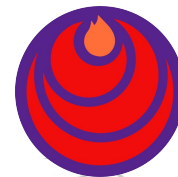




**EcoForesters.org**

Forestry • Conservation • Education

# Post-Helene Forest Restoration & Funding



  
**Wildbud Natives**  
A Conservation Nursery



**All Hands and Hearts**

# What to expect today

- A lot of information
- Introduction to key agencies, NGOs and businesses
- Potential solutions for your forest
- Information on funding
- Committed partners that are helping for the long run



# EcoForesters.org

Forestry • Conservation • Education

## Established in 2015

- **Our Mission:** The restoration and conservation of Appalachian forests through education and stewardship
- Boots on ground with professional forestry staff and trained field crews
- Create funding opportunities for restoration and planning

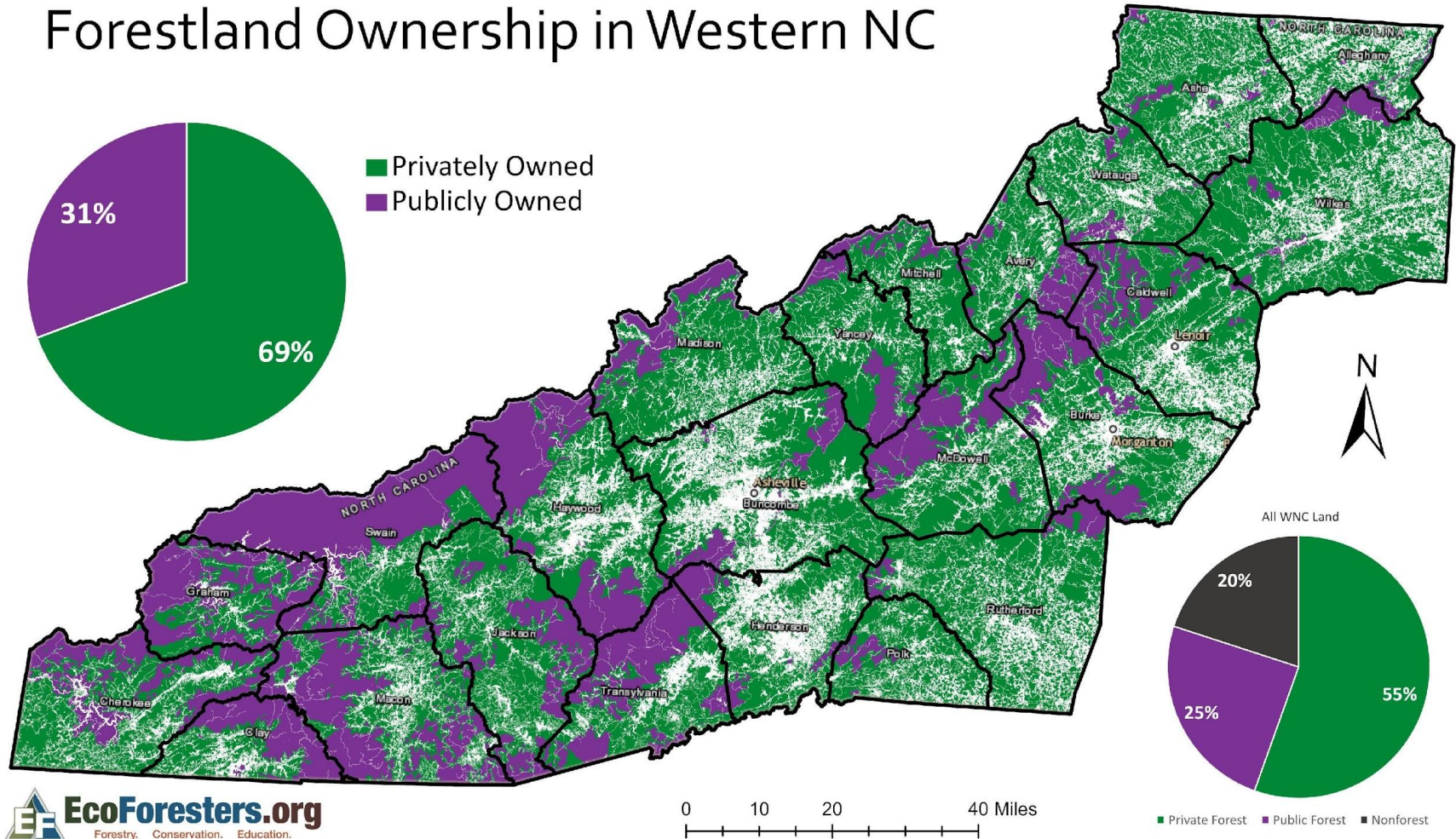


Forestry. Conservation. Education.



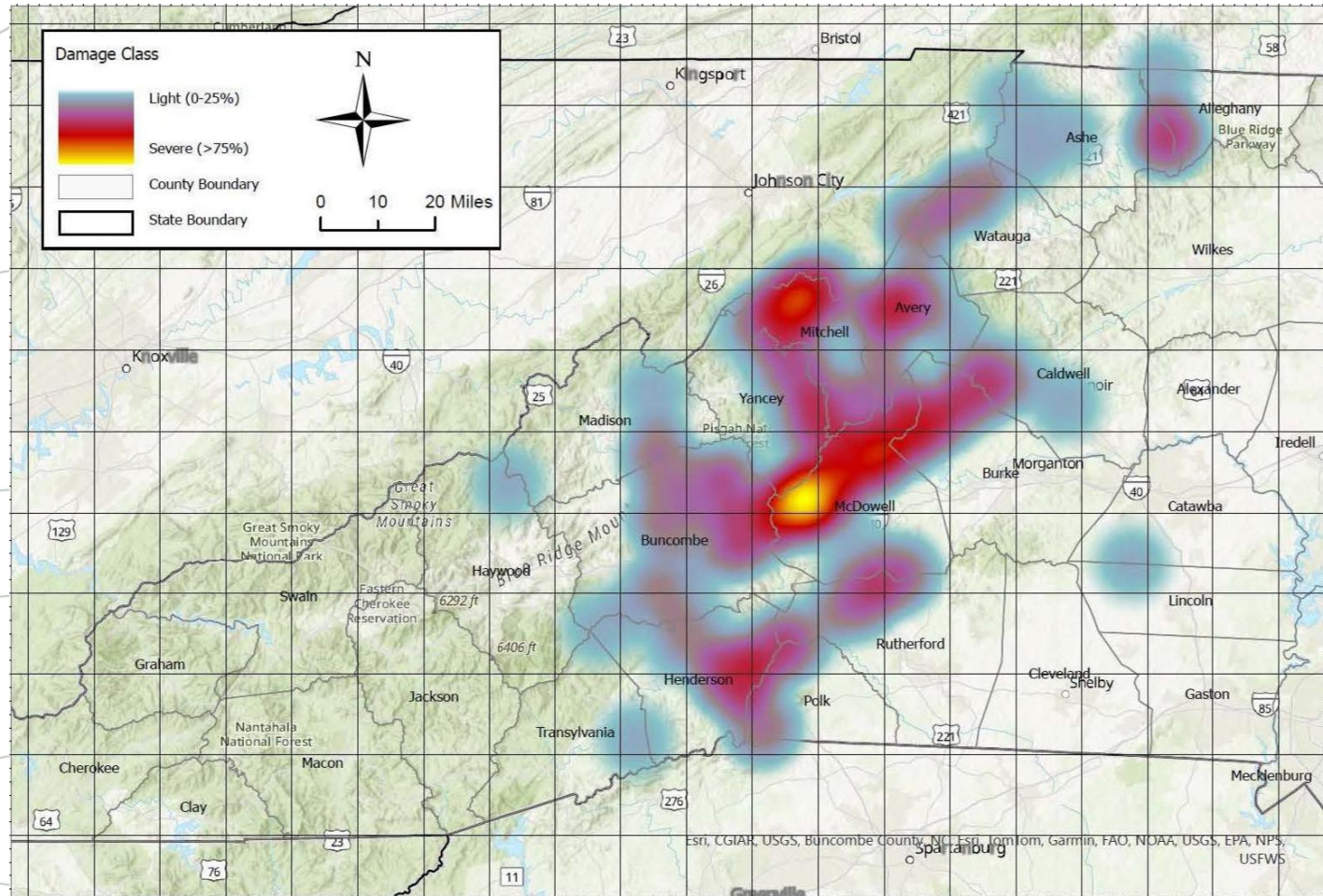


# Forestland Ownership in Western NC





# NORTH CAROLINA FOREST DAMAGE APPRAISAL HURRICANE HELENE



# Common challenges making forestry more difficult:



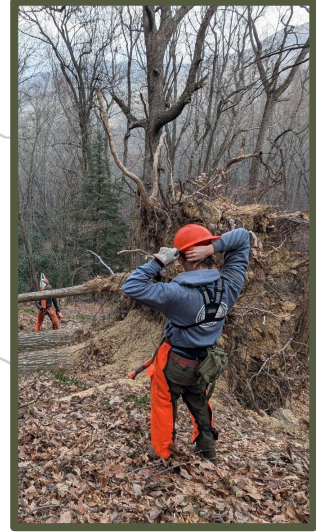
Land use changes & development pressures

Extreme weather = Changed forests

Higher wildfire risk to humans

Agencies focused on wildfire & fewer long-time foresters

Loss of industry & traditional markets

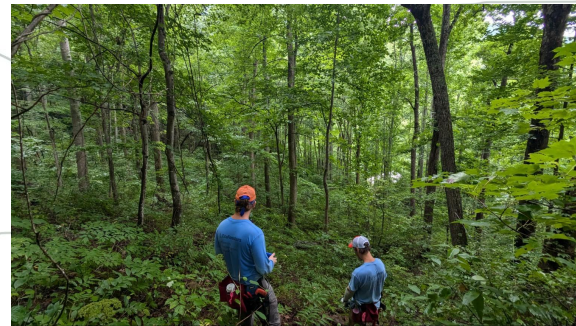




Landowner engagement & education



Planning & implementation



# How are we making a difference?



Creating funding streams  
to do the work



Post-Helene = Modern Forestry

**Forestry. Conservation. Education.**





# North Carolina Forest Service

The N.C. Forest Service (NCFS) exists to help landowners ensure forestlands in North Carolina stay healthy, productive and beautiful for generations to come.

## Contacts

Brad Gragg, [Brad.gragg@ncagr.gov](mailto:Brad.gragg@ncagr.gov)  
Bo Dossett, [burgin.dossett@ncagr.gov](mailto:burgin.dossett@ncagr.gov)

## Website

<https://www.ncagr.gov/divisions/nc-forest-service>



# US Forest Service

The Forest Service sustains the health, diversity, and productivity of the nation's forests and grasslands to meet the needs of present and future generations.

