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**Woodland Owner Lunch and Learn**

**Forest Road, Boundary Line Maintenance and Beaver Management**

July 9, 2020

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**Agenda**

- Key forest road maintenance techniques
- Look at different forest road situations
- Discuss how to improve forest roads
- Boundary line maintenance
- Questions




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**Forest Road Maintenance**

- One the most expensive improvements to your forests.
- Important for many reasons:
  - Thinning
  - Harvesting
  - Recreation
  - Inspection
- Once you spend the money to construct it, maintenance is key to keep it in passable shape.

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**Key Maintenance Considerations**

- Water bars
- Broad based Dips
- Creek crossings
- Daylighting
- Crowning
- Ditches
- Culverts

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**Waterbars**



Photo by: NC Forest Service

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**Waterbars**




Photo by: NC Forest Service

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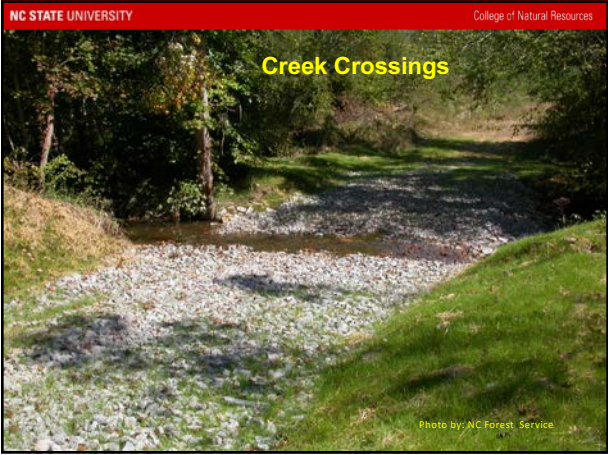
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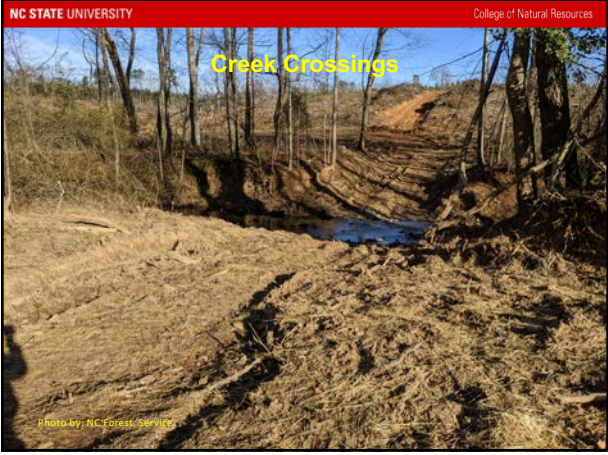
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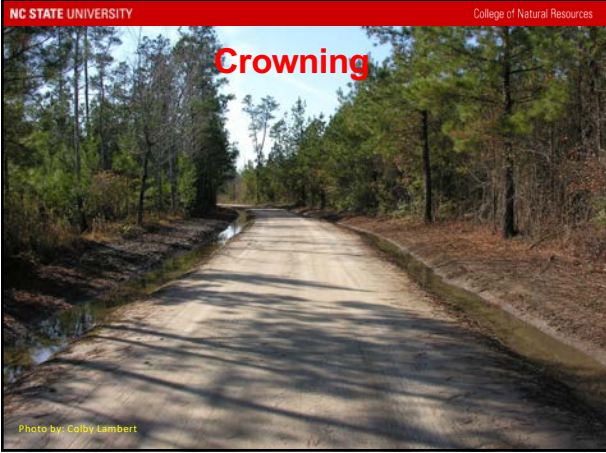
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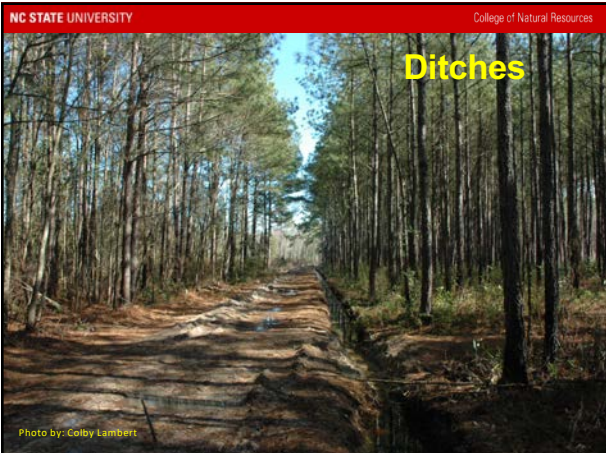
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### Summary

