




# FOREST PREHARVEST PLANNING TOOL (FPPT)


Presented at the NCWAP Meeting  
NCWRC Headquarters  
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The information in these slides was presented during the 2017 Wildlife Action Plan and Spatial Tools regional workshops.

Presentations were given by Alan Coats and Bill Swartley of the NC Forest Service, Forest Management & Development Division, Water Resources Department.

Slide notes were added by Cindy Simpson and are excerpts from the NCFS FPPT web page and user guide.



## What is FPPT?

The Forest Preharvest Planning Tool (FPPT) is a free-to-use, GIS-Based, Internet-Accessible Tool for NC's Forest Operators and Forestland Owners (and NCFS employees) to assist with planning of Forest Management/Forest Protection Activities.

- Founded on statewide-available GIS information pertaining to land ownership and landscape physical characteristics, including topography, soils, and surface waters.
- Based on site-specific landscape characteristics: Applicable forestry regulations and recommended forestry BMPs are produced as products for the end-user.
- Funded by a USDA Forest Service (2011) Grant.



The North Carolina Forest Service has created the Forest Preharvest Planning Tool (FPPT) to assist loggers and forest landowners with preharvest planning.

This online tool is a new way for forest operators and forest landowners to create customizable maps and receive site-specific reports, using current GIS data.

The FPPT provides a one-stop shop for publicly available geospatial data that have been developed and are maintained by other public agencies or private entities.

The FPPT has an easy-to-use online interface and is free and publicly available.



## What are the benefits?

### Avoid problems before they happen.

- Plan SMZs and stream crossings.
- Learn which regulations are applicable for your area.
- Locate wetlands and nearby endangered species.

### Receive resources to improve your harvest.

- Find the best soils for landings and skid trails.
- Get local NCFS contact information.
- Create a detailed map of your site and receive comprehensive reports.



Users receive helpful and detailed products, including a site summary report and a soils summary report.

- The site summary report will give information on applicable regulations, tract size, and links to online BMP technical assistance.
- The soils summary report gives the user a soils map of their tract, as well as each soil's suitability for a number of common harvest activities.
- The user can also create a tract map that shows the locations of harvest features such as skid trails, streamside management zones, and decks.

## FPPT outputs are not “complete” BMP Planning

To complement the online tool, we recommend:

- A tract inspection to validate FPPT tool outputs and fine tune BMPs planned for use.
- Contact your local NCFS office for additional BMP technical assistance.



The FPPT is a powerful information gathering and planning tool, but should still be supplemented with a pre-harvest site inspection by the forest operator prior to the forest management action.

Applicable topographic and county soil maps will still need to be reviewed if the tract is found in a watershed subject to a riparian buffer rule.

The screenshot shows the North Carolina Department of Agriculture & Consumer Services website. The header features the department's name and logo. The main content area is titled "Online Forest Preharvest Planning Tool" and includes a "RELATED RESOURCES" section with a "Quick Links" menu. The menu items are: My Woodland Plan, Bottom Permits, DoDont State Recreational Forest, Order Tree Seedlings, Situation Report, Fire Weather, Readiness Plans, Educational State Forests, N.C. Firewise, Strategic Plan, and Forest Action Plan.

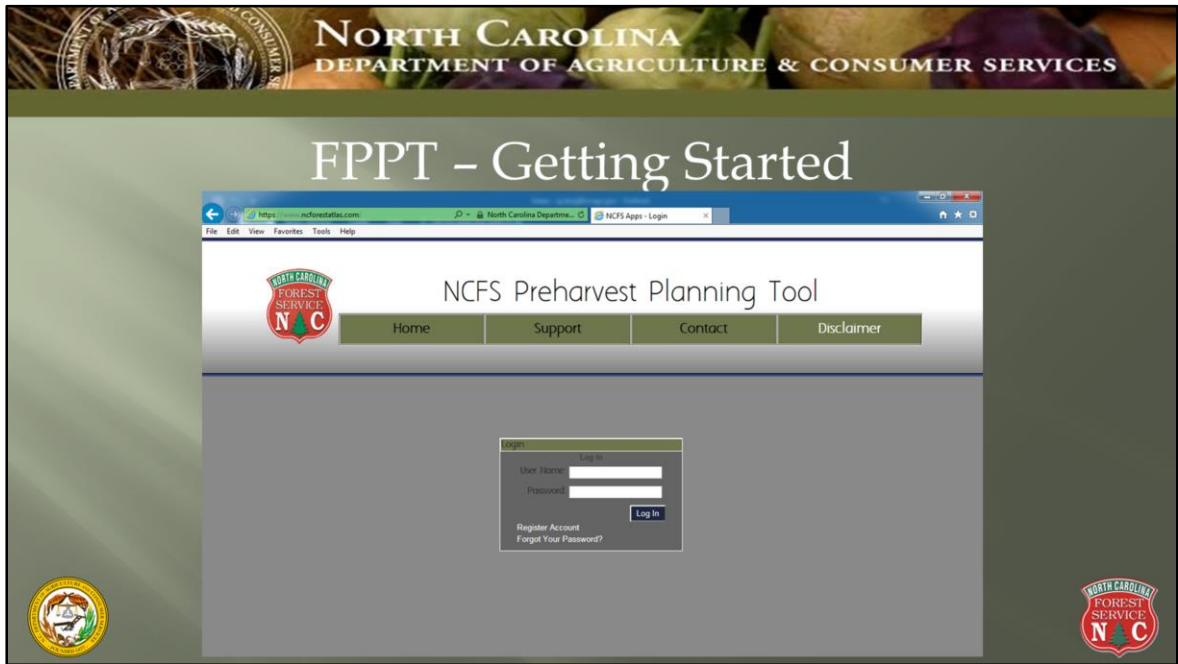
## FPPT – Getting Started:

- Use your web browser and search NC Forest Service or NCFS
- Under “Programs & Services”, select “Water Quality”
- Under “Water Quality” select “Online Preharvest Planning Tool”
- Found under Hot Topics or News, Information & Assistance Sublinks



Online Forest Preharvest Planning Tool web page  
[http://www.ncforestservice.gov/water\\_quality/fppt.htm](http://www.ncforestservice.gov/water_quality/fppt.htm)





Tool log-in web page

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


When you arrive at the FPPT home page, CLICK **Register Account**.

