Green-Lining
Your Community: Planning for a Community-wide Greenway System

Summary of resource-based greenway delineation process and development of conceptual greenway map

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A Municipal Case Study

• An existing rural community
• Upper Salford Township
  – 3,114 people and 1,136 homes
  – Projected to add roughly 25 dwellings per year
  – Zoning will allow 1,900 units at buildout (2070)
• Expect incremental growth in mostly small, scattered developments
A Solid Foundation to Build Upon

- Past Planning in support of greenway preservation
  - Adopted Regional Comprehensive Plan
  - Completed Greenway-oriented Open Space Plan
  - Developed Rural Residential Zoning using NLTs *Growing Greener* Ordinances
Rural Residential Zoning

- Required on parcels > 10 acres
- Creates a choice
  - Rural subdivision of 4-acre lots
  - Conservation subdivision with minimum lot size of 15,000 sq. ft. (at 2-acre density)
- Density determined by site capacity calculations
  - Subtract a portion of natural features from gross site area
  - Density based upon net buildable area
How to Calculate Site Capacity

Simplified Example of a Density Calculation

<table>
<thead>
<tr>
<th>Environmental Constraint</th>
<th>Acres of Environmental Constraint</th>
<th>Acres That Do Not Overlap With More Restrictive Constraints</th>
<th>Adjustment Factor</th>
<th>Acres of Constraint to Subtract</th>
</tr>
</thead>
<tbody>
<tr>
<td>Floodplain</td>
<td>1.3</td>
<td>1.3</td>
<td>1.0</td>
<td>1.3</td>
</tr>
<tr>
<td>Wetlands</td>
<td>0.1</td>
<td>0.1</td>
<td>1.0</td>
<td>0.1</td>
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<tr>
<td>Woodlands</td>
<td>21.6</td>
<td>18.4</td>
<td>0.50</td>
<td>9.2</td>
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<tr>
<td>Steep Slopes of 10-24%</td>
<td>1.4</td>
<td>1.4</td>
<td>0.67</td>
<td>0.9</td>
</tr>
<tr>
<td>Steep Slopes of 25% or more</td>
<td>0.4</td>
<td>0.4</td>
<td>1.0</td>
<td>0.4</td>
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<tr>
<td>Soils with Seasonal High Water Table 18”-36”</td>
<td>3.6</td>
<td>0</td>
<td>0.33</td>
<td>0</td>
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<tr>
<td>Total Constraints to be Subtracted</td>
<td></td>
<td></td>
<td></td>
<td>11.9</td>
</tr>
</tbody>
</table>
Rural Residential Zoning

• Requires 60-percent open space
  – Average lot size ≈ 23,000 square feet

• Greenway delineation standards in SALDO
  – Preserve all primary resources
  – Preserve secondary resources priority order
Rural Residential Zoning

• Approval process often focuses heavily on property to be developed
  – May consider adjacent properties
  – Importance of site-specific resources can be overstated

• Need to understand bigger picture of “give and take” (i.e., what are we giving up)
  – Create Greenway Preservation Guidebook
Greenway Preservation Guidebook

- Develop a conceptual layout of an interconnected greenway system
- Only on parcels >10 acres
- Significant opportunities remain
- Maximize residential quality of life
Greenway Delineation Process

• Preserve Primary Resources first
  – Wetlands, steep slopes, floodplain
• Consider priority resource lands from Open Space Plan
• Recognize spatial distribution of resources for secondary priorities
Establishment of Landscape Character Zones

- Watershed-based
- The zones reflect diversity of greenway types
  - Woodlands, agricultural, scenic road, stream corridor
- Specific delineation criteria established for each zone
Criteria for Greenway Delineation

- Contiguous blocks of resource land
- Protect overlapping resources (two-for-one)
- Buffer and expand existing open space and institutional lands
- Relate development areas to each other
- Limit long no-load entrance roads
Unami Creek Landscape Character Zone

- Part of Highlands Region in Pennsylvania
  - “Landscape of national significance”

- Specific design criteria
  - Maintain contiguous woodlands
  - Protect high infiltration soils
  - Integrate pathway connections
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Unami Creek Landscape Greenway Delineation

Greenway Parcels and Riparian Corridor

Delineated Greenway Across Parcels
Agricultural Heritage
Landscape Character Zone

- Largest cluster of farmland remaining
- Soils of Statewide importance
- Specific design criteria
  - Create large block of agricultural land
  - Maintain farmland features
  - Consider circulation
  - Protect headwater steams
Agricultural Heritage
Landscape Greenway
Delineation

Greenway Parcels and Agricultural Land

Delineated Greenway Across Parcels
Use of the Greenway Preservation Guidebook

• Guidebook generally available and distributed with zoning ordinance

• Conservation subdivisions must preserve greenway as devised, recognizing...
  
  – Conceptual greenway system
    • Adjusted to site-specific resource analysis
    • Reflect engineering/site design realities

• Help streamline review process
Next Steps: Develop Criteria for Development Areas

• Conservation Subdivision (not “cluster”)
  – Rural, low density area
  – 60% open space
  – Lot sizes > 23,000 square feet

• Goals for development areas
  – Don’t create an isolated suburbia
  – Replicate the experience of a 2-acre lot
  – Protect rural character from internal as well as external roads
Next Steps: Develop Criteria for Development Areas

- Maintain rural road setbacks (80 feet v. 20 feet)
- Create roadside open space (60 feet)
  - Improve as hedgerows, low walls, or split rail
  - Allow creative stormwater BMPs
- Provide flexibility in home sites
  - Maximize separation
  - No need to orient to the street