution are two examples from Ohio that illustrate option 1.

The example regulations and guidance documents **should never be adopted without careful local review** to assure that they are adapted to fit the needs of the specific local government. They will need to be adapted for use by specific type of local government: city, village, township or county. **The law director/solicitor or county prosecutor should be consulted prior to adoption of any land use controls**. Questions about the models and guidance can be directed to the Ohio Lake Erie Commission.

Baltimore County, Maryland: Protection of Water Quality, Streams, Wetlands and Floodplains. http://www.co.ba.md.us/Agencies/environment/waterqua.html. Steep slopes guidelines are contained in Sec. 14-341. “Design Standards for Forest Buffers and Building Setbacks.”

Chagrin Falls, Ohio: Hillside Protection Ordinance http://www.conwaygreene.com/Chagrin.htm
Regulation is listed under: Part Eleven- Planning and Zoning Code, Title Seven- Subdivision Control, Chapter 1165- Hillside Protection

Bath Township, Ohio: Steep Slopes Regulations http://www.bathtownship.org/Zoning%20Resolution/article4.pdf

RESOURCES

The Countryside Program, P. O. Box24825, Lyndhurst, OH 44124; Tel: 216-295-0511; Web: http://www.countrysideprogram.org/

Chagrin Falls Village Hall, 21 West Washington St., Chagrin Falls, OH 44022; Tel: 440-247-5050; Web: http://www.chagrin-falls.org

Department of Environmental Protection and Resource Management, Baltimore County, Maryland, Courts Building, Mailstop 3403, 401 Bosley Avenue, Room 416, Towson, MD 21204; Tel: 410-887-3733; Web: http://www.co.ba.md.us/Agencies/environment/waterqua.html

Your Local Natural Resources Conservation Service Office

Your Local County Soil and Water Conservation District

Your Local County Planning Commission

TRANSFER OF DEVELOPMENT RIGHTS

BACKGROUND

As discussed earlier, compact development focused on areas of existing infrastructure is the most desirable from a watershed protection standpoint. Compact development allows for reduced impervious surface, more efficient management of storm water, a wider range of transportation options, more organized management of wastewater, and the continued strength of existing cities and towns. In rural areas, however, the standard character of new development is just the opposite: low density, decentralized residential and commercial uses extending out into the countryside.

One of the reasons for the expansion of low density development in rural areas is the need for rural landowners to develop their properties to raise funds for retirement, health care, or other family needs. Tools have been developed in other states that allow rural landowners the flexibility to choose to develop or to sell the development rights on their land to another landowner who can apply them to a more compact development proposal. For example, a landowner with 100 acres in a 2-acre zoning district would be permitted 40 or 50 homes to be built on his property. Instead of selling land for development, this "sending" landowner could sell the 50 development rights to another landowner, perhaps in a village, with 100 acres, thus allowing the "receiving" landowner the right to build 50 additional homes on the receiving property. The sending landowner places a conservation easement on the sending property and retains ownership and the ability to farm or use the property for other open space oriented uses. Usually, a few development rights are retained by the sending landowner to permit homes for his children or others.

This approach is known as "transfer of development rights"(TDR). If applied properly in Ohio, it could allow development in rural areas to be transferred to more compact development areas in urban areas, thereby encouraging balanced growth and retaining the quality of life and watershed in the countryside, while enhancing the small town feel and vibrancy of the village site. Legislation in other states has included, among others, components such as:

- Program should be voluntary
- Program must be tied to comprehensive planning, ideally countywide/regionwide watershed planning
- Programs should provide for receiving zones in areas with supporting infrastructure
- Programs should allow for increased density in receiving areas
- Programs should provide for township tax base stability in sending zones
- Programs should provide for density transfer across jurisdictional boundaries, and should not require contiguous boundaries of participating communities
- Communities and counties should be enabled to establish banks to facilitate transfer of development rights
- Participating jurisdictions should be enabled to provide incentives such as density bonuses and streamlined review processes

The strengths of TDR as a tool for Ohio are first of all that a TDR program can be set up as entirely voluntary, with incentives to encourage participation without impinging on private property rights. TDR is typically done on the private real estate market, requiring very little in the way of public regulation and revenue. The transfer of development rights can be coupled with a variety of financing mechanisms in the development area, such as Tax Increment Financing, to provide additional incentives. Tax incentives for townships, including CEDA agreements, can be accommodated. Finally, transfer of development rights as a tool particularly suits the township-village relationship which is so prevalent throughout the state.

ISSUES

1. TDR is currently being done in Ohio on a case-by-case private basis as arranged by

individual landowners and accommodated through variances by the local community. However, a well-done TDR program will be based on a comprehensive plan, with designated sending and receiving zones, and will require the cooperation of two or more jurisdictions. While charter cities and villages can currently embark on such a program, townships and counties, both critical partners, are not specifically authorized under Ohio law. Statewide enabling legislation is needed to make this tool widely available in the form of quality programs.

2. A well-done comprehensive plan will include the designation of desired sending and receiving zones. The number of development rights is based on the underlying existing zoning in these zones. In voluntary programs, incentives are often offered as increased development rights when they are transferred. For example, our landowner in the above illustration might be permitted to build 40 homes on 100 acres, but would be allowed to sell 50 development rights if participating in a TDR program. The addition of 10 rights would be an inducement to sell through a TDR program, rather than build on the site.

3. While sometimes landowners are able to locate an interested receiving party at the time they want to sell their development rights, the entire process is facilitated through the establishment of a community, county, or regional bank. Similar to a wetlands mitigation bank, this mechanism allows a sending landowner to sell development rights at his convenience, and an interested receiving landowner can purchase rights at the time of his choosing.

4. Public resistance to new TDR programs can be traced to three main difficulties: (1) general public resistance to new programs, especially due to a lack of understanding of the voluntary nature of the program; (2) resistance of the public in receiving areas to more compact new development with higher densities; and (3) resistance of the sending area communities to "giving up" development that might generate future taxes. To offset these concerns, new TDR programs MUST: (1) incorporate sound education programs with real life examples to help the public understand the benefits and principles of the program; (2) focus on high quality design and the associated benefits of compact development in villages and cities; and (3) provide tax-sharing components that ensure sending communities will continue to receive future tax revenues.

5. Developer and landowner resistance can also be traced to a concern about decreased revenues and increased regulatory requirements. Especially in voluntary programs, it is critical that incentives such as streamlined review processes and density bonuses be incorporated to ensure that the program will be used.

RECOMMENDATIONS

1. Legislation is needed at the Ohio State level to ensure that strong programs can be established across jurisdictions.

2. Communities should conduct a comprehensive planning process which examines the potential for use of TDR as a development management tool. This planning process should incorporate surrounding jurisdictions and might be best done at the county or regional level. Through this process, sending and receiving zones should be established as well as policies for education, tax sharing, and design in compact areas, base densities in sending and receiving zones, density incentives, and review process incentives.

3. Communities should incorporate community education and communication in every step of the process, including meetings with affected landowners and developers, as well

as surrounding property owners.

4. Receiving communities should develop design guidelines for compact development that incorporate increased density from TDR in a high quality fashion.

EXAMPLE REGULATIONS FOR GUIDANCE

Transfer of development rights, while potentially a highly useful tool in watershed planning and development, usually requires no special zoning language. The comprehensive planning process will need to examine closely the underlying zoning in both sending and receiving zones to ensure that the desired effect in transfer of rights will be achieved. Provisions for density, including incentives such as density bonuses, can be incorporated into existing zoning. Review processes can be streamlined through zoning as well as subdivision regulations and administrative review policy.

RESOURCES

Rick Preutz, Saved by Development, Preserving Environmental Areas, Farmland and Historic Landmarks with Transfer of Development Rights, Arje Press, Burbank, California, 1997.

The Countryside Program, P. O. Box24825, Lyndhurst, OH 44124; Tel: 216-295-0511; Web: http://www.countrysideprogram.org/

Department of Agricultural, Environmental, and Development Economics, Ohio State University, 336 Agricultural Administration Bldg., 2120 Fyffe Rd., Columbus, OH 43210-1067; Tel: 614-688-4907

BROWNFIELDS REDEVELOPMENT

BACKGROUND

In recent years, the need to redevelop underused or abandoned former industrial properties, known as brownfields, has been much discussed, particularly in urban communities. The lack of redevelopment of these lands plays a negative role in our state, regional and local economies. As regions fail to redevelop and reuse land in urban areas, industries and developers develop more land in rural and suburban areas thus contributing to the loss of critical green space, agricultural lands, and to the economic and population decline in older existing urban areas. These losses, as well as the failure to remediate former industrial properties which may leach contaminants into Lake Erie and the surrounding waters, play a role in the water quality of Lake Erie and the environmental conditions in the Lake Erie watershed.