**If you are an NCID user (NC State government account):**

Enter your NCID as your user name. Your password will be the same password that you use to log in to your NCID accounts. If you change or update your NCID password, the information will be automatically updated on the FPPT.



**NORTH CAROLINA**  
DEPARTMENT OF AGRICULTURE & CONSUMER SERVICES

# User Guide Available



**Forestry Preharvest Planning Tool (FPPT)**  
User's Guide

Web Application User Guide  
Prepared by the NC Forest Service

[Forestry Preharvest Planning Tool Web Mapping Application User's Guide](#)

**Overview of the Forest Preharvest Planning Tool (FPPT)**  
The FPPT is a custom-build, web-based user interface that was designed to allow both non-technical users as well as those more experienced GIS users to effectively use spatial data to plan timber harvests and other forest management tasks. There are two primary types of outputs that can be created using the FPPT, custom maps and tract reports.

```


graph TD
    A[Log in to your Account] --> B[Find your tract]
    B --> C[Start a New Tract]
    B --> D[Update an Existing Tract]
    C --> E[Find New Tract Search/browse map]
    C --> F[Upload Shapefile of Tract Boundary]
    E --> G[Create Tract Boundary]
    F --> G
    G --> H[Divide tract into Management Areas]
    D --> I[Edit Tract and Management Areas]
    H --> I
    I --> J[Create Custom Maps]
    I --> K[Run Tract Reports]
    
```

Figure 1. Forestry Preharvest Planning Tool work flow

**Contact Information**  
The Forestry Preharvest Planning Tool was developed and is maintained by the [NC Forest Service](#). To report technical issues with the Forestry Preharvest Planning Tool, receive extra guidance on using the FPPT, or to request in-person training for your group, please contact [fpptsupport@ncforeststas.com](mailto:fpptsupport@ncforeststas.com)

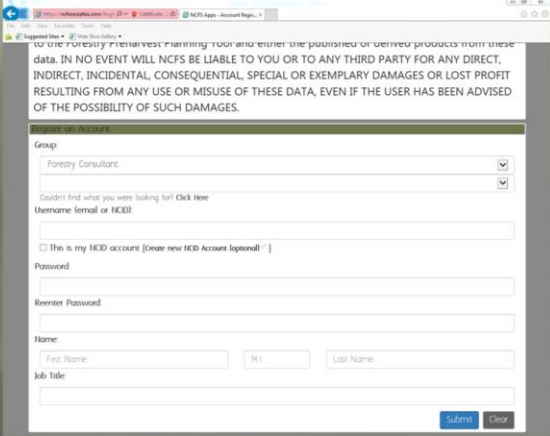
For general information on preharvest planning, please visit [Preharvest Planning](#). Our local NCS County and District offices can provide assistance with preharvest planning on your specific tract. See [Water Quality Contact Page](#) for contact information.

Quick-start User Guide web page (81 pages)  
[http://www.ncforestservice.gov/water\\_quality/pdf/FPPT\\_Users.pdf](http://www.ncforestservice.gov/water_quality/pdf/FPPT_Users.pdf)




# FPPT – From The Customers’ Viewpoint

- Login Page
  - ✓ Users must create an account & login
- Group access
  - ✓ Existing public database of professional organizations
- NCID Connectivity
  - ✓ State employees: NCID username and password



The screenshot shows a web browser window displaying a registration form. At the top, there is a disclaimer: "to the Forestry Harvest Planning Tool and enter the purchased or derived products from these data. IN NO EVENT WILL NCFS BE LIABLE TO YOU OR TO ANY THIRD PARTY FOR ANY DIRECT, INDIRECT, INCIDENTAL, CONSEQUENTIAL, SPECIAL OR EXEMPLARY DAMAGES OR LOST PROFIT RESULTING FROM ANY USE OR MISUSE OF THESE DATA, EVEN IF THE USER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES." Below this, the form is titled "Registration Accounts". It includes a "Group" dropdown menu with "Forestry Consultant" selected, a "Username" field with a "Forgot your username? Click here" link, a "Password" field, a "Reenter Password" field, and a "Name" section with "First Name", "MI", and "Last Name" sub-fields. A "Job Title" field is at the bottom. There are "Submit" and "Clear" buttons.



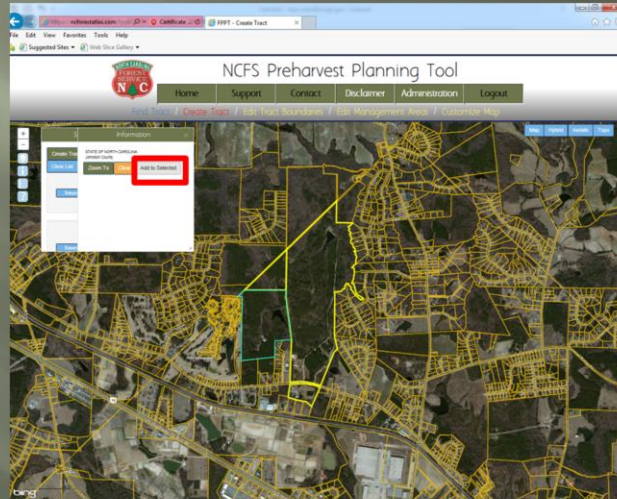
You will need to fill out the Registration Form with information such as: Group, Organization, Username, Password, Name, Job Title, and an optional Use Registration Code. See the User Guide for more information.

Information entered on this form can be edited once your account is created.



