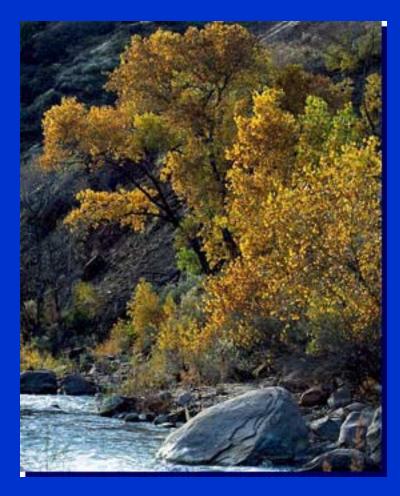
October 27, 2003 Briefing to the Attorney General's Water Advisory Council



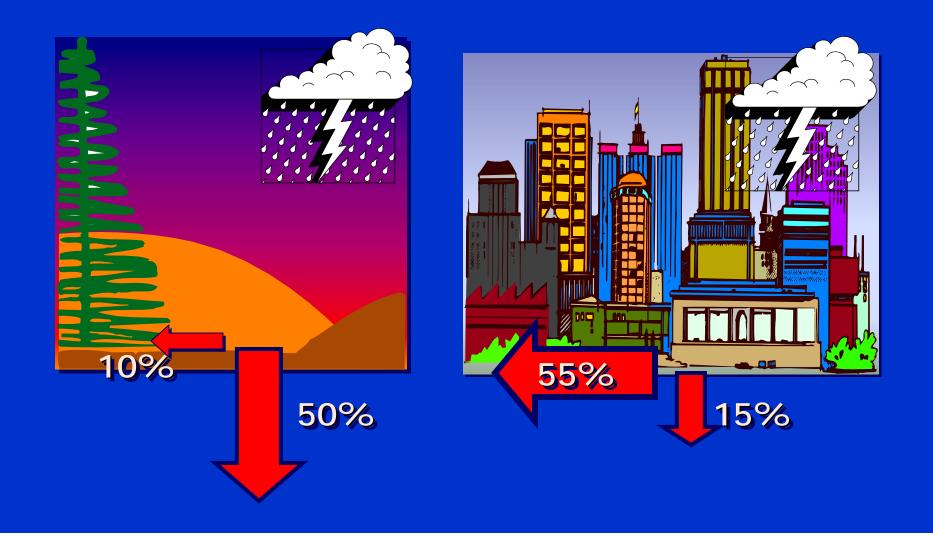
Interface Between Land Protection & Georgia's Water Resources

Outline

• Overview

- Ecological, economic & other rationale
- Tools for Permanent Protection
 - Conservation easements
 - Restrictive covenants
- Applications
 - Conservation subdivisions
 - TDRs
 - Overlay zones
- New Directions

Development Impacts on the Water Cycle



Impervious surfaces

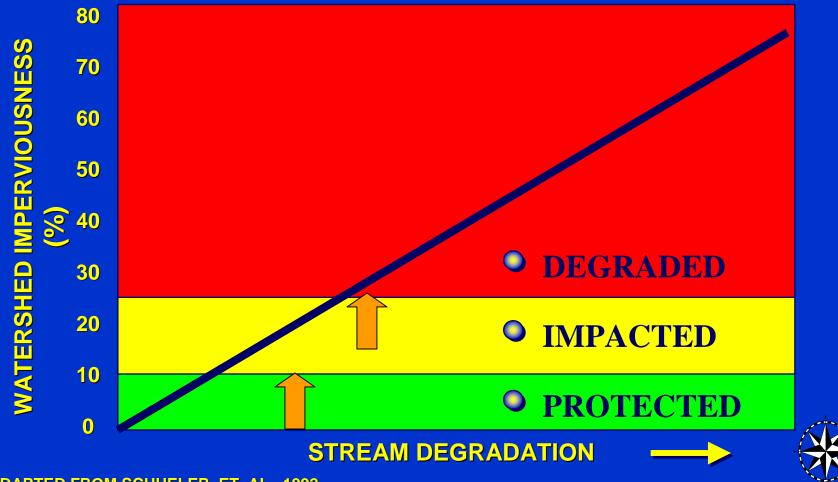
 indicate intensive land uses that cause pollution



