

Ohio Balanced Growth Program

Big Creek Watershed Planning Partnership, October 2012

Kirby Date, AICP, Cleveland State University

Watershed Impacts of Development

- Remove natural vegetation
- Alter soil structure (compaction, removal)
- Modify channels
- Increase impervious surfaces (structures, compaction)



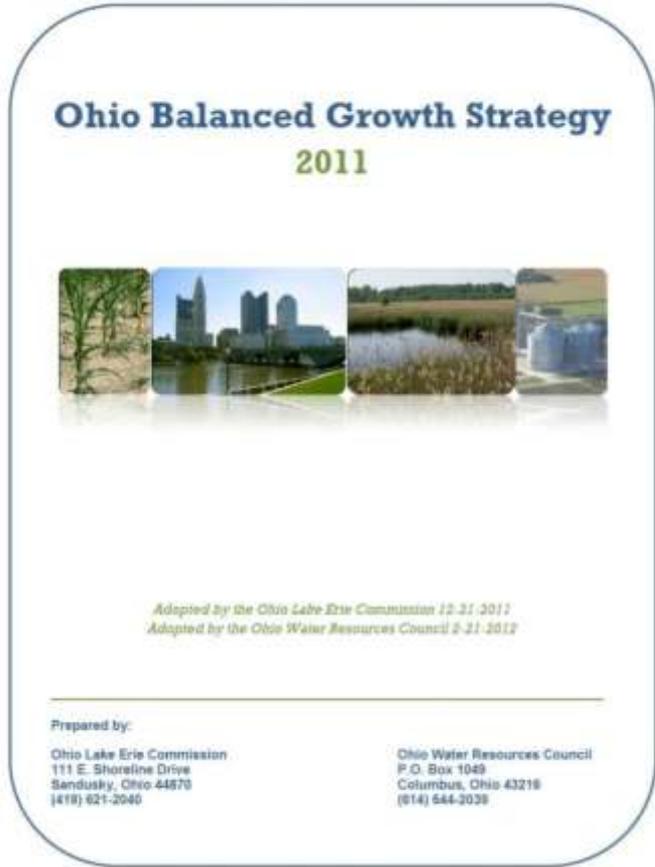
Results: Watershed Degradation



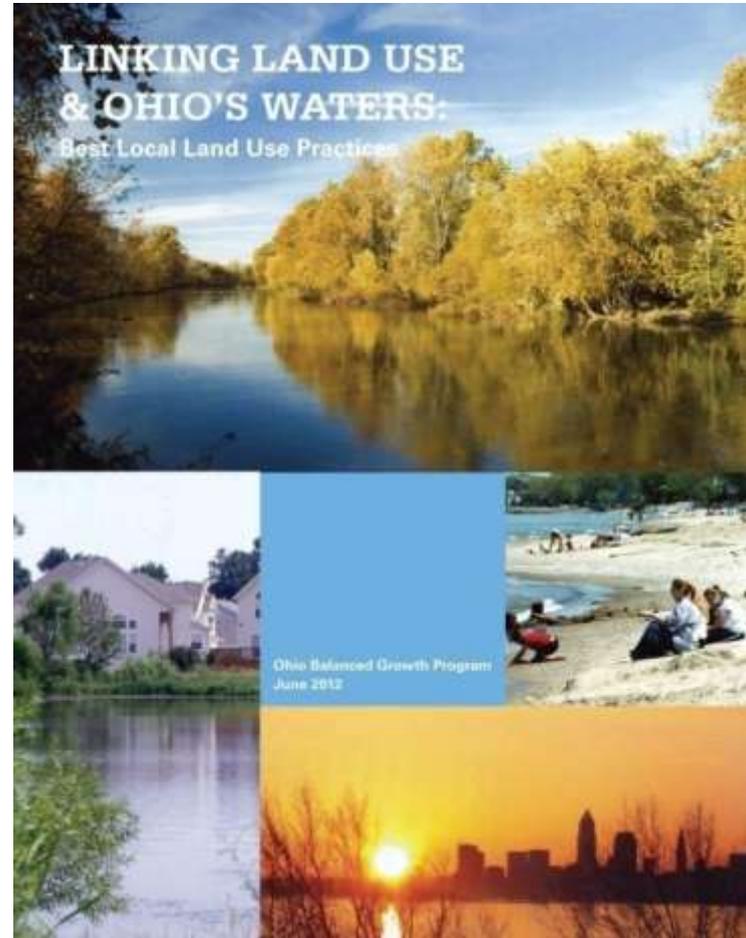
- Increased stormwater rates and volumes
- Increased erosion, sediment transport and deposition
- Increased pollutants
- Significant costs to communities and property owners

Linking Land Use and Ohio's Waters

Best Local Land Use Practices



A Planning Framework



Our Local Government Decisions Make a Difference!