# FPPT – From The Customers' Viewpoint.

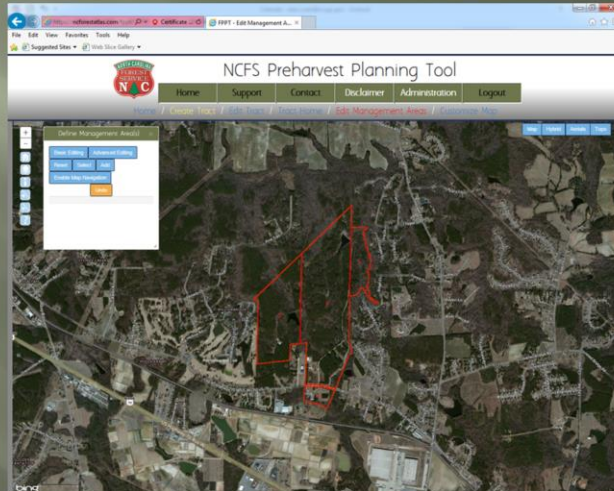
- Start a New Tract
  - ✓ Upload shapefile
  - ✓ Search by Address
    - ❖ Use parcel boundaries to delineate tract
  - ✓ Search by County
  - ✓ Go to Coordinates
- Edit an Existing Tract
  - ✓ All group projects will be visible



There are five options available when starting a new tract:  
Upload Shapefile and Zoom to Tract, Search by Address or Place Name, Search by County and Owner Name, Go to County View, and Go to Map Coordinates.

## FPPT – From The Customers' Viewpoint.

- Define Management Areas
  - ✓ Basic editing
    - ❖ Allows you to split the tract into management areas
  - ✓ Use Tract Geometry
    - ❖ Only one management area
- Split tract into management areas

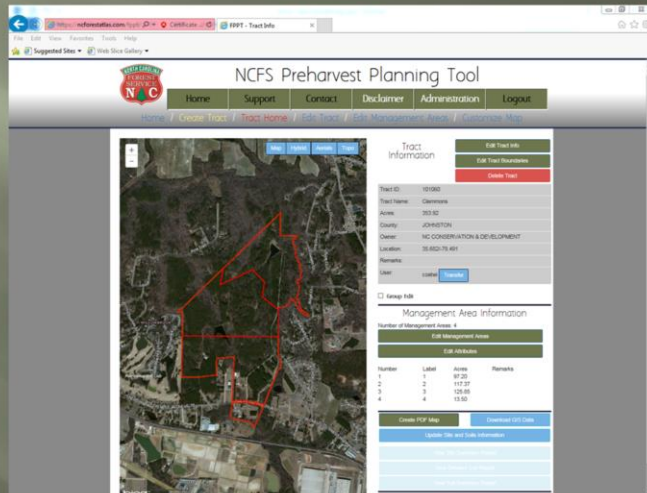


The FPPT allows users to create and edit management areas for their tract.

The user also has the ability to create just one management area or split the tract up into several management areas.

# FPPT – From The Customers' Viewpoint.

- Tract Home
  - ✓ Edit Tract
  - ✓ Tract Information
  - ✓ Management Areas
  - ✓ Create Map
- Update Site and Soils Info
  - ✓ Generates FPPT reports
  - ✓ Email notification



The Tool allows edits of the Management Tract Information: Edit Tract Info, Edit Tract Boundaries, Delete Tract, and Transfer editing rights to another user.

Additional tract information is provided about the tract for the user (Tract ID, Tract Name, Acres, County, Owner, Location, Remarks).

## Edited Map

- Base data includes aerials, parcels (yellow), contours (light brown), and USGS-mapped streams.
- User created three management areas and added the access point on the main road, access road, deck location, skid trails, stream (that is not shown in the USGS data), SMZs, and location for lap slash on the existing culvert crossing.
- This map can be saved as a PDF file and printed.



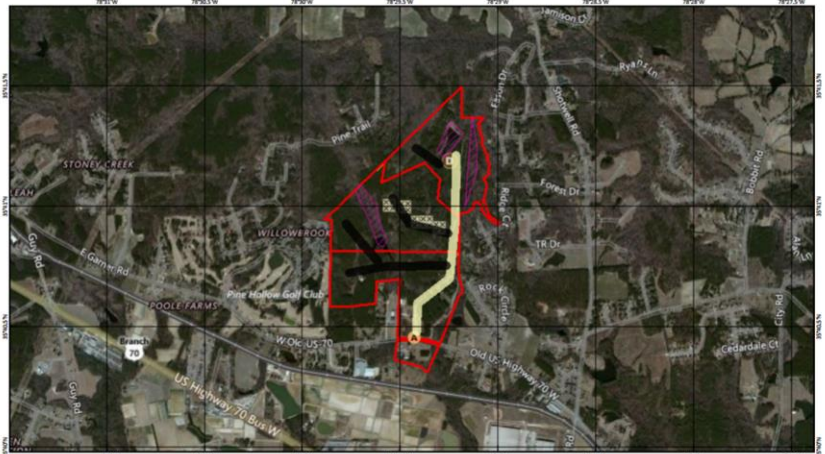
Mapping Available Using FPPT



### Clemmons ESF Harvest

### Clemmons

2/28/2017 4:19:03 PM N.C. Forest Preharvest Planning Tool



Boundaries	Hydrography	Infrastructure	Harvest Tools	Runoff Control	Sediment Capture
Tract	Waterbody	Bridge/Crossing	Access Point	Cross-Drain	Brush Barrier
Management Area	Wetland	Culvert Crossing	Slash / Laps	Stream-Based Dip	Straw Mattie /
Parcels	Perennial	Generic Crossing	Logging Deck	Erosion Control Mat	Cow Log
DMC	Intermittent	Fence	Landing	Inside Ditchline	Check Dam
Structure	Episemeral	Add Access Road	Skid Trail	Turnout	Filter Area
	24h Streams	Existing Access Road		Water Bar	Sediment Trap
		Utility Line			Silt Fence
		Railroads			Straw Bale





# Sample Site Report

## Subsections:

- General Tract Information
- Environmental Regulation Considerations
- Overall Tract Characteristics