- inhibit recharge of groundwater
- prevent natural processing of pollutants in soil, plants
- provide surface for accumulation of pollutants
- provide express route for pollutants to waterways

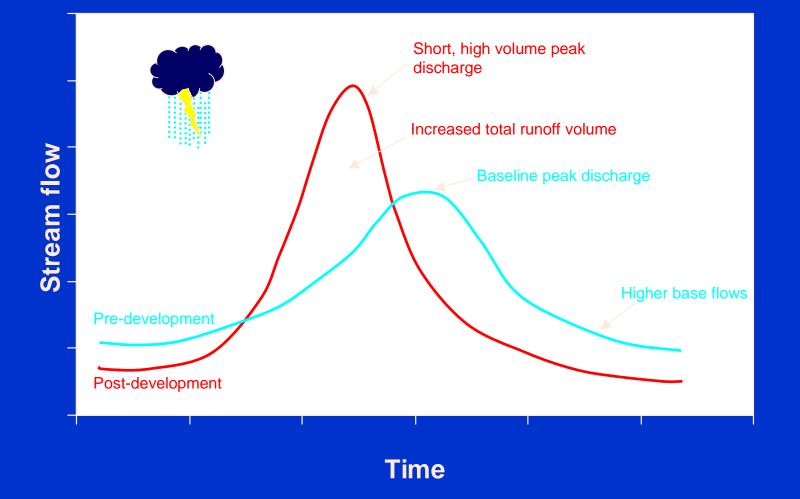


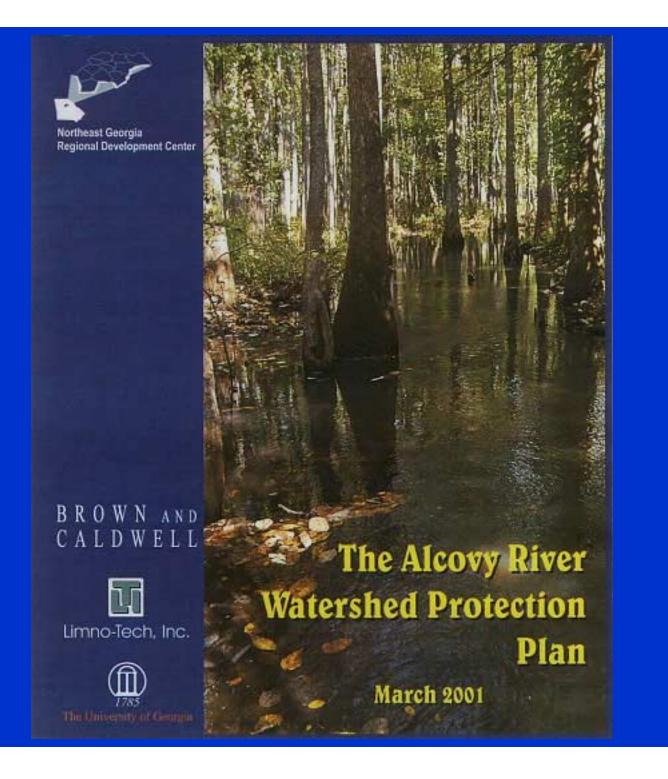
Waterway Health & Imperviousness



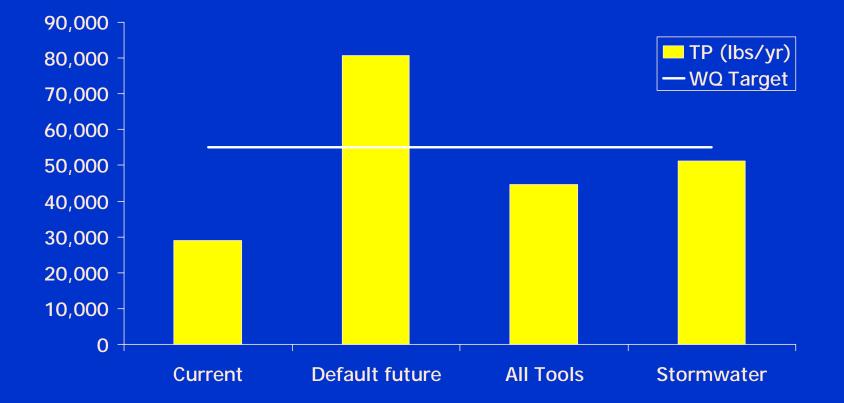
ADAPTED FROM SCHUELER, ET. AL., 1992

Storm Hydrograph





Phosphorus Load Comparison



University of Georgia Institute of Ecology Office of Public Service & Outreach



10

1.12

Watershed Protection and Implementation Plan

Yable 1.1. Nexton County Recommendations		
Saha	Implementation Tool	Sources for Nora Information
Already in place	Conservation Subdivision	Chupter 7 - Contentation Subdivisions
	Ordinance	Fact Sheet - Contervation Subdivisions
	Conservation Planning	Chapter 2 - Efficient Development Patients: Managing Sprewi to Protect Water Quality
Wallio Plan	Improved Stamwater Ordinance	Chapter 9 - Stortwalor Management
		Fact Steel - Impervious Surface Limits
	Ripartan Buffer Ordinance	Chapter 6 - Ripartan Butter Protection
	al-s-dbacarbranes.	Fact Sheet - Reparan Butters: A Policy Perspective
		Fact Sheet - Riparan Buffers: A Technical Perspective
	Regional Cooperation	Chapter 14 - Regional Cosporation and Public Involvement
	Long-term Monitoring	Chapter 13 - Lorg-term Nonitoring Plan
