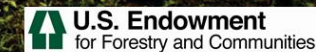


South Carolina Forests and Water Advisory Group

Meeting #1

Friday June 26, 2020

11:00 – 12:00 pm EDT



Agenda

Introductions	11:00 – 11:15
SC Forests and Water Advisory Group – Orientation	11:15 – 11:30
Discussion	11:30 – 11:50
Themes from Feedback	
Mission Statement	
Vision Statement	
Short – Term Goals	
Next Steps	11:50 – 12:00
Objectives and Key Results (OKRs)	
Scheduling	
Follow-up	

Introductions

Name	Organization	Title
Janae Davis	American Rivers	Winyah Bay Coordinator
Gerrit Jobsis	American Rivers	Senior Director, Rivers of the Southern Appalachia and the Carolinas
Joe Mantua	Beaufort Jasper Water and Sewer Authority	General Manager
Raleigh West	South Carolina Conservation Bank	Executive Director
Rebecca Haynes	Conservation Voters of South Carolina	Deputy Director
Lorianne Riggan	Department of Natural Resources	Director, Office of Environmental Programs
Steve Patterson	Center for Heirs' Property	Director of Forestry Services
Graham Rich	Renewable Water Resources (ReWa)	Chief Executive Officer
David Baize	South Carolina American Water Works Association	Executive Director
Jason Thompson	Charleston Water System/SCAWWA	Source Water Manager, SCAWWA Source Water Protection Committee Chair
Rob Devlin	SCDHEC	Director, Water Monitoring, Assessment and Protection
Guy Sabin	South Carolina Forestry Association	Vice President
Holly Welch	South Carolina Forestry Commission	Environmental Program Manager
Jill Miller	South Carolina Rural Water Association	Executive Director
James Kilgo	South Carolina Rural Water Association	Watershed Protection Specialist
Herb Nicholson	Sonoco	Forester
Jason Johnson	Conservation Fund	South Carolina State Director, Land Acquisition
Sarah Hartman	The Nature Conservancy	Director of Conservation; Land Protection, Coastal Resilience, Freshwater Program, Forests Program
Jason Jennings	US Forest Service; Francis Marion and Sumter National Forest	Soil Scientist
Eddie Reese	USDA-NRCS	NRCS State Staff Forester
Kellee Melton	USDA-NRCS	Asst. State Conservationist for Programs and RCPP State Coordinator
Peter Stangel	US Endowment for Forestry and Communities	Chief Operating Officer
Daniel McInnis	USDA-Forest Service	Shared Stewardship Coordinator
Kitty Weisman	Southeaster Partnership for Forests and Water	Coordinator
Lisa Lord	Longleaf Alliance	Conservation Programs Director

Forests and Water Orientation

**Healthy Forests = Clean and
Abundant Water Supply**



Forests and Water Orientation

Simplified Conclusions:

- ▶ Managed forests naturally filter precipitation and stormwater runoff, resulting in cleaner water reaching drinking water treatment plants
- ▶ Having healthy forests in key areas within a watershed can reduce sediment and contaminants reaching drinking water supplies, lowering treatment costs
- ▶ Maintaining forest cover within key areas of a drinking water source watershed ensures safe, reliable drinking water for current and future generations
- ▶ Healthy watersheds have many benefits including forest resiliency, recreation, fish & wildlife, and strong economies and forest markets