Forest Preharvest Planning Site Summary Report			
General Tract Information			
Tract ID:	22904	Date Retrieved:	08-25-2014
Tract Name:		Tract Acres:	30.24
County:	Durham	River Basin:	Neuse River Basin
NCFS Contact:	John McBryde, Water Quality Forester	Physiographic Region:	Piedmont
		Geologic Province:	Carolina Slate Belt
NCFS District:	Hillsborough	Latitude:	36° 13.1788206'
NCFS Contact Phone:	919-732-8105	Longitude:	-78° 51.94293'
Environmental Regulation Considerations			
Forest Practices Guidelines (always apply): <a href="http://www.ncforenservice.gov/publications/Family%20rules/W001.pdf">http://www.ncforenservice.gov/publications/Family%20rules/W001.pdf</a>			
NC G.S. 77-13. Obstructing streams is a misdemeanor: <a href="http://www.ncga.state.nc.us/EnactedLegislation/Statutes/PDF/BySection/Chapter_77/0137/77-13.pdf">http://www.ncga.state.nc.us/EnactedLegislation/Statutes/PDF/BySection/Chapter_77/0137/77-13.pdf</a>			
NC G.S. 77-14. Obstructions in streams and drainage ditches: <a href="http://www.ncga.state.nc.us/EnactedLegislation/Statutes/PDF/BySection/Chapter_77/0137/77-14.pdf">http://www.ncga.state.nc.us/EnactedLegislation/Statutes/PDF/BySection/Chapter_77/0137/77-14.pdf</a>			
NCOWR Riparian Buffer Rules apply?	Yes	Buffer Rule:	Neuse River Basin
Riparian Buffer Rule Forestry Leaflet:	<a href="http://www.ncforenservice.gov/publications/Family%20rules/W011.pdf">http://www.ncforenservice.gov/publications/Family%20rules/W011.pdf</a>		
Riparian Buffer Rule Administrative Code:	<a href="http://portal.ncdwr.org/web/ncowr/wq/01/riparianbuffers/rules">http://portal.ncdwr.org/web/ncowr/wq/01/riparianbuffers/rules</a>		
Overall Tract Characteristics			
Surface waters present?: <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> X <input type="checkbox"/> N <b>BMP Manual SMZs and Riparian Buffers</b>			
USGS 1:24,000 Streams: <input type="checkbox"/> Y <input checked="" type="checkbox"/> X <input type="checkbox"/> N <b>BMP Field Guide SMZs and Waterways</b>			
NCOWR Classified Streams: <input type="checkbox"/> Y <input checked="" type="checkbox"/> X <input type="checkbox"/> N <b>BMP Manual Stream Crossings</b>			
NCOWR Surface Water Classifications: <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> X <input type="checkbox"/> N <b>BMP Field Guide Stream Crossings</b>			
None <b>Note:</b> This map and report do not include streams from NNC-3 soil survey maps that may be subject to Buffer Rules. <b>**</b> Denotes a primary surface water classification.			
Wetlands present?: <input type="checkbox"/> Y <input checked="" type="checkbox"/> X <input type="checkbox"/> N <b>BMP Manual Silvicultural Activities in Forested Wetlands</b>			
National Wetlands Inventory <input type="checkbox"/> Y <input checked="" type="checkbox"/> X <input type="checkbox"/> N <b>Note:</b> An absence of wetlands reported in this document does not guarantee wetlands are not present on-site. Please examine the site in person to determine if wetlands are present.			
NC Coastal Area Management <input type="checkbox"/> Y <input checked="" type="checkbox"/> X <input type="checkbox"/> N			
Steep slopes present (>= 25%): <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <b>BMP Manual Runoff Control</b>			
Average Slope: 13% <b>BMP Field Guide Erosion and Runoff Control</b>			
Minimum Slope: 2% <b>BMP Manual Calculating Percent Slope</b>			
Maximum Slope: 39%			
Tract ID #22904			Page 1

General Tract Information includes:

Tract ID, Tract Name Tract Label, County, NCFS Contact Information, Date Retrieved, Tract Acres, River Basin, Physiographic Region, Geologic Province, Latitude, Longitude.

Environmental Regulation Considerations include:

Forest Practices Guidelines, NC General Statutes, and any NC Division of Water Resources riparian buffer rules applicable to the river basin where the tract is located.

Overall Tract Characteristics include:

Slope, Surface Water hydrography, Soil Map Units.



# Sample Site Report

## Subsections:

- General Tract Information



## Forest Preharvest Planning Site Summary Report

General Tract Information			
Tract ID:	22804	Date Retrieved:	08-25-2014
Tract Name:		Tract Acres:	30.24
County:	Durham	River Basin:	Neuse River Basin
NCFs Contact:	John McBryde, Water Quality Forester	Physiographic Region:	Piedmont
		Geologic Province:	Carolina Slate Belt
NCFs District:	Hillsborough	Latitude:	36° 13.1788206'
NCFs Contact Phone:	919-732-8105	Longitude:	-78° 51.94293'

**Environmental Regulation Considerations**

For more Practices Guidelines (always apply): <http://forestservation.gov/publications/Forestry%20eafacts/WQ01.pdf>

NC G.S. 77-13. Obstructing streams is a misdemeanor. [http://www.ncga.state.nc.us/EnactedLegislation/Statutes/PDF/BySection/Chapter\\_77/0137\\_77-13.pdf](http://www.ncga.state.nc.us/EnactedLegislation/Statutes/PDF/BySection/Chapter_77/0137_77-13.pdf)

NC G.S. 77-14. Obstructions in streams and drainage ditches. [http://www.ncga.state.nc.us/EnactedLegislation/Statutes/PDF/BySection/Chapter\\_77/0144\\_77-14.pdf](http://www.ncga.state.nc.us/EnactedLegislation/Statutes/PDF/BySection/Chapter_77/0144_77-14.pdf)

General Tract Information			
Tract ID:	22804	Date Retrieved:	08-25-2014
Tract Name:		Tract Acres:	30.24
County:	Durham	River Basin:	Neuse River Basin
NCFs Contact:	John McBryde, Water Quality Forester	Physiographic Region:	Piedmont
		Geologic Province:	Carolina Slate Belt
NCFs District:	Hillsborough	Latitude:	36° 13.1788206'
NCFs Contact Phone:	919-732-8105	Longitude:	-78° 51.94293'



Maximum Slope: 30% [BMP Manual Calculating Percent Slope](#)