	Community Education and	Chapter 14 - Regional Cooperation and Public Involvement
	Permaing	Fast Sheet - Community Watershed Education Programs
Recommended	Transferable Development Rights	Chapter 8 - Transferable Dovelopment Rights
	and the second	Fact Sheet - Transferable Development Rights
	Water Conservation Incentives	Chapter 12 - Water Conservation
	CONTRACTOR AND A CONTRACTOR	Fact Sheet - Water Eliciency Programs
	Land Acquisition Programs	Chapter 16 - Greenspace Planning
	22 22	Fact Sheet - Greenspace Acquisition as a Watershed Protection Tool
		Fact Sheet - Conservation Easemonts
	Attentative Wasternator	Chapter 11 - Alternative Wastewater Management
	Nanagement	Faci Sheet - Alternative Wastewater Treatment
	Steam Restoration/Urban Rebolit	Chapter 10 - Urban Retrolit and Stream Restoration
	Best Management Practicos	Chapter 9 - Aptoutural Best Management Practices
		Fact Sheet - Vogetated Swates for Stormwater Management
		Fact Sheet - Vogelated Filter Strips
		Feet Sheet - Exerded Dry Detersion Ponds
		Faci Sheet - Extended Detention Wet Ponds
		Fact Sheet - Constructed Stormwater Wotlands
		Fact Sheet - Infitution Basina
	Improved EASC Enforcement	Chapter 4 - Excision and Sedimentation Control
		Fact Sheet - NPDES General Permit for Stormwater Runoll Associated with Construction Actibility

Prices/Mill/Presents & reparameter Paraleses Reporting second service Paratesis has service Paratesis has One-1 on

