# A Case *for* Land Conservation

## ALLEGHENY LAND TRUST GREENPRINT

## The Process

### Step 1. Collect Information

The team located and collected information from 13 entities that provided 170 data sets, two reports and one survey.

### Step 2. Filter and Compile

Data was filtered for relevance, consistency and reliability. Usable data was compiled into twenty-one GIS data sets representing Physical Features and interpretive studies (Modifiers).

Natural Physical Features such as streams and woodlands were plotted to reveal an overall pattern of remaining natural land across the county. Based on the team's professional experience and input from the Advisory Committee, Modifiers were interpreted and categorized into three categories: Biodiversity, Water Resources and Management, and Landscape Character.

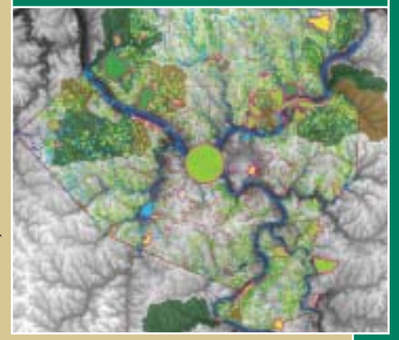
### Step 3. Analyze

Physical Features were then overlaid with Modifiers to help rank or prioritize them. Where Physical Features and Modifiers overlap represents the highly functional lands. A composite representing Physical Features and Modifiers was created for each category: Biodiversity, Water Resources & Management, and Landscape Character.

### Step 4. Synthesize

The final composite represents where all three categories overlap. These ALT GREENPRINT Focus Areas are the highest and best natural systems in the county, and are of primary importance to protect because they provide the greatest public benefit for the county and region. ALT GREENPRINT Properties are parcels within ALT GREENPRINT Focus Areas.

**Land with the BEST capacity for BIOLOGICAL DIVERSITY in Allegheny County**



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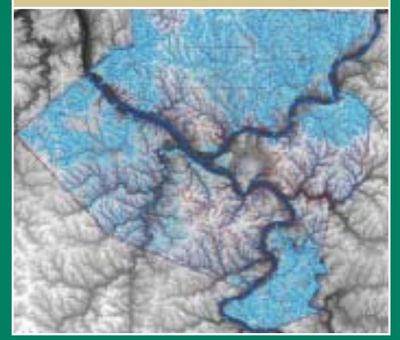
**Land with the BEST capacity for WATER MANAGEMENT in Allegheny County**



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**THE BEST LANDSCAPE CHARACTER in Allegheny County**

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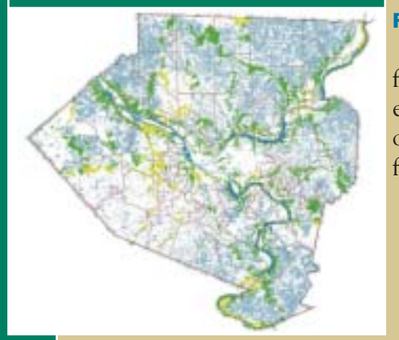
**GREENPRINT FOCUS AREAS in Allegheny County**





## The Value of Land

Land has intrinsic value embedded in the natural functions and benefits it provides for the public. These functions, known as ecosystem services, vary within the landscape and among the specific services the land provides. However, all land is not created equal. Therefore, ALT developed the ALT GREENPRINT to identify the best and highest functioning lands based on their capacity to perform three primary functions—harboring biodiversity, managing water resources, and providing scenic character.

The methodology involved collecting, analyzing and compiling a vast set of available research and reports on the region's land and water resources. Using GIS technology to process and integrate the information, the lands with the highest capacity to perform the ecosystem services that directly address the regional threats to biodiversity, the threat of flooding and threats to scenic character were identified.

Conserving the lands that harbor diverse or unique plant and animal species, lands that naturally manage rainwater before it becomes stormwater, and conserving lands with highly visible physical features that shape the region's scenic landscape character directly addresses the threats. Lands that do all three are the lands recommended and prioritized for conservation in this Regional Conservation Agenda.

The ALT GREENPRINT was completed for Allegheny County but can be applied to different spatial scales from a single watershed to a grander multi-county area.

## Conclusions

Wooded slopes and ridgelines are the region's most visually prominent natural feature. It is also the landscape most vulnerable to over-development. The region's current green image is due in part to the dense vegetation surrounding and weaving throughout the city, neighborhoods and along the meandering three rivers. Wooded slopes following the river corridors are a visually dominant natural feature that contrasts and complements the built environment. When the built and natural environment combine they create a distinct physical image for the region. This development pattern is globally unique and should be maintained to preserve the county's and region's distinct identity.

Wooded slopes can intercept up to 50% of the annual rainfall, therefore helping to prevent rainwater from becoming stormwater in our streams and floodwater in our streets. Large woodland masses and northern facing wooded riverfront slopes harbor many of the county's biologically significant lands.

Watersheds with a relatively lower percentage of development have correspondingly higher water quality, fewer flood events, greater likelihood of biological diversity, and better water management and hydrologic cycling.

Property values adjacent to unpolluted streams have higher market values. Property values in flood-prone areas will trend below the market resulting in less property tax revenue for the host municipality.

Because local government controls land use their cooperation is critical to conserve watershed and landscape scale features to help solve regional water problems.

## Intent

Allegheny Land Trust intends to use its ALT GREENPRINT to promote strategic land conservation and to directly conserve highly functional landscapes that harbor biological diversity, manage water resources, and maintain the region's scenic landscape character.

The ALT GREENPRINT consolidates decades of research and provides a scientifically grounded case for strategic land conservation. Lawmakers can use this durable information to support conservation-oriented land use ordinances to maintain the natural infrastructure within their communities.

## Key Roles

### Land Trusts

Direct conservation of land; planning assistance; site assessment; policy development and advocacy; education; research; land bank.

### Municipalities

Planning and land use management; integrate ALT GREENPRINT into Comprehensive Plans; adopt and enforce conservation-oriented zoning and land development codes; create Transfer Development Rights programs.

### County Government

Integrate ALT GREENPRINT into Comprehensive Plan to advocate conservation of highly functional green infrastructure; create incentives for conserving ALT GREENPRINT areas; promote awareness and share ALT GREENPRINT mapping; funding.

### State Agencies

Restrict new sources of stormwater and sewage inputs into failing systems; regulate geologically hazardous areas; funding.

### Federal Agencies

Promote and fund flood prevention strategies; evaluate performance of outdated flood control facilities.