

Tennessee Yards & Neighborhoods:

Addressing the Challenges of Residential NPS Pollution

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Today's Objectives

- **Program Beginnings:** The who's, the why's and the how's of it all
- **Its Progress:** Where we are now in its implementation
- **Partner Plans:** Our approach to state-wide implementation



In the Beginning:

The Short of the Who's & Why

Beaver Creek Task Force



Restoration Plan Studies

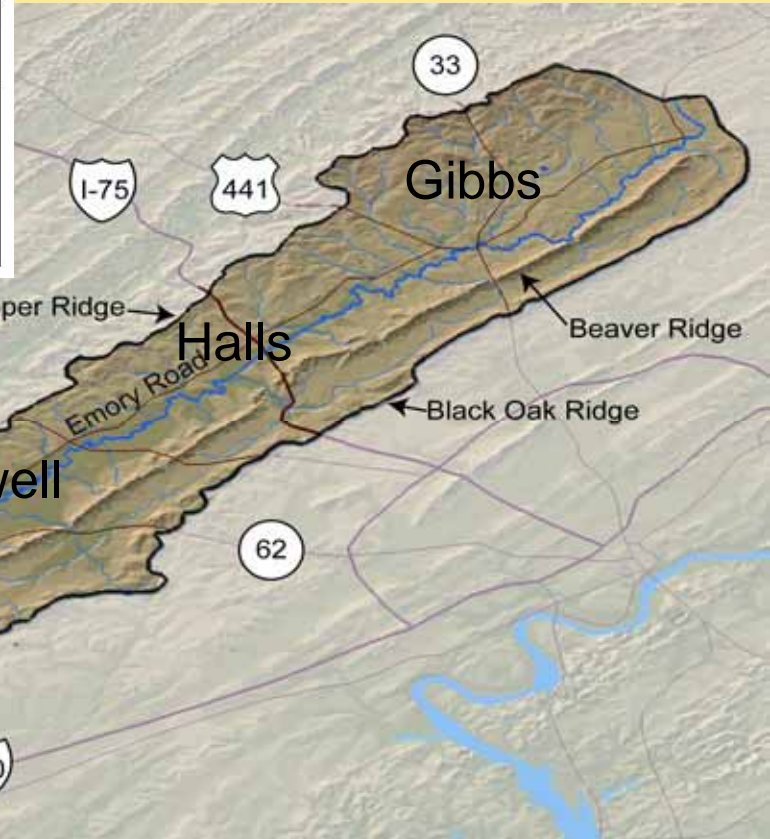
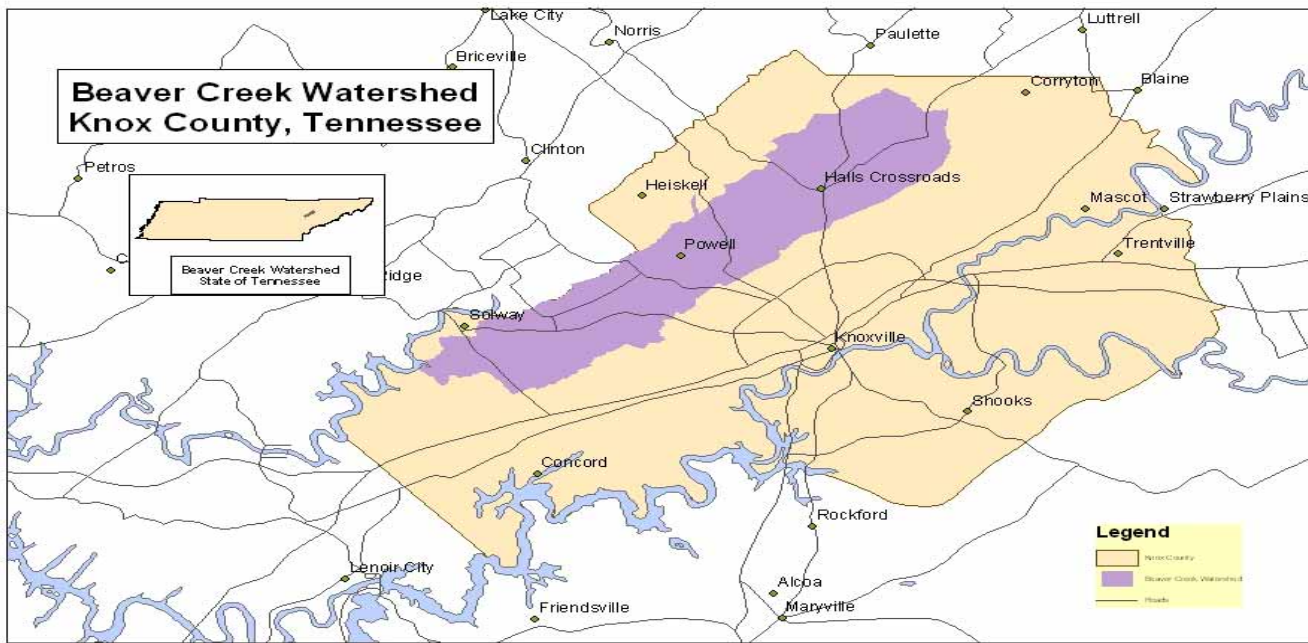
Results indicated residential areas impacting Beaver Creek water quality