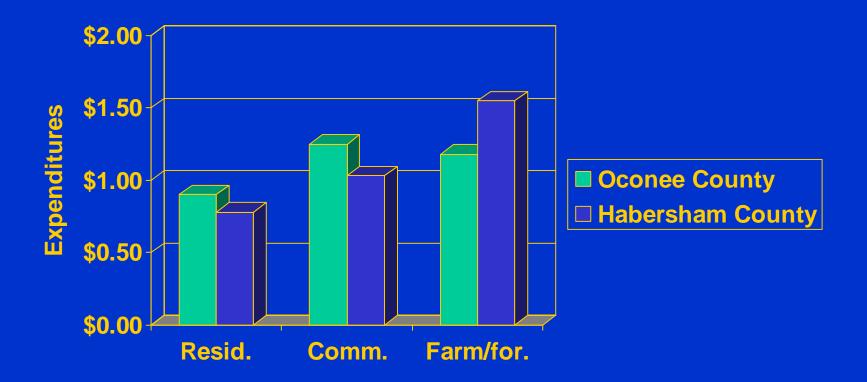
Northeast Georgia Regional Development Center

Basic Economic Benefits

- saves local governments money on servicing development
- raises property values for surrounding properties
- attracts businesses, thereby creating jobs
- attracts educated, skilled workers, indirectly attracting businesses

How Green Space Saves \$\$

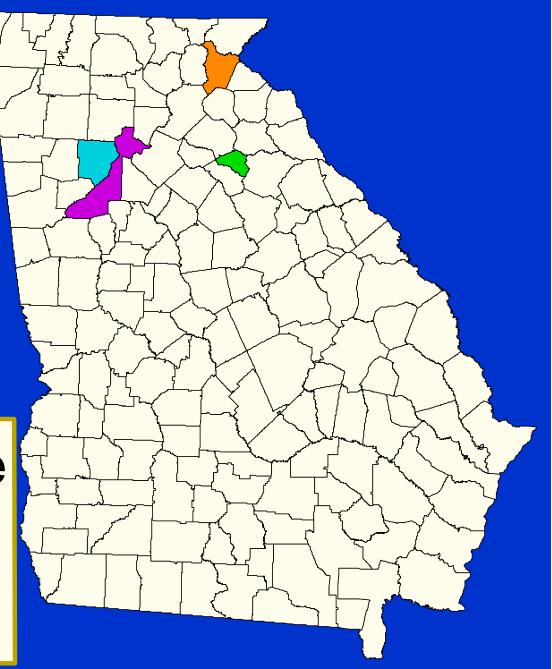
Expenditures per \$1.00 of Revenue



The Potential for Community Forests to Be Self-financing -Nanette Nelson, Dorfman, Fowler (2003)



Georgia Case Studies



Athens-Clarke Cobb Fulton Habersham



Measuring Value

- Hedonic pricing approach
 - estimation technique

 used in studies of air and water quality, parks and scenic views

• Enhancement value

Conclusion

- Enhancement value is affected by:
 - Age
 - Location
 - Type of protection
- Protected areas can contribute to county revenue

Livability Benefits

- Community
- Public health
- Sense of place

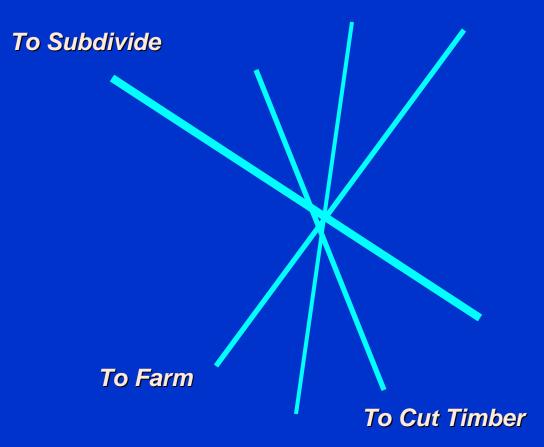


Conservation Easement

A legal instrument through which a Landowner voluntarily agrees to give up certain uses of his land to protect some conservation value

Land Ownership Bundle of Rights





What are Conservation Values?