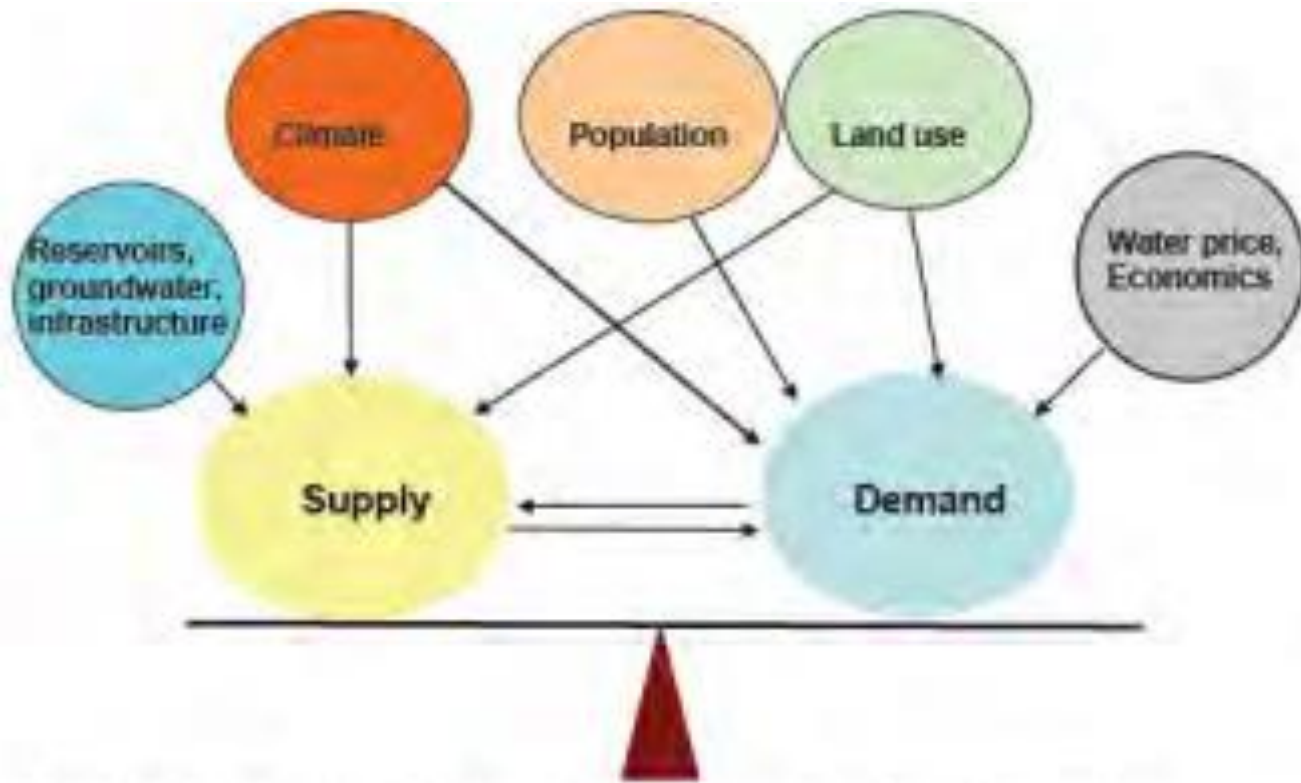


Figure 13.1—Key controls of on water supply and demand and their interactions. (Sun and others 2008)

Forests and Water Orientation

Forests and Water Orientation

The 2013 Southern Forest Futures Report by US Forest Service Southern Research Station.

CH. 13: Forests and Water

Key Findings:

- ▶ **Forest conversion to agriculture or urban use** consistently causes increased discharge, peak flow, and velocity of streams.
- ▶ **Sediment, water chemistry indices, pathogens, and other substances often become more concentrated after forest conversion.** If the conversion is to an urban use, the resulting additional increases in discharge and concentrations will produce even higher loads.
- ▶ Although physiographic characteristics such as slope and soil texture play key roles in hydrologic and sediment responses to land use conversion, **land use (rather than physiography) is the primary driver of water chemistry responses.**
- ▶ Conversion of forest land to urban uses may **decrease the supply of water** available for human consumption and increase potential threats to human health.
- ▶ Increases in urbanization by 2060 in the Appalachians, Piedmont, and Coastal Plain will **increase imperviousness and further reduce hydrologic stability and water quality indices in the headwaters of several major river basins** and in small watersheds along the Atlantic Ocean and Gulf of Mexico.
- ▶ On average, water supply model projections indicate that water stress due to the **combined effects of population and land use change will increase in the South by 10 percent by 2050.**
- ▶ **Water stress will likely increase significantly by 2050 under all four climate change scenarios,** largely because higher temperatures will result in more water loss by evapotranspiration and because of decreased precipitation in some areas.
- ▶ Approximately 5,000 miles of southern coastline are highly vulnerable to sea level rise.

