

THE TRUST *for* PUBLIC LAND
CONSERVING LAND FOR PEOPLE



Protecting Water Quality and Mitigating Floods through Land Conservation:
Examples from Georgia, North Carolina, and Texas
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Good Morning.

It is indeed a pleasure for me to be here. Years ago, when I worked in US EPA's OWOW, I witnessed the birth of the SE Watershed Forum, and it is exciting to see how vibrant it still is.

Today, I am representing TPL. Although, I must admit I am a bit of a hybrid, because I am on loan to the Trust from EPA's Office of Water.

You may wonder why EPA would be interested in such an arrangement. Obviously the land-water connection is extremely important and, through this assignment, I strive to establish stronger connections between people working in both fields.

I hope that my presentation today will illustrate how symbiotic the relationship between land conservation and water protection can be.



Land for People Mission

The Trust for Public Land conserves land for people to enjoy as parks, gardens, and other natural places, ensuring livable communities for generations to come.



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First a little information about TPL.

We are a national nonprofit organization that conserves land for people to enjoy as parks, gardens, historic sites, rural lands, and other natural areas, ensuring livable communities for generations to come.

We work in cities and wilderness areas, on playground and nature preserves.

With over 400 staff in more than 40 offices nationwide, we may be in your backyard.



Cumberland Gap National Historical Park

- Recently added 1,850 acres
- Protects vista
- Enhances recreation
- And...



Photograph by Harold Jerrell

We are probably best well know for our land acquisition activities.

I think this recent project is a good example of the land-water symbiosis.

On June 30th we celebrated the addition of 1850 acres to the Cumberland Gap National Historic Park.

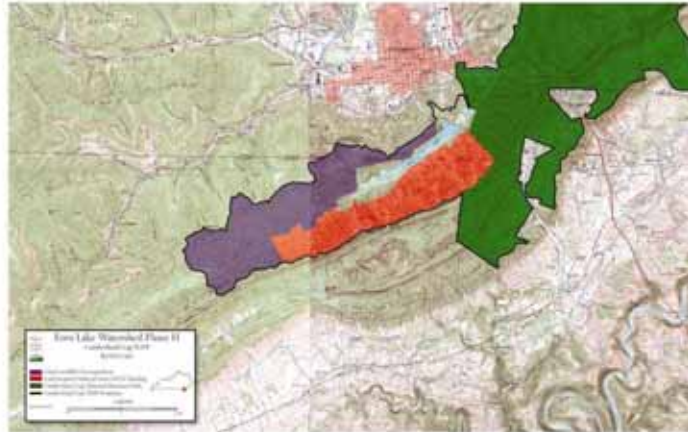
Besides protecting the vista from Pinnacle Overlook, one of the park's most valuable scenic resources and popular attractions, it enhances recreational opportunities at the park.

TPL secured the 1850-acre property through a negotiated agreement with the landowner while federal funds were sought for the purchase.



Cumberland Gap National Historical Park

- Multi-jurisdictional
- Led by KY delegation
- Protects land in TN and source water for KY