- Location of development for minimum impact
- Management and control of storm water and erosion
- Protection of stream, floodplain and wetland areas so they can do their job as storm water infrastructure
- Protection of property through stormwater and floodplain management
- Enhancement of quality of life and our “great place”

Best Local Land Use Practices

- Comprehensive Planning
- Compact Development
- Conservation Development
- Storm Water Management
- Stream, Wetland and Floodplain Protection
- Natural Areas Establishment
- Source Water Protection
- Woodland Protection
- Steep Slope Protection
- Transfer of Development Rights
- Agricultural Land Protection
- Brownfields Redevelopment
- Historic Protection
- Scenic Protection
- Access Management

The screenshot shows a web browser window with the address bar displaying "balancedgrowth.ohio.gov". The browser's toolbar includes icons for Apple, Wikipedia, News, Popular, Imported From Safari, Google Maps, Yahoo!, and YouTube. The main content area is titled "Welcome to the Ohio Balanced Growth Program" and is divided into three columns. The left column contains a list of navigation links. The middle column features a definition of "Balanced Growth", a detailed description of the program's goals and process, and links to a map and a list of state-endorsed plans. The right column is titled "Featured Links" and includes four promotional boxes for various resources.

Welcome to the Ohio Balanced Growth Program

Balanced Growth Home
Balanced Growth Strategy
Balanced Growth Planning
Best Local Land Use Practices
Community Technical Assistance
Fact Sheets
Upcoming Events
Ohio Lake Erie Commission
Ohio Water Resources Council
Frequently Asked Questions
News

Balanced Growth: a voluntary, incentive-based strategy to protect and restore Lake Erie, the Ohio River, and Ohio's watersheds to assure long-term economic competitiveness, ecological health, and quality of life.

The goal of the program is to link land-use planning to the health of watersheds and major water bodies. Watershed Planning Partnerships comprised of local government representatives and others work toward the development and implementation of a Watershed Balanced Growth Plan. This Plan will contain maps of Priority Development Areas, Priority Conservation Areas, and Priority Agricultural Areas (if desired) based on specific measurable criteria that will support watershed-based land use planning and project implementation. 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 local role is to work towards the development, adoption, and implementation of the Plan, and the state's role is to support the local government effort and be responsive to the resulting state-endorsed Plan.

Watershed Balanced Growth Plans interface with and complement the existing [Watershed Action Plan \(WAP\)](#) process by providing an impairment *preventative* approach to water quality. Like the WAPs, the state will endorse the plan, and after endorsement, the participating local jurisdictions will be eligible for state incentives.

To see the map of the current Balanced Growth watersheds (pdf), [click here](#).

For a listing of current state endorsed watershed Balanced Growth Plans, see [this page](#).