The Ohio legislature and Ohio EPA have attempted to address this problem by enacting and implementing a program to encourage cleanup and reuse of brownfields sites. The program allows the volunteer (owner, developer, municipality, etc.) that is doing the remediation to clean up a property, under the supervision of an environmental professional certified by the Ohio EPA. When the "certified professional" certifies that the site meets the state's standards for its intended future use, they will issue a "No Further Action" letter for Ohio EPA review. The volunteer may also seek a "covenant not to sue" from Ohio EPA promising that the state will not pursue legal action regarding the cleanup performed at the site. This covenant provides state civil liability protection for the environmental cleanup but does not protect the volunteer from liability from third-parties, or the U.S. EPA. (Ohio EPA has negotiated a process with U.S. EPA, known as the VAP MOA-Track, through which a volunteer may obtain protection from the U.S. EPA as well as by participating in a variation of the cleanup program that requires direct supervision by Ohio EPA and includes opportunities for public participation in the process.).

ISSUES

- There are several definitions of the term "brownfield". According to the Small Business Liability Relief and Brownfields Revitalization Act, "brownfield" means real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. According to McKinney's Environmental Science, brownfields are old, run-down, and abandoned parts of a city or town. A Brownfield is commonly defined as an "abandoned, idled, or underutilized property where redevelopment is in part inhibited by actual or perceived environmental contamination."
- This lack of consistency makes it difficult for communities to identify sites and decide what to do with them.
- There are many programs and initiatives, at the federal, state, and local levels, designed to encourage the redevelopment of brownfield land. These initiatives tend primarily to address the liability concerns and the financial costs associated with redevelopment of contaminated properties. They provide methods and incentives for cleanup, such as reduced cleanup standards, and some limited protection from future liability. Some initiatives focus on providing funding for cleanups through loans, grants, tax increment financing, and other methods.
- However, brownfields are not being redeveloped at the rates necessary to maintain the economic and environmental health of the region, in part because existing programs do not address many important barriers to their redevelopment. For example, existing initiatives do not always acknowledge that many potential brownfield redevelopers are seeking large sites on which to develop industrial and commercial parks whereas most brownfields are located on small, sometimes oddly configured sites. The programs do not address other reasons brownfields may not be chosen for redevelopment, such as tax incentives in less developed areas, local crime

rates, convenience of the site to managers' residences, etc.

- Because of some of these problems, existing programs have had difficulty matching potential users to appropriate sites.
- Although redeveloping blighted, contaminated sites could bring new development and improved aesthetics to the area, citizen groups are sometimes reluctant to get involved. This is partly because there are at least two strongly held views regarding the cleanup programs. First, some feel that the surrounding neighborhood needs to encourage redevelopment of brownfields to improve the area for those who live there. Others feel that the laws that encourage redevelopment by allowing cleanup at risk based standards are less protective of public health. The tension between these positions can lead to inaction.
- Even when existing programs help lead to the redevelopment of a brownfield, there is some concern about the ability of local governments to enforce the use associated with the cleanup standard the site attained. Some question the actual and legal longevity of deed restrictions because of potential difficulty with enforcement.
- For many reasons, including decentralization of redevelopment efforts, lack of definitional clarity, and lack of funding, communities have not developed or maintained useable brownfields inventories. For example, in Cuyahoga County, there is an inventory of contaminated lots which is searchable for a number of specific brownfields characteristics but not for all brownfield sites in an area.
- Despite the attempts by Ohio EPA and federal and local governments to create some comfort for business and banks to get involved in redevelopment, many still fear the cleanup costs and liability associated with getting involved in contaminated properties.

RECOMMENDATIONS

- Improve systems for identification of sites and create a useful inventory of sites and site characteristics
- Use planning to identify areas and sites for redevelopment
- Facilitate the matching of sites to potential users
- Change statutes and programs to address the non-environmental barriers to brownfield redevelopment that are not addressed in existing programs
- Educate the public, businesses, and redevelopers about the benefits and opportunities that lie with existing programs

EXAMPLE REGULATIONS FOR GUIDANCE

We have found no model regulations specifically on brownfields redevelopment issues at the local level. Most law and regulation in this area is at the state and federal level. More information on brownfields issues in general and on state and federal brownfields redevelopment initiatives may be obtained from the resources listed below.

RESOURCES

US EPA Brownfields website, www.epa.gov/brownfields

- EPA's Brownfields Economic Redevelopment Initiative is designed to empower states, communities, and other stakeholders in economic redevelopment to work together in a timely manner to prevent, assess, safely clean up, and sustainably reuse brownfields. A brownfield is a site, or portion thereof, that has actual or perceived contamination and an active potential for redevelopment or reuse. EPA is funding: assessment demonstration pilot programs (each funded up to $200,000 over two years) to assess brownfields sites and to test cleanup and redevelopment models; job training pilot programs (each funded up to $200,000 over two years), to provide training for residents of communities affected by brownfields to facilitate cleanup of brownfields sites and prepare trainees for future employment in the environmental field; and, cleanup revolving loan fund programs (each funded up to $500,000 over five years) to

capitalize funds to make loans for the environmental cleanup of brownfields. These pilot programs are intended to provide EPA, states, tribes, municipalities, and communities with useful information and strategies as they continue to seek new methods to promote a unified approach to site assessment, environmental cleanup, and redevelopment.

- Through its, Brownfields Assessment, Cleanup & RLF Pilots/Grants, US EPA has funded many projects in Ohio, including projects in Akron, Cleveland, Columbus, Dayton, Elyria, Fostoria, Girard, Hamilton, Lancaster, Lima, Lincoln Heights, Mahoning County, Mansfield, Reading, Sebring, Springfield, Toledo, and Youngstown. EPA includes in its "success stories" projects in Cuyahoga County and Lima, Ohio.

US EPA Region 5 website www.epa.gov/R5Brownfields

- Includes contact information for officials involved in brownfields redevelopment throughout the region, including both local and rural areas.

Ohio EPA Voluntary Action Program(http://web.epa.state.oh.us/derr/volunt/volunt.html)

- This program was designed to provide a way to investigate possible contamination at a site, clean it up if necessary under the supervision of a certified environmental professional, and receive a promise from the State of Ohio that no more cleanup is needed. The promise, called a "covenant not to sue," protects the participant from liability to the State of Ohio, but it does not protect against liability to third parties or US EPA. Ohio EPA has negotiated a Memorandum of Agreement with US EPA to provide a process by which a participant may derive some protection from federal liability by following a cleanup process overseen directly by Ohio EPA personnel and includes opportunities for public review of and comment on documents regarding the site.

Clean Ohio Program http://www.odod.state.oh.us/ud/CleanOhioFund.htm

- The Clean Ohio Revitalization Fund and the Clean Ohio Assistance Fund, are financial tools which were developed to provide funding for brownfield clean up activities which are a key component in brownfield redevelopment. Brownfield redevelopment allows a community to reclaim and improve its lands, making previously developed property viable for new development.
- The Clean Ohio Revitalization fund and the Clean Ohio Assistance Fund are a $200 million dollar initiative approved by Ohio voters as part of the $400 million Clean Ohio Fund. The continuation of this program would be subject to reauthorization in 2005. The Ohio Department of Development, through its Office of Urban Development, implements the Clean Ohio Revitalization and Assistance Funds in consultation with the Ohio Environmental Protection Agency. Contact: Office of Urban Development, Ohio Department of Development, 77 South High Street, 26th Floor, Columbus, Ohio 43216-1001, 614-995-2292 oud@odod.state.oh.us

Cuyahoga County

- The Cuyahoga County Planning Commission developed its Brownfields GIS (geographic information system) as a project through its Brownfields Pilot Demonstration project. The system, begun in 1995 and updated in its current status as an internet application, was designed to promote both economic development of industrial property and to provide information to the public on the status of industrial and commercial sites. The site provides an array of environmental data which may be useful in transaction screening analyses and Phase I assessments. Economic factors and certain infrastructure attributes can also be screened through radial searches featuring demographics, census blocks, travel time, roadways, utility, and rail lines.
- The District One Public Works Integrating Committee (DOPWIC) oversees implementation of the State Capital

Improvement Program (Issue 2) in Cuyahoga County. In addition to providing financing for capital infrastructure projects, the DOPWIC evaluates and selects brownfields redevelopment projects for financial assistance.