BCTF Education Committee

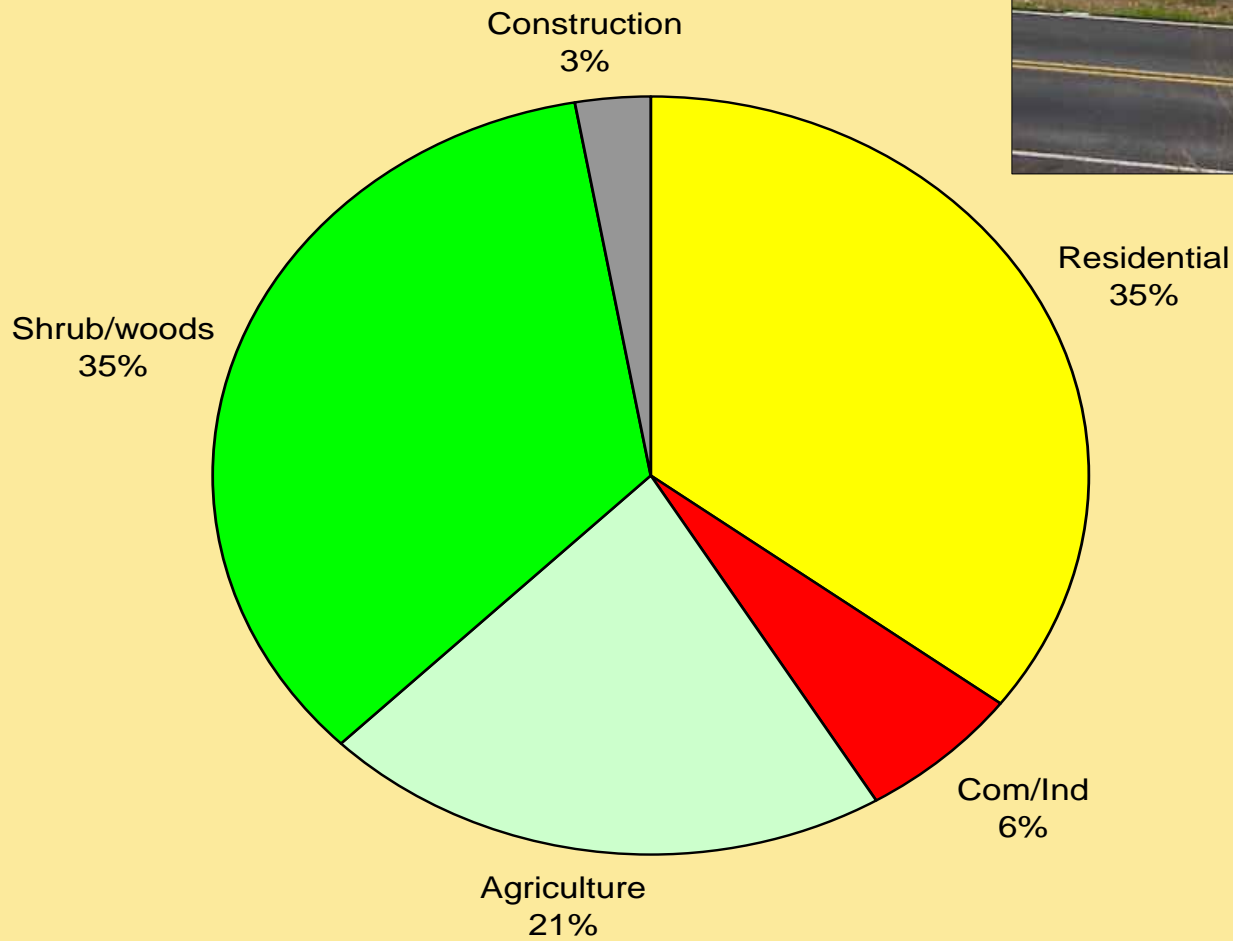


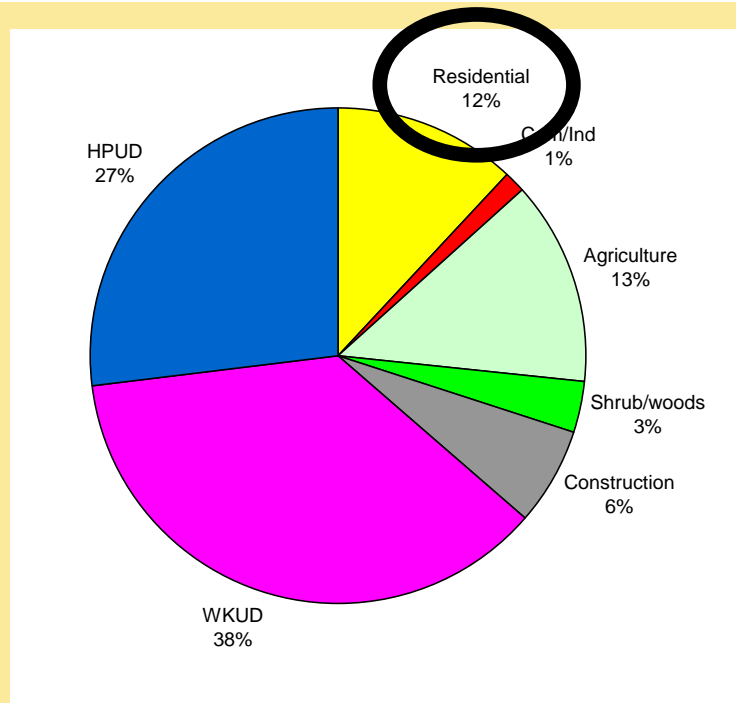
Identified established program to meet need