Featured Links

March 2012 Watersheds Map

NEW Best Practices Toolkit

Land Use Toolkit

Online State Programs Inventory

Case Study Workshops

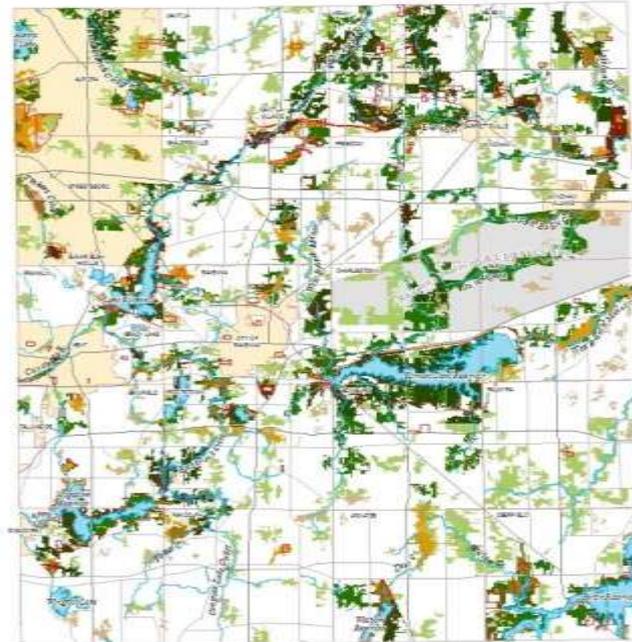
Member Agencies

Comprehensive Planning

- “The real estate market consistently demonstrates that many people are willing to pay a larger amount for property located close to parks and open space areas than for a home that does not offer this **amenity.**” (*Crompton, 2004*)
- “57% select the smart growth community and 43% select the sprawl community...” (*the 2011 Community, 2011*)
- “While the majority of Americans prioritize space and privacy, a lengthy commute can sway them to consider smaller houses and lots.” (*The 2011 community, 2011*)

Priority Wetlands & Woodlands

- One point each for:
- Large, undisturbed
 - Important buffer
 - Multiple vegetation communities
 - Proximity to riparian corridor or mature woods or significant wetlands
 - Vernal pools (wetlands only)
 - Within 500 feet of EPA high quality stream
 - Within 300 feet of a named stream
 - Adjacent to source water protection area
 - Connectivity to protected areas



Comprehensive Planning: the Key to Balance

- Sets development and conservation goals in an organized fashion – allows a “big picture” view
- Plans for long-term financial stability
- Resolves tradeoffs up-front
- Provides for future logical, consistent decision making
- Legal stability: logical justification of decisions
- Provides opportunity for alignment with Balanced Growth planning
- Sets a framework for implementation

Compact Development

- “Rational use of more compact development patterns promise savings...11.8% road building costs...6% sewer and water costs...3.7% annual operations” (*Muro and Puentes, 2004*)



Compact Development

- Applies to development or redevelopment
- Residential, commercial or mixed use
- Strong neighborhood design
- Pedestrian walkability
- Range of housing choices
- Range of transportation choices









Cottage Development

- Applies to small sites, 1-5 acres
- Focus on small homes, 1000 sf
- Good design,
- Central greenspace, room for storm water LID
- One parcel or separate parcels
- Infill or redevelopment
- Kansas City, northwest US



Photos: The Cottage Company

Storm Water Management – Erosion/Sediment Control – Low Impact Development



- “The improved water quality and reduced flood risk from green infrastructure development yields an economic benefit of \$6,900 to \$9,700 increase in value per acre for residential properties.” (*Buckley, 2011*)