## Contact Info

Jennifer Barnhart [jennifer.barnhart@usda.gov](mailto:jennifer.barnhart@usda.gov)

## Website

<https://www.fs.usda.gov/>



# North Carolina Cooperative Extension

North Carolina Cooperative Extension is the largest, non-formal education outreach organization in the 17-campus UNC system. It serves as a bridge between North Carolinians and our state's preeminent research universities of NC State University and NC A&T University.

## Contact Info

Nathan Gatlin  
[npgatlin@ncsu.edu](mailto:npgatlin@ncsu.edu)

## Website

<https://www.ces.ncsu.edu/>





# North Carolina Wildlife Resources Commission

---

- <https://www.ncwildlife.gov>
- District 8 Wildlife Biologist: Clint Barden
  - [clinton.barden@ncwildlife.gov](mailto:clinton.barden@ncwildlife.gov)
  - (828) 803-8491
- District 8 Wildlife Conservation Biologist: McKaley Clarke
  - [mckaley.clarke@ncwildlife.gov](mailto:mckaley.clarke@ncwildlife.gov)
  - (828) 795-0904



# USDA Farm Service Agency

The Farm Service Agency (FSA) supports farms and farming communities with programs including the Emergency Forest Restoration Program.

## Contact Info

Mitchell & Yancey County: Olivia Knott  
[olivia.knott@usda.gov](mailto:olivia.knott@usda.gov)

Find your county's contact at  
<https://offices.sc.egov.usda.gov/locator/app?state=us&agency=fsa>

## Website

<https://www.fsa.usda.gov/state-offices/north-carolina>



# USDA Natural Resource Conservation Service

The Natural Resources Conservation Service (NRCS) works with landowners for conservation planning and assistance to foster healthy ecosystems. They also administer the EQIP cost share program for landowners.

## Contact Info

Mitchell & Yancey County: David Tucker  
[david.tucker@usda.gov](mailto:david.tucker@usda.gov)

Find your county's contact at  
<https://www.nrcs.usda.gov/contact/find-a-service->

## Website

<https://www.nrcs.usda.gov/>





# Blue Ridge Resource Conservation & Development

Blue Ridge RC&D works with partners to conserve natural resources, foster environmental stewardship, and support sustainable community development in northwest North Carolina.

## Contact Info

Jonathan Hartsell

[jonathan@blueridgercd.com](mailto:jonathan@blueridgercd.com)

## Website

<https://www.blueridgercd.com/>



**BLUE RIDGE  
RESOURCE CONSERVATION & DEVELOPMENT**

# Southern Blue Ridge Prescribed Burn Association

We are a community-based organization focused on increasing access to prescribed fire on private lands to benefit the Southern Blue Ridge mountains. Members of the Southern Blue Ridge Prescribed Burn Association include anyone interested in supporting the conservation effort: private forest landowners, natural resource professionals, students, and the public.

## Contact Info

Zac O'Donnell

[zac@southernblueridgepba.org](mailto:zac@southernblueridgepba.org)

## Website

<https://southernblueridgepba.org/>



# The Beacon Network

Beacon connects people across communities to bolster and amplify mutual aid and direct action from the ground up. We do this by partnering with local community leaders and organizations, coordinating to meet their needs and bridge valuable relationships.

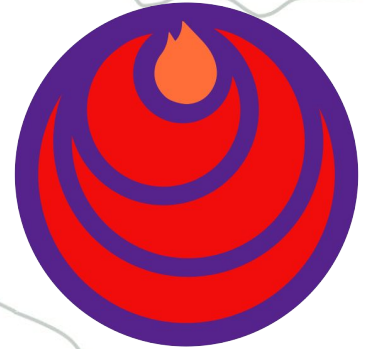
## Contact Info

Jared Dubin

[jdubin@thebeaconnetwork.org](mailto:jdubin@thebeaconnetwork.org)

## Website

<https://www.thebeaconnetwork.org/>





# Black Mountain Field & Forest

**Felix Stith**

NC Registered Forester #1970  
Society of American Foresters -  
Certified Forester®  
NC Certified Burner #973

**Contact Info**

[felix@bmfieldforest.com](mailto:felix@bmfieldforest.com)  
[www.bmfieldforest.com](http://www.bmfieldforest.com)

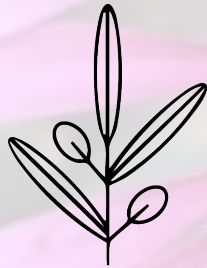
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## **Services**

- Forestry Consulting
- Timber Management, Appraisal, and Marketing
- Vegetation and Ecological Surveys
- Stream and wetland Restoration & Stabilization
- Wildfire Fuel Treatment
- Wildlife habitat restoration
- Mapping





Wildbud Natives

Ecological Principles.  
Conservation Species.  
Human Spaces.