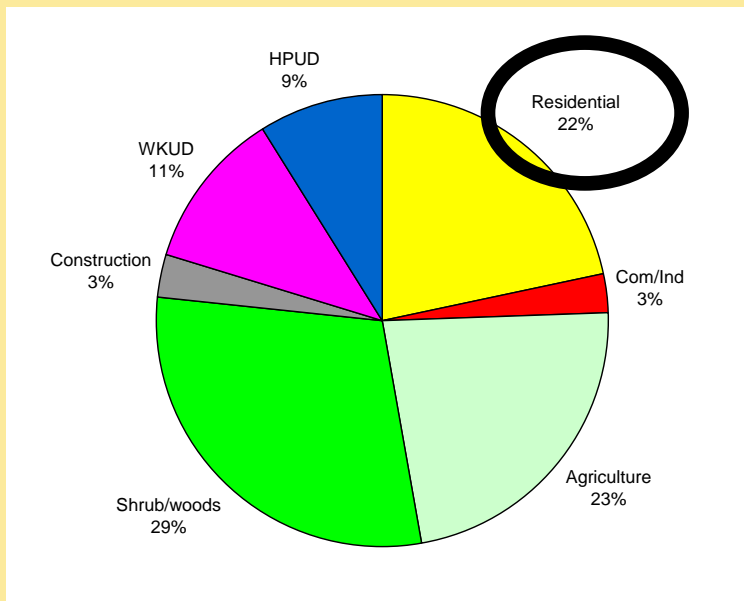
- 86 square miles
- Rapidly urbanizing – approximately 80,000 residents with 30,000 homes
- Projected: 25% increase in 20 years