# Sample Site Report

## Subsections:

- Environmental Regulation Considerations

## Forest Preharvest Planning Site Summary Report

General Tract Information		
Tract ID:	22904	Date Retrieved: 08-25-2014
Tract Name:		Tract Acres: 30.24
County:	Durham	River Basin: Neuse River Basin
NCS Contact:	John McBryde, Water Quality Forester	Physiographic Region: Piedmont
		Geologic Province: Carolina Slate Belt
NCS District:	Hillsborough	Latitude: 36° 13.1788206'
NCS Contact Phone:	919.233.8129	Longitude: -78.44.843637

Environmental Regulation Considerations	
Forest Practices Guidelines (always apply):	<a href="http://nforestservation.gov/publications/Forestry%20Leaflets/WQ01.pdf">http://nforestservation.gov/publications/Forestry%20Leaflets/WQ01.pdf</a>
NC G.S. 77-13. Obstructing streams is a misdemeanor.	<a href="http://www.ncga.state.nc.us/EnactedLegislation/Statutes/PDF/BySection/Chapter_77/GS_77-13.pdf">http://www.ncga.state.nc.us/EnactedLegislation/Statutes/PDF/BySection/Chapter_77/GS_77-13.pdf</a>
NC G.S. 77-14. Obstructions in streams and drainage ditches.	<a href="http://www.ncga.state.nc.us/EnactedLegislation/Statutes/PDF/BySection/Chapter_77/GS_77-14.pdf">http://www.ncga.state.nc.us/EnactedLegislation/Statutes/PDF/BySection/Chapter_77/GS_77-14.pdf</a>
NCDWR Riparian Buffer Rules apply?	Yes Buffer Rule: Neuse River Basin
Riparian Buffer Rule Forestry Leaflet:	<a href="http://www.nforestservation.gov/publications/Forestry%20Leaflets/WQ11.pdf">http://www.nforestservation.gov/publications/Forestry%20Leaflets/WQ11.pdf</a>
Riparian Buffer Rule Administrative Code:	<a href="http://portal.ncdenr.org/web/wq/swp/ws/401/riparianbuffers/rules">http://portal.ncdenr.org/web/wq/swp/ws/401/riparianbuffers/rules</a>

## Environmental Regulation Considerations

Forest Practices Guidelines (always apply):	<a href="http://nforestservation.gov/publications/Forestry%20Leaflets/WQ01.pdf">http://nforestservation.gov/publications/Forestry%20Leaflets/WQ01.pdf</a>
NC G.S. 77-13. Obstructing streams is a misdemeanor.	<a href="http://www.ncga.state.nc.us/EnactedLegislation/Statutes/PDF/BySection/Chapter_77/GS_77-13.pdf">http://www.ncga.state.nc.us/EnactedLegislation/Statutes/PDF/BySection/Chapter_77/GS_77-13.pdf</a>
NC G.S. 77-14. Obstructions in streams and drainage ditches.	<a href="http://www.ncga.state.nc.us/EnactedLegislation/Statutes/PDF/BySection/Chapter_77/GS_77-14.pdf">http://www.ncga.state.nc.us/EnactedLegislation/Statutes/PDF/BySection/Chapter_77/GS_77-14.pdf</a>
NCDWR Riparian Buffer Rules apply?	Yes Buffer Rule: Neuse River Basin
Riparian Buffer Rule Forestry Leaflet:	<a href="http://www.nforestservation.gov/publications/Forestry%20Leaflets/WQ11.pdf">http://www.nforestservation.gov/publications/Forestry%20Leaflets/WQ11.pdf</a>
Riparian Buffer Rule Administrative Code:	<a href="http://portal.ncdenr.org/web/wq/swp/ws/401/riparianbuffers/rules">http://portal.ncdenr.org/web/wq/swp/ws/401/riparianbuffers/rules</a>



- Forest Practices Guidelines
- NC General Statutes
- NC Division of Water Resources river basin riparian buffer rules

# Sample Site Report

## Subsections:

- Overall Tract Characteristics

**Overall Tract Characteristics**

Surface waters present?  Y  N

USGS 1:24,000 Streams:  Y  N

NCDWR Classified Streams:  Y  N

NCDWR Surface Water Classifications:  Y  N

None

Wetlands present?  Y  N

National Wetlands Inventory  Y  N

NC Coastal Area Management  Y  N

Steep slopes present ( $\geq 25\%$ )?  Y  N

Average Slope: 13%

Minimum Slope: 2%

Maximum Slope: 38%

*BMP Manual SMZs and Riparian Buffers*  
*BMP Field Guide SMZs and Waterways*  
*BMP Manual Stream Crossings*  
*BMP Field Guide Stream Crossings*

**Note:** This map and report do not include streams from NRC's Soil Survey maps that may be subject to Buffer Rules.  
\*\* Denotes a primary surface water classification.

*BMP Manual Silvicultural Activities in Forested Wetlands*

**Note:** An absence of wetlands reported in this document does not guarantee wetlands are not present on-site. Please examine the site in person to determine if wetlands are present.

*BMP Manual Runoff Control*  
*BMP Field Guide Erosion and Runoff Control*  
*BMP Manual Calculating Percent Slope*



## Forest Preharvest Planning Site Summary Report

**General Tract Information**

Tract ID: 22904 Date Retrieved: 08-25-2014

Tract Name: Tract Acres: 30.24

County: Durham River Basin: Neuse River Basin

NCFE Contact: John McBryde, Water Quality Forester Physiographic Region: Piedmont

NCFE District: Hillsborough Geologic Province: Carolina State Belt

NCFE Contact Phone: 919-732-8105 Latitude: 36° 13.1788206' Longitude: -78° 51.94293'

**Environmental Regulation Considerations**

Forest Practices Guidelines (always apply): <http://www.ncforestry.gov/publications/Forestry%20Lettters/WQ101.pdf>

NC G.S. 77-13. Obstructing streams is a misdemeanor: [http://www.ncga.state.nc.us/EnactedLegislation/Statutes/PDF/BySection/Chapter\\_77/0137-77-13.pdf](http://www.ncga.state.nc.us/EnactedLegislation/Statutes/PDF/BySection/Chapter_77/0137-77-13.pdf)