- Following good BMP guidelines for road construction and maintenance is key for longterm usability of the road.
- Spend some time cleaning “upstream” from your creek crossings and culverts to ensure they don’t blow out.
- Maintain and “freshen” up waterbars and broad based dips regularly.
- Clean out ditches and keep your roads crowned to allow proper drainage.

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### Boundary Line Maintenance




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### WHERE TO BEGIN

- IF LINES AND CORNERS ARE EVIDENT, CHECK FOR CONDITION, MAINTAIN AS NEEDED
- IF LINES AND CORNERS ARE NOT EVIDENT, THEN THE SEARCH BEGINS:
  - DEED DESCRIPTION—FOUND BY SEARCH AT COURTHOUSE/INTERNET SEARCH OF COUNTY GIS SYSTEM
  - AERIAL PHOTOS—PREFERABLY WITH APPROXIMATE BOUNDARIES MARKED (GIS WEBSITE) OR BY INSERTING SHAPE FILE OVER PHOTO

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## WHERE TO BEGIN

- SURVEY PLATS—PERHAPS IN DEED BOOK AT COURTHOUSE OR IN YOUR FILES
- ALSO GET DEED DESCRIPTIONS, SURVEY PLATS OF NEIGHBORS

ALL THESE RESOURCES MAY HELP PINPOINT A STARTING POINT—ALSO MAY SAVE COST IF SURVEYOR IS REQUIRED

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## AERIAL PHOTO/BOUNDARIES FROM COUNTY GIS WEBSITE




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## A COMPASS – Line Locator




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## USING A COMPASS

- PROPER DECLINATION
- BEARINGS AND DISTANCES IN MOST DEEDS OR ON SURVEY PLATS
- NEED TO FIND A " KNOWN" STARTING POINT ON THE GROUND

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## THE GROUND SEARCH BEGINS

- EVIDENCE OF LINES/CORNERS
  - OLD CORNERS-PIPES/AXLES/TREES/CONCRETE, ETC AS NOTED IN DEED OR SURVEY PLAT
  - "WITNESS" IS OFTEN FOUND BY OLD PAINT OR "BLAZES" ON TREES
  - SINGLE BLAZE /PAINT WITNESSES LINE **LOCATION**
  - DOUBLE BLAZE / PAINT INDICATES CHANGE IN LINE **DIRECTION**
  - TRIPLE BLAZE / PAINT WITNESSES **CORNERS**

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## HACKS OR BLAZES ON LINE RE-CHOP EVERY VISIT




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**BLAZES ON CORNERS**




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**OLD PAINT**




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**WHEN YOU FIND IT, FLAG IT-  
PAINT IT LATER**

- CORNERS WITH THREE FLAGS
- LINES WITH ONE FLAG
- CHANGES IN LINE DIRECTION WITH TWO FLAGS

Tip:  
ALWAYS POINT THE KNOTS TOWARD THE LINE,  
CORNER OR DIRECTION CHANGE

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**CORNERS WITH THREE FLAGS OR PAINT STRIPES  
FACING CORNER**




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**LINES WITH ONE FLAG/STRIPE FACING THE LINE**




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**CHANGES IN LINE DIRECTION WITH TWO  
FLAGS/STRIPES**




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**A FINISHED, MAINTAINED LINE LOOKS LIKE THIS**

- LINE TREES FACING LINE
- TREES ON LINE SINGLE STRIPE ON CENTER OF TREE ON LINE




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**A FINISHED, MAINTAINED CORNER WITNESS LOOKS LIKE THIS**

- CORNER WITNESS




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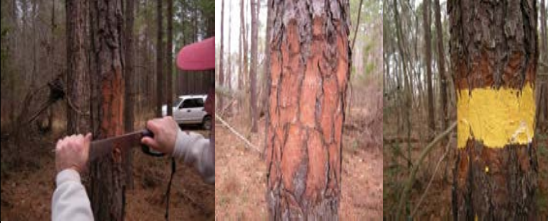
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**PAINTING TIP-ALWAYS PREPARE BEFORE PAINTING**

- SCRAPE OFF LOOSE BARK WITH MACHETE OR DRAW KNIFE, THEN PAINT
- INCREASES PAINT LIFE BY 35-40%




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### Painting on Hardwood



The image shows two tree trunks in a wooded area. Each trunk has a horizontal band of bright yellow paint applied to its bark. The trees are in a forest setting with other trees visible in the background.

