National Association of Conservation Districts

Kris Hoellen
Vice President, Sustainable Programs
The Conservation Fund
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The Conservation Fund forges partnerships to conserve America’s legacy of land and water resources. Through land acquisition, community and economic development, and training and education, the Fund and its partners demonstrate balanced conservation solutions that emphasize the integration of economic and environmental goals.
Wildlife Habitat

Working Landscapes

Parks & Green Space

Rivers & Watersheds

Historic Places

Large, national projects

Areas of Expertise

Land & Water Conservation
A strategically planned and managed network of natural lands, working landscapes, and other open spaces that conserves ecosystem values and functions and provides associated benefits to human populations.

Benedict & McMahon 2006
Green Infrastructure Network Features

**Cores:**
- Contain fully functional natural ecosystems
- Provide high-quality habitat for native plants and animals

**Hubs:**
- Slightly fragmented aggregations of core areas, plus contiguous natural cover

**Corridors:**
- Link core areas together
- Allow animal movement and seed and pollen transfer between core areas

**Sites:**
- Important microhabitats not captured by network thresholds and criteria
## Natural Ecosystem Values and Functions

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Examples of places</th>
<th>Examples of functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecological communities</td>
<td>Parks, preserves, and reserves</td>
<td>Protect and restore native plants and animals</td>
</tr>
<tr>
<td>Fish and wildlife resources</td>
<td>Wildlife refuges, game reserves, wildlife corridors. Streams, lakes</td>
<td>Provide habitat for wildlife, support migration,</td>
</tr>
<tr>
<td>Watersheds and water resources</td>
<td>Riparian lands, wetlands, groundwater recharge</td>
<td>Protect and restore water quality, aquatic habitat</td>
</tr>
<tr>
<td>Working landscapes with ecological values</td>
<td>Forestlands, rangelands, and farmlands with native habitat, working lands with restoration potential</td>
<td>Habitat for fish and wildlife, connecting and/or buffering network components</td>
</tr>
</tbody>
</table>
## Associated Benefits to Human Populations

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Examples of places</th>
<th>Examples of functions provided</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recreation and health resources</td>
<td>Parks, greenways, trails</td>
<td>Encourage exercise, connect with nature, disease vector prevention</td>
</tr>
<tr>
<td>Cultural resources</td>
<td>Historic/interpretive sites, outdoor classrooms</td>
<td>Preserve link to natural and cultural heritage</td>
</tr>
<tr>
<td>Growth pattern and community character</td>
<td>Greenbelts, scenic vistas, viewsheds, greenways</td>
<td>Guide patterns of growth, foster community</td>
</tr>
<tr>
<td>Water resources</td>
<td>Wetlands, floodplains</td>
<td>Protect water quality and quantity, manage stormwater</td>
</tr>
<tr>
<td>Working lands with economic values</td>
<td>Farms, orchards, ranches, managed forests</td>
<td>Protect working lands as a business, maintain rural character</td>
</tr>
</tbody>
</table>
A Science-Based Process that Brings Together:

- Natural resource, land planning and built infrastructure professionals
- Elected and appointed officials
- The interested public
What Green Infrastructure is NOT!

- A program
- A short-term solution
- An isolated effort
- No growth or anti-development
- “Green” engineered structures

[Cartoon: Highway Bridge, with a person painting a bridge and saying, "THAT'S NOT EXACTLY WHAT WE MEAN WHEN WE ADVOCATE GREEN INFRASTRUCTURE!"
]
Green infrastructure helps us answer...

- Which lands to conserve?
- Where to permit development?
- Where to build roads and utilities?
- Where & how to select mitigation projects?

Green infrastructure benefits...