Ohio Environmental Protection Agency, Division of Emergency and Remedial Response, 122 S. Front St., Columbus, OH 43215; Tel: 614-644-2924; Web: http://www.epa.state.oh.us/derr/SABR/Brown/brown.html

Brownfields One Stop Shop (BOSS), Great Lakes Environmental Finance Center, Cleveland State University, 1717 Euclid Avenue, Cleveland, OH 45551; Tel: 330-528-3237; Web: www.glefc.org

ACCESS MANAGEMENT

BACKGROUND

Access management regulations control the number and spacing of driveways, traffic signals, medians, and intersections. These regulations can control allowable turning movements to and from driveways and streets, provide for cross access between parcels and require adequate space for on-site vehicular circulation without causing overflow onto surrounding major highways. The purpose of these regulations is to reduce vehicular conflicts and accidents and maintain the capacity of the major highways. Poorly spaced driveways can reduce roadway capacity by over 50%, and it has been estimated that left turns at driveways account for 60% of accidents on many urban roadways.

Local officials need to rank each roadway based on its importance to mobility and access. The level of access control increases with the importance of the roadway.

The Ohio Department of Transportation (ODOT) adopted access management regulations for their highways in 1998. Those regulations are spelled out in detail in the ODOT Access Management Manual. A very short synopsis of those regulations is shown in the table below:

OHIO STATE HIGHWAY ACCESS CATEGORY		
CAT	**TRAFFIC**	**DESIGN STANDARDS**
I	High speed, high volume, long distance	Multi-lane; median; access at interchange; no direct
II	Relatively high speed, high volume, long distance through traffic for interstate, interregional, intercity and some intracity travel. Typically includes Expressways	Access at interchange or public street intersection; no direct private access allowed unless property retains deeded rights and then for RT.* LT** may be allowed if (1) the access does not have potential for
III	Moderate to high speeds, volumes, and distances for interregional, intercity, and intracity travel. Typically includes rural arterials, high-speed urban arterials, and some urban collectors.	No direct private access if property has other reasonable alternative access or opportunity to obtain such access, when allowed, generally for RT only. LT may be allowed if (1) the LT does not have the potential for signal, and if (2) the Department determines that the LT does not cause congestion or safety problems or lower the level of service, and (3) alternatives to the LT would cause roadway and intersection operation and safety problems, and (4) the LT does not interfere with operation of street system or access to.
IV	Balanced service to access and mobility at moderate to high speeds and volumes in rural areas for moderate to short distances and low	One direct access allowed per parcel; additional access may be allowed if the Department determines it meets access safety, design, and operational standards.
V	Low to moderate volumes, speed, and distance serving	All turning movements allowed subject only to safety considerations.

Often the only access restrictions placed on properties outside commercial areas and high density residential areas is to limit the number of driveways so that they are separated by a safe stopping distance for the posted speed limit. The driveway spacing for category IV highways maintained by ODOT is 250 feet for a section of roadway with a 35 miles per hour speed limit, 325 feet for 40 mph, 495 feet for 45mph, 550 feet for 50mph, and 605 feet for 55 mph.

Counties and townships were given authority to adopt access management regulations on county and township maintained roads by Substitute House Bill 366, which became effective October 24, 2002. Counties have one year to begin the process to implement access management regulations on both county and township-

maintained roads. After that time townships could adopt regulations for their roads if the county did not take action. Cities and villages already had authority under home rule.

Sometimes these driveway spacing requirements can require frontages larger than what might be required by subdivision regulations or zoning requirements depending on where existing driveways are on adjacent properties. Furthermore, limited sight distances near hillcrests or along horizontal curves might restrict driveway and street locations.

Access management can discourage strip development, flag lots, or minor subdivisions (lot splits) and promote clustering of land uses into unified developments with shared access. In addition to improving safety and mobility properly implemented access management can discourage wasteful land use practices that can be aesthetically unpleasing and environmentally harmful.

ISSUES

- County access management regulations must, to the extent possible, be consistent with county zoning regulations and must be coordinated with any existing township zoning regulations.
- Township access management regulations must, to the extent possible, be consistent with any county or township zoning regulations that are in effect in the township.
- County or township regulations apply to only county- and township-maintained roads in the unincorporated part of the townships. They either apply to any state routes inside or outside corporations nor to any streets or highways inside corporations.
- Non-urban townships may not adopt township access management regulations if the county has adopted access management regulations. Essentially county regulations take precedence over non-urban township access management regulations.
- Urban township access management regulations take precedence over county access management regulations on urban township maintained roads but not on county-maintained roads in that township.
- The best opportunity to establish the highest level of access management is when new roads are constructed or before development occurs.

RECOMMENDATIONS

A comprehensive countywide approach to access management is strongly recommended. Land use, zoning subdivision, and commercial regulations should address the following issues to support access management.

1. Building set back requirements to preserve right-of-way for future road improvements and achieve adequate sight distances.
2. Joint easement requirements to allow internal traffic circulation and encourage shared access between adjoining commercial frontage.
3. Minimum frontage requirements for conforming lots to support desirable access spacing.
4. Subdivision development along an arterial to provide access to all lots by an internal road system.
5. Regulate minor land divisions (lot splits) to support access standards.
6. Development review to provide an opportunity to ensure proper access and street layout in relation to existing and planned roadways.
7. Private road regulations and restrictions on flag lots or privately owned access easements to address substandard private roads and related land division problems.

RESOURCES

"Access Management Manual," Ohio Department of Transportation, Office of Urban & Corridor Planning.
Web: http://www.dot.state.oh.us/planning/

"Access Management," County Advisory Bulletin No.2002-06 September 2002, County Commissioners Association of Ohio. Web: http://www.ccao.org/newsletter/cab200206.

County Engineers Association of Ohio, 37 West Broad Street, Suite 660, Columbus Ohio 43215-4132, Tel: (614) 221-0707; Web: http://www.ceao.org.

Appendix A

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Appendix B

Executive summary

Balanced Growth is a strategy to protect and restore Lake Erie and its watersheds to assure long-term economic competitiveness, ecological health, and quality of life.

This report recommends a voluntary, incentive-based program for balanced growth in the Ohio Lake Erie basin. It calls for the creation of a planning framework that includes:

- A new focus on land use and development planning in the major river tributary watersheds of Lake Erie. The goal is to begin to link land-use planning to the health of watersheds.
- The creation of Watershed Planning Partnerships composed of local governments, planning agencies, nonprofit organizations, and other parties in each watershed. Participation in these partnerships would be voluntary but encouraged by incentives.
- The locally determined designation of Priority Conservation Areas and Priority Development Areas in each watershed.
- The development of suggested model regulations to help promote best local land use practices that minimize impacts on water quality.
- The alignment of state policies, incentives, and other resources to support watershed planning and implementation.

This framework follows from the recommendations and the "10 Guiding Principles" of the *Lake Erie Protection & Restoration Plan*. And it builds on many existing watershed initiatives that have received broad community support and will allow the state to promote many other important objectives related to economic competitiveness and quality of life.

Rationale for balanced growth and this initiative

- Lake Erie is Ohio's greatest natural resource and provides tremendous natural and economic benefits to all Ohioans. It truly is a resource of global significance. As part of the Great Lakes, it is part of an interconnected, natural system with one-fifth of the world's surface freshwater and many rare ecosystems. These lakes have also been the source of one of the world's leading economies.
- The citizens of Ohio are stewards of this valuable resource. They must work together in their own communities, and in cooperation with other communities throughout the Great Lakes basin, to protect the health of the lake and its ability to sustain economic prosperity in the 21st century.
- Recognizing the critical link between land use and water quality, the *Lake Erie Protection and Restoration Plan* called for a Balanced Growth Task Force to recommend ways that the State of Ohio can promote sustainable patterns of development.

Planning by watersheds

- The major river watersheds of Ohio's Lake Erie Basin are appropriate geographic areas for effective land-use planning that addresses growth and development issues transcending county, municipal, and township boundaries, as well as local issues.
- The concept of watershed-scale planning is becoming an accepted approach in Ohio. Indeed, noteworthy collaborations are occurring in watersheds throughout the Lake Erie watershed and the rest of the state. Many local government activities already address watershed issues.

Watershed Balanced Growth Plans

- A Watershed Balanced Growth Plan is a framework for coordinated, local decision-making about how growth and conservation should be promoted by local and state policies and investments in the context of watersheds.