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### Avoiding Timber Trespass/Theft

- Clearly post your property (conform to or exceed the legal requirements)
- Be diligent with boundary line maintenance
- Repaint as needed to ensure high visibility in all seasons
- Clearly identify property corners

Reference: [content.ces.ncsu.edu/preventing-timber-trespass-and-theft](http://content.ces.ncsu.edu/preventing-timber-trespass-and-theft)

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### Avoiding Timber Trespass/Theft

**MONITOR!!!!**

- Visit the property frequently
- Join or establish a formal or informal neighborhood watch group
- Post signage that indicates the property is under surveillance by such a group or insurer
- Encourage ag and hunting lease holders to monitor and report any suspicious activity on the property

Reference: [content.ces.ncsu.edu/preventing-timber-trespass-and-theft](http://content.ces.ncsu.edu/preventing-timber-trespass-and-theft)

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**Woodland Owner Lunch and Learn Webinar**  
**North Carolina Beaver Management Assistance Program**  
**July 9, 2020**



**Wildlife Services**      Protecting People • Protecting Agriculture • Protecting Wildlife

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<https://www.youtube.com/watch?v=3Qrg6Winozc&feature=youtu.be>

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**Collaborative Cost Share Program**

- ✓ Address specific problems
- ✓ Private and public lands
- ✓ Began July 1, 1992
- ✓ Flexible, fair, and feasible
- ✓ NCWRC, NCDOT, Counties, Landholders, USDA Funds
- ✓ Free training/assessments
- ✓ Advisory Board
  - NCWRC
  - NCDOT
  - NCDA&CS
  - NCFS
  - Soil and Water Cons.
  - NC Ass County Comm
  - NC Farm Bureau
  - NC Forestry Ass
  - USDA-WS

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**NC Beaver Management Assistance Program**



<https://www.ncwildlife.org/Trapping/North-Carolina-Beaver-Management-Assistance-Program>

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**Obtaining Service**



- ✓ Free assessment
- ✓ Average 10 visits
- ✓ 30 days to resolve
- ✓ First come first serve
- ✓ Page 2 contact info

**Administration**

- ✓ By Wildlife Services
- ✓ Approved by NCWRC
- ✓ Developed by Beaver Damage Control Advisory Board

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**Obtaining Service**



<https://www.ncwildlife.org/Portals/0/Learning/documents/Profiles/Mammals/BMAP-Obtaining-Services.pdf>

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**Program Effectiveness**



<https://www.ncwildlife.org/Trapping/North-Carolina-Beaver-Management-Assistance-Program#101212068-program-effectiveness>

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**Bounty Programs**



- ✓ Costly
- ✓ Easily abused
- ✓ Beaver parts online
- ✓ Seldom, if ever, solves problems
- ✓ Provides no incentive to remove all beavers
- ✓ Often takes up to four weeks to solve issues
- ✓ Target 100% beavers indiscriminately
- ✓ No value placed on benefits beaver provide

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**Bounty Programs**



<https://www.ncwildlife.org/Learning/Species/Mammals/Beaver2#it-44731644-have-a-problem>

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**Other Options**



- ✓ Licensed trappers:  
<https://www.ncwildlife.org/Trapping/Contact-a-Licensed-Trapper>
- ✓ WDCA:  
<https://www.ncwildlife.org/Trapping/Wildlife-Damage-Control-Agent>
- ✓ Do-it-yourself:  
[https://www.ncwildlife.org/Portals/0/Trapping/Documents/TrapperEd\\_Student\\_manual\\_2005.pdf](https://www.ncwildlife.org/Portals/0/Trapping/Documents/TrapperEd_Student_manual_2005.pdf)

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**Questions**



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