



Foresters for Healthy Waters Aquatic Species Review

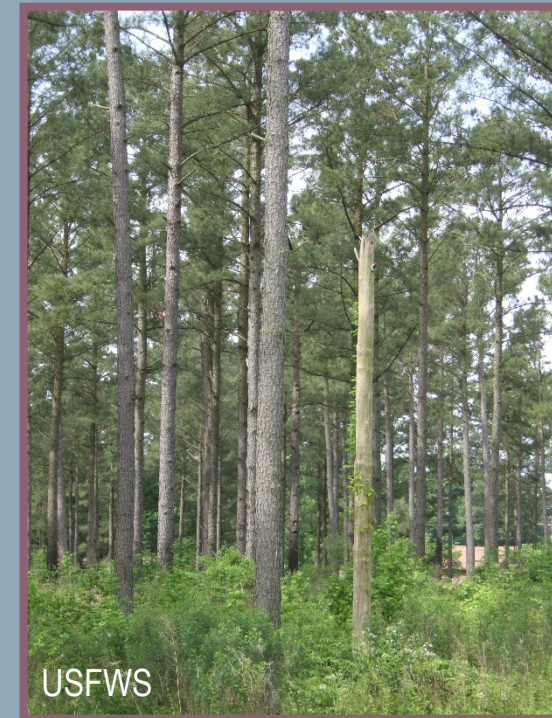
Required Plan Elements and Helpful Tools

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US Fish and Wildlife Service, Raleigh NC



Objectives

- Overview of Required Plan Elements
 - Critical Habitat
 - Aquatic Species presence
- Recommended Resources
 - USFWS Critical Habitat Mapper
 - USFWS Information for Planning and Consultation
 - NC NHP Natural Heritage Data Explorer
 - NCFS Preharvest Planning Tool
- Endangered Species Act
 - Goals and protections
 - “4(d) rules” for Threatened species



Required Plan Elements

Handbook Part 7 C

Aquatic Species and Critical Habitat Review



Aquatic Species Review

Handbook Section 7(C)1

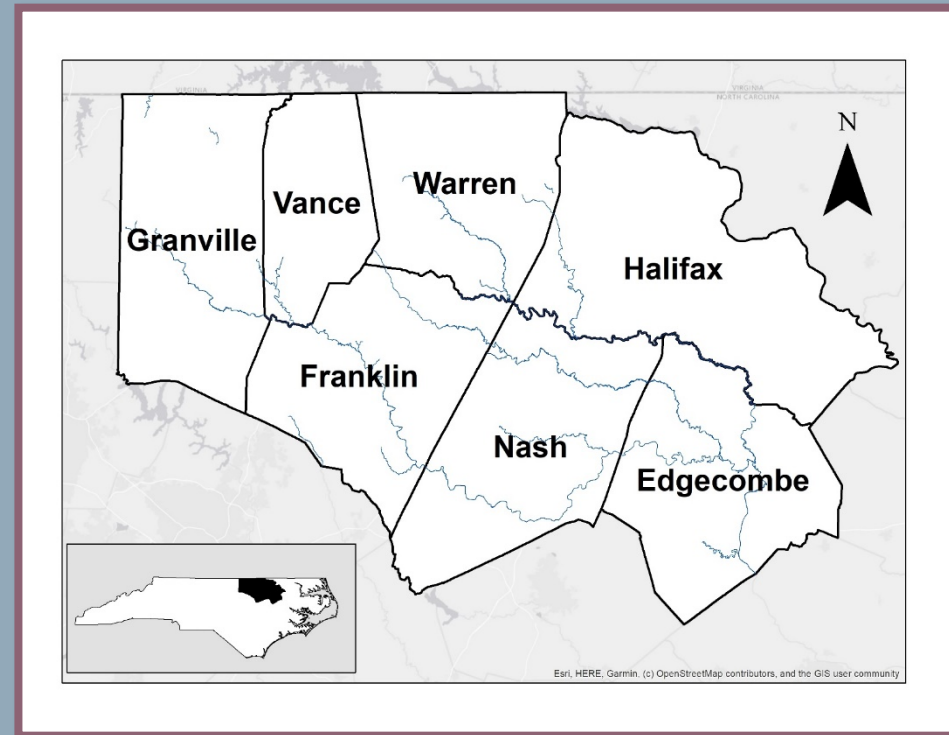
- Identify any federally Threatened, Endangered, or At-risk species that occur on the tract or in close proximity (1-2 miles).
- Provide documentation of the resources used to make the determination, even if no federal species are found.
- Several options for helpful tools.