NC G.S. 77-14. Obstructions in streams and drainage ditches: [http://www.ncga.state.nc.us/EnactedLegislation/Statutes/PDF/BySection/Chapter\\_77/0137-77-14.pdf](http://www.ncga.state.nc.us/EnactedLegislation/Statutes/PDF/BySection/Chapter_77/0137-77-14.pdf)

NCDWR Riparian Buffer Rules apply? Yes Buffer Rule: Neuse River Basin

Riparian Buffer Rule Authority: <http://www.ncforestry.gov/publications/Forestry%20Lettters/WQ111.pdf>

**Overall Tract Characteristics**

Surface waters present?  Y  N

USGS 1:24,000 Streams:  Y  N

NCDWR Classified Streams:  Y  N

NCDWR Surface Water Classifications:  Y  N

None

Wetlands present?  Y  N

National Wetlands Inventory  Y  N

NC Coastal Area Management  Y  N

Steep slopes present ( $\geq 25\%$ )?  Y  N

Average Slope: 13%

Minimum Slope: 2%

Maximum Slope: 38%

*BMP Manual SMZs and Riparian Buffers*  
*BMP Field Guide SMZs and Waterways*  
*BMP Manual Stream Crossings*  
*BMP Field Guide Stream Crossings*

**Note:** This map and report do not include streams from NRC's Soil Survey maps that may be subject to Buffer Rules.  
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*BMP Manual Silvicultural Activities in Forested Wetlands*

**Note:** An absence of wetlands reported in this document does not guarantee wetlands are not present on-site. Please examine the site in person to determine if wetlands are present.


*BMP Manual Runoff Control*  
*BMP Field Guide Erosion and Runoff Control*  
*BMP Manual Calculating Percent Slope*

- Surface waters present?
- NCDWR surface water classificaitons.
- Wetlands presents?
- Steep slopes present ( $\geq 25\%$ )

# Sample Site Report (cont.)

Subsections:

- Dominant Mapunit Soil Characteristics & Ratings



## Forest Preharvest Planning

### Site Summary Report

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Overall Tract Characteristics Continued

#### Dominant Mapunit Soil Characteristics and Ratings

Mapunit Symbol:	TaE	Horizon A:	Gravelly silt loam
Mapunit Name:	Tatum gravelly silt loam, 15 to 25 percent slopes	(Surface)	
		Horizon B:	Silty clay loam
		(Sub-layer)	
Hydric Rating:	Nonhydric	Dominate Mapunit Component:	Tatum

The dominate Map Unit of the tract is Tatum gravelly silt loam, 15 to 25 percent slopes which makes up 62% of the tract, and the dominate soil component of the Map Unit is Tatum which makes up 85% of the Map Unit.

	Rating	BMP Awareness
<b>Moderate</b>		Extra BMP Installation, Monitoring, and Maintenance Are Needed. Keep Grade Under 10%.
<b>moderately suited</b>		Use Caution. Watch the Weather. Be Ready to Change Logging Methods if Site Conditions Worsen.
<b>Moderate</b>		Extra BMP Installation, Monitoring, and Maintenance Are Needed.
<b>Severe</b>		Watch Out! Install Multiple Back-Up BMPs. Establish Groundcover Immediately. Frequently Check Site to Assure No Problems.
<b>Severe</b>		Warning! Have a Back-Up Plan for When to Stop Logging. Only Use Logging Equipment and Methods Suited for the Site Conditions: Low-Ground-Pressure, High Lead, Shovel Logging are examples.
<b>poorly suited</b>		Watch Out! Reconsider Your Options. High Risk and High Costs Are Likely. Engineering Expertise May Be Needed.
<b>poorly suited</b>		Watch Out! Reconsider Your Options. High Risk and High Costs Are Likely. Engineering Expertise May Be Needed. Consider Skidding Logs Longer Distances. Instead of Building a Road.

**red (E) or Threatened (T) Species within two miles of the tract**

Common Name	Taxonomic Group	Federal Status	NC Status
River Panic Grass	Vascular Plant	T	T
Low Wild-petunia	Vascular Plant	E	E
Reeper	Freshwater Bivalve	T	T
Eastern Lampmussel	Freshwater Bivalve	FSC	E
Yellow Lampmussel	Freshwater Bivalve	FSC	E
Atlantic Pigtoe	Freshwater Bivalve	FSC	E
Green Floater	Freshwater Bivalve	FSC	E
Triangle Floater	Freshwater Bivalve	T	T
Ichau's Sumac	Vascular Plant	E	E
Purple Fringeless Orchid	Vascular Plant	T	T
Box Huckleberry	Vascular Plant	E	E

src: <http://portal.modernt.org/web/mtr/>

Tract ID #22804 Page 2



Dominant map unit soil characteristics and ratings  
 Best Management Practice awareness

# Sample Site Report (cont.)

## Subsections:

- Federal / State T&E

### Forest Preharvest Planning Site Summary Report

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Overall Tract Characteristics Continued

Dominant Mapunit Soil Characteristics and Ratings		
Mapunit Symbol:	TaE	Horizon A: Gravelly silt loam
Mapunit Name:	Tatum gravelly silt loam, 15 to 25 percent slopes	Horizon B: (Surface) Silt clay loam Horizon B: (Sub-layer)
Hydro Rating:	Nonhydryc	Dominate Mapunit Component: Tatum

The dominate Map Unit of the tract is **Tatum gravelly silt loam, 15 to 25 percent slopes** which makes up 62% of the tract, and the dominate soil component of the Map Unit is **Tatum** which makes up 85% of the Map Unit.