- Recreational/ educational purposes
- Habitat
- Open space pursuant to government policy
- Scenic/historic preservation

Deed of Conservation Easement

Recorded w/ deed to property

• May either be:

- in perpetuity, or

- for a specified term of years

Binding on future property
 owners

Typical Provisions of a Habitat Protection/Open Space Easement





- Prohibit development on sensitive portions of land
 - riparian buffers
 - wetlands
 - plant colonies
- public access unnecessary

Benefits of Conservation Easements



- Protect conservation values of the land
 - Income tax
 - Estate tax
 - Property tax

Income Tax Benefits if:

- Easement is permanent
- Satisfies conservation purpose
 - Landowner may deduct value of easement from federal/state income taxes
 - Easement value = FMV of land w/o restriction minus FMV of land with restriction

Property Tax Benefits



Statute requires that property taxes reflect restricted use -UGA guidance for tax assessors

Land Trusts



- Can be governmental or ngos
- Fastest growing segment of conservation community
- About 50 in GA

On the Horizon

- Income tax credits

 North Carolina
 South Carolina
- Enforcement by AG
- Increase capacity of land trusts

CONSERVATION SUBDIVISIONS

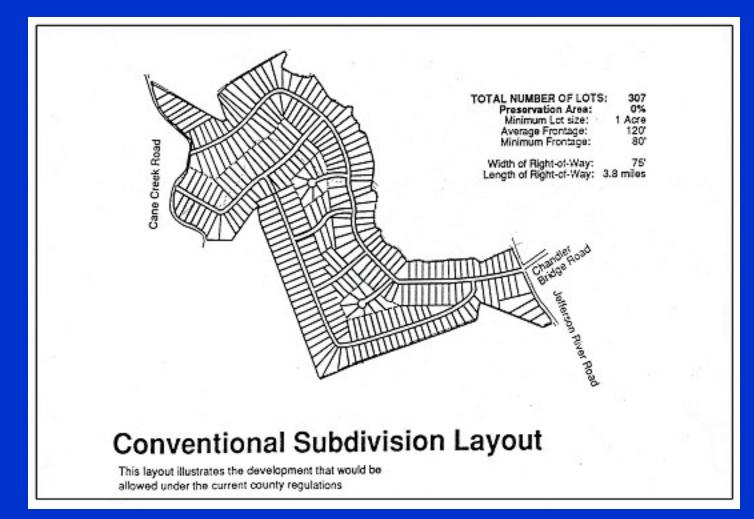
aka "Open Space" subdivisions

Traditional v. conservation

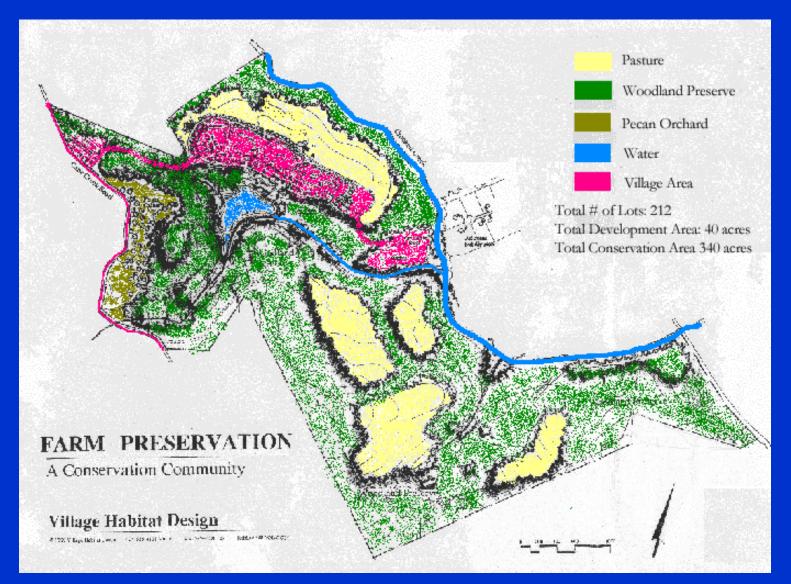




Cane Creek, Jackson Co.