Designated Critical Habitat Review

Handbook Section 7(C)2

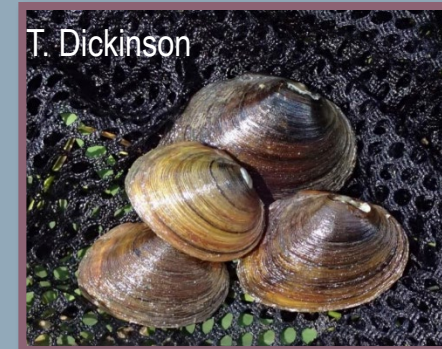
- Is your project upon, adjacent to, or nearby Critical Habitat?
- Useful to include if the project is directly upstream (~ 1 mile)
- Use the Critical Habitat Mapper
- Can also use IPaC



Designated Critical Habitat Review

Habitat that contains features essential to the conservation of a species, and may require special management and protection.

- Specific to the Endangered Species Act
- Specific habitat areas that are needed for recovery
- Has not been designated for all species
- Species may and do occur outside designated critical habitat areas





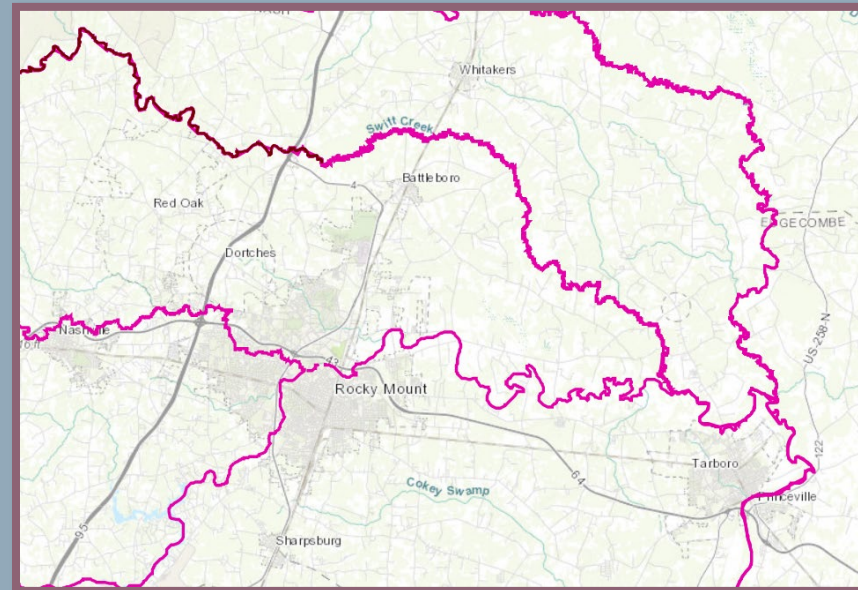
Helpful Tools

Finding information on Critical Habitat and Aquatic Species near your project



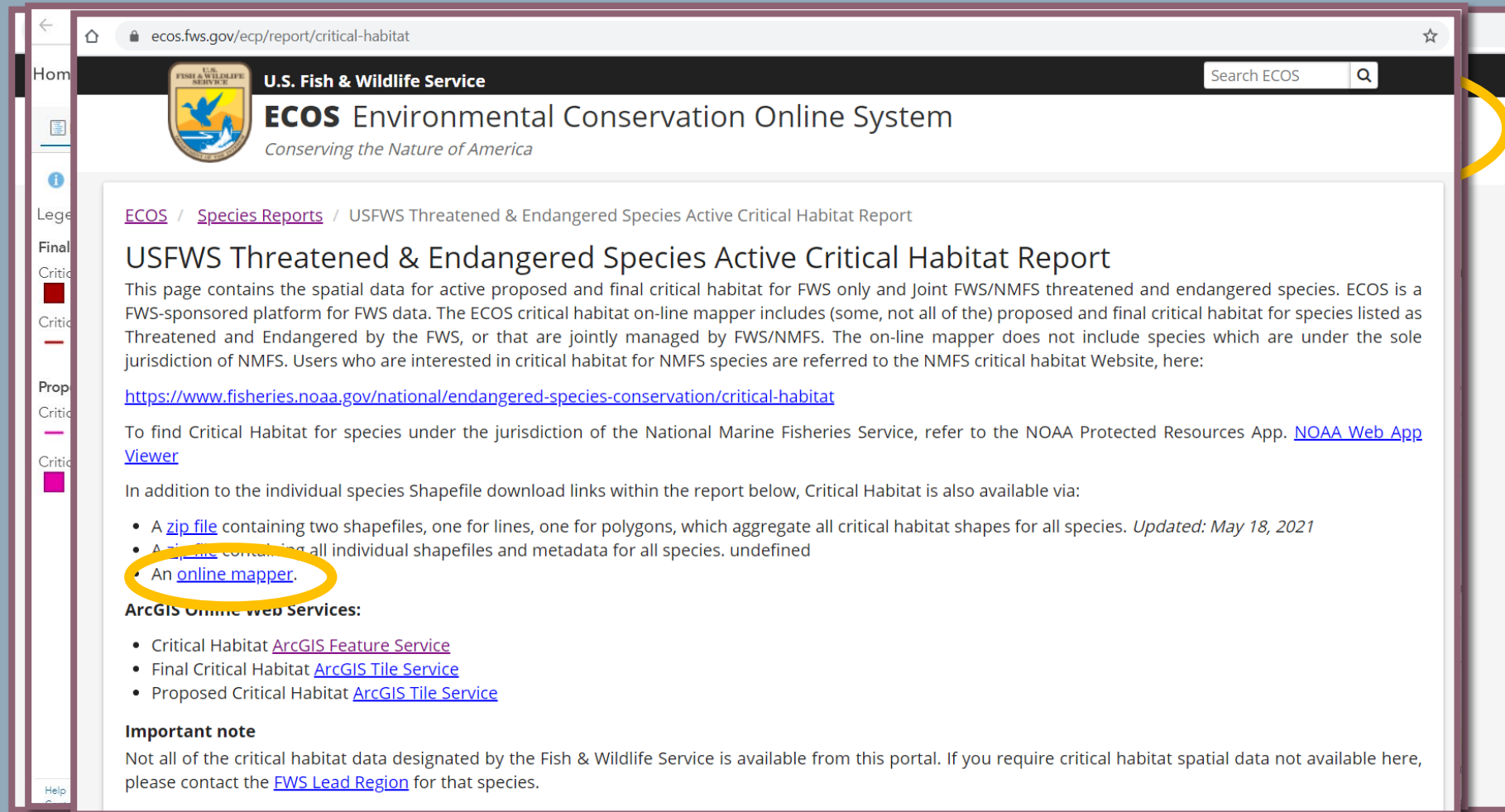
USFWS Critical Habitat Mapper

- Online mapper – easy to access and use
- Shapefiles also available for GIS
- Enter address or zoom to location
- Click on any critical habitat to see species
- Print map



USFWS Critical Habitat Mapper

ecos.fws.gov → Critical Habitat Report → online mapper



ecos.fws.gov/ecp/report/critical-habitat

U.S. Fish & Wildlife Service
ECOