

Chagrin River Watershed Partners, Inc.
Local Codes and Incentives

Amy H. Brennan
 (440) 975-3870
 abrennan@crwp.org
 www.crwp.org

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Local Codes and Incentives

- Identify and evaluate local codes
 - USEPA Water Quality Scorecard audit tool
- Eliminate local policies that pose barriers to green infrastructure
- Encourage the use of green infrastructure approaches through local incentives

Green Infrastructure at 3 Scales

- Site
 - Rain gardens, green roofs, pervious pavers
- Neighborhood
 - Street networks, parking, mixed use
- Community or Watershed
 - Open space, infill development, trees

4 Ways to Impact Change

- Adopt Plans
- Enact Regulations
- Remove Barriers
- Create Incentives

Adopt Plans

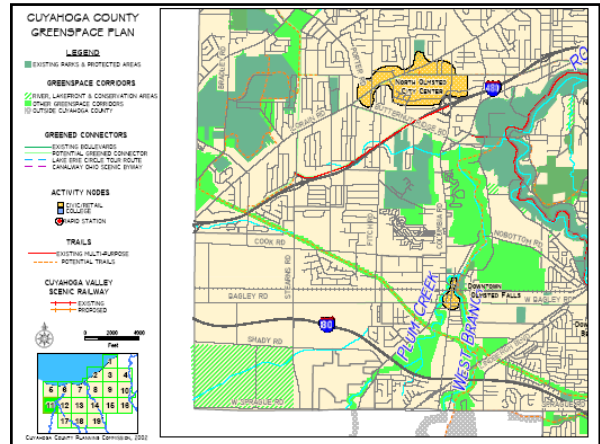
- Community Comprehensive Land Use Planning
- Open Space Planning
- Watershed Planning

Portage Park District
 Parks, Trails, and Greenway Master Plan

Aurora Master Plan

Prepared by
 City of Aurora Planning, Zoning, and Building Division
 Chagrin River Watershed Partners, Inc.
 C.M. Frederick, Landscape Architect

April 2008



Watershed Planning

Chagrin River Watershed Action Plan

Chagrin River Watershed Partners, Inc.
PO Box 229
Willoughby, Ohio 44094
(440) 937-3800 (Phone)
(440) 937-3800 (Fax)
2010@chagrin.com
www.chagrin.com

- > Identifies water quality problems & solutions.
- > Implementation may include pollution control measures, stream restoration, adopting local policies to protect water resources, or protecting resources.

Chagrin River Watershed Balanced Growth Plan

Chagrin River Watershed Partners, Inc.

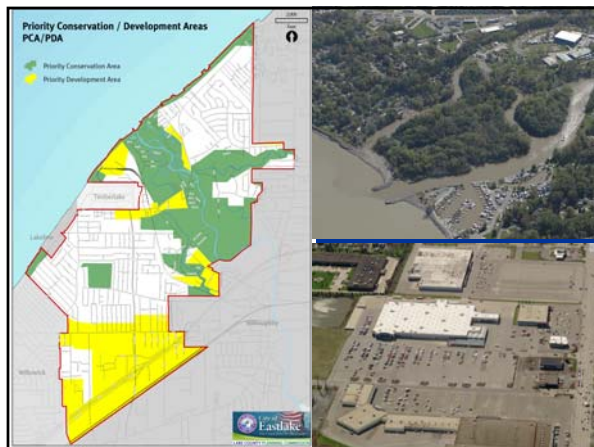
- > Designation of Priority Conservation and Development Areas
- > Implementation is undertaken by local jurisdictions through integration with local planning processes.

Balanced Growth Program

The Balanced Growth Program is 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.

