Blue/Green Infrastructure Study
Accomack County, VA

Final Report

May 19, 2010
Green Infrastructure Center, Inc.
The mission of the nonprofit Green Infrastructure Center (GIC) is to help localities evaluate their green assets and manage them to maximize ecological, economic and cultural returns.

This project is a partnership between GIC and Accomack County.
Donors make it all possible!
Project Timeline Overview

- **Summer 2008**: Presentation to BOS and approval to pursue funding to conduct a study of the county’s blue and green infrastructure.

- **May 2009**: Funds obtained and GIC begins study.

- **Summer 2009**: Review of past scientific studies and reports for Accomack County. Conduct stakeholder interviews.

- **Fall 2009**: Preparation of Green Infrastructure Asset Maps. County secures grant from Va. Coastal Zone Program to fund county staff.

- **Spring 2010**: 
  - Creation of opportunity maps – what are some strategic opportunities for conserving Accomack County’s blue and green infrastructure? Also created a strategy map for Dept. of Forestry for targeting their stewardship plan.
  - Public engagement at meetings and at arts festival.
  - Creation of final report.
  - Last steps underway: Ensure all data transferred to county.

- **On-going**: Use green infrastructure maps in county land use planning.
Why seek to connect habitat?
A reminder: What Is Green/Blue Infrastructure Planning?

“Strategically planned and managed networks of natural lands, working landscapes and other open spaces that conserve ecosystem values and functions and provide associated benefits to human populations”

It’s about connecting the landscape!
Larger patches = large benefits

more interior species, larger populations, more habitat types

Smaller patches = supplemental benefits

act as stepping stones for species movement

Dividing a large patch into two smaller patches...

- Removes interior habitat
- Reduces interior species population
- Reduces diversity of interior species

What happens when a patch is removed

- Causes habitat loss
- May reduce habitat diversity
- May reduce population size of species dependent upon that habitat type

Traditional Development

Cluster Development
Here’s the problem when cluster developments don’t look outside the parcel:
Green infrastructure approach helps keep corridors intact.
Benefits of Green and Blue Infrastructure Plans

- Conserving working lands such as farms and forests, that contribute to the economy.
- Protecting and preserving water quality and supply.
- Providing cost-effective stormwater management and hazard mitigation.
- Preserving biodiversity and wildlife habitat.
- Improving public health, quality of life and recreation networks.
Green Infrastructure Assets
Asset Maps

- Habitat & Wildlife Conservation
- Water Quality
- Working Lands & Waters
- Recreation Access and Trails
- Cultural Resources / Sense of Place
Priority habitat and wildlife conservation areas. This map shows what is protected or least likely to change (purple) and areas that need special attention to allow the habitats to remain connected (green).
Landscape components that contribute to water quality include:

- Riparian buffers
- Forested watersheds
- Protected headwater areas and wetlands
- Protected wellheads
Landscape components for agriculture include: Prime soils and Agriculture/Forestal Districts (AFD)
Forestry landscape components include:
- Forest cover
- Tidal marshes

Identification of forested parcels in GI network large enough to manage for forestry and wildlife.

Also mapped forest stewardship plans for DOF to match plans to the GI network.
Working water assets support fishery and recreation economy.

Components include:
- Water access
- Watersheds
- SAV
- Oyster, clam beds
- Fishery mgmt. areas
Nature-based recreation assets include:

- Conservation lands with public access
- Parks
- Birding and wildlife trails
- Water trails
- Water access points
Natural landscapes provide important context and scenic qualities to heritage and cultural resources including:

- Historic districts and buildings
- Cultural events
- Scenic roads
- Viewsheds
Opportunity Maps

What strategies could the county pursue to conserve and take advantage of its green and blue infrastructure?
The future land use map shows where extra care will be needed to ensure that connections are maintained as the county develops.
Methods for Stormwater Management

Good -- Detention Pond works in areas where you have room to maneuver (but wastes land that could be used for a building or useable open space).

Better -- Improve pollution removal by adding wetland benches and plants to existing ponds to get some water quality treatment.

Best -- Utilize smaller scale biofiltration throughout development. This is an LID approach.
Site scale planning can include LID

Low Impact Development. **LID** is a design strategy with a goal of maintaining or replicating the pre-development hydrologic regime through the use of design techniques to create a functionally equivalent hydrologic site design.

- **Green Rooftops**
- **Filterra Box**
- **Parking lot biofilter**
- **Rain Barrel**
- **Downspout filtration**
- **Porous pavers**

*LID Definition: Low Impact Development Draft Technical Bulletin*
How to use this report and maps

Site plan review – where are opportunities to conserve landscape connections or to restore lost connections for wildlife and people?

Park and open space planning – for trails or water access.

Growth and conservation areas – Identify lands for PDR or TDR programs or easements.

Transportation planning: roads and trails

Tourism Planning – Conserve views, historic landscapes and scenic drives or boating experiences.

Water Conservation – Conserve recharge and avoid water pollution of streams and fisheries.
You’ll love our nature!

To download the final report visit:  http://www.gicinc.org/Accomack.htm