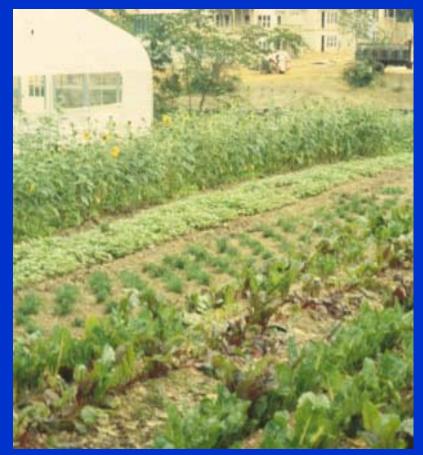


Cane Creek, Jackson Co.





Eastlake Commons DeKalb County



Fern Park Lumpkin County

Walking trail

Home under construction





The Atlanta Journal-Constitution

With the rise of 'conservation subdivisions,' developers find green spaces make economic sense

By JANET FRANKSTON Atlanta Journal-Constitution Staff Writer

At dusk, Patti DeVan can look out her kitchen window and see deer searching for food along a trail behind her house. They like to eat her impatiens.

Her sons have found crayfish as big as their hands in the shoals near their property, and she supplies sunflower seeds for the tufted titmice and brown-headed nuthatches.



Forget golf courses. The hottest amenity in metro Atlanta is a backyard forest.

The Devan family (from left) Ben, 13, Paul, John, 11, and Patl 'conservation subdivision' in Cherokee County.

"It gives you the feeling of being away from everything. You're calm and not stressed out," DeVan, 44, says as she walks on the shady path, brushing spider webs away from her face. "You should hear it at night. It's like a chorus."

Earlier this year, DeVan and her family packed up their home near the Mall of Georgia in Gwinnett for a new one at Orange Shoals. The subdivision, off Ga. 20 in east Cherokee County, provides 100 acres of open land for her boys, 11-year-old John and 13-year-old Ben, to explore.

Developers have discovered that many home buyers are looking for neighborhoods with swaths

... "Forget golf courses. The hottest amenity in metro Atlanta is a backyard forest."... THURSDAY, NOVEMBER 14, 2002

ATHENS BANNER-HERALD

Problems at Barnett Shoals development

WWW.ONLINEATHENS.COM

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Dorms getting a break

Sanford expansion ceasing during finals

By Kate Carter kcarter@onlineathens.com

The University of Georgia Athletic Association is brokering a deal with the residents of Reed and Payne Hall dormitories, who have lived with wall-shaking construction noise associated with a fasttrack project to expand

MILFORD HILLS Milliord Hills is the first subdivision built as a "conservation subdivision" under Athens-Clarke County ordinances, protecting about half the property from development. But a also fibritrates problems that

should be fixed in county rules, says the group that holds the conservation assement for the preserved part of the property.



Shoals Elementary School will set aside nearly half the development's 56 acres as

protected greenspace. But erosion and other problems at the 124-unit Milford Hills may be more an illustration of Athens Clarke County's low standards for protecting greenspace and controlling erosion than a shining example of conservation, according to an Athens conservation group involved in the project.

By Lee Shearer

Ishkarar@onlinegthens.com

construction near Barnett

A new subdivision under

The site plan, prepared by



less than what it could have

been, both in aesthetic con-

siderations and in preventing

clay from silting in nearby

Group sees erosion, 'bad' ordinances

a previous owner of the land and inherited by developer Langley Properties of Loganville, is considerably Millord Hills off Barnett Shoals Road, the county's first "conservation subdivision," sets aside woodland for greenspace in eschange for high-density development elsewhere on the site. Pre-construction grading makes the land volnerable to erosion and leaves some wondering if the conservation subdivision reguirements need tweaking.

