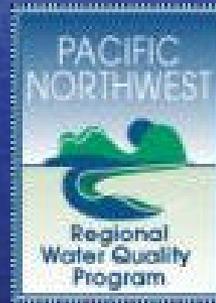
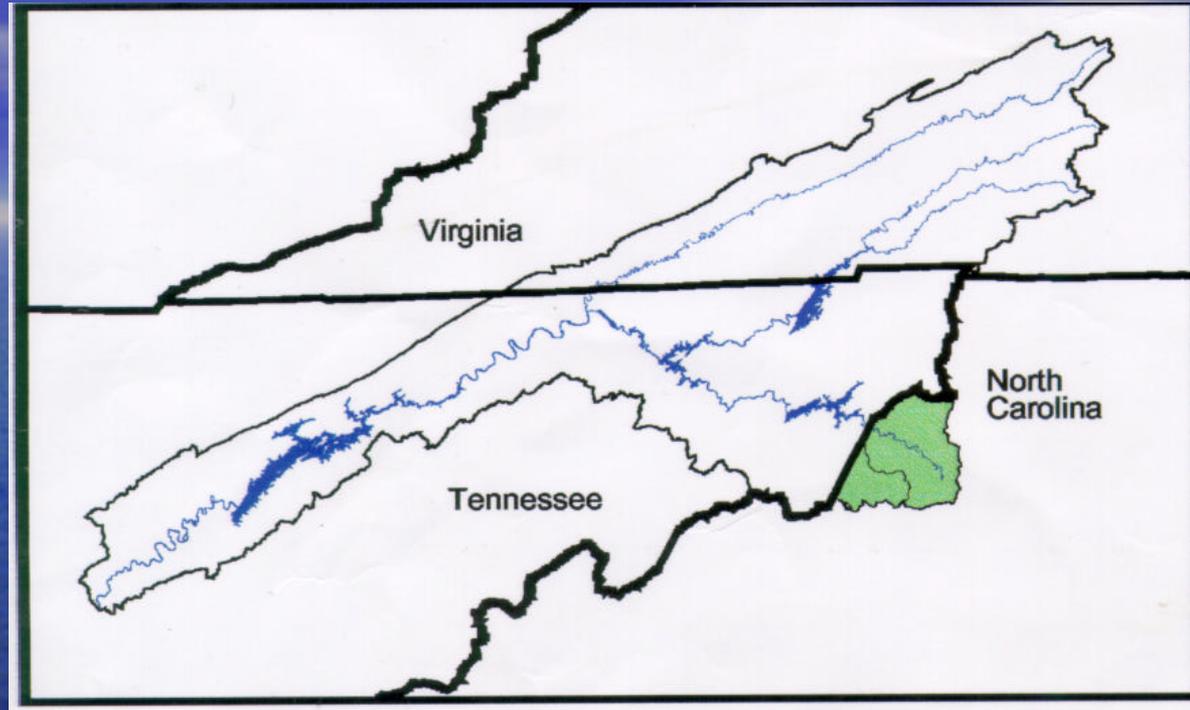


# Partners Across the Nation: Stormwater Management from a Watershed Perspective A Watershed Issues Satellite



# Watauga River Watershed

- 2<sup>nd</sup> smallest basin in NC
- 270 miles of streams and rivers
- 18 miles of state designated Outstanding Resource Waters
- Over 55% of the streams in the basin are classified as trout waters, which means a 25 ft buffer is required on streambanks



## Rare Aquatic Species in the Watauga River Habitat



Hellbender- Special Concern



Green Floater- Endangered Mussel



Banded Sculpin- Threatened



3 Hurricanes hit  
in Fall 2004

Water  
E verywhere

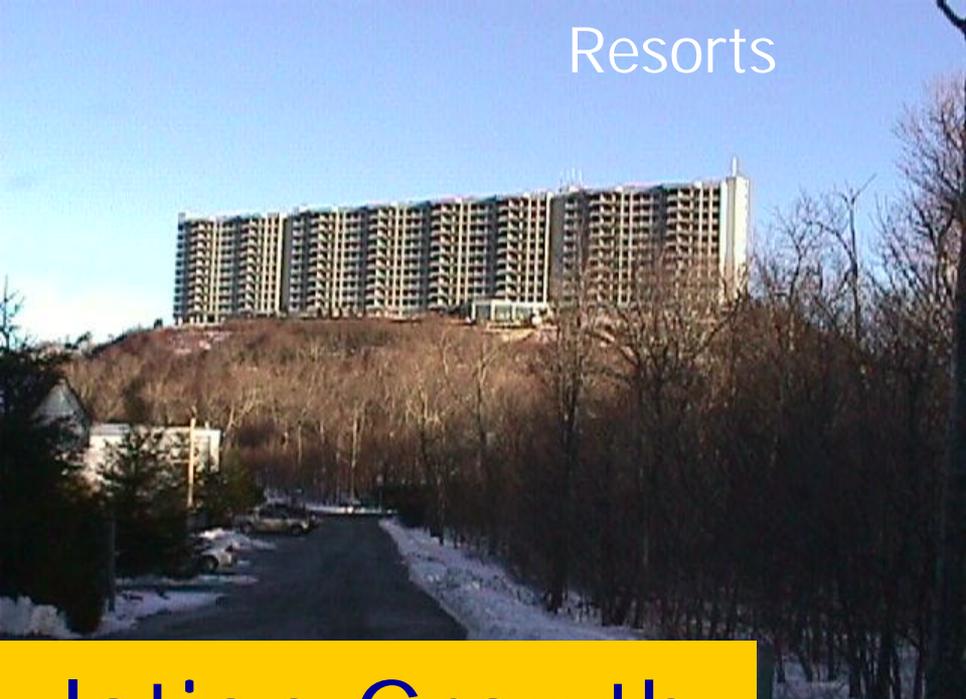
# Flood Damage



After  
Restoration



Skiing



Resorts

Tourism & Population Growth



Agriculture - Choose & Cut



Recreation

# How it all got started

*See the Difference!*



## **Help Improve Banner Elk's Appearance**

### **Purpose:**

The Banner Elk Streetscape plan is a partnership between the Town of Banner Elk and a group of community volunteers who are dedicated to the improvement of Banner Elk's overall appearance.

### **Needs:**

Your time, labor, and funds for the project.

### **Call:**

**Banner Elk Town Hall**  
**828.898.5398**

## **Master Streetscape Plan Phase I**

# Street Beautification Project



- Brick Sidewalks
- Tree, shrubs, & planters
- Benches
- New lamp post lighting
- Trash Receptacles
- Road Improvements (Curb and Guttering)



# 3 Phases of Stream Restoration have been completed in the Banner Elk Town Park



Funded by: Clean Water  
Management Trust Fund  
Grant

NC State University

Avery County  
Cooperative Extension

Tennessee Valley  
Authority

Do you know what's in your storm water?