Beaver Creek Watershed Land Use





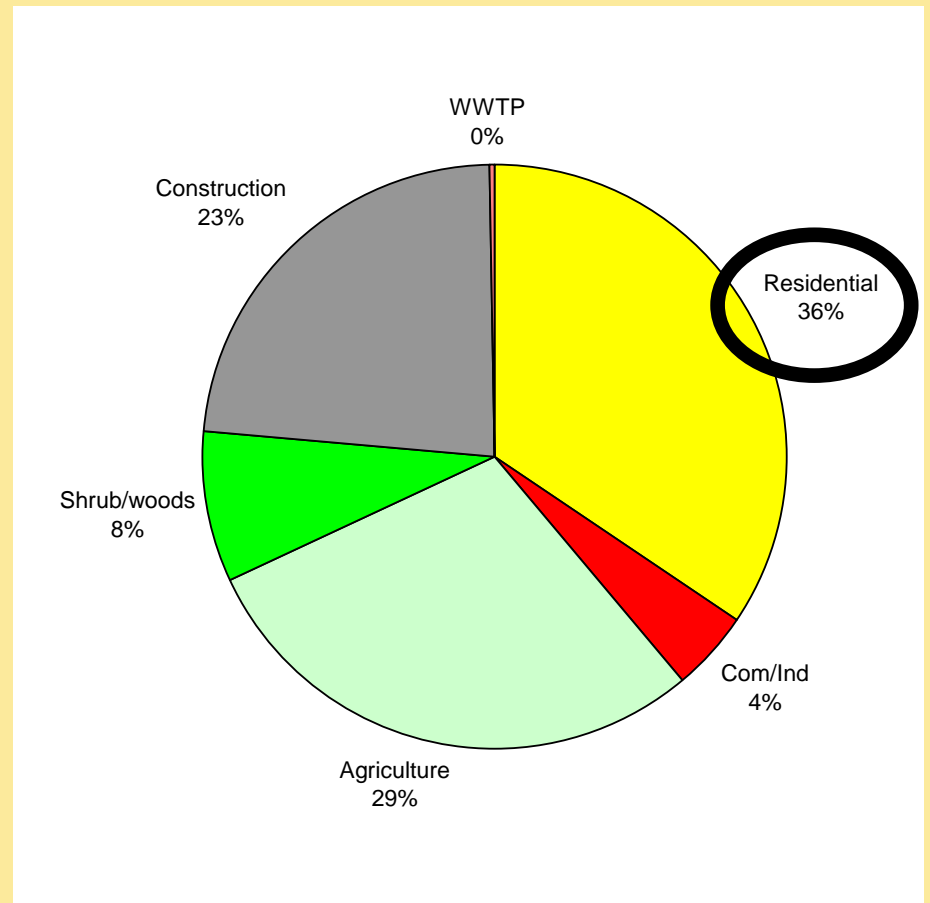
Phosphorus – 12%



Nitrogen – 22%

Model Results

Residential Pollutant Loadings



Sediment – 36%

Subwatershed Visual Assessment

Residential Sediment Loading

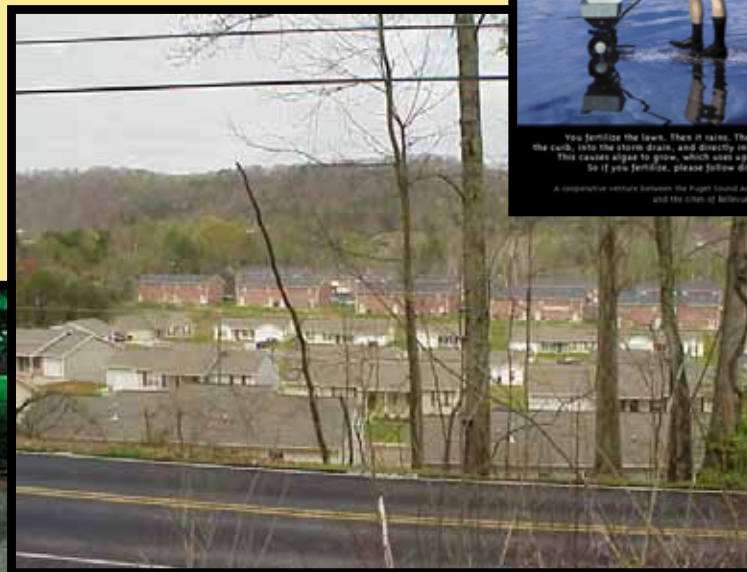




The How's: Its Inception



Residential NPS Educational Programs





The How's: Eureka – A Match!