Common Harvest Activities	Rating	BMP Awareness
Construction Limitations for Road and Log	Moderate	Extra BMP Installation, Monitoring, and Maintenance Are Needed. Keep Grade Under 10%.
Equipment	Moderately suited	Use Caution. Watch the Weather. Be Ready to Change Logging Methods if Site Conditions Worsen.
Stand: OR-Road	Moderate	Extra BMP Installation, Monitoring, and Maintenance Are Needed.
Stand: Road/Trail	Severe	Watch Out! Install Multiple Back-Up BMP's. Establish Groundcover Immediately. Frequently Check Site to Assure No Problems.
Hazard	Severe	Warning! Have a Back-Up Plan for When to Stop Logging. Only Use Logging Equipment and Methods Suited for the Site Conditions. Low-Ground-Pressure, High Lead, Shovel Logging are examples.
Log Landings	Exceeds suited	Watch Out! Reconsider Your Options. High Risk and High Costs Are Likely. Engineering Expertise May Be Needed.
Roads on Face	Poorly suited	Warning! Reconsider Your Options. High Risk and High Costs Are Likely. Engineering Expertise May Be Needed. Consider Skidways and Lower Distances. Instead of Building a Road.

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Federal or State Endangered (E) or Threatened (T) Species within two miles of the tract

Scientific Name	Common Name	Taxonomic Group	Federal Status	NC Status
Panicum flexile	Wiry Panic Grass	Vascular Plant		T
Ruellia humilis	Low Wild-petunia	Vascular Plant		E
Strophitus undulatus	Creeper	Freshwater Bivalve		T
Lampsilis radiata	Eastern Lampmussel	Freshwater Bivalve		T
Lampsilis cariosa	Yellow Lampmussel	Freshwater Bivalve	FSC	E
Fusconaia masoni	Atlantic Pigtoe	Freshwater Bivalve	FSC	E
Lasmigona subviridis	Green Floater	Freshwater Bivalve	FSC	E
Alasmodonta undulata	Triangle Floater	Freshwater Bivalve		T
Rhus michauxii	Michaux's Sumac	Vascular Plant	E	E
Platanthera peramoena	Purple Fringeless Orchid	Vascular Plant		T
Gaylussacia brachycera	Box Huckleberry	Vascular Plant		E

\* For additional information please visit: <http://portal.ncdenr.org/web/nhp/>



Federal or State listed species  
Endangered, Threatened, Species of Concern

# Sample Site Report (cont.)

## Subsections:

- Management Area 1, 2... Characteristics
- BMP Awareness



## Forest Preharvest Planning Site Summary Report

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**Management Area 1 Characteristics**

Management Area Acres: 2995.56		
Surface waters present? <input type="checkbox"/> Y <input type="checkbox"/> N		
USGS 1:24,000 Streams: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N		
NCDWR Classified Streams: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N		
Wetlands present? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N		
National Wetlands Inventory: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N		
NC Coastal Area Management: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N		
Steep slopes present (>= 25%)? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N		
Average Slope: 3%		
Minimum Slope: 0%		
Maximum Slope: 32%		

**Dominant Mapunit Soil Characteristics / Ratings:**

Mapunit Symbol: L&B	Horizon A: Sand
Mapunit Name: Lakeland sand, 1 to 7 percent slopes	(Surface)
	Horizon B: N/A
	(Sub-layer)

Hydric Rating: Predominantly Nonhydric. Dominate Mapunit Component: Lakeland

The dominate Map Unit of the management area is **Lakeland sand, 1 to 7 percent slopes** which makes up 32% of the management area, and the dominate soil component of the Map Unit is **Lakeland** which makes up 80% of the Map Unit.

Common Harvest Activity	Rating	BMP Awareness
Construction Limitations for Haul Roads and Log Landings	Moderate	Extra BMP Installation, Monitoring, and Maintenance Are Needed. Keep Grade Under 10%.
Harvest Equipment Operability	Moderately suited	Use Caution. Watch the Weather. Be Ready to Change Logging Methods if Site Conditions Worsen.
Erosion Hazard: Off-Road Off-Trail	Slight	Follow Basic BMPs. Minimize Area of Disturbed Soil.
Erosion Hazard: Road/Trail	Slight	Follow Basic BMPs. Minimize Area of Disturbed Soil. Apply Slash/Laps on Skid Trails.
Soil Ruting Hazard	Moderate	Watch Out! Ruting is Likely. Only Log When the Site is Dry. Apply Extra Slash/Laps to Build Up a Cushion.
Suitability for Log Landings	Moderately suited	Extra BMP Installation, Monitoring, and Maintenance Are Needed. Install BMPs to Divert Runoff and Catch Sediment. Stabilize Bare Soil Promptly.
Suitability for Roads on Natural Surface	Moderately suited	Extra BMP Installation, Monitoring, and Maintenance Are Needed. Install Multiple Back-Up BMPs to Divert Runoff and Catch Sediment. Stabilize Bare Soil Promptly. Stay Away From Streams. Keep Grade Under 10%.

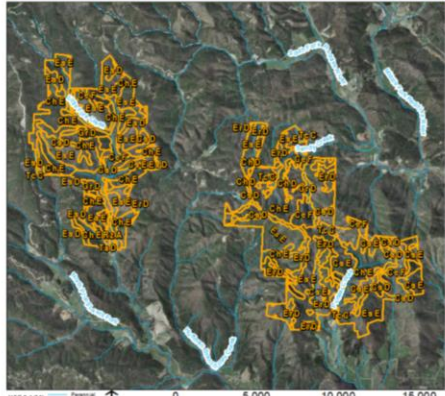
Traffic ID #28405 Page 3



# Sample Soils Report



## Forest Preharvest Planning Soils Summary Report



Mu Symbol	Mu Name	Mu Symbol	Mu Name
CaF	Chestnut-Ashle complex, 25 to 90 percent slopes, very stony	ChD	Chestnut-Edneyville complex, 8 to 25 percent slopes, stony
CaE	Chestnut-Edneyville complex, 25 to 60 percent slopes, stony	CaD	Covee-Saluda complex, 8 to 25 percent slopes, stony
CaE	Covee-Saluda complex, 25 to 60 percent slopes, stony	ErD	Evard gravelly sandy loam, 15 to 25 percent slopes
EaD	Evard-Covee complex, 8 to 25 percent slopes, stony	EaE	Evard-Covee complex, 25 to 60 percent slopes, stony
RzA	Rozman-Redies complex, 0 to 3 percent slopes, occasionally flooded	TaD	Tale fine sandy loam, 8 to 25 percent slopes