# Urban Stormwater Demonstration Project

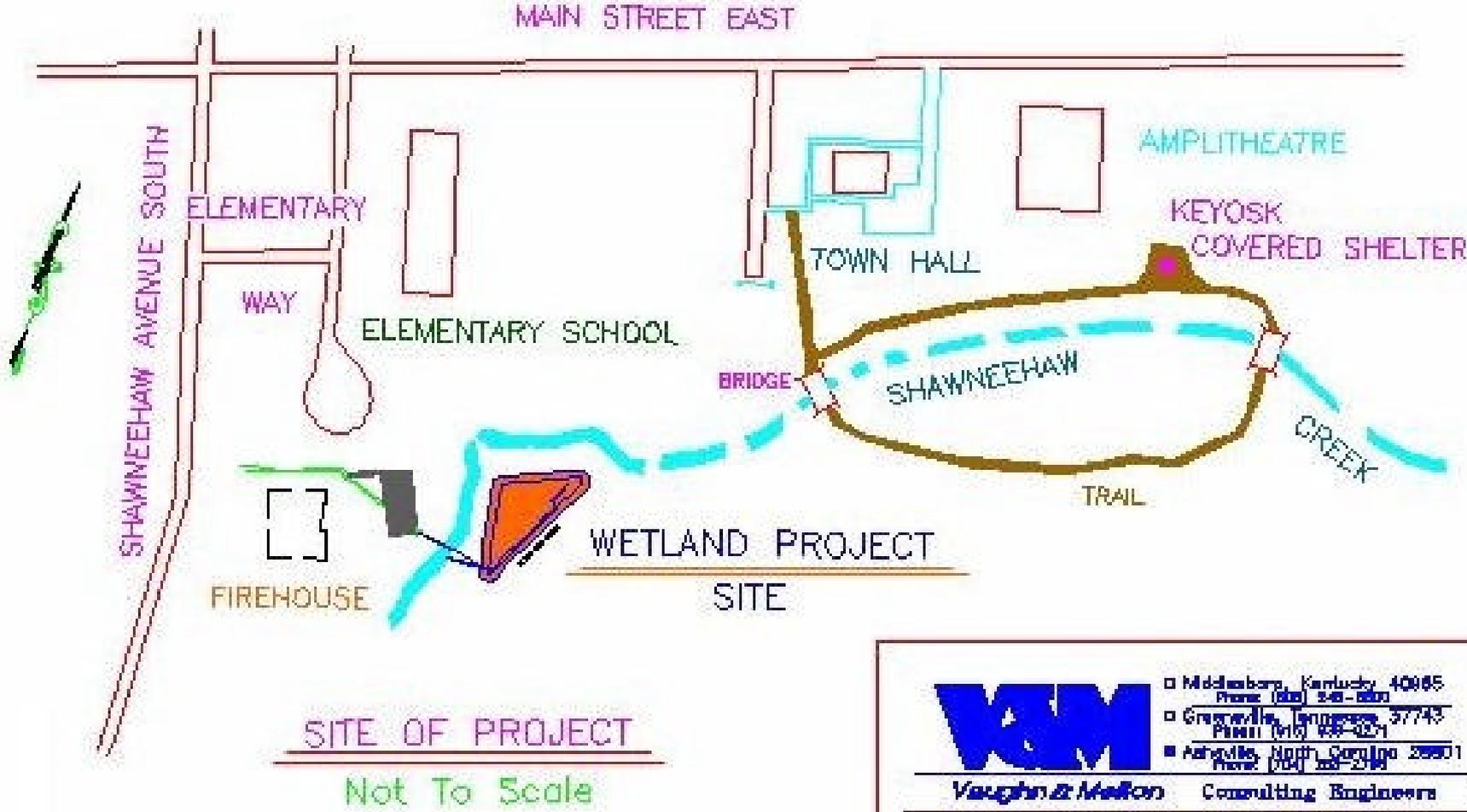
Banner Elk, NC

- Underground Storage Vault  
&  
• Constructed Wetland





# Banner Elk Project Site



- Middleburg, Kentucky 40065  
Phone (606) 241-6800
- Greenville, Tennessee 37743  
Phone (615) 487-0271
- Asheville, North Carolina 28901  
Phone (704) 688-2144

Vaughn & Melton Consulting Engineers

BANNER ELK, NC  
ILLUSTRATION PLAN









# Volunteers Planting out at the Wetland

Getting students out into the field is priceless experience if they are interested in this type of work.

-Lees McRae

-ASU







# Native Plant Seed / Tuber Growing Operation



# Dragonfly larvae exoskeleton



# Goals of the Constructed Stormwater Wetland

- Education- elementary to university to community
- Final cleansing stage of the stormwater
- Serve as a model for other towns in Western NC that have similar needs for stormwater control
- Provide a diverse habitat for birds, plants, insects, and amphibians.
- Enhance the beauty of the town park