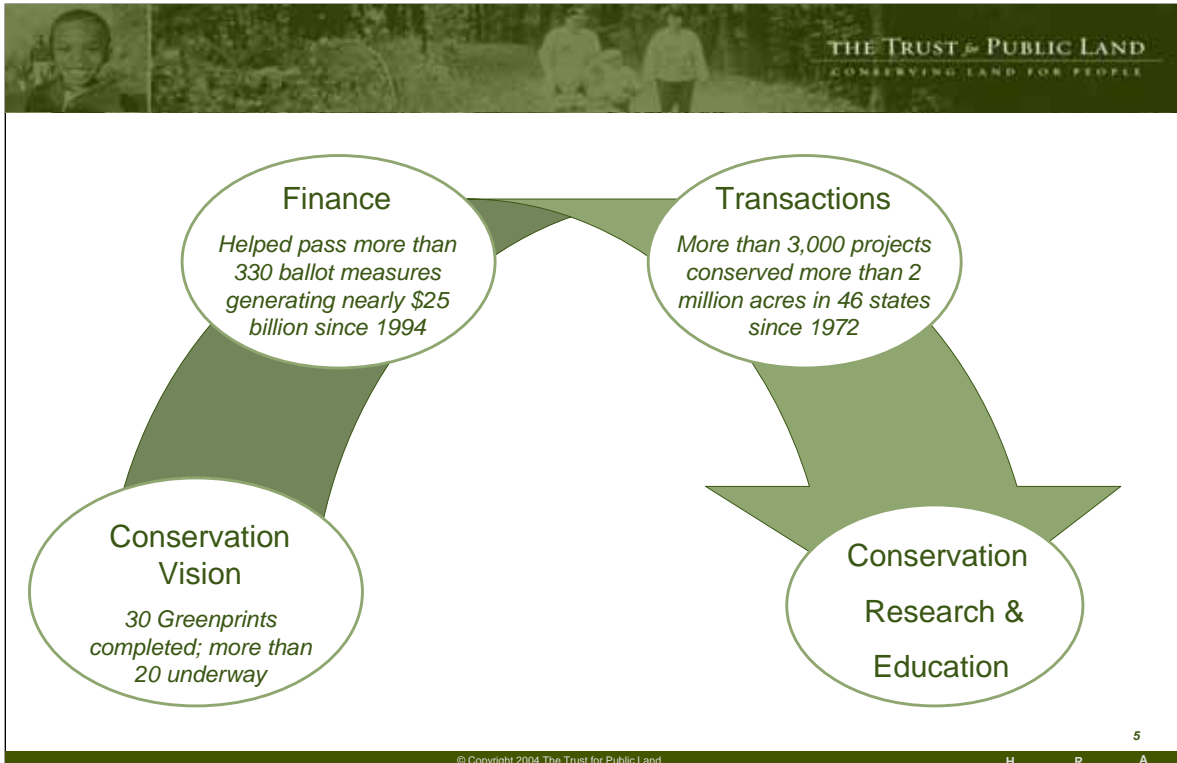


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One of the most interesting aspects is the multi-jurisdictional nature of the project

Both TN and KY delegations supported the project, Though most of the land is in TN, the water is the drinking water source for the community of Middlesboro, KY



Besides our land transaction work, **we also assist communities to undertake Conservation Visioning** to set goals and objectives for park creation and land protection and identify high priority areas for protection.

TPL also helps communities develop funding strategies to implement their conservation plan through **Conservation Finance** services.

Finally, we **research and provide outreach** on a variety of conservation-related topics, such as the health benefits of parks and the economic benefits of land conservation.

Today I'm going to focus on three different communities that developed their conservation vision and established a plan of action to conserve land to meet a variety of goals, including water quality protection.

In each case, I'll describe the challenges the community faced; the goals and action plans they set for themselves and the results so far.



Conservation Vision Process



Step 1:
Identify key stakeholders' interests and goals for land conservation.

Step 2:
Use interactive, GIS model to identify land opportunities to meet goals.

Step 3:
Devise local, state and federal funding 'quilt' to finance land protection.

Step 4:
Create short term action plan to protect high priority lands.



Source Water Stewardship Projects

- Why source water protection?
 - Water quality is consistently one of the most important reasons that voters support new funding for land conservation.
 - Drinking water quality is the number one reason.



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At the Trust for Public Land we care so much about water because people care about it. In more than 100 surveys in communities of varying sizes and political inclinations what we find time and again that people want investments in the land that are going to protect clean water, and especially their drinking water.

In 2002, TPL was given a grant from the USEPA to work in partnership with the U of Mass and the USFS in four watersheds. The purpose of the Source Water Stewardship project was to demonstrate how to build locally-based drinking water protection efforts that incorporate land conservation and forest management.

My first example comes from this project.



Upper Little Tallapoosa Watershed



- 50 miles west of Atlanta
- Reservoirs for City of Carrollton and Carroll County
- Rapid conversion of farms and forest
- Many septic systems

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The Upper Little Tallapoosa River watershed is located about 50 miles west of Atlanta.

A series of small reservoirs provide drinking water for 30,000 people in the City of Carrollton and Carroll County, Georgia. The demand for affordable housing, coupled with direct access to Atlanta via an interstate highway, led to the rapid conversion of farm and forest land to residential and commercial uses. At the time, no public sewer existed in much of the county and individual on-site septic systems were proliferating.

A major outbreak of *Cryptosporidium* occurred in this area in January 1987. Residents were sickened and, in the years that followed the outbreak, the public developed a heightened awareness of the relationship between watershed activities and water quality. As a result, the Carroll County government asked TPL and its partners to study current and future threats to their source water and identify strategies to address those threats.



Upper Little Tallapoosa

- Three phases
 - Watershed assessment, including threat to drinking water supply
 - Strategies to protect the water, including viable funding sources
 - Greenprint priority lands for action
- Community goals
 - Conservation priorities
 - Restoration priorities
 - Stormwater management priorities

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The Source Water Stewardship Project comprised three distinct phases. First, the team researched and wrote a source water issues report that (1) characterized the watershed and threats to drinking water, (2) identified potential strategies to protect the water as well as viable funding sources to implement those strategies, and (3) mapped or “greenprinted” priority areas for protection and restoration

Next, TPL hosted a Stewardship Exchange—inviting experts who developed successful strategies to meet similar challenges in other communities to share their expertise and make recommendations for their peers in the Upper Little Tallapoosa watershed.

Finally, TPL and its partners worked closely with Carroll County officials and other stakeholders to develop an implementation plan.



Upper Little Tallapoosa Results

- Results
 - Raised \$19 million for land and water conservation to protect drinking water— 67% in favor--record
 - Developed sewage disposal inspection program
 - Protected 302 acres



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The community sprang into action.