Wildbud Natives

Marshall, NC

[www.wildbudnatives.org](http://www.wildbudnatives.org)  
[info@wildbudnatives.org](mailto:info@wildbudnatives.org)

828-222-3649

- Meadow Building
- Creebank Repair
- Restoration Consulting
- Native Plants: Live stakes  
& Plugs

# All Hands and Hearts - Helene Relief Program

October 2, 2024 - December 31, 2025

## Scopes of Work

- Muck and gut
- Mold sanitation
- Some limited chainsaw work (non-hazard trees)
- Crawl space moisture barrier installations
- Insulation
- Drywall
- Light reframing to accommodate drywall
- Mud/tape
- After drywall: painting, flooring and prehung interior doors
- We can provide all labor and material purchasing for these scopes

## We do not:

- Have heavy equipment
- Do any structural work
- Fell hazard trees (overhanging structures or power lines)
- Do any plumbing, electrical, or roofing
- Charge for any of the work we do



CONTACT: (828) 712-7040 / [AHAH\\_NC\\_Recovery@allhandsandhearts.org](mailto:AHAH_NC_Recovery@allhandsandhearts.org)

WEBSITE: [allhandsandhearts.org](http://allhandsandhearts.org)

# PatRick Environmental

PatRick Environmental, Inc. started fighting wildland forest fires in 1971 and continues to send emergency service crews, engines and tenders to incidents such as wildfires and hurricane throughout the nation. PatRick is a leader in the private sector industry in both wildfire and fuels contracting from coast to coast. PatRick has five bases in Oregon, Washington, Idaho and North Carolina.



## Contact Info

Doug Francis  
[doug@patrickfire.com](mailto:doug@patrickfire.com)

## Website

<https://www.patrickfire.net/public/index.cfm>





**High Lonesome Timber LLC**

828.284.8353

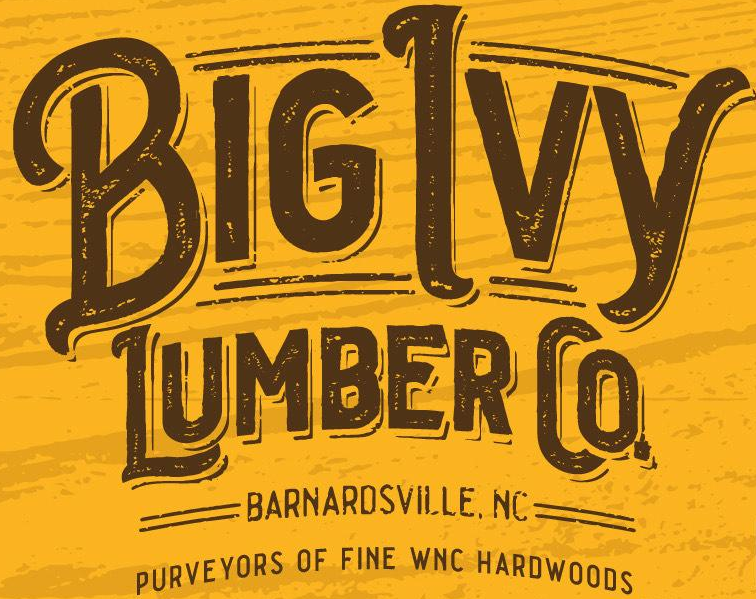
[contact@hltimber.com](mailto:contact@hltimber.com)

[hltimber.com](http://hltimber.com)

ISA Certified Arborists Providing High-Quality Tree Care  
And Forestry Services To The Yancey/Mitchell Area



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BY APPOINTMENT ONLY

# Blue Ridge Conservancy

Blue Ridge Conservancy partners with landowners and local communities to permanently protect natural resources with agricultural, cultural, recreational, ecological and scenic value in northwest North Carolina.

BRC has protected over 25,000 acres across the seven counties they serve in northwest North Carolina (Allegheny/Ashe/Avery/Mitchell/Watauga/Wilkes/Yancey).

## Contact Info

Abbey Rankins, [abbey@blueridgeconservancy.org](mailto:abbey@blueridgeconservancy.org)

## Website

<https://blueridgeconservancy.org/>





# Fire Resistant Landscaping & Fire Prevention Post-Helene

# Outline

- Fire Resistant Landscaping
- Post-Helene Fuel Mitigation Priorities
- Resources and Training
- Questions



# Wildland Urban Interface or W.U.I

It is the line, area or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels.

North Carolina is #1 in the Nation of acres in the Wildland Urban Interface: 40%

North Carolina is #4 in the nation for number of homes in the WUI: 51%

North Carolina is #4 in the nation for the number of people in the WUI: 50%

North Carolina is #6 in the nation for number of Seasonal Homes in the WUI 75%

# Structural Triage



▪ Needs protection,  
but saveable



There are times  
when fire  
fighting  
personnel have  
to make difficult  
choices.

▪ Needs little or  
no attention.



▪ Cannot  
be  
protected



# Fire Resistant Landscaping





# Basic Concepts

- Landscape design that reduces the vulnerability of your home and property to wildfire.
- No “fire-proof” plants, but...
  - Plant species selection
  - Plant spacing and structure
  - Plant maintenance
  - Mulching choices
  - Other features