- The process should be locally driven and voluntary. The state should offer incentives for participation.
- The main feature of watershed balanced growth plans should be the designation of Priority Conservation Areas (PCAs) and Priority Development Areas (PDAs). Watershed plans are not comprehensive plans.
- PCAs are locally designated areas for protection and restoration. They may be critically important ecological, recreational, heritage, agricultural, and public access areas that are significant for their contribution to Lake Erie water quality and general quality of life.
- PDAs are locally designated areas where growth and/or redevelopment is to be especially encouraged in order to maximize development potential, maximize the efficient use of infrastructure, promote the revitalization of existing cities and towns, and contribute to the restoration of Lake Erie.

Watershed Planning Partnerships

- Watershed Balanced Growth Plans should be developed by local Watershed Planning Partnerships.
- The partnerships should be a local effort that, depending on the watershed, can be organized in flexible ways to respond to local conditions, existing planning structures, and available resources. Their work should be open, inclusive, and focused on consensus-building. Public education and involvement will be important parts of the process.
- The partnerships can be composed of representatives of local governments, planning agencies, councils of governments, special purpose authorities (such as metropolitan planning organizations, sewer districts, or transit authorities), or non-governmental organizations (such as watershed organizations, chambers of commerce, or land trusts).
- To assist with coordination and provide state-level input, state agency representatives should participate in the planning process as advisors.
- For staff support, the partnerships can contract with existing planning agencies, universities, nonprofit organizations, or other private consultants.
- To assure the implementation of plans, the partnerships must demonstrate the support of local governments with land-use planning and implementation authority.

Local government roles

- Since local governments can influence land use in Ohio, it is vital that they be strongly involved in the Watershed Planning Partnerships. Local governments are townships, villages, cities, and counties.
- Local governments will be encouraged to participate in the watershed planning process and help identify priority conservation and development areas.
- Once a Watershed Balanced Growth plan has been approved, local governments in the watershed will be encouraged to: (a) update and amend their existing land-use plans to reflect the watershed plan and establish consistency; (b) if no comprehensive or master land-use plans exist, develop such plans to the extent necessary to support implementation of the watershed plan; (c) adopt local ordinances/ resolutions based on the guidance for applicable best practices and models recommended by the Lake Erie Balanced Growth Task Force; (d) direct local capital expenditures to support the Priority Conservation Areas and Priority Development Areas in the watershed plan, as opportunities arise during the expansions or maintenance of existing infrastructure.

State roles

- The task force recommends that the State of Ohio support both the development of watershed-based plans for balanced growth and the implementation of such plans by special strategic initiatives and in the conduct of its regular activities.
- State support for balanced growth planning should include information, guidance, financial

assistance, technical assistance, and public education. The Lake Erie Commission should begin the balanced growth planning process by promoting pilot planning projects in at least two watersheds

- To support implementation of watershed plans, the state should develop a Lake Erie Balanced Growth Strategy that should describe how state programs, policies, and incentives will be aligned with local efforts to focus development efforts in PDAs and promote successful conservation efforts in PCAs.
- The state also should keep up to date the suggested best practices and model ordinances/ resolutions for minimizing development impacts on water quality that are contained in the accompanying Balanced Growth document entitled *Best Local Land Use Practices.*

Measuring success

Taking into account the unique character of different watersheds, the Lake Erie Commission should measure the progress of the Balanced Growth Program with the following three sets of indicators: programmatic successes, measures of actual changes in land-use, and actual improvements in water quality and habitat in the watershed.

Recommended implementation steps

In summary, the Lake Erie Balanced Growth Task Force recommends a number of specific implementation steps by the state (see Section 8 for details):

- Establish a Balanced Growth technical advisory committee to the Lake Erie Commission.
- Develop an Ohio Lake Erie Balanced Growth Strategy that describes the incentives and policies with which state agencies will promote balanced growth in the context of locally determined plans.
- Develop a public outreach and education program to explain the benefits of watershed-based planning and balanced growth.
- Initiate and support Balanced Growth Plan development, starting with at least two pilot projects.
- Monitor progress and adjust the program as needed.

Overall, balanced growth is in the long-term interest of Ohio. By linking land-use planning with the health of watersheds, the state will also be promoting other important objectives related to economic competitiveness and quality of life, including:

Sustaining natural systems in the Lake Erie Basin, as well as restoring what has been degraded.

- Providing consistency and predictability for development decisions, thus enabling more cost-effective development.
- Encouraging the reuse and redevelopment of urban lands.
- Maximizing the efficient utilization of infrastructure.
- Conserving farmland.
- Providing open space and recreational opportunities.
- Promoting compact development patterns that build on the unique qualities of communities.
- Helping local governments plan for economic development opportunities and streamline decision-making processes.
- Promoting greater transportation choices for communities.
- Providing consistency and predictability for development decisions, thus enabling more cost-effective development.

These recommendations will help move Ohio in a new direction in its thinking about growth and development. They will: raise the stewardship of Lake Erie to a higher level; promote new forms of regional cooperation; and help everyone in the state envision how, in the 21st century, the restoration of natural resources will be an essential part of Ohio's progress

Appendix C

Public Comments and Responses

The recommendations were publicized through news releases to the public, media, GLIN Announce, commission databases, list serves and at three public open house meetings (Bay Village, Toledo and Ashtabula) for the Task Force members to explain the proposals and solicit comments. A public comment period was also held from December 29, 2003 - February 18, 2004. Written comments have been received from 30 separate commentators.

All of the written comments have been summarized and are available for consideration during implementation. Editorial comments were considered and acted upon as appropriate. General comments of support have been summarized but did not entail a response. Changes to the documents were considered by the panel chair and workgroup chairs. These changes are underlined in the "Response/ Recommendation" column below.

Section	Comments	Response/Recommendations
Storm Water Management	Page 10: "Setbacks not buffers" The title implies an explanation why buffer terminology is not preferred, but none is given.	The following statement has been added: The term buffers has historically been used to describe agricultural areas not used for row crops and does not have a direct link to local zoning terminology and approach. Buffers, for example, tends to imply a prohibition on a range of uses and does not imply flexibility for non-conforming uses as well as variances to ensure lots remain buildable. By contrast, the term setback is more precise than buffers to explain that the riparian and wetland setback model regulations are simply requiring that structures and a limited number of uses be kept back a certain distance from watercourses and wetlands and that these model ordinances contain non-conforming use and variance sections.
Storm Water Management	Page 13: The list of resources did not contain ODNR Floodplain Management.	Ohio Department of Natural Resources, Division of Water, Floodplain Management Program http://ohiodnr.com/water/floodpln/ was added to the list.

Meadow Protection	Pages 24-27: The list of noxious weeds has particular application to agricultural settings where production is of primary importance. Additional invasive species may need referenced which can be obtained from the ODNR-Division of Natural Areas and Preserves.	A change has been made to final sentence of Meadow Protection section which now reads: Refer to your local SWCD for a list of invasive species and weeds of local concern. The ODNR Division of Natural Areas and Preserves can also provide a list of invasive species.
Agricultural Protection	There was no statement defining the relationship between the provisions of a agricultural zoning code and regulation of agricultural purposes.	The following language was added prior to the list of agricultural uses/activities: If the entity enacting such an Agricultural Zoning ordinance is a county or a township, it should clearly state that the ordinance does not attempt to regulate agricultural purposes and is in accordance with R.C. Sections 303.21 or 519.21 as applicable.
Agricultural Protection	The Lancaster County, PA model regulation is similar to the Miami Township, OH regulation.	The Lancaster County, PA model was removed from the list of example regulations.
Agricultural Protection	The Miami Township model agricultural regulations was wrongly identified as being from Greene County instead of Montgomery County.	The correct resource information has now been used: Miami Township, Planning & Zoning, 2700 Lyons Road, Miamisburg, OH 45342; Tel: (937) 433-3426; Web: http://www.miamitownship.com
Woodland Protection	The woodland protection section should also address trees.	The intention of this section is to encourage protection for trees and woodlands on development sites. Trees and was added prior to the first two instances of "Woodland" to clarify.
Transfer of Development Rights	The list of essential components for TDR legislation under the Recommendations reads as if they are a required and exhaustive list. Needs to be changed so that it is only a list of possible components.	The list of components, along with the statement Legislation in other states has included, among others, components such as: was moved to the background section.
Brownfields	In the background section, the definition of volunteer was unclear.	Added the statement: The volunteer doesn't have to be the responsible party, can be developer, municipality, etc.
Brownfields	The Clean Ohio Program was not included in the list of resources.	A description and contact information for the Clean Ohio Program was added to the list of resources.