- Through a chance encounter

- Basis:

- Environmental landscape management (ELM) practices
- Target audience: homeowners (& more)
- Strategies to reduce residential NPS pollution & conserve water

- Tried & True

- Florida
- North Carolina





NINE PROGRAM PRINCIPLES

- Right Plant - Right Place 
- Manage Soils & Mulches 
- Appropriate Turfgrass Management
- Water Efficiently 
- Use Fertilizers Appropriately 
- Manage Yard Pests 
- Reduce Stormwater Runoff & its Pollutants 
- Provide for Wildlife 
- Protect Water's Edge 

Comprehensive Landscape Management Program

- **Homeowners & neighborhood associations**

- Workshops
- Certification Program
 - Bronze Magnolia
 - Silver Palmetto
 - Golden Oak



- **Stakeholders in residential landscaping**

- Builders & Developers
- Landscape Architects
- Landscape & Irrigation Contractors
- Landscape Maintenance Professionals



The How's: Fast-Forward

- Yet more good fortune: Chance meeting with UT Extension – on same track to develop similar program
- Formed TVA, TN WRRC & UT Extension partnership
- Attended NC Y&N workshop & built relationship with NC & FLA Y&N staff
- Made decision to pilot 6-hour workshop
- Evaluated “Nine Principles” in light of TN needs & adapted, revised materials, logo...
- Piloted first Y&N product – six-hour workshop



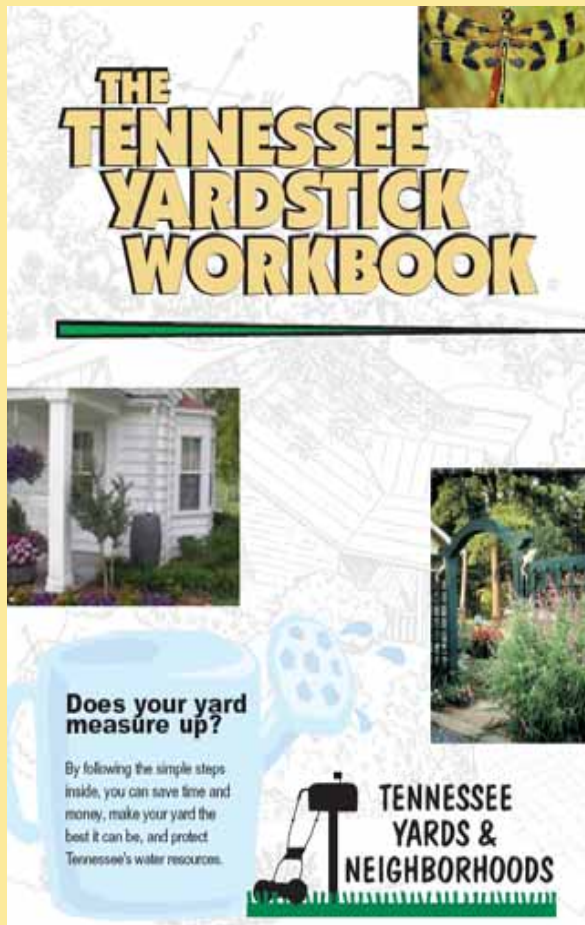
Workshop Schedule

- **9:00 – 9:15** Introduction
- **9:15 – 9:45** Making the Land-Water Connection
- **9:45 – 10:30** Nine TN Y&N Principles
- **10:30 – 10:40** Break
- **10:40 – 11:30** Turfgrass Management
- **11:30 – 12:00** Lunch
- **12:00 – 12:55** Soils and Mulch
- **12:55 – 1:40** Home Stormwater Strategies
- **1:40 – 1:50** Break
- **1:50 – 2:35** Landscape Design Considerations
- **2:35 – 3:00** Evaluation & Conclusion



Supporting Materials

- Provided in TN Y&N folder
 - The Tennessee Yardstick Book
 - Voucher for your soil test
 - Web site reference sheet
 - Other helpful “how-to” guides
 - Information on local initiatives
- Other items:
 - Rain gauge
 - Ruler
 - Magnifying glass