5 days ago

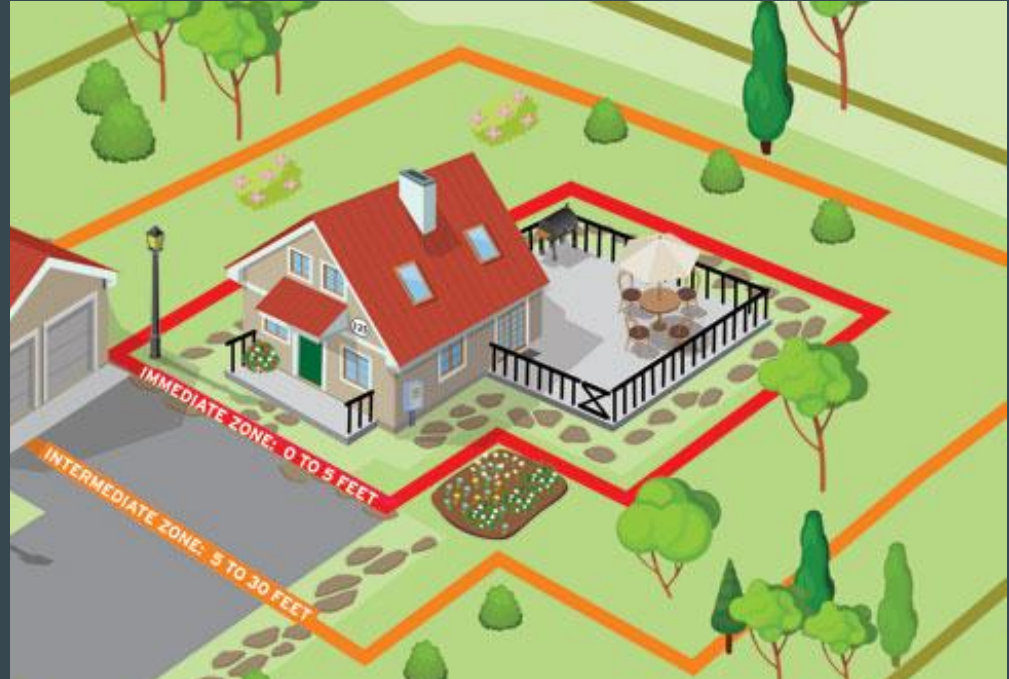
# Home Ignition Zones– Immediate

- The home itself, extending out 5-feet.
- Includes attachments, like decks or garages.
- Typically, includes most of our landscaping features.



# Home Ignition Zones– Intermediate

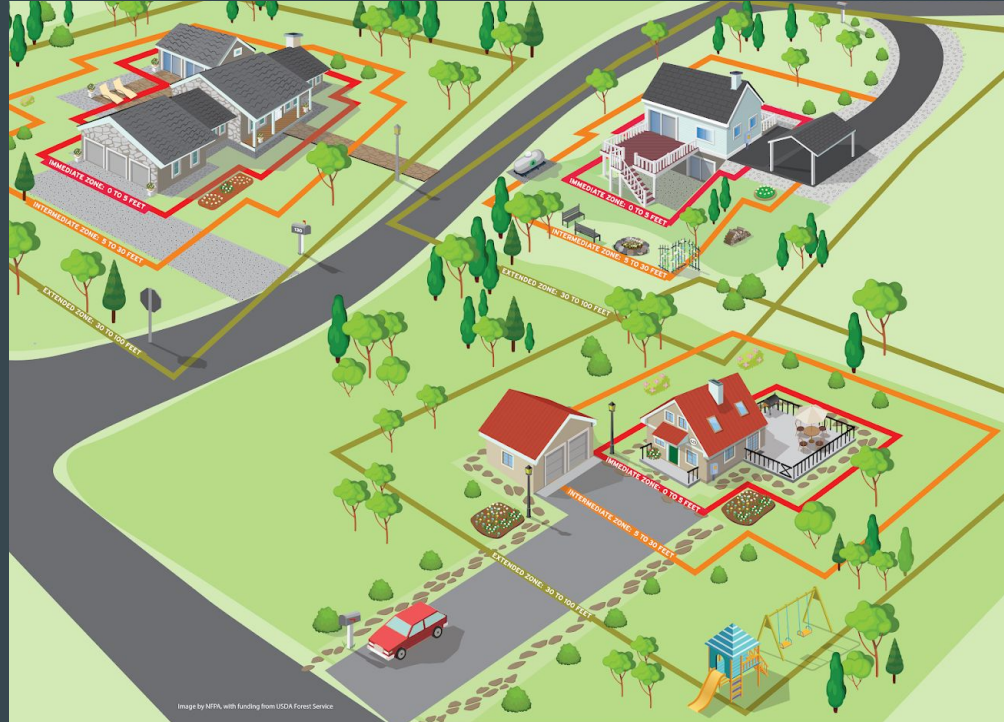
- 5-30 feet from the home.
- More shrubs and some trees.
- Typically find other features...LP tanks, rock features.





# Home Ignition Zones— Extended

- 30-100 feet from the home.
- Mostly trees
  - Pruning and spacing
- Other fuel loads
  - Down trees
  - Debris piles
  - Stacked firewood