Reducing Storm Water Impacts through Site Design

Conserve natural features

Minimize impervious surfaces

Infiltrate, evapotranspire
and slow down runoff

Treat stormwater close to the source

Use pervious areas for more
effective stormwater treatment

Achieve a marketable,
cost-effective product

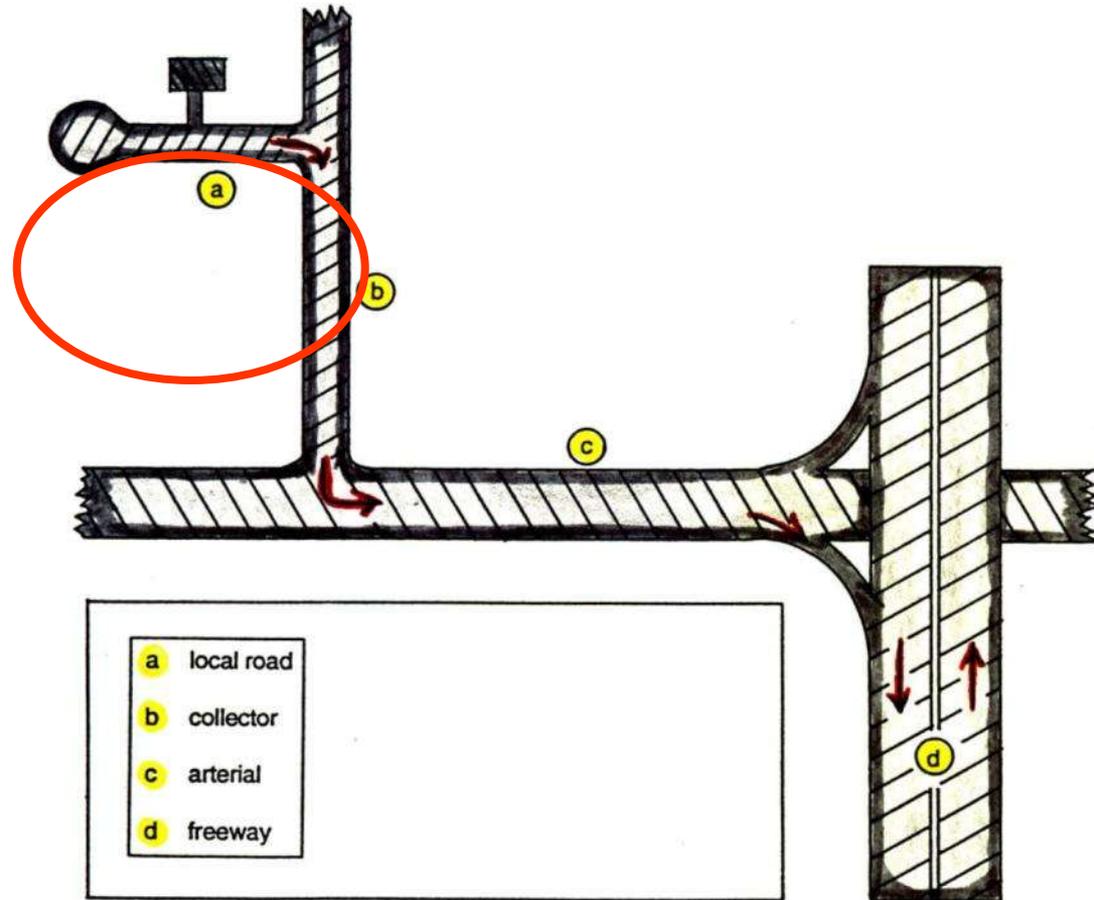


Source: J. Zielinski, Center for Watershed Protection

Streets

Design residential streets for minimum pavement width needed to:

- support travel lanes
- on-street parking
- emergency, maintenance, & service vehicle access
- based on traffic volume



Source: J. Zielinski, Center for Watershed Protection

Ohio Stormwater Treatment within the ROW



Photos: J. Zielinski, Center for Watershed Protection

Parking Lots

- Reduce number of parking stalls
- Reduce parking lot imperviousness
- Provide stormwater treatment within landscaped areas



Source: J. Zielinski, Center for Watershed Protection

Reduce Imperviousness



Source: J. Zielinski, Center for Watershed Protection

Rainwater Harvesting



Annapolis, MD

Source: J. Zielinski, Center for Watershed Protection

Rainwater Interception



Source: J. Zielinski, Center for Watershed Protection

Biofiltration



Source: J. Zielinski, Center for Watershed Protection

Stream, Floodplain, and Wetland Protection

- “If watersheds were comprised of 5-10% wetlands, they could provide a 50% reduction in peak flood period compared to watersheds **without wetlands.**” (*White & Fennessy, 2005*)
- “Stream and floodplain protection is the most cost-effective means of minimizing flood damage and **controlling erosion**” (*Chagrin River Watershed Partners, 2006*)



How does it work?

- Banks, vegetation and floodplain absorb flow and release slowly
- Vegetation slows flow, filters and settles pollutants and sediments
- 49 communities and 4 counties have adopted setback regulations in NE Ohio