Brownfields	In the background section, the use of the term "urban sprawl" was perceived as being too negative and should be replaced with a clearer statement of the problem.	The statement was changed to <u>As regions fail to redevelop and reuse land in urban areas, industries and developers develop more land in rural and suburban areas, thus contributing both to the loss of critical green space and agricultural lands, and to economic and population decline in older existing urban areas.</u>
Brownfields	In the background section, what an Ohio EPA issuance of a "covenant not to sue" meant was unclear.	Changed existing statement to read: <u>The volunteer may also seek a "covenant not to sue" from Ohio EPA promising that the state will not pursue legal action regarding the cleanup performed at the site. This covenant provides state civil liability protection for the environmental cleanup, but does not protect the volunteer from liability from third-parties or the U.S. EPA.</u>
Brownfields	Clarify the term VAP MOA-Track	Added statement that the process through which a volunteer may obtain protection from the U.S. EPA as well as by participating in a variation of the cleanup program that requires direct supervision by Ohio EPA and includes opportunities for public participation in the process is <u>known as the VAP MOA-Track.</u>
Brownfields	In the discussion of opposing viewpoints about brownfield redevelopment in the issues section, it was noted that there are perceived concerns with the use of risk-based standards	The wording of the fourth sentence under the sixth bullet was changed to "Others feel that the laws that encourage redevelopment by allowing cleanup at risk based standards are less protective of public health."
Brownfields	In the discussion of opposing viewpoints about brownfield redevelopment in the issues section, the inclusion of "In addition, many brownfields are located in areas in which residents tend to be somewhat politically inactive." was perceived as being too negative and not universally correct.	This sentence was removed.

Appendix B
Local Resolutions of Support

Resolutions of Support

Resolutions indicating 100% support and adoption of the Lower Mosquito Creek Watershed Balanced Growth Plan are included from the Board of Trumbull County Commissioners, Niles City, Warren City, Howland Township, Bazetta Township, Vienna Township, Fowler Township, Cortland City and Weathersfield Township.

The Board of County Commissioners, Trumbull County, Ohio, met in Regular Session on the 7th day of December, 2011, in the office of said Board, with the following members present:

Daniel E. Polivka, President
Frank S. Fuda, Commissioners
Paul E. Heltzel, Commissioner

* *

RE: ADOPT RESOLUTION OF JURISDICTIONAL SUPPORT FOR THE LOWER MOSQUITO CREEK WATERSHED BALANCED GROWTH PLAN

MOTION: Made by Mr. Heltzel, seconded by Mr. Fuda, to adopt a Resolution of Jurisdictional Support for the Lower Mosquito Creek Watershed Balanced Growth Plan.

RESOLUTION

WHEREAS, the Board of Trumbull County Commissioners understands there was initial one hundred percent (100%) local support in 2009 to proceed with the Lower Mosquito Creek Balanced Growth Planning Initiative; and

WHEREAS, the Board of Trumbull County Commissioners understands that the plan includes Priority Conservation Areas (PCA's) and Priority Development Areas (PDA's); and

WHEREAS, the Board of Trumbull County Commissioners understands that the implementation of the Balanced Growth Initiative is voluntary in our jurisdiction and is provided with the intent that the future comprehensive planning process should take this information into consideration; and

WHEREAS, the Board of Trumbull County Commissioners understands that upon resolution by 75% of the jurisdictions, 75% of the population represented and 75% of the land area in the watershed, the Balanced Growth criteria will be forwarded to the Ohio Lake Erie Commission and the Ohio Water Resources Council for their review and endorsement by the State of Ohio; and

WHEREAS, the Board of Trumbull County Commissioners understands that upon endorsement by the State of Ohio our jurisdiction would become eligible for state incentive programs in the future within our PDA's and PCA's; and

WHEREAS, the Board of Trumbull County Commissioners understands that the state incentive programs are still in the development stages and will continue to evolve.

NOW, THEREFORE, BE IT RESOLVED that the Board of County Commissioners of the County of Trumbull, Ohio, concur with the following:

Section 1: That as duly elected public officials and current office holders, the Board of Trumbull County Commissioners supports the Balanced Growth Initiative for the Lower Mosquito Creek Watershed as prepared by the Trumbull County Planning Commission with the Watershed Planning Partnership communities and technical partners.

Section 2: That the Watershed Balanced Growth Plan for the Lower Mosquito Creek Watershed identifies Priority Development Areas and Priority Conservation Areas, and is hereby adopted.

Section 3: That the Lower Mosquito Creek Watershed is directed to seek endorsement of the Balanced Growth Watershed Plan by the State of Ohio in order to permit the local government in the watershed to seek the benefits and incentives provided by this endorsement.

Section 4: That Priority Development Areas and Priority Conservation Areas identified in the Balanced Growth Watershed Plan are to be used by State of Ohio Agencies to guide state activities and programs and they will serve as the basis for special incentive programs to be directed to the Lower Mosquito Creek Watershed.

TRUMBULL COUNTY
COMMISSIONERS
160 High Street., N.W.
Warren, OH 44481

TELEPHONE
330-675-2451
FAX 330-675-2462

Section 5: That the Watershed Balanced Growth Plan will be supported by directing local resources, planning actions and considering best local land use practices to encourage protection of Priority Conservation Areas and Development of Priority Development Areas.

Yeas: Heltzel, Fuda, Polivka
Nays: None

BOARD OF COMMISSIONERS
TRUMBULL COUNTY, OHIO

DANIEL E. POLIVKA, PRESIDENT

FRANK S. FUDA, COMMISSIONER

PAUL E. HELTZEL, COMMISSIONER

CERTIFICATION

I, Paulette A. Godfrey, Clerk of the Board of County Commissioners, Trumbull County, Ohio, do hereby certify that the foregoing is a true and correct copy of a Resolution adopted by the Board of Trumbull County Commissioners on December 7, 2011, and is duly recorded in their Journal Volume 137, Page(s) 16381-16382.

Paulette A. Godfrey, Clerk/Interim Administrator
Board of County Commissioners

TRUMBULL COUNTY
COMMISSIONERS
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RESOLUTION 2011-129

RESOLUTION OF HOWLAND TOWNSHIP TO SUPPORT THE LOWER MOSQUITO CREEK WATERSHED BALANCED GROWTH PLAN

The Board of Trustees of Howland Township, Trumbull County, Ohio, met in Regular Session on December 14, 2011 with the following members present:

Rick G. Clark, Matthew Vansuch

Matthew Vansuch moved for the adoption of the following Resolution by the Howland Township Trustees:

WHEREAS, Howland Township understands there was initial one-hundred percent (100%) local support in 2009 to proceed with the Lower Mosquito Creek Balanced Growth Planning Initiative; and

WHEREAS: Howland Township understands that the plan includes Priority Conservation Areas (PCAs) and Priority Development Areas (PDAs); and

WHEREAS: Howland Township understands that the implementation of the Balanced Growth Initiative is voluntary in our jurisdiction and is provided with the intent that the future comprehensive planning process should take this information into consideration; and

WHEREAS: Howland Township understands that upon resolution by 75% of the jurisdictions, 75% of the population represented and 75% of the land area in the watershed, the Balanced Growth criteria will be forwarded to the Ohio Lake Erie Commission and the Ohio Water Resources Council for their review and endorsement by the State of Ohio; and

WHEREAS: Howland Township understands that upon endorsement by the State of Ohio our jurisdiction would become eligible for state incentive programs in the future within our PDAs and PCAs; and

WHEREAS: Howland Township understands that the state incentive programs are still in the development stages and will continue to evolve; and

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF TRUSTEES OF HOWLAND TOWNSHIP, OHIO.

SECTION 1: That as duly elected public officials and current office holders, we hereby support the Balanced Growth Initiative for the Lower Mosquito Creek Watershed as prepared by the Trumbull County Planning Commission with the Watershed Planning Partnership communities and technical partners.

SECTION 2: That the Watershed Balanced Growth Plan for the Lower Mosquito Creek Watershed identifies Priority Development Areas and Priority Conservation Areas, and is hereby adopted.

SECTION 3: That the Lower Mosquito Creek Watershed is directed to seek endorsement of the Balanced Growth Watershed Plan by the State of Ohio in order to permit the local government in the watershed to seek the benefits and incentives provided by this endorsement.

SECTION 4: That Priority Development Areas and Priority Conservation Areas identified in the Balanced Growth Watershed Plan are to be used by State of Ohio Agencies to guide state activities and programs and they will serve as the basis for special incentive programs to be directed to the Lower Mosquito Creek Watershed.

SECTION 5: That the Watershed Balanced Growth Plan will be supported by directing local resources, planning actions and considering best local land use practices to encourage protection of Priority Conservation Areas and development of Priority Development Areas.