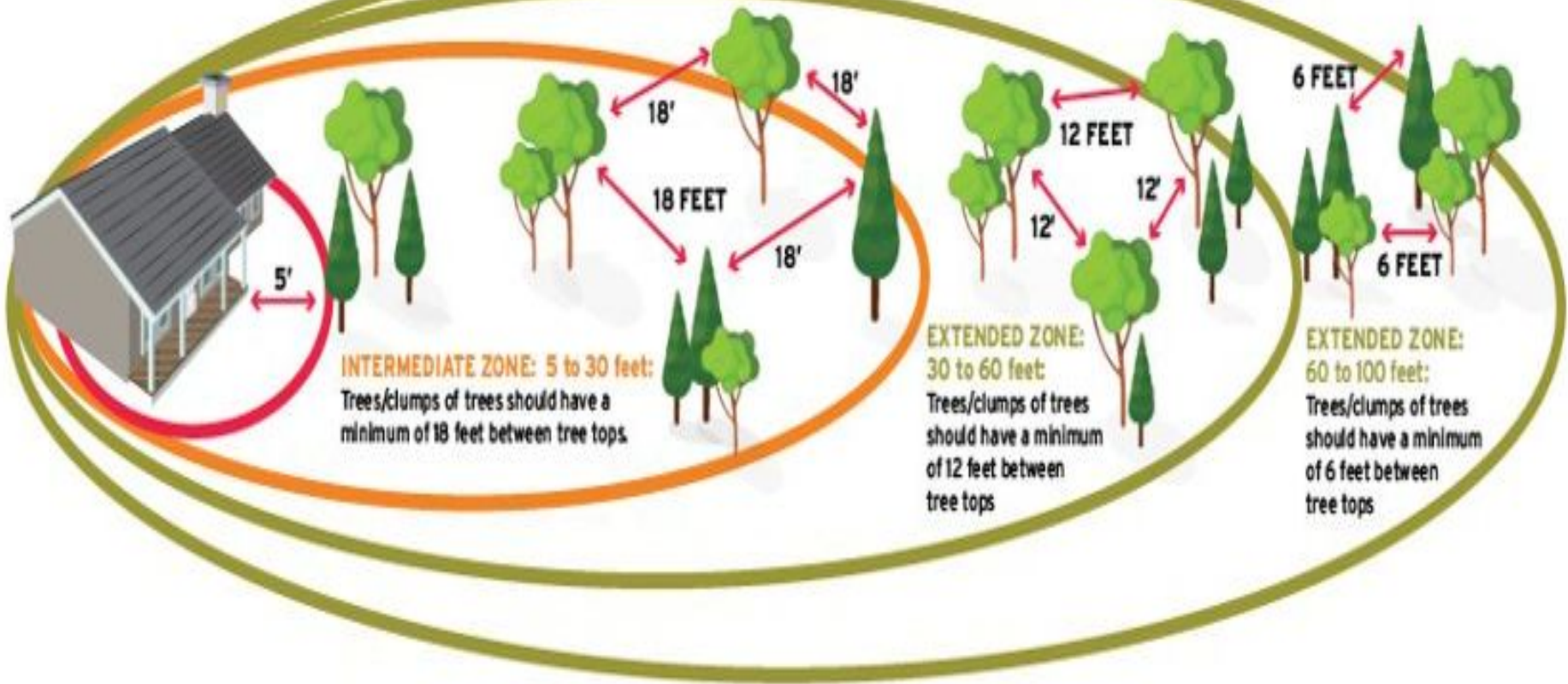


# Species Selection - Shrubs

## What to avoid - High Flammability

- Rhododendron
- Mtn. Laurel
- American Holly
- Doghobble
- Wax Myrtle





# General Property Maintenance

- Plant health and maintenance
  - Mowing, watering, pruning
- Tree pruning
  - Prune trees to 10 feet above the ground
  - Remove ladder fuel
- Leaf management
  - Remove leaves and plant litter seasonally, especially around home, propane tanks, porches and decks





# Post-Helene Priorities

# Access and Defensible Space

- Clearing sides of driveways and main egress
- Establishing escape routes
- Removing debris 0-30 ft from home
- Consider mitigation for debris 30-100 ft from home (prescribed fire, mastication, logging)



# Fighting Wildfires Post-Helene

- Indirect attack
- Larger acreage
- Heavier fuel loading
- Fewer firefighters

# Resources, Training & Workshops

- Firewise USA
- NC Forest Service
- NFPA
- Local Fire Department
- Cooperative Extension
- RC&Ds

A photograph of a large wildfire in a forest. Bright orange and yellow flames are visible at the base of several trees, with thick, dark smoke rising into the sky. The trees are mostly bare, suggesting a dry season or a fire that has stripped the leaves. The sky is blue with some white clouds. The overall scene is one of a major fire event.

Questions

“What do we do with all the downed trees”



# What to do with downed wood?

- Downed wood is an important part of old growth forests.
  - Mulch to protect soil from erosion and heat
  - Decomposes to benefit fungi, insects (and on up the food chain) and become fertilizer
  - Provides good wildlife habitat
- Speed up the natural process to reduce fuel loads
  - Cut wood to lay on or near (<3' high) the ground
  - Separate into brush piles with breaks in between fuel



# Things to consider before removing wood

- How will this impact access to my forest?
  - soil compaction
  - regeneration
  - water
- How much will it cost?

# Non-Native Invasive Species



**Asiatic Bittersweet**



**Miscanthus Grass**



**Multiflora Rose**



**Tree of Heaven**



**Japanese Knotweed**



# Tree of Heaven





# Miscanthus Grass (Chinese Silver Grass)





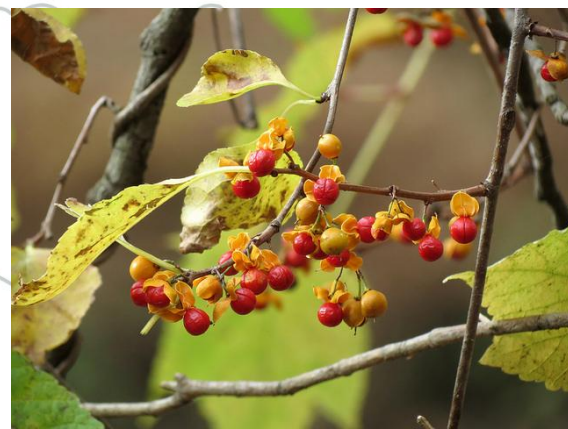
# Japanese Knotweed







# Asiatic Bittersweet







# Multiflora Rose





# Monitor and Control Invasive Plants



- Early detection and rapid response, especially in disturbed areas
- Need ongoing control for 3+ years
- Get native plants established