Source: ODNR

Stream Restoration

- Many urban streams no longer have natural function



Impacts to Stream Corridor

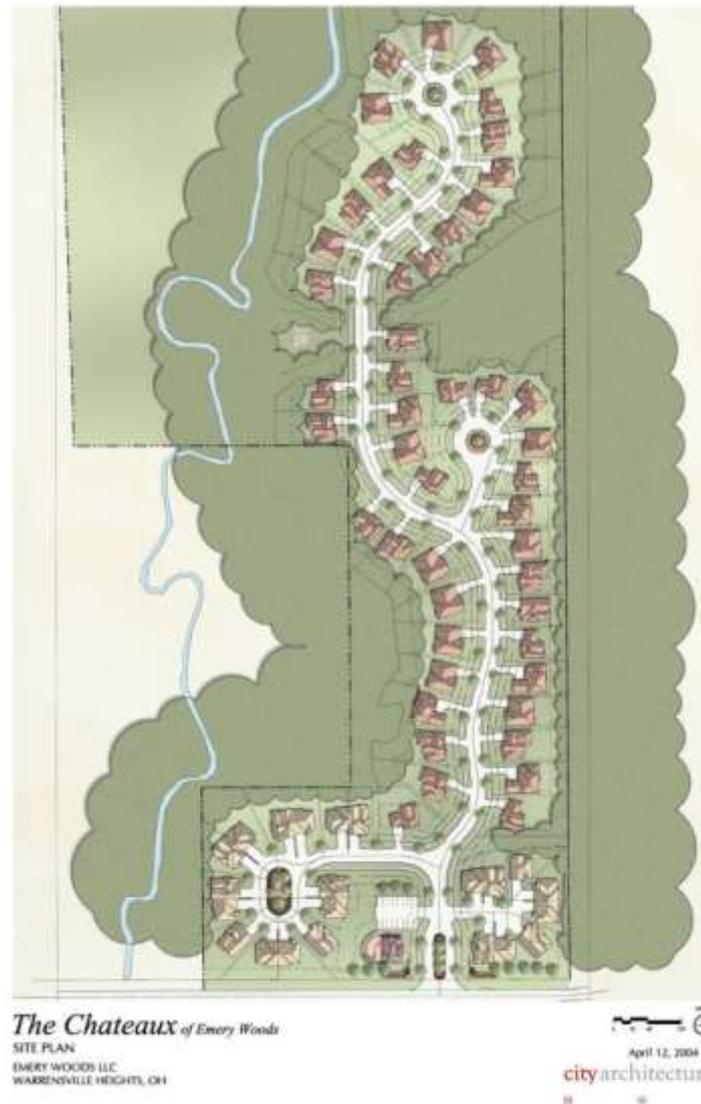
- ✓Threatens structures
- ✓Costly to repair





Flexible Development

- “Lots in conservation developments sell at a premium, are less expensive to build, and sell more quickly than lots in conventional subdivisions. Developed lots in conservation developments carry additional value ranging from 12-16% per acre over lots in conventional subdivisions.”
(Mohamed, 2006)



Flexible Development, Conservation Development, PUD, PRD

- A planned unit development with special standards for preserving resources
- Residential, commercial, institutional or mixed use
- Usually an option, with incentives
- Concentrates permitted development capacity on the site, while conserving the rest in open space