50 CENTS

waterways and lewlands, said Laura Hall Gabriel of the Athens Land Trust, an group dedicated to land preservation and affordable housing.

See DEVELOPMENT on A12.

November 14, 2002, Athens Banner-Herald



Implementation-Site Construction Assess collateral damage to site during development





Impediments

- Local regulations are major barrier
- Conservation subdivision ordinance helps
- Other regulatory changes may be needed
- Neighborhood opposition may be significant

TRANSFERABLE DEVELOPMENT RIGHTS (TDRS)

Development Rights

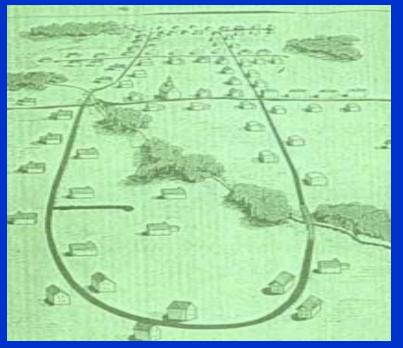
Sending Area (Farmland, natural area,historic site) Receiving Area

What is TDR?

- Development rights (rights to build) from naturally or historically significant parcel of land are separated from land & sold for use on another tract.
- Landowner enters into conservation easement permanently restricting development on naturally or historically significant parcel.

Pre-Development

Conventional Development





TDR Alternative



National Trend (30 yrs.)

- At least 107 communities have TDR programs
 - Over 1/2 protect environmental resources
 - New direction: interjurisdictional transfers

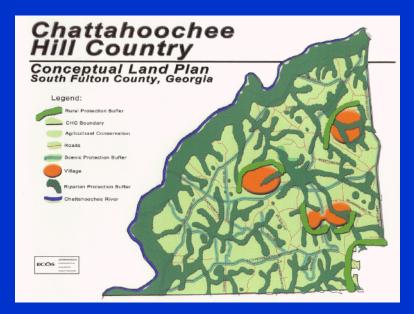
Chattahoochee Hill Country TDR Program Goals

- To preserve open space & natural, agricultural, environmental, historical, cultural resources of Chattahoochee Hill Country
- To accommodate growth while minimizing sprawl
- To maximize existing infrastructure



Master Plan

- Sending:
 - Entire Chattahoochee Hill County Planning Area, except...
- Receiving:
 - 3 Living Working Zones



How many TDRs are needed to develop land?

Depends on type of development

- Residential:

1 TDR required for each additional unit over one per acre in Living Working Area

Commercial:
 1 TDR per 2000 sq. feet
 of commercial space



The Conservation Easement

- When TDRs are transferred, landowner grants a conservation easement to a land trust
- Conservation easement permanently protects open space; it does *not* necessarily provide for public access



TDR Bank

- can buy, hold, and sell TDRs,
- will also be the central registry for TDRs on the market,
- will be run by a community board.



How does the transfer really work?

The Bottom Line

The Process

- Landowner applies for TDR certificates; within 95 days, the Department issues them
- Landowner transfers development rights to purchaser



Continued...

- Landowner transfers a conservation easement & records it
- <u>Then</u> the Deed of Transfer for the TDRs is recorded
- If less than all TDRs are sold, landowner resubmits the TDR certificate & county reissues to reflect new number of TDRs.

The Future: Interjurisdictional Tranfers New Jersey Pine Barrens

- 7 counties, 52 cities
- protects forests, water quality, cranberry/blueberry agriculture
- 12,834 acres protected to date

http://outreach.ecology.uga.edu

lfowler@uga.edu

Why TDRs?

Landowners:

- retain land & continue traditional uses
- are compensated for lost development potential

Communities:

 preserve green space without paying full price for land