Key Aspects of Balanced Growth

- > Align State activities with local priorities.
- > Maximizes incentive based initiatives
- > Honors Ohio's Home Rule tradition
- > Focuses on ecological protection/restoration and economic development
- > Designate conservation and development priorities
- > Adopt codes to facilitate development and conservation



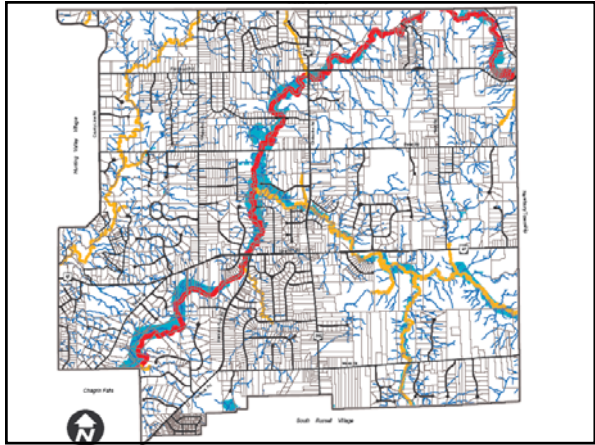
Enact Regulations

- Enact local zoning regulations that align with comprehensive plan
- Tailor codes to each community
- CRWP recommends that each community adopt:
 - > Erosion and Sediment Control
 - > Stormwater Management
 - > Riparian and Wetland Setbacks
 - > Alternative Site Design



Riparian & Wetland Setbacks

- **Zoning tool** to limit development within specific distances of streams and wetlands to **protect property** and **limit infrastructure costs**.
- **Controls location** of soil disturbing activities.
- **Does not apply to existing structures and uses.**
- **Variations** available, as with all zoning codes.



Impervious cover and building in riparian areas and wetlands increases flooding and flood impacts.

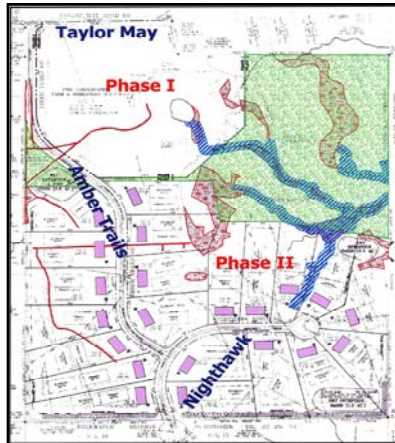


Conservation Development

- Subdivision layouts that allow homes to be arranged for minimal impacts.
 - Conservation Development
 - Open Space Housing
 - Cluster Development
- Benefits of this approach to site design
 - Reduce infrastructure costs.
 - Maintain open space, historic uses, and community character.
 - Increase property values.
 - Provide options for unusual and difficult parcels.

Important Components of a Conservation Development Code

- Require a minimum of 40% open space.
- Conservation easements on open space.
- Required setbacks not included in the open space calculation.
- Overall impervious cover limit.
- Limit structural stormwater management in open space.
- Approved development plan.
- Density of dwelling units determined by approved yield plan.



Amber Trails

Bainbridge
 99 acres TOTAL
 42 protected
 21 acres as
 agricultural use



Compact Development



Traditional Neighborhood Design

Compact, livable neighborhoods to attract more people and business and provide efficient infrastructure.

Incorporate:

- Mixed-use development
- Parks and recreation areas
- Design & landscaping guidelines
- Maximum parking requirements
- Access to public transport
- Pedestrian & bicycle friendly



Steep Slopes Regulations





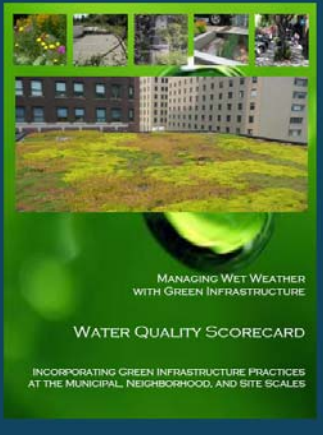
Meadow Protection



Tree Preservation

US EPA's Water Quality Scorecard:

Evaluating Local Codes



USEPA Water Quality Scorecard

1. **Protect Natural Resources and Open Space:** Parks, Riparian and Wetland Setbacks, Conservation Development, Tree Preservation
2. **Promote Compact Development and Infill:** Direct development to existing developed areas with infrastructure, promote mixed use, and transit oriented developments
3. **Design Complete, Smart Streets that Reduce Imperviousness:** Appropriate street and driveway widths, considerations for pedestrians and cyclists, allow pervious paving materials.
4. **Encourage Efficient Parking Supply:** Allow flexible parking arrangements, shared parking, land banking, and stormwater management in landscaping.
5. **Green Infrastructure On Site:** Encourage and remove barriers to green infrastructure, stormwater reuse, maintenance of stormwater features.