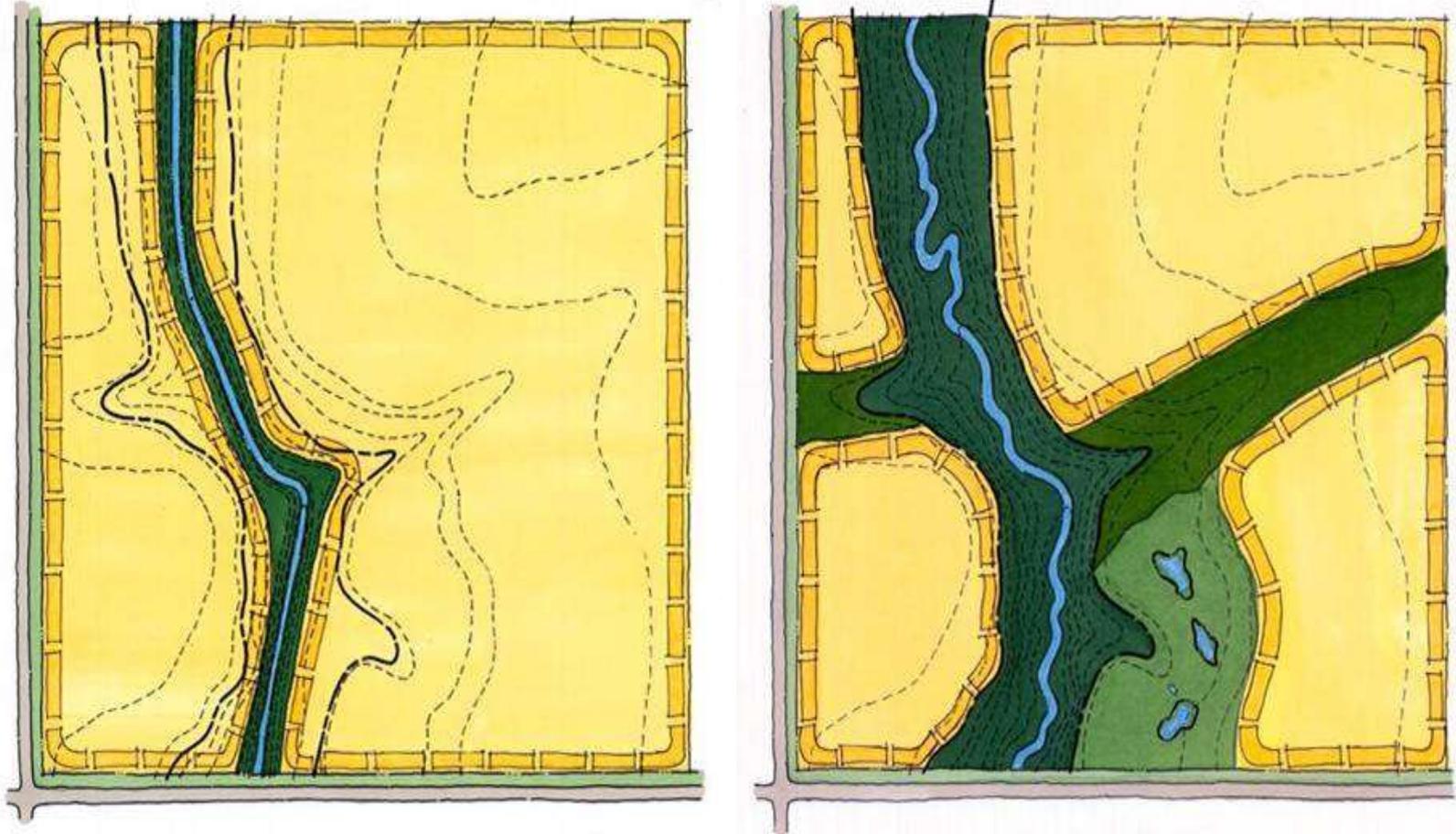
Conventional



Conservation Development

- 40-50% Permanent Open Space
- Quality Open Space
- Resource Protection
- Appropriate Development Intensity

Stream setback in a flexible development















Natural Areas Management

- “...landowners can save between \$270 and \$640 per acre in annual mowing and maintenance costs when open lands are managed as a natural buffer area rather than turf.”
(Center for Watershed Protection, 2000)