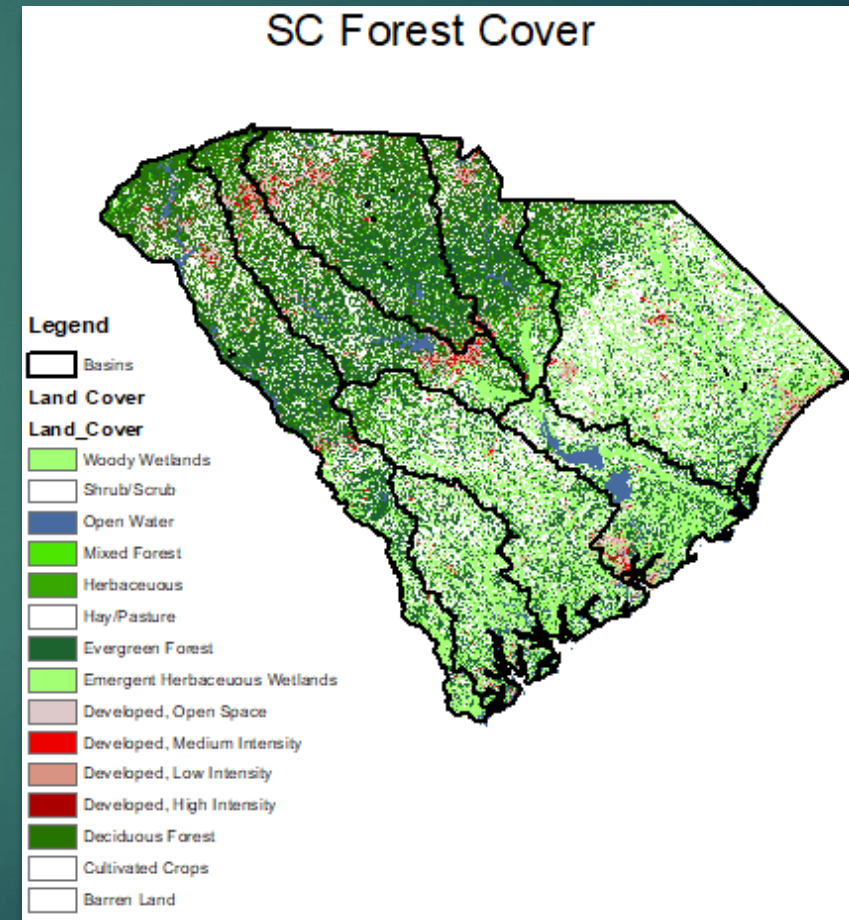
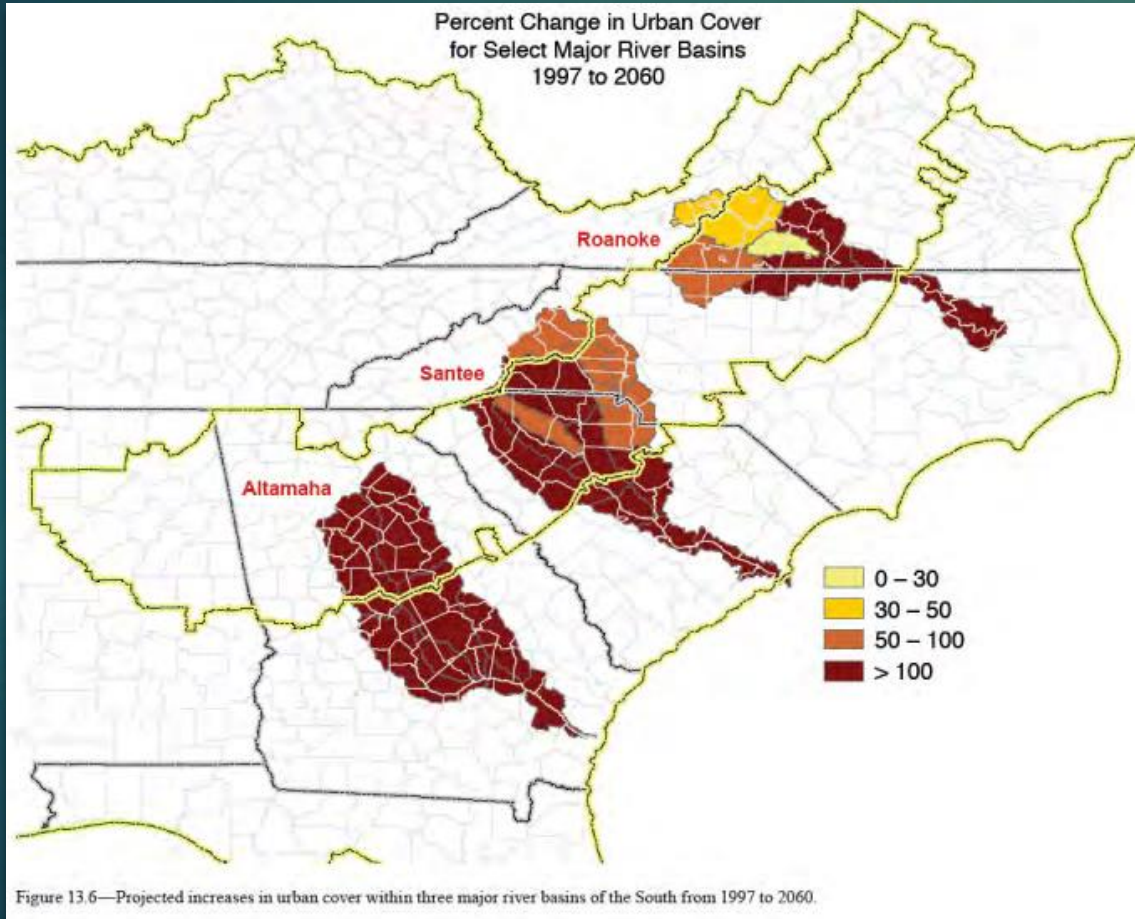
Table 7.3—Estimated population (thousands of people) for 2008, projections to 2060 by region and State for three levels of population growth, and percent change from 2008 to 2060 for the moderate growth projection