IN WITNESS THEREOF, we, the Board of Trustees of Howland Township, Trumbull County, Ohio, hereunto set our hand the 14th Day of December 2011.

Rick Clark seconded the motion to pass the Resolution and upon roll call, the vote resulted as follows:

_____ yea

_____ yea

_____Sally Wehmer_____ excused

Adopted: December 14, 2011

State of Ohio)
) ss: CERTIFICATE OF FISCAL OFFICER
County of Trumbull)

I, Robert Costello, Fiscal Officer of the Board of Trustees of Howland Township, Trumbull County, Ohio in whose custody and control the files and records of such Board are required by the Laws of the State of Ohio to be kept, do hereby certify that the foregoing is taken and copied from the original resolution, and that the same is a true and correct copy thereof.

_____ Date: 12/14/11
Robert Costello, Fiscal Officer

REQUESTED BY:
FLASK-SFERRA

LAW DEPARTMENT
DRAFT NO. 3204

TITLE

A RESOLUTION FOR THE PURPOSE OF SUPPORTING THE BALANCED GROWTH INITIATIVE FOR THE LOWER MOSQUITO CREEK WATERSHED AND ADOPTING THE WATERSHED BALANCED GROWTH PLAN FOR THE LOWER MOSQUITO CREEK WATERSHED.

RESOLUTION NO. 4510/11

WHEREAS, the City of Warren understands that there was initial one-hundred percent (100%) local support in 2009 to proceed with the Lower Mosquito Creek Balanced Growth Planning Initiative; and

WHEREAS, the City of Warren understands that the plan includes Priority Conservation Areas (PCAs) and Priority Development Areas (PDAs); and

WHEREAS, the City of Warren understands that the implementation of the Balanced Growth Initiative is voluntary in its jurisdiction and is provided with the intent that the future comprehensive planning process should take this information into consideration; and

WHEREAS, the City of Warren understands that, upon resolution by 75% of the jurisdictions, 75% of the population represented and 75% of the land area in the watershed, the Balanced Growth criteria will be forwarded to the Ohio Lake Erie Commission and the Ohio Water Resources Council for their review and endorsement by the State of Ohio; and

WHEREAS, the City of Warren understands that, upon endorsement by the State of Ohio, its jurisdiction would become eligible for state incentive programs in the future within its PDAs and PCAs; and

WHEREAS, the City of Warren understands that the state incentive programs are still in the development stages and will continue to evolve; NOW THEREFORE

BE IT RESOLVED by the Council of the City of Warren, State of Ohio:

Section 1: That this Council and its duly elected public officials and current office holders hereby support the Balanced Growth Initiative for the Lower Mosquito Creek Watershed as prepared by the Trumbull County Planning Commission with the Watershed Planning Partnership communities and technical partners.

Section 2: That the Watershed Balanced Growth Plan for the Lower Mosquito Creek Watershed identifies Priority Development Areas and Priority Conservation Areas, and is hereby adopted.

Section 3: That the Lower Mosquito Creek Watershed is directed to seek endorsement of the Watershed Balanced Growth Plan by the State of Ohio in order to permit the local governments in the watershed to seek the benefits and incentives provided by said endorsement.

Section 4: That Priority Development Areas and Priority Conservation Areas identified in the Watershed Balanced Growth Plan are to be used by State of Ohio Agencies to guide State activities and programs and they will serve as the basis for special incentive programs to be directed to the Lower Mosquito Creek Watershed.

Section 5: That the Watershed Balanced Growth Plan will be supported by directing local resources, planning actions and considering best local land use practices to encourage protection of Priority Conservation Areas and development of Priority Development Areas.

Section 6: That this Resolution shall take effect and be in force from and after the earliest period allowed by law.

Passed in Council this 14th day of December, 2011.

SIGNED: Helen Ruckes ATTEST: Brenda Smith
PRESIDENT OF COUNCIL -PROTEM CLERK

FILED WITH THE MAYOR: 12-14-11

DATE APPROVED: 12-14-11

MAYOR, CITY OF WARREN, OHIO

Dayton Legal Blank, Inc., Form No. 30045

Resolution No. R-35-11 Passed Nov. 21, 2011, 20____

RESOLUTION OF JURISDICTIONAL SUPPORT FOR THE LOWER MOSQUITO CREEK WATERSHED BALANCED GROWTH PLAN

WHEREAS, the City of Cortland understands there was initial one-hundred percent (100%) local support in 2009 to proceed with the Lower Mosquito Creek Balanced Growth Planning Initiative; and

WHEREAS: the City of Cortland understands that the plan includes Priority Conservation Areas (PCAs) and Priority Development Areas (PDAs); and

WHEREAS: the City of Cortland understands that the implementation of the Balanced Growth Initiative is voluntary in our jurisdiction and is provided with the intent that the future comprehensive planning process should take this information into consideration; and

WHEREAS: the City of Cortland understands that upon resolution by 75% of the jurisdictions, 75% of the population represented and 75% of the land area in the watershed, the
Balanced Growth criteria will be forwarded to the Ohio Lake Erie Commission and the Ohio Water Resources Council for their review and endorsement by the State of Ohio; and

WHEREAS: the City of Cortland understands that upon endorsement by the State of Ohio our jurisdiction would become eligible for state incentive programs in the future within our PDAs and PCAs; and

WHEREAS: the City of Cortland understands that the state incentive programs are still in the development stages and will continue to evolve; and

NOW, THEREFORE,

BE IT RESOLVED BY THE COUNCIL OF THE CITY OF CORTLAND, OHIO:

SECTION 1: That as duly elected public officials and current office holders, we hereby support the Balanced Growth Initiative for the Lower Mosquito Creek Watershed as prepared by the Trumbull County Planning Commission with the Watershed Planning Partnership communities and technical partners.

SECTION 2: That the Watershed Balanced Growth Plan for the Lower Mosquito Creek Watershed identifies Priority Development Areas and Priority Conservation Areas, and is hereby adopted.

SECTION 3: That the Lower Mosquito Creek Watershed is directed to seek endorsement of the
Balanced Growth Watershed Plan by the State of Ohio in order to permit the local government in the watershed to seek the benefits and incentives provided by this endorsement.

SECTION 4: That Priority Development Areas and Priority Conservation Areas identified in the
Balanced Growth Watershed Plan are to be used by State of Ohio Agencies to guide state activities and programs and they will serve as the basis for special incentive

RECORD OF RESOLUTIONS

Dayton Legal Blank, Inc., Form No. 30045

Resolution No. R-35-11 *Passed* Nov. 21, 2011 , 20____

programs to be directed to the Lower Mosquito Creek Watershed.

SECTION 5: That the Watershed Balanced Growth Plan will be supported by directing local resources, planning actions and considering best local land use practices to encourage protection of Priority Conservation Areas and development of Priority Development Areas.

SECTION 6: This Resolution shall take effect and be in full force as early as allowed by law.

PASSED IN COUNCIL THIS 21 **DAY OF** NOVEMBER **, 2011.**

ATTEST: Donna Lyden
CLERK OF COUNCIL

Frank J. Stocz
PRESIDENT OF COUNCIL

FILED W/MAYOR 11-22-11
DATE

MAYOR

DATE APPROVED 11-22-11

ROLL CALL

Petrosky, aye
Piros, aye
Stocz, aye
Sweeney, aye
Tackett, aye
Woofter, aye
Linville, aye

I, Donna Lyden, Clerk of Council of the City of Cortland, do hereby certify that this is a true and correct copy of R-35-11 passed in Council the 21st day of November 2011.

Donna Lyden
CLERK OF COUNCIL

OFFICIAL SEAL

CLERK OF COUNCIL OF THE CITY OF CORTLAND OHIO SEAL

RESOLUTION OF JURISDICTIONAL SUPPORT FOR THE LOWER MOSQUITO CREEK WATERSHED BALANCED GROWTH PLAN

RESOLUTION

A Motion was made by Albert Crabbs to adopt the following Resolution:

WHEREAS, FOWLER TOWNSHIP understands there was initial one-hundred percent (100%) local support in 2009 to proceed with the Lower Mosquito Creek Balanced Growth Planning Initiative; and

WHEREAS: FOWLER TOWNSHIP understands that the plan includes Priority Conservation Areas (PCAs) and Priority Development Areas (PDAs); and

WHEREAS: FOWLER TOWNSHIP understands that the implementation of the Balanced Growth Initiative is voluntary in our jurisdiction and is provided with the intent that the future comprehensive planning process should take this information into consideration; and

WHEREAS: FOWLER TOWNSHIP understands that upon resolution by 75% of the jurisdictions, 75% of the population represented and 75% of the land area in the watershed, the Balanced Growth criteria will be forwarded to the Ohio Lake Erie Commission and the Ohio Water Resources Council for their review and endorsement by the State of Ohio; and

WHEREAS: FOWLER TOWNSHIP understands that upon endorsement by the State of Ohio our jurisdiction would become eligible for state incentive programs in the future within our PDAs and PCAs; and

WHEREAS: FOWLER TOWNSHIP understands that the state incentive programs are still in the development stages and will continue to evolve; and

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF TRUSTEES OF FOWLER TOWNSHIP, OHIO.