- Proactive not reactive;
- Systematic not haphazard;
- Multi-functional not Single Purpose;
- Multiple Scales not Single Scale, and
- Scientifically defensible, transparent decision-making process
NiSource
- Natural gas transmission company
- Operation and maintenance activities impact endangered species

U.S FWS
- Enforce Endangered Species Act
- Streamline project review while enhancing species protection

NiSource pipeline network
- 14 States
- 15,500 linear miles
- 6.4 million acres
NiSource Green Infrastructure Project

Project Components:

• Assess endangered species impacts across the entire pipeline network over the long-term
• Develop Multiple Species Habitat Conservation Plan
• Utilize green infrastructure approach to implement strategic mitigation
Identify a Network Design
Identify Mitigation Opportunities Spatially
Identify the Mitigation Opportunities within the Context of a Spatially Explicit Network Design
• Provides a framework for conservation and recovery actions of species across the HCP area extending beyond covered lands
• Evaluates potential mitigation opportunities within a strategically planned, interconnected network using consistent methodology & criteria
• Identifies other ecosystem benefits associated with potential mitigation projects
- 8 states (FWS Region 3)
- Section 6 grant to develop green infrastructure network and mitigation framework using NiSource model
• Identifies **best** projects for implementation
• Holistic, regional approach
• Science based process
• Conservation and restoration
• Strategic use of industry mitigation dollars, leverage other funds
• Adaptable to multiple rules/frameworks – HCP, Corps, others...
• More predictability & certainty, business & regulatory

**Benefits of Strategic Mitigation Framework**
Nashville

- "Nashville needs to be a city for families." Karl Dean
  Inaugural Address
  September 21, 2007

- “Green space and open space are a quality of life issue, an environmental issue and an economic issue,” Karl Dean, January 7, 2010
Central Indiana Land Trust: Greening the Crossroads
Milwaukee Metropolitan Sewerage District

Conservation Plan

- Identifies and protects undeveloped sites to protect from future flooding
- Define development through conservation investments

Green – Grey Examples
The red dots illustrate selected areas within the region that have high ecosystem service values. However, there are areas in all 13 counties that provide these valuable services.

1. Water Quality: In Wharton County, riparian lands are providing valuable nitrogen removal services that help clean the water.

2. Air Quality: In Montgomery County, heavily forested areas help purify the air.

3. Water Supply: Chambers and Liberty Counties store water. The regions get drier as you move westward towards the line where evaporation exceeds precipitation. This is exacerbated by drought.

4. Stormwater Regulation/Flood Protection/Erosion Control: All coastal counties, including Chambers County, offer protection against tidal and stormwater flooding.

5. Carbon Sequestration: The Trinity River bottomlands and wetlands of Liberty County capture carbon. These areas also provide numerous other benefits to society and wildlife.
### Potential Implementation Scenarios

<table>
<thead>
<tr>
<th>Category</th>
<th>Scenario</th>
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<tbody>
<tr>
<td>Planning</td>
<td>A county uses the GI tools in its Comprehensive Plan update and/or its Development Review Process</td>
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<tr>
<td>Development</td>
<td>Developer uses the tools to ID best orientation for a planned subdivision</td>
</tr>
<tr>
<td>Transportation</td>
<td>DOT uses the tools to help identify best new alignment for a road</td>
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<tr>
<td>Land Trust</td>
<td>A land trust uses tools to prioritize key agricultural lands for protection</td>
</tr>
<tr>
<td>Public Land Manager</td>
<td>A public land manager uses tools to make resource management decisions</td>
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<tr>
<td>Conservation Districts</td>
<td>A District uses the tools to engage local people in natural resource management.</td>
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Read the Book

Visit the Website
www.conservationfund.org
### RESULTS

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<tbody>
<tr>
<td>Acres Protected to Date</td>
<td>7 million</td>
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<tr>
<td>Fair Market Value</td>
<td>$5 billion</td>
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<tr>
<td>Conservation Programs</td>
<td>96%</td>
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<tr>
<td>Fundraising Costs</td>
<td>1%</td>
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### RECOGNITION

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<tr>
<td>A+ Rating</td>
<td>American Institute of Philanthropy</td>
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<tr>
<td>Four Star Rating</td>
<td>Charity Navigator</td>
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