Remove Barriers

- Evaluate existing zoning and subdivision codes to ensure barriers to green infrastructure are eliminated.
- Common code barriers:
 - Parking code
 - Stormwater management code
 - Paving standards
 - Uses in right of way
 - Road specifications
- Ensure code changes are consistent throughout the zoning, building and subdivision codes.

Evaluate Existing Barriers

- Allow or encourage retrofits of abandoned or underutilized public lands as open space.
- Plan for public utilities to allow enough space for mature tree canopy and root development.
- Establish brownfields program to remove uncertainty regarding cleanup and liability issues.

Parking Code Barriers

- May require asphalt or concrete paving materials.
- Number of required parking spaces & parking maximums.
- Width of parking stalls and aisles.
- Allow shared parking and land banking.
- Landscape requirements: Allow the use as stormwater management.



Storm Water Management Barriers

- May require connection of downspouts.
- Preference for open swale drainage over curb and gutter.
- May not allow for use of floodplain restoration, bioretention, or infiltration practices.
- Allow offsite stormwater management to promote infill development and redevelopment.



Alternative Site Design

- Consider options of Planned Unit Developments, Conservation Developments, or Compact Development.
- Allow mixed use and flexible site design alternatives to promote infill and redevelopment.
- Treatment of home sewage in nonsewered areas.



Create Incentives

- Types of Incentives:
 - Fee Discount
 - Development Incentives
 - Rebates & Installation Financing
 - Grants
 - Stormwater Regulation
 - Awards & Recognition Programs

Portland, Oregon

- Up to 100% discount off on-site fee, or 35% of total stormwater charge
- Single family home discount based on roof runoff management
- Commercial, industrial, multi-family home discount based on runoff managed from roof *and* paved areas
- Partial credit for tree planting, ecoroofs and less than 1000 sq ft imperviousness

Philadelphia, Pennsylvania

- 50% discount for residents and businesses
- Decrease directly connected impervious areas
- Rain gardens, porous asphalt and sidewalks, swales, green roofs.



Development Incentives

- Chicago
 - Green Permit Program
- Philadelphia
 - Green Roof Tax Credit
 - Unofficial expedited permitting
- Portland
 - Floor Area Ratio Bonus

Rebates & Installation Financing

- Austin: Rebate for rain barrel and irrigation
- DC: River Smart Homes, \$1200
- Montgomery County, MD: RainScapes Rewards, \$1200 homes, \$5000 commercial & multi-family
- Chicago: Green Roof Grants, \$5000
- Portland: Community Watershed Stewardship Grants
- Minneapolis: \$2000 residential, \$30,000 commercial/government
- Santa Monica: Landscaping grants

Stormwater Regulation

- Philadelphia's Stormwater Requirement

Requirement	New Development	Redevelopment
Water Quality	Comply	Comply
Channel Protection	Comply	May be Exempt
Flood Control	Comply	May be Exempt
Nonstructural Site Design	Comply	Comply

Awards and Recognition Programs

- Chicago
 - Mayor Daley's GreenWorks Awards
- Portland
 - BEST (Businesses for an Environmentally Sustainable Tomorrow)
 - Eco-logical Business Program
- Philadelphia
 - Stormwater BMP Recognition Program
- King County, WA
 - Businesses for Clean Water
 - Greening In Place Awards

Green Infrastructure Municipal Handbook Series



www.epa.gov/greeninfrastructure

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