Region, State	Population estimate (2008)	Population growth projections (2060)			Percent change, moderate growth level
		Low	Moderate	High	
Southern States	102,805.6	145,360.3	163,673.8	184,909.9	59.2
Alabama	4,661.9	5,988.3	6,742.8	7,617.6	44.6
Arkansas	2,855.4	3,869.2	4,356.7	4,921.9	52.6
Florida	18,328.3	30,496.7	34,338.9	38,794.3	87.4
Georgia	9,685.7	13,156.1	14,813.6	16,735.6	52.9
Kentucky	4,269.2	5,131.1	5,777.5	6,527.1	35.3
Louisiana	4,410.8	5,269.1	5,932.9	6,702.7	34.5
Mississippi	2,938.6	3,773.1	4,248.5	4,799.7	44.6
North Carolina	9,222.4	12,723.6	14,326.7	16,185.5	55.3
Oklahoma	3,642.4	4,446.7	5,006.9	5,656.5	37.5
South Carolina	4,479.8	6,257.6	7,045.9	7,960.1	57.3
Tennessee	6,214.9	8,384.0	9,440.3	10,665.1	51.9
Texas	24,327.0	34,689.9	39,060.4	44,128.4	60.6
Virginia	7,769.1	11,174.8	12,582.7	14,215.3	62.0
Northern States	124,368.0	139,964.2	157,597.9	178,045.6	26.7
Rocky Mountains States	27,760.9	44,135.2	49,695.6	56,143.5	79.0
Pacific Coast States	49,070.4	67,798.9	76,340.6	86,245.5	55.6
U.S. total	304,004.9	397,258.6	447,308.0	505,344.5	47.1