SECTION 1: That as duly elected public officials and current office holders, we hereby support the Balanced Growth Initiative for the Lower Mosquito Creek Watershed as prepared by the Trumbull County Planning Commission with the Watershed Planning Partnership communities and technical partners.

SECTION 2: That the Watershed Balanced Growth Plan for the Lower Mosquito Creek Watershed identifies Priority Development Areas and Priority Conservation Areas, and is hereby adopted.

SECTION 3: That the Lower Mosquito Creek Watershed is directed to seek endorsement of the Balanced Growth Watershed Plan by the State of Ohio in order to permit the local government in the watershed to seek the benefits and incentives provided by this endorsement.

SECTION 4: That Priority Development Areas and Priority Conservation Areas identified in the Balanced Growth Watershed Plan are to be used by State of Ohio Agencies to guide state activities and programs and they will serve as the basis for special incentive programs to be directed to the Lower Mosquito Creek Watershed.

SECTION 5: That the Watershed Balanced Growth Plan will be supported by directing local resources, planning actions and considering best local land use practices to encourage protection of Priority Conservation Areas and development of Priority Development Areas.

IN WITNESS THEREOF, we, the Board of Trustees of Fowler Township, Trumbull County, Ohio, hereunto set our hand the 14 Day of November 2011.

The Motion was seconded by Tom CARR with roll call as follows:

Albert CRABBS, aye; Tom CARR, aye; Jeffrey DAVIS, aye.

Chairperson

TOWNSHIP OF WEATHERSFIELD

"A Good Place to Live"
1451 Prospect Street
Mineral Ridge, Ohio 44440
Phone: (330) 652-6326· Fax: (330) 544-7491
Web Site: www.weathersfieldtwp.com

James E. Stoddard, Trustee
Steven J. Gerberry, Trustee
Marvin J. McBride, Trustee

Fred R. Bobovnyk, Fiscal Officer
David E. Pugh, Administrator

RESOLUTION OF JURISDICTIONAL SUPPORT FOR THE LOWER MOSQUITO CREEK WATERSHED BALANCED GROWTH PLAN

RESOLUTION

A Motion was made by MR Mc BRIDE to adopt the following Resolution:

WHEREAS, WEATHERSFIELD TOWNSHIP understands there was initial one-hundred percent (100%) local support in 2009 to proceed with the Lower Mosquito Creek Balanced Growth Planning Initiative; and

WHEREAS: WEATHERSFIELD TOWNSHIP understands that the plan includes Priority Conservation Areas (PCAs) and Priority Development Areas (PDAs); and

WHEREAS: WEATHERSFIELD TOWNSHIP understands that the implementation of the Balanced Growth Initiative is voluntary in our jurisdiction and is provided with the intent that the future comprehensive planning process should take this information into consideration; and

WHEREAS: WEATHERSFIELD TOWNSHIP understands that upon resolution by 75% of the jurisdictions, 75% of the population represented and 75% of the land area in the watershed, the Balanced Growth criteria will be forwarded to the Ohio Lake Erie Commission and the Ohio Water Resources Council for their review and endorsement by the State of Ohio; and

WHEREAS: WEATHERSFIELD TOWNSHIP understands that upon endorsement by the State of Ohio our jurisdiction would become eligible for state incentive programs in the future within our PDAs and PCAs; and

WHEREAS: WEATHERSFIELD TOWNSHIP understands that the state incentive programs are still in the development stages and will continue to evolve; and

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF TRUSTEES OF WEATHERSFIELD TOWNSHIP, OHIO.

SECTION 1: That as duly elected public officials and current office holders; we hereby support the Balanced Growth Initiative for the Lower Mosquito Creek Watershed as prepared by the Trumbull County Planning Commission with the Watershed Planning Partnership communities and technical partners.

SECTION 2: That the Watershed Balanced Growth Plan for the Lower Mosquito Creek Watershed identifies Priority Development Areas and Priority Conservation Areas, and is hereby adopted.

SECTION 3: That the Lower Mosquito Creek Watershed is directed to seek endorsement of the Balanced Growth Watershed Plan by the State of Ohio in order to permit the local government in the watershed to seek the benefits and incentives provided by this endorsement.

SECTION 4: That Priority Development Areas and Priority Conservation Areas identified in the Balanced Growth Watershed Plan are to be used by State of Ohio Agencies to guide state activities and programs and they will serve as the basis for special incentive programs to be directed to the Lower Mosquito Creek Watershed.

SECTION 5: That the Watershed Balanced Growth Plan will be supported by directing local resources, planning actions and considering best local land use practices to encourage protection of Priority Conservation Areas and development of Priority Development Areas.

IN WITNESS THEREOF, we, the Board of Trustees of **WEATHERSFIELD TOWNSHIP**, Trumbull County, Ohio, hereunto set our hand the 8th Day of November 2011.

The Motion was seconded by MR GERBERRY with roll call as follows:

Mr. McBride, aye; Mr. Gerberry, aye; Mr. Stoddard, aye.

James E. Stoddard
Chairperson

Steve Gerberry

Marvin McBride

VIENNA TOWNSHIP BOARD OF TRUSTEES

848 YOUNGSTOWN-KINGSVILLE ROAD
P.O. BOX 593
VIENNA, OHIO 44473

Telephone:
Town Hall 330-394-2319
Dreves 330-539-5418
Brown 330-219-0097
Dascenzo 330-720-6588
Anzur 330-394-1728
FAX 330-394-2319

REGULAR MEETINGS - 1st Monday, Each Month 7:00 p.m. VIENNA TOWNSHIP TOWN HALL

FACSIMILE TRANSMITTAL SHEET

To: Trish Nuskievicz **From:** Vicki L. Anzur

Fax: 330-675-2790 **Pages:** 2

Phone: **Date:** 10/24/11

Re: **REF #:**

☐ **Urgent** ☐ **For Review** ☐ **Please Comment** ☐ **Please Reply** ☐ **Please Recycle**

NOTES/COMMENTS:

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OCT 24 2011
TRUMBULL COUNTY
PLANNING COMMISSION

VIENNA TOWNSHIP BOARD OF TRUSTEES

848 YOUNGSTOWN-KINGSVILLE ROAD
P.O. BOX 593
VIENNA, OHIO 44473

Telephone:
Town Hall 330-394-2319
Dreves 330-539-5481
Brown 330-219-0097
Dascenzo 330-720-6588
Anzur 330-394-1728
FAX 330-394-2319

REGULAR MEETINGS - 1st Monday, Each Month 7:00 p.m. VIENNA TOWNSHIP TOWN HALL

RESOLUTION OF JURISDICTIONAL SUPPORT FOR THE LOWER MOSQUITO CREEK WATERSHED BALANCED GROWTH PLAN

RESOLUTION #11-101

The Board of Trustees of Vienna Township, Trumbull County, Ohio, met in Regular Session on June 6, 2011, at the office of Vienna Township Board of Trustees, 848 Youngstown-Kingsville Road, with the following members present:

Richard Dascenzo, Jr., Chairman
Heidi Brown, Trustee
Jeffrey Dreves, Trustee

A Motion was made by Mrs. Brown too adopt the following Resolution:

WHEREAS, the **TOWNSHIP/CITY** understands there was initial one-hundred percent (100%) local support in 2009 to proceed with the Lower Mosquito Creek Balanced Growth Planning Initiative; and

WHEREAS: The **TOWNSHIP/CITY** understands that the plan includes Priority Conservation Areas (PCAs) and Priority Development Areas (PDAs); and

WHEREAS: The **TOWNSHIP/CITY** understands that the implementation of the Balanced Growth Initiative is voluntary in our jurisdiction and is provided with the intent that the future comprehensive planning process should take this information into consideration; and

WHEREAS: The **TOWNSHIP/CITY** understands that upon resolution by 75% of the jurisdictions, 75% of the population represented and 75% of the land area in the watershed, the Balanced Growth criteria will be forwarded to the Ohio Lake Erie Commission and the Ohio Water Resources Council for their review and endorsement by the State of Ohio; and

WHEREAS: The **TOWNSHIP/CITY** understands that upon endorsement by the State of Ohio our jurisdiction would become eligible for state incentive programs in the future within our PDAs and PCAs; and

WHEREAS: The **TOWNSHIP/CITY** understands that the state incentive programs are still in the development stages and will continue to evolve; and

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF TRUSTEES OF VIENNA TOWNSHIP, OHIO.