# Storm drain Medallions in downtown Banner Elk and the streets of Boone



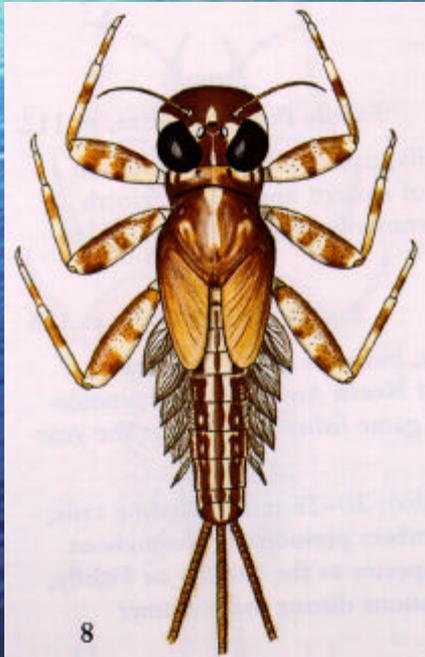
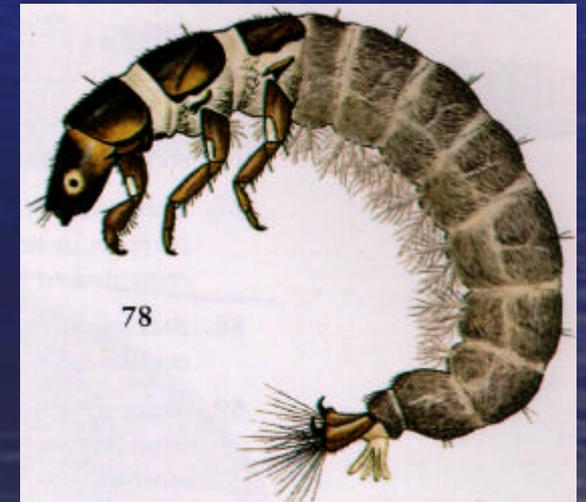
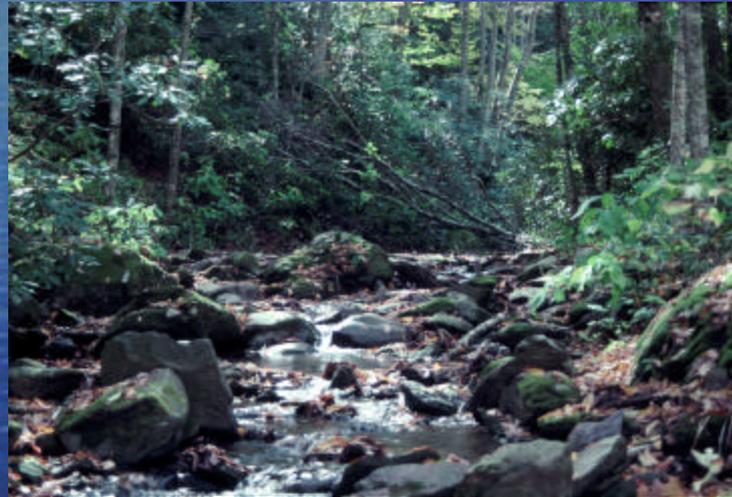
Installed by the Watauga River Conservation Partners and the High School Environmental Club



Funded by a grant through the World Wildlife Fund

# Who Tests and Monitors the Water Quality in Our Watershed?

## Watauga Watershed Watch Volunteers



# Benthic Monitoring Workshops



# Kids in the Creek



Over 2,000 kids participate every year



# Enviroscape

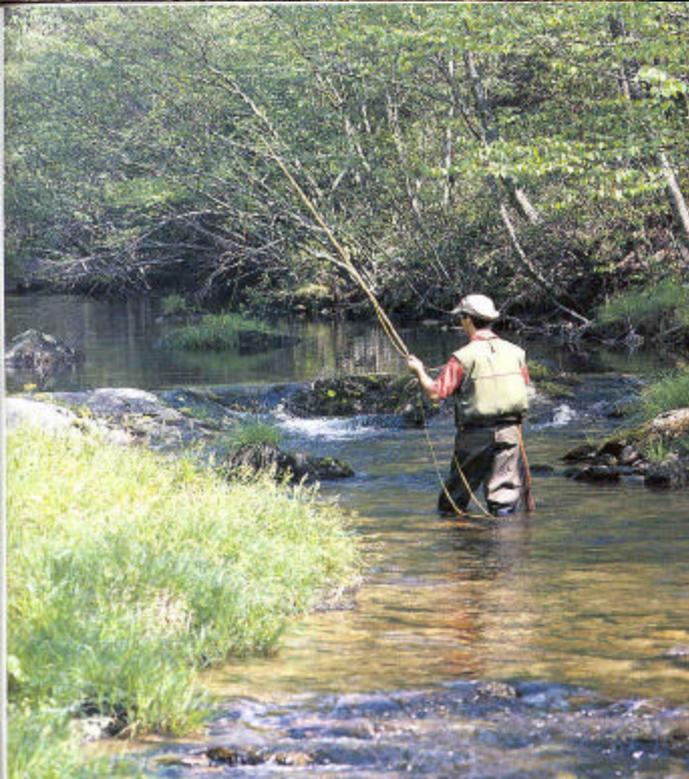


# “Mandy the Mayfly and the Stream Doctor”





**Watauga River at Valle Crucis Community Park**



# Any Questions??

- This presentation prepared by:
  - Wendy Patoprsty – Watauga Watershed Agent, North Carolina State University Cooperative Extension
  - And
  - Jan Seago – PNW Land Grant Institution Liaison to Region 10 EPA
- 
- THANK YOU