In 2003, citizens of Carroll County voted overwhelmingly for a Special Purpose Local Options Sales Tax (SPLOST) to generate nearly \$85 million over five years to pay for infrastructure and quality of life. Out of the SPLOST, \$19 m was earmarked for land and water conservation, including improved wastewater mgmt.

An inspection program for new & existing septic systems has also been established.

Coupling the funds raised from the (SPLOST) with existing State Greenspace Grant Funds, the county has protected 302 acres of high-priority forested riverfront land involving five properties previously at risk for development.

It is important to note how the purpose of the funds can make a difference in the outcome of a vote.

In nearby Douglas County, after one initiative failed in 2000, special efforts were made in 2002 to inform the public that the new funds would support parks and green space to protect water. The 2002 measure passed with a record margin.

Leveraging for Success

- Initial investment of \$396,000 leveraged over \$25 million in public and private implementation funds in the four watersheds.



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Regarding all four source water stewardship pilots, the initial investment of \$396,000 was leveraged to create over \$25 million of public and private dollars for implementation.

Implementation dollars came from

- Local ballot measures for land conservation – primary source and used as matching for state and federal funds.
- State grants for forest protection and management, land conservation, water quality monitoring, erosion and sediment control, regional stormwater management planning, outreach to landowners on agriculture and silviculture best practices,
- Federal grants for land protection and forest management.



Upper Neuse Clean Water Initiative



- 770 square-mile basin in North Carolina
- Nine water supply reservoirs
- Rapid growth
- Concern about water quality degradation

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There are nine water supply reservoirs supplying eight municipalities in this 770 square-mile Piedmont basin in North Carolina.

Two of those municipalities —Raleigh and Durham — are among the top five fastest growing cities in the state.

Continued growth is a given — as much as 50% increase by 2025 — and with it, the genuine possibility of water quality degradation. The municipalities in the watershed recognized that water throughout the basin is a shared and interconnected resource requiring a unified approach for its protection.



Upper Neuse Goals

- Protect water quality
- Protect working lands
- Protect aquatic habitat connectivity
- Protect terrestrial habitat connectivity



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TPL, under contract with the Conservation Trust for North Carolina, with funding from the City of Raleigh, facilitated a public forum in which community leaders and stakeholders confirmed protecting water quality as their primary conservation priority.

Protecting working lands, aquatic habitat connectivity, and terrestrial habitat connectivity were identified as secondary priorities.

Working with local partners, TPL assembled a team of regional experts to develop a Greenprint, a customized Geographic Information System (GIS) model, to identify parcels the partnership might conserve to best meet their goals.

They mapped out all the water bodies, including first and second order streams, location of wetlands, soil types and slope, etc. Then they developed a model that evaluated each parcel in the watershed for the priorities identified that would protect drinking water quality. For example, what parcels are closest to streams? Is it a first or second order stream? Is the land still forested? Is there a wetland there?

The results are illustrated here, with highest value lands in red



Upper Neuse Results

- *Greenprint* partners use the plan to guide land acquisition efforts
- April 2007 TPL conveyed 213 acres in Wake County to the county and the City of Raleigh

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Greenprint partners use the plan to guide land acquisition efforts
April 2007 TPL conveyed 213 acres in Wake County to the
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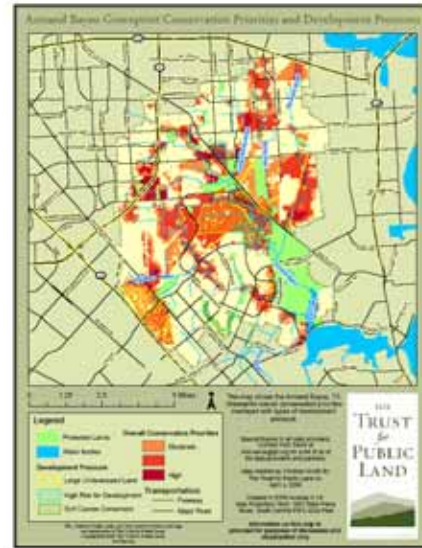
Armand Bayou Watershed, Texas

- Concerns
 - Drainage
 - Insufficient parks and recreational opportunities
 - Underutilized, yet world class natural areas



Armand Bayou Goals

- Improve storm water management
- Preserve habitat, for example wetlands and coastal woodlands and prairies
- Improve public access to parks and waterways





Armand Bayou Action Plan

- Establish a system of parks and trails
 - Protect high priority lands along the Bayou
 - Link with storm drainage system to create a “necklace of lakes”
- Benefits:
 - Provide recreation
 - Protect habitat
 - Reduce floods
 - Stimulate economy through increased tourism

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Do not have results listed for a reason.

This project was completed about a year ago.

The partners continue to work together, but have not yet completed any of the actions. One of the five jurisdictions, has experienced significant political turn over and priorities are stilling being defined.

Although TPL is actively discussing the protection of a high value parcel with a large landowner in the watershed.

... the success stories are yet to be told.

This illustrates the need for patience and persistence.

As Lily Tomlin once said, the road to success is always under construction.