# Blue Ridge Resource Conservation & Development



**Blue Ridge RC&D works with partners to conserve natural resources, foster environmental stewardship, and support sustainable community development in northwest North Carolina.**



- Stream enhancement & restoration
  - Wildfire mitigation
  - Firewise education
- Soil stabilization & native revegetation
  - Prescribed fire









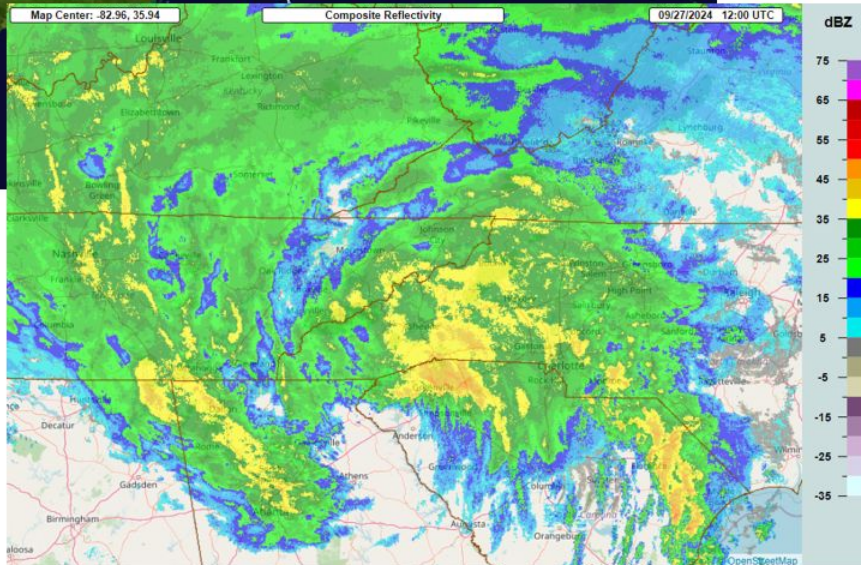






Friday, 9/27 7am

Eye nearing western  
NC



Radar snapshot  
Friday, 9/27 7am

Bands of heavy rainfall  
associated with Helene spread  
into western North Carolina on  
the morning of September 27.

**So where  
do we go  
from  
here?**



# Post-Helene Stream Restoration Efforts

- > Yancey and Mitchell County Long Term Resiliency Groups (LTRG)
- > County and Town governments
- > State and Federal agencies
- > Local and regional foundations
- > Non-profit organizations and small businesses
- > Volunteers, volunteers, volunteers!!!





# Cane Train- River Cane Restoration

- > over 2,000 river cane rhizomes have been secured for transplanting to host cane brake sites
- > for more information on getting involved please see Beacon's table



# **Drone Seeding Pilot Project**

- > working with NC Cooperative Extension, county governments, NC Natural Heritage Program, the Beacon Network, and others to implement a drone seeding project**
- > drone seeding will follow debris removal efforts and will begin sometime in May**
- > drone seeding will use native riparian and upland seed mixes**



# Livestakes, Cleanups, & Stabilization



**Beacon Network-** [www.beaconnetwork.org/getinvolved](http://www.beaconnetwork.org/getinvolved)  
Help with stabilization, plantings, cleanups (every Sunday)

**Riverlink-** <https://riverlink.org/work/adopt-a-stream/>  
Can provide seed, plant materials, advice

**Appalachian Watershed Alliance-** <https://appawa.org>  
Help with cleanups and plantings



# Stabilization Techniques

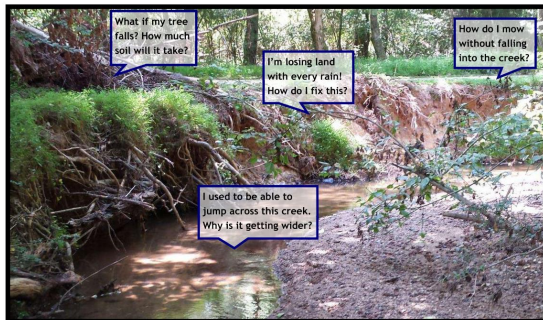


Bank sloping, matting, and native vegetation



# Small Scale Solutions to Eroding Streambanks

## *Small-scale Solutions to Eroding Streambanks*



Do you have a stream on your property that is losing land in large or small chunks (aka erosion) during or after storm events? Maybe the stream has started cutting deeper into the channel, creating more of a gully. Have you wondered why your streambank seems to be changing rapidly?

NC is urbanizing. We have more homes, commercial buildings, parking lots, and roads and less forested landscapes to slow down rainwater runoff. So there is less water going into the ground and more stormwater flowing to our local streams. Increased volume means increased velocity within the stream. How much stormwater is added to creeks? In a 1" rain an acre parking lot can drain 27,000 gallons of rainwater to local streams. With annual rainfall of 40", depending on where you live in NC, that adds up to a lot of water! All this extra stormwater runoff erodes streambanks and is the largest source of sediment and pollution in the urbanized areas of NC.