SECTION 1: That as duly elected public officials and current office holders, we hereby support the Balanced Growth Initiative for the Lower Mosquito Creek Watershed as prepared by the Trumbull County Planning Commission with the Watershed Planning Partnership communities and technical partners.

SECTION 2: That the Watershed Balanced Growth Plan for the Lower Mosquito Creek Watershed identifies Priority Development Areas and Priority Conservation Areas, and is hereby adopted.

SECTION 3: That the Lower Mosquito Creek Watershed is directed to seek endorsement of the Balanced Growth Watershed Plan by the State of Ohio in order to permit the local government in the watershed to seek the benefits and incentives provided by this endorsement.

SECTION 4: That Priority Development Areas and Priority Conservation Areas identified in the Balanced Growth Watershed Plan are to be used by State of Ohio Agencies to guide state activities and programs and they will serve as the basis for special incentive programs to be directed to the Lower Mosquito Creek Watershed.

SECTION 5: That the Watershed Balanced Growth Plan will be supported by directing local resources, planning actions and considering best local land use practices to encourage protection of Priority Conservation Areas and development of Priority Development Areas.

The Motion was seconded by Mr. Dreves with roll call as follows:

Mrs. Brown, aye; Mr. Dascenzo, aye; Mr. Dreves. Motion carried.

State of Ohio)
) ss:
Trumbull County)

CERTIFIED BY THE FISCAL OFFICER

I, Vicki L. Anzur, Fiscal Officer of the Board of Trustees of Vienna Township, Trumbull County, Ohio, and in whose custody the files, journals, records of said Board are required by the laws of the State of Ohio to be kept, do hereby certify that the foregoing Resolution is taken and copied from the Original Resolution now on file with said board, that the foregoing Resolution has be compared by me with the said original and that the same is a true and correct copy thereof.

WITNESS, my signature, this 6 day of June, 2011

Vicki L. Anzur, Fiscal Officer
Vienna Township, Trumbull

SPONSORED BY: IMPROVEMENTS COMMITTEE
AUTHORIZED BY: PAPAS

DRAFT NO. 36-11

RESOLUTION NO. 17-11

A RESOLUTION OF JURISDICTIONAL SUPPORT
FOR THE LOWER MOSQUITO CREEK WATERSHED
BALANCED GROWTH PLAN

WHEREAS, the City of Niles understands there was initial one-hundred percent (100%) local support in 2009 to proceed with the Lower Mosquito Creek Balanced Growth Planning Initiative; and

WHEREAS, the City of Niles understands that the plan includes Priority Conservation Areas (PCAs) and Priority Development Areas (PDAs); and

WHEREAS, the City of Niles understands that the implementation of the Balanced Growth Initiative is voluntary in our jurisdiction and is provided with the intent that the future comprehensive planning process should take this information into consideration; and

WHEREAS, the City of Niles understands that upon resolution by 75% of the jurisdictions, 75% of the population represented and 75% of the land area in the watershed, the Balanced Growth criteria will be forwarded to the Ohio Lake Erie Commission and the Ohio Water Resources council for their review and endorsement by the State of Ohio; and

WHEREAS, the City of Niles understands that upon endorsement by the State of Ohio our jurisdiction would become eligible for state incentive programs in the future within our PDAs and PCAs; and

WHEREAS, the City of Niles understands that the state incentive programs are still in the development stages and will continue to evolve.

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF NILES, STATE OF OHIO;

SECTION 1: That as duly elected public officials and current office holders, we hereby support the Balanced Growth Initiative for the Lower Mosquito Creek Watershed as prepared by the Trumbull County Planning Commission with the Watershed Planning Partnership communities and technical partners.

SECTION 2: That the Watershed Balanced Growth Plan for the Lower Mosquito Creek Watershed identifies Priority Development Areas and Priority Conservation Areas, and is hereby adopted.

SECTION 3: That the Lower Mosquito Creek Watershed is directed to seek endorsement of the Balanced Growth Watershed Plan by the State of Ohio in order to permit the local government in the watershed to seek the benefits and incentives provided by this endorsement.

SECTION 4: That Priority Development Areas and Priority Conservation Areas identified in the Balanced Growth Watershed Plan are to be used by State of Ohio Agencies to guide state activities and programs and they will serve as the basis for special incentive programs to be directed to the Lower Mosquito Creek Watershed.

SECTION 5: That the Watershed Balanced Growth Plan will be supported by directing local resources, planning actions and considering best local land use practices to encourage protection of Priority Conservation Areas and development of Priority Development Areas.

SECTION 6: That this Resolution shall become effective at the earliest date allowable by law.

Robert A. Marino Jr
PRESIDENT OF COUNCIL

PASSED: July 6th 2011

ATTEST: Linda A. Yuhasz
CLERK OF COUNCIL

Filed with the Mayor of the City of Niles, Ohio on the 6th day of July, 2011 and signed by me as such Mayor on the 6th day of July, 2011.

Ralph A. Infante
MAYOR

Bazetta Township Trustees

3372 State Route 5, N.E. – Cortland, Ohio 44410-1699
Office Phone: 330-637-8816 / Fax: 330-637-4588
www.bazettatwp.org

RESOLUTION OF JURISDICTIONAL SUPPORT FOR THE LOWER MOSQUITO CREEK WATERSHED BALANCED GROWTH PLAN

A Motion was made by Trustee Urchek to adopt the following Resolution:

WHEREAS, BAZETTA TOWNSHIP understands there was initial one-hundred percent (100%) local support in 2009 to proceed with the Lower Mosquito Creek Balanced Growth Planning Initiative; and

WHEREAS: BAZETTA TOWNSHIP understands that the plan includes Priority Conservation Areas (PCAs) and Priority Development Areas (PDAs); and

WHEREAS: BAZETTA TOWNSHIP understands that the implementation of the Balanced Growth Initiative is voluntary in our jurisdiction and is provided with the intent that the future comprehensive planning process should take this information into consideration; and

WHEREAS: BAZETTA TOWNSHIP understands that upon resolution by 75% of the jurisdictions, 75% of the population represented and 75% of the land area in the watershed, the Balanced Growth criteria will be forwarded to the Ohio Lake Erie Commission and the Ohio Water Resources Council for their review and endorsement by the State of Ohio; and

WHEREAS: BAZETTA TOWNSHIP understands that upon endorsement by the State of Ohio our jurisdiction would become eligible for state incentive programs in the future within our PDAs and PCAs; and

WHEREAS: BAZETTA TOWNSHIP understands that the state incentive programs are still in the development stages and will continue to evolve; and

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF TRUSTEES OF BAZETTA TOWNSHIP, OHIO.

SECTION 1: That as duly elected public officials and current office holders, we hereby support the Balanced Growth Initiative for the Lower Mosquito Creek Watershed as prepared by the Trumbull County Planning Commission with the Watershed Planning Partnership communities and technical partners.

SECTION 2: That the Watershed Balanced Growth Plan for the Lower Mosquito Creek Watershed identifies Priority Development Areas and Priority Conservation Areas, and is hereby adopted.

SECTION 3: That the Lower Mosquito Creek Watershed is directed to seek endorsement of the Balanced Growth Watershed Plan by the State of Ohio in order to permit the local government in the watershed to seek the benefits and incentives provided by this endorsement.

SECTION 4: That Priority Development Areas and Priority Conservation Areas identified in the Balanced Growth Watershed Plan are to be used by State of Ohio Agencies to guide state activities and programs and they will serve as the basis for special incentive programs to be directed to the Lower Mosquito Creek Watershed.

SECTION 5: That the Watershed Balanced Growth Plan will be supported by directing local resources, planning actions and considering best local land use practices to encourage protection of Priority Conservation Areas and development of Priority Development Areas.

IN WITNESS THEREOF, we, the Board of Trustees of Bazetta Township, Trumbull County, Ohio, hereunto set our hand the 10th Day of April 2011.

The Motion was seconded by Trustee Parke with roll call as follows:

Trustee Horis, aye; Trustee Parke, aye; Trustee Urchek, aye.

Chairperson