USGS 8 1:24k  
Streams  
Federal  
Highways  
Elevation

0 5,000 10,000 15,000 Feet

Tract ID #27208 Page 1





## Forest Preharvest Planning Soils Summary Report

Mapunit Soil Characteristics and Ratings			
Tract ID:	27206	Tract Name:	Rendezvous Mountain Educational State Forest
Mapunit Symbol:	Cef	Drainage Class:	Well drained
Mapunit Name:	Chestnut-Ashle complex, 25 to 90 percent slopes, very stony	Flooding Frequency:	None
		Horizon A (Surface):	Gravelly sandy loam
Mapunit Major Component:	Chestnut	Horizon B (Sub-layer):	Sandy loam
Taxonomic Class:	Coarse-loamy, mixed, active, mesic Typic Dystrudepts		
Frost Free Days:	135	Hydric Rating:	Nonhydric

Map Unit **Chestnut-Ashle complex, 25 to 90 percent slopes, very stony** represents 10.2% of the tract, and the dominate soil component of the Map Unit is **Chestnut** which makes up 45% of the Map Unit.

Common Harvest Activity	Rating	BMP Awareness
Construction Limitations for Neal Roads and Log Landings	Severe	Watch Out! Reconsider Your Options. High Risk and High Costs Are Likely. Engineering Expertise May Be Needed.
Harvest Equipment Operability	Poorly suited	Watch Out! Have a Back-Up Plan for When to Stop Logging. Only Use Logging Equipment and Methods Suited for the Site Conditions. Low-Ground-Pressure, High Lead, Skidder Logging are examples.
Erosion Hazard: Off-Road Off-Trail	Very severe	Warning! Reconsider Your Options. High Risk and High Costs Are Likely. Engineering Expertise May Be Needed.
Erosion Hazard: Road/Trail	Severe	Watch Out! Install Multiple Back-Up BMPs. Establish Groundcover Immediately. Frequently Check Site to Assure No Problems.
Soil Rutting Hazard	Moderate	Watch Out! Rutting is Likely. Only Log When the Site is Dry. Apply Extra Slash/Laps to Build Up a Cushion.
Suitability for Log Landings	Poorly suited	Watch Out! Reconsider Your Options. High Risk and High Costs Are Likely. Engineering Expertise May Be Needed.
Suitability for Roads on Natural Surface	Poorly suited	Watch Out! Reconsider Your Options. High Risk and High Costs Are Likely. Engineering Expertise May Be Needed. Consider Skidding Logs Longer Distances, Instead of Building a Road.



## Forest Preharvest Planning Soils Summary Report

Mapunit Soil Characteristics and Ratings			
Tract ID:	27206	Tract Name:	Rendezvous Mountain Educational State Forest
Mapunit Symbol:	ChD	Drainage Class:	Well drained
Mapunit Name:	Chestnut-Edneyville complex, 8 to 25 percent slopes, stony	Flooding Frequency:	None
		Horizon A (Surface):	Gravelly sandy loam
Mapunit Major Component:	Chestnut	Horizon B (Sub-layer):	Sandy loam
Taxonomic Class:	Coarse-loamy, mixed, active, mesic Typic Dystrudepts		
Frost Free Days:	135	Hydric Rating:	Nonhydric

Map Unit **Chestnut-Edneyville complex, 8 to 25 percent slopes, stony** represents 1.1% of the tract, and the dominate soil component of the Map Unit is **Chestnut** which makes up 55% of the Map Unit.

Common Harvest Activity	Rating	BMP Awareness
Construction Limitations for Neal Roads and Log Landings	Moderate	Extra BMP Installation, Monitoring, and Maintenance Are Needed. Keep Grade Under 10%.
Harvest Equipment Operability	Well suited	Follow Basic BMPs. Minimize Soil Disturbance.
Erosion Hazard: Off-Road Off-Trail	Moderate	Extra BMP Installation, Monitoring, and Maintenance Are Needed.
Erosion Hazard: Road/Trail	Severe	Watch Out! Install Multiple Back-Up BMPs. Establish Groundcover Immediately. Frequently Check Site to Assure No Problems.
Soil Rutting Hazard	Moderate	Watch Out! Rutting is Likely. Only Log When the Site is Dry. Apply Extra Slash/Laps to Build Up a Cushion.
Suitability for Log Landings	Poorly suited	Watch Out! Reconsider Your Options. High Risk and High Costs Are Likely. Engineering Expertise May Be Needed.
Suitability for Roads on Natural Surface	Poorly suited	Watch Out! Reconsider Your Options. High Risk and High Costs Are Likely. Engineering Expertise May Be Needed. Consider Skidding Logs Longer Distances, Instead of Building a Road.



## Report examples available for review

- ▣ Site Summary Report and Soil Summary Reports for each region (mountains, piedmont, coastal plain) on server

H:\Everyone\CO\Forest Management & Development\FORMGMT\319NPSPProgram\Preharvest Planning Tool - Redesign project\Report Examples



For NC Forest Service staff, visit agency server:

H:\Everyone\CO\Forest Management & Development\FORMGMT\  
319NPSPProgram\Preharvest Planning Tool - Redesign project\Report Examples

All others, contact Alan Coats, NC Forest Service

(919) 857-4855

[alan.coats@ncagr.gov](mailto:alan.coats@ncagr.gov)



## Summary

- ❑ One-stop shopping for maps/data commonly used for pre-harvest planning
  - Aerials, topos, soils, parcels, streams, wetlands, roads
- ❑ The basic reports will be a free service to anyone with web access
- ❑ Allow easy customization of maps– location of access roads, skid trails, stream crossings, BMPs
- ❑ While the web tool is free, it also provides a starting point for all customers to develop more robust pre-harvest plans



❑ <https://www.ncforestatlas.com>





## FPPT Project – Whom To Contact and Provide Project Comments and/or Feedback

Primary:

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Application Development:

David Jones/Geospatial Services; 919.857.4812



## COMMENTS / QUESTIONS?