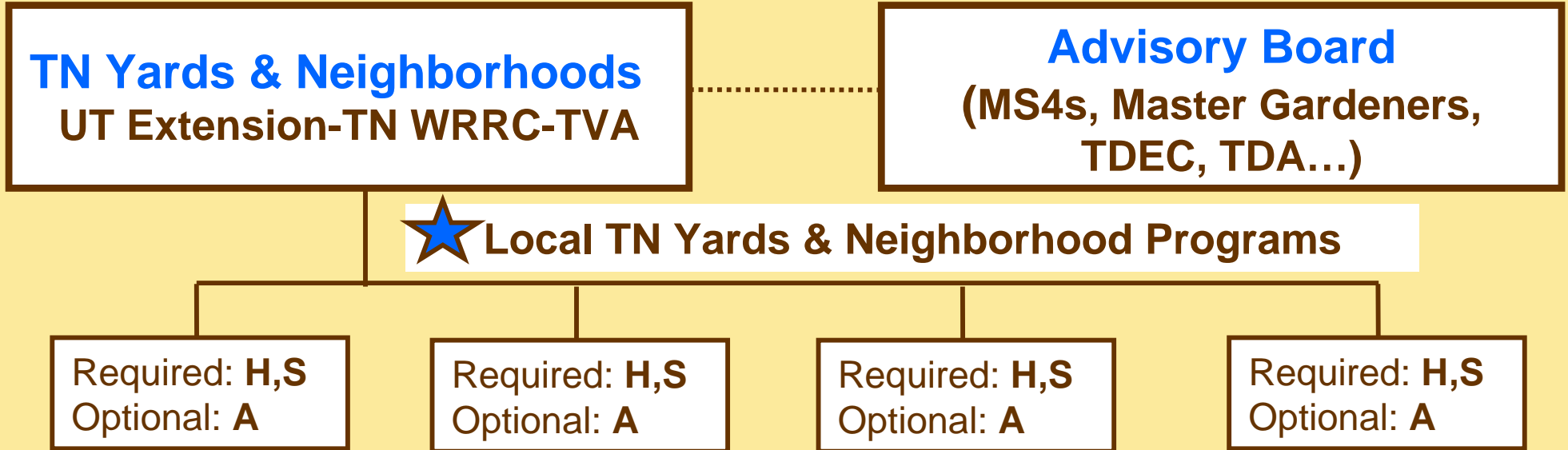
The How's: Continue

- Decision to pilot state-wide TN Y&N delivery system
- Applied for Nonpoint Source (“319”) grant
- Elements of grant
 - Select five communities across the state
 - Develop a train-the-trainer workshop for targeted communities
 - Hire a marketing firm to develop a program marketing package
 - Develop & maintain TN Y&N Web Site
 - Participating communities conduct six workshop



Partner Plans

Proposed State-Wide Delivery System



Key

- ★ Extension office or other municipal horticulture department with local MS4 stormwater department or local watershed organizations
- H Horticulture Specialist:** horticulture and/or related degree plus five years of experience in the landscape management field or equivalent education & experience
- S Stormwater Specialist:** water resource-related degree plus five years in addressing urban watershed issues or equivalent education & experience
- A Assistant:** Master Gardener's Certification and/or equivalent education & experience



Partner Benefits

UT Extension & State-Wide Extension Agents

- **Changing physical and demographic landscapes**
 - 68 acres of farmland being lost to urbanization daily, 7th in nation in acres of land being developed (American Farmland Trust)
 - Three-quarter's of state's population living in 10 largest metro areas
 - Changing economy: 83% of gross domestic product produced by state's 10 largest metro areas
- **Meeting customer needs**
 - Greater demand for assistance in urban/residential areas
 - Growing environmental concerns
- **Meeting state and national water quality directives**
 - UT Extension
 - USDA Cooperative State, Research and Extension Service





Partner Benefits

MS4s & Local Water Resource-Related Groups

- **Emphasis on water resource protection**
 - Addresses changing land use patterns in Tennessee
 - Focuses on actions to sediment and nutrient input
 - 5,800 miles impacted by sediment
 - 2,500 miles impacted by nutrients
 - Promotes water conservation
 - Encourages home low impact development strategies
- **Can be used to meet NPDES permit education requirement**
- **Incorporates topics of interest for homeowners - turf, turf, turf**
 - increasing community appeal and participation
- **Gives landowners the knowledge to make informed decisions**





TN Y&N Program - Next Steps

Stay Tuned



2009

- Conduct Train-the-Trainer Workshop for five participating communities
- Develop a Y&N Advisory Board



2009/2010

- Selected communities conduct six workshops
- Develop two additional Y&N modules



Pictures of the year by NBC



Jim Lavrakas / Anchorage Daily News