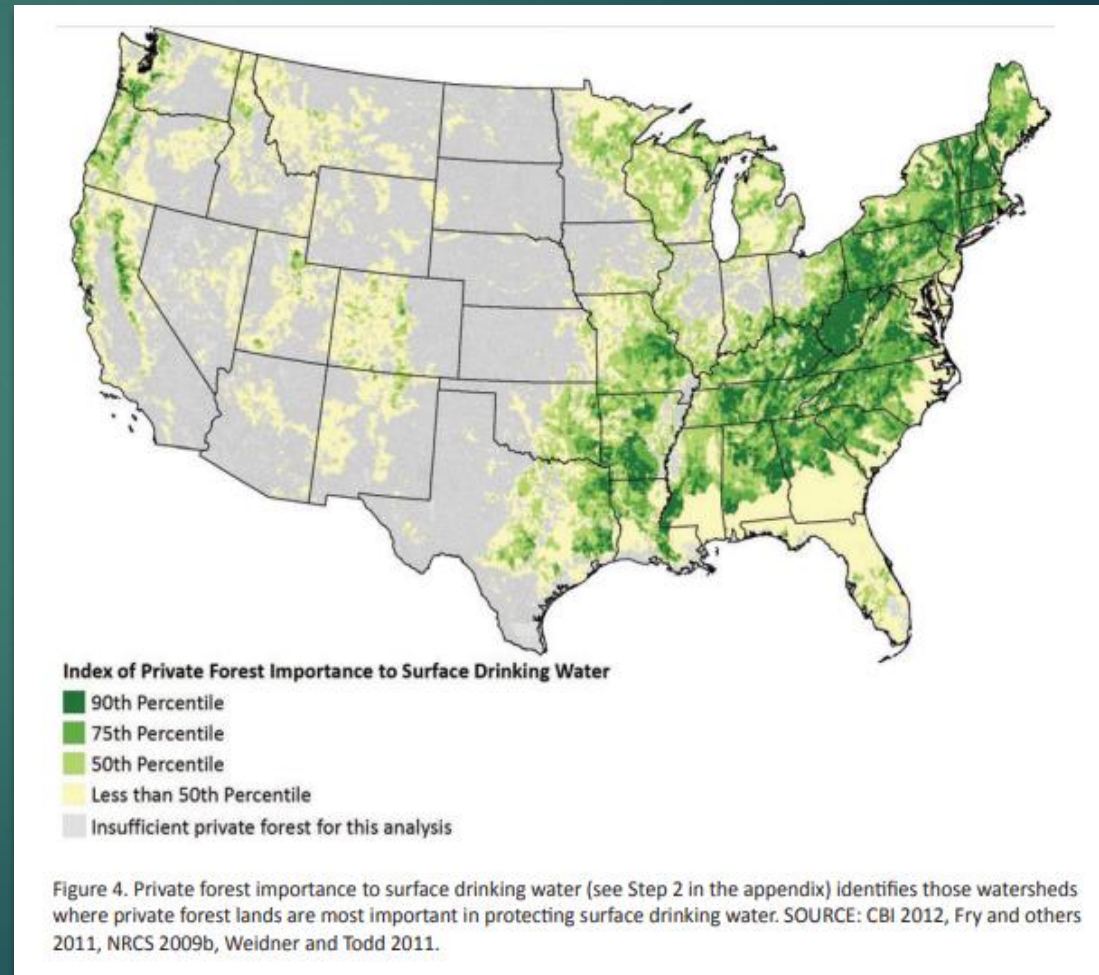
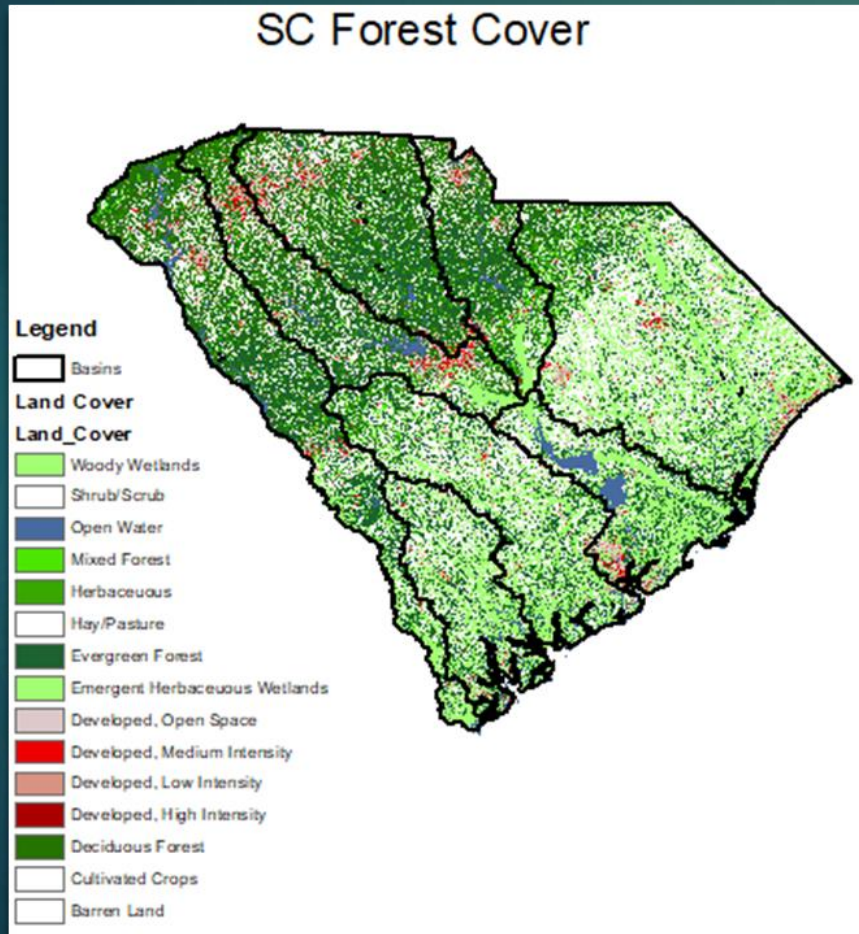
Source: Cordell 2012; U.S. Census Bureau 2008a.

Forests and Water Orientation

Forest and Water Orientation



Forests and Water Orientation

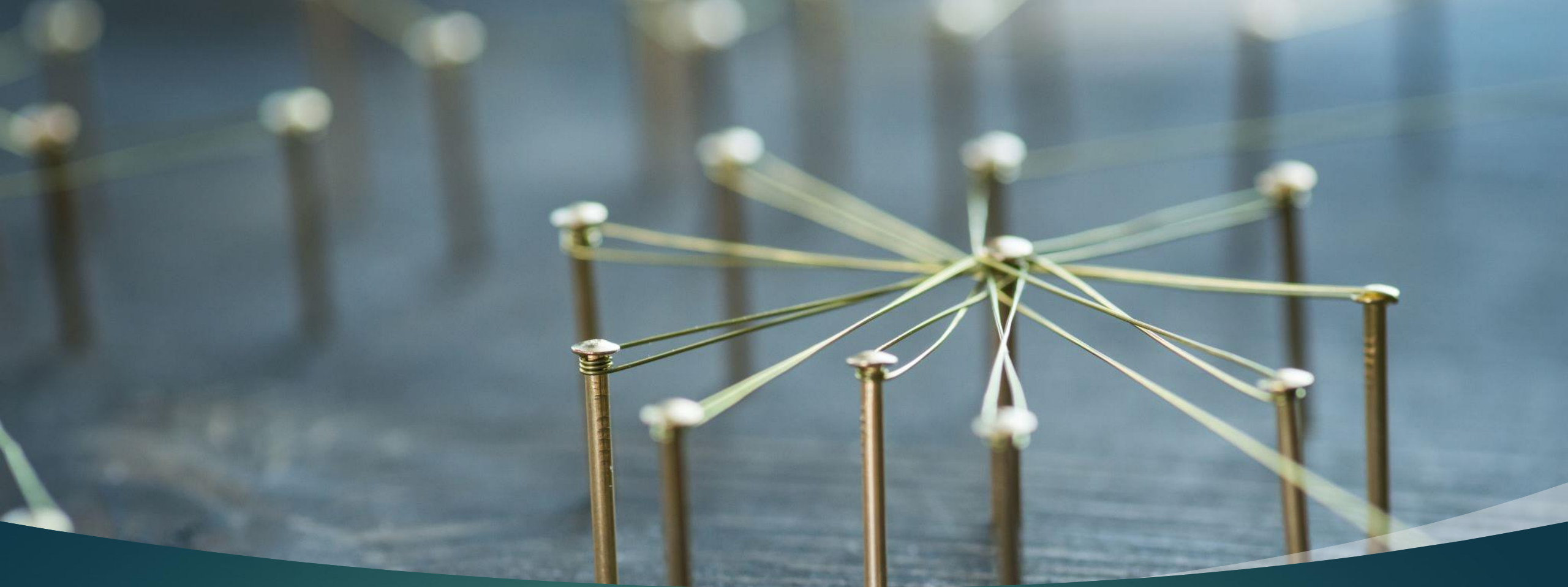


Forests and Water Orientation

What is Forest Management?