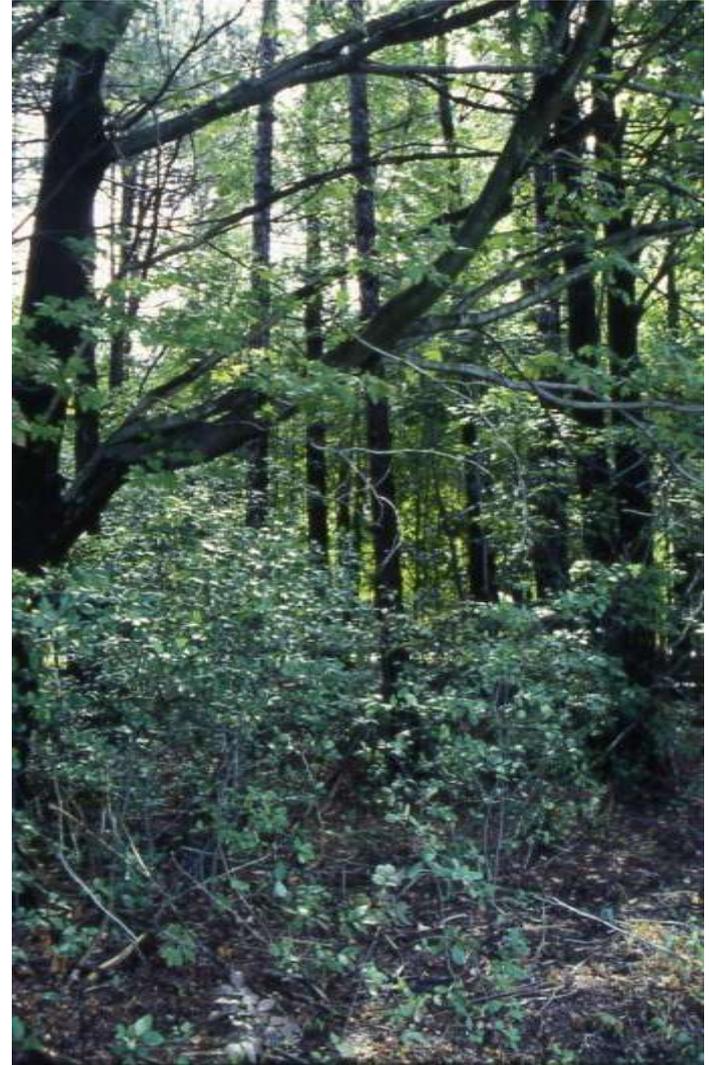
Natural Areas Management

- Allowing natural areas instead of horticultural lawns helps to reduce surface water flows, filter storm water, and enhance the community environment
- Controls are needed to ensure landscape quality
- Metroparks are excellent examples of applications with good design features



Tree and Woodland Protection

- “...Increasing tree canopy cover in U.S. cities to 40% [from 33.4%] would add \$100 billion to the \$400 billion in storm water retention benefits that trees **currently provide nationwide.**” (*Young, 2011*)
- “Increasing tree cover 10% would result in savings of \$50 to \$90 per dwelling unit in annual heating and cooling costs.” (*McPherson, 1997*)
- “Proximity to a forest preserve provides a [property value] price premium of up to 35%” (*Thorsnes, 2002*)



Tree and Woodland Protection

- Pre-Design: identify trees of value
- Design: Design to ensure tree success
- During construction: Avoid tree damage
- Post-construction: monitor
- Applies to street and development site trees



Best Land Use Practice: Steep Slope Protection

- “Providing public services and infrastructure to steep slope development may well exceed the tax revenue received from **these properties.**” (*Mountain Ridge and Steep Slope Advisory Committee, 2008*)



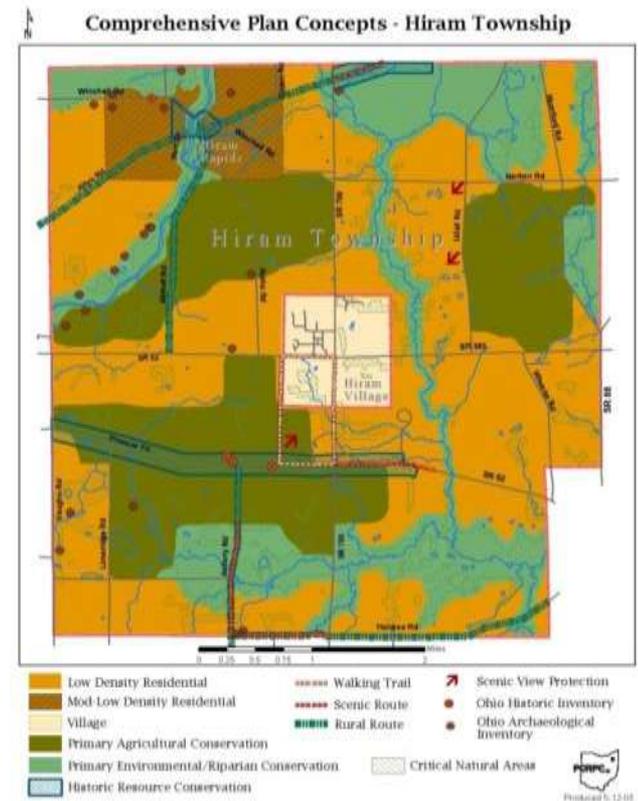
Steep Slope Protection

- Tie restrictions to engineering study done to evaluate hazards
- Expand stream setback to accommodate adjacent steep slopes



Transfer of Development Rights: An Opportunity

- “TDRs have successfully harnessed market mechanisms...the twenty most successful TDR programs in the nation have preserved over 350,000 acres of land...” (Pruetz and Standridge, 2009)



Transfer of Development Rights

- Decrease development intensity in sending zone, and increase in receiving zone



Ohio | Balanced Growth



Lake Erie
Commission

Gail Hesse
Executive Director
Sandra Kosek-Sills
Environmental Specialist
www.lakeerie.ohio.gov
419.245.2514



Water Resources
Council

Brian Hall
Administrator

www.ohiodnr.com/owrc



Kirby Date, AICP
Best Local Land Use Practices
Program Manager
216.687.5477

k.date@csuohio.edu