These techniques are best for streams that are: not prone to major flash flooding, 100 feet or less to be repaired, lack utility easements, 3 ft or less in bank height, not already planted or have erosion control measures in place.

<https://bae.ncsu.edu/wp-content/uploads/sites/3/2017/07/Small-scale-Solutions-to-Eroding-Streambanks.pdf>

or

Google- Small Scale Solutions to Eroding Streambanks

# Regional Conservation Partnership Program

For landowners in agricultural production (that file a schedule F), Blue Ridge RC&D will be accepting competitive applications later this summer for NRCS conservation practices on stream projects ~2,000 feet or more.

For more information, visit our table and sign our landowner interest form.





**BLUE RIDGE  
RESOURCE CONSERVATION & DEVELOPMENT**

[www.blueridgercd.com](http://www.blueridgercd.com)

**828-284-9818**

[jonathan@blueridgercd.com](mailto:jonathan@blueridgercd.com)



**SOUTHERN BLUE  
PREScribed BURN**

[www.southernblueridgepba.org](http://www.southernblueridgepba.org)

**828-284-6273**

[zac@southernblueridgepba.org](mailto:zac@southernblueridgepba.org)



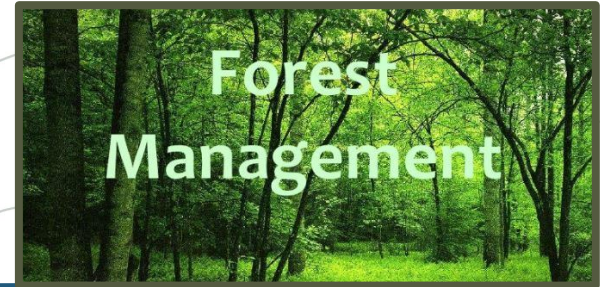
# How am I going to pay for this?

- Disaster relief funding
- Ongoing Cost Share
- Tax Incentives
- Timber value loss

# Forest Stewardship Incentives/Funding

A Forest Management Plan is required or increase the chances of accessing almost all these financial incentives programs:

- Emergency Forest Restoration Program (EFRP) – Helene specific
- NC Forestry Present Use Value (PUV) Program
- USDA NRCS EQIP cost share funding for forest improvement
- NCFS Forest Development and Community Protection Programs
- Forest Carbon Markets



# Emergency Forest Restoration Program



- Administered by USDA-FSA for managed forests significantly disturbed by Helene
- Primary focus is on wildfire mitigation
- **With advance approval**, could *reimburse* up to 75% for
  - Removal of downed wood for fuel reduction
  - Restoration of forest roads for fire/fuel breaks
  - Erosion control
  - Possibly invasive control and replanting if needed





# USDA-NRCS EQIP Program

- Need a Plan to Qualify (and EQIP can fund that)
- Cost Share (~50-75% of *average* cost) Funds for:
  - Planning
  - Invasive control
  - Forest Stand Improvement
    - Oak regeneration
    - Thinning dense stands
  - Wildlife habitat
  - Planting, Rx Fire, water...
- Agricultural practices too
- Takes some work to apply



**Environmental Quality Incentives Program (EQIP)**  
Key Practices for Forestry



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**Forestry. Conservation. Education.**

# NC Forestry Present Use Value (PUV) Program

- Assesses property for timber value (<\$500/ac) instead of development value
  - **Property tax savings *can* be as high as 60-95%**
- To Qualify:
  - **20+ acres *of forest***
  - **"Sound" Forest Management Plan**
    - **Must include some timber harvesting. *Ecological Forestry Qualifies***
  - **Primary residence or owned for four years**
  - **Private Businesses: must have "principal business" of commercial forestry**
- Voluntary Program:
  - **No long-term restrictions to property rights**
  - **You can leave the program at any time but must repay 3 years of back tax *savings*.**

# Other Options

## NCWRC Wildlife Conservation Land Program

- Get Ag PUV tax break (assesses at ~\$1,000/ac) for stewarding important habitats for up to 200-ac maximum, or
- *Actively* managing to increase wildlife populations <800-ac



## NC Forest Service

- Conduct controlled burns - within 10-mi of USFS land for free (may take a couple years)
- Forest Consultations
- Timber Management Plans or *NC Forest Stewardship Plan*
- Oversees water quality compliance for all timber harvesting





# Learning from your neighbors

**Russ Oates - [rmoates54@gmail.com](mailto:rmoates54@gmail.com)**

**John Schuler - [john.r.schuler99@gmail.com](mailto:john.r.schuler99@gmail.com)**



# Forest Recovery Post Helene

- Our forests will regrow naturally, though it will take years and decades
- Need to be FireWise around houses or any areas of value
- Stabilize any bare soil (eroded old roads, stream banks, or landslide areas) to stop erosion and protect water quality
- Control non-native invasive plants this spring in disturbed area
- Re-establish access into forest areas for wildfire control and mitigation
- In the next 3-10 years, manage for competition to favor more desirable regeneration to foster a more diverse, healthy, and resilient forest





**EcoForesters.org**

Forestry • Conservation • Education

**Thank you for coming!**

**Reach out to EcoForesters staff  
for more information!**

**(828)-484-6842**

**info@ecoforesters.org**

**www.ecoforesters.org**