- ▶ growing timber
- ▶ protecting and creating wildlife habitat and biological diversity
- ▶ maintaining soil and water quality
- ▶ reforestation
- ▶ reducing risk of damage from fire, storms, insects, and disease
- ▶ protecting threatened, endangered, and imperiled species
- ▶ promoting aesthetics and recreational opportunities





Discussion

Discussion - Themes

- Connection between protected lands/forests and clean water
- Land and water policy needs
- State/centralized data source
- Water quality monitoring constraints
- Erosion and sedimentation
- Forest value to water yield
- Forest based herbicides impact to water quality
- Development/land conversion threat
- Land protection (floodplains)
- Public/legislative education and outreach
- Active landowner engagement
- Conservation/protection for land with headwaters
- Business case for forest value to water
- Uplands and wetland connectivity
- Population growth and watershed planning/water quantity
- Funding/incentive based programs development
- Public/private partnerships for forested watershed protection
- Watershed protection
- Wildlife protection
- Ecosystem restoration
- Carbon sequestration impact on climate change and water demands
- Prioritize value of forested BMPs in context of water quality and quantity
- Re-establishment of historical land use
- Forest value to flood mitigation and climate change
- Ecosystem Services framework – equitable
- Source water protection and forest based BMPs
- Collaboration between water providers/users, landowners, gov, NGOs, etc...
- Support for family forest landowners
- Assist unengaged landowners
- Link water quality/demand to certification systems (SFI, FSC, Tree Farm)
- Value between forest buffers to agriculture producers
- Introduce government funded programs to new audiences
- Combine government programs for bigger impact to water and forests
- Flooding and restricting access to high value forested land
- Payment options for forestland management
- Funding mechanism to pay landowners for work inherently doing that protects and promotes water quality
- Utility based funding mechanism to pay landowners
- Creating an ecosystem marketplace for water and forested lands – nutrient trading
- Technical assistance and financial assistance for small landowners
- Link between forest and ground water quality
- Funding for protecting buffers and wetlands

Themes:

- ▶ Value of land use to water quality and quantity
- ▶ Targeted education and outreach
- ▶ Increase opportunities for forest and water sector partnerships
- ▶ Funding options for stakeholders

Discussion – Mission Statement

Examples

Example 1:

- ▶ To explore the connections between forests and drinking water, and to investigate ways to collaborate to sustain these two important and interdependent natural resources.

Example 2:

- ▶ To facilitate conservation and better management of forested watersheds in Arkansas to protect public water supplies.

Example 3:

- ▶ Educating and advocating for the conservation and improvement of our forests, drinking water, communities, and public health.

Proposed

Proposal 1:

- ▶ **To provide South Carolina with a consolidated leadership team that promotes the connection between healthy forests and safe and reliable drinking water through education, collaboration, and funding initiatives. (Chosen Mission Statement)**

Proposal 2:

- ▶ To create unique approaches to proactively protect, enhance, and sustain water quality through forest management.

Proposal 3:

- ▶ To provide a suite of strategies that promote the future security of drinking water resources through protecting and managing forests.

Discussion – Vision Statement

Examples:

Example 1:

- ▶ Increasing the awareness of the forest and water connection by making presentations at various conferences and meetings, strengthening watershed partnerships, identifying critical areas to focus efforts, and implementing an on-the-ground proof of concept demonstration project. Ultimately, the partnership strives to enhance drinking water, forest lands, and local economies.

Example 2:

- ▶ **Healthy Managed Forests and Clean Drinking Water.**

Example 3:

- ▶ **A state that embraces forests and water as drivers for community engagement, economic development, and quality of life for all present and future generations.**

Proposed:

Proposal 1:

- ▶ **South Carolina forested watersheds that provide tangible benefits to drinking water resources.**

Proposal 2:

- ▶ **South Carolina forested watersheds that are healthy, safe and reliable drinking water resources, with collaborating stakeholders and funding opportunities promoting long-term stewardship. (Chosen Vision Statement)**

Proposal 3:

- ▶ **Promote the sustainability of forested watersheds to support healthy, safe and reliable drinking water.**

Discussion – Short Term Goals

- ▶ SC Forests and Water Annual Consortium planning
 - Date, location, audience, etc...
- ▶ Targeted Education and Outreach
 - Identify audience(s) and the information, expertise, data, and strategies best suited to effectively assist the target audience(s).
- ▶ Enhanced Collaboration
 - Network and develop relationships with landowners, utilities, corporate partners, conservation groups, etc...
 - Discuss expanding stakeholder base to engage new partners
 - How to enhance landowner-utility partnership engagement
 - How to strengthen strategic partnerships and collaboration
- ▶ Other...

Next Steps

- ▶ Scheduling meetings
- ▶ Objective and Key Results (OKRs) – template for Strategic Planning
- ▶ Follow-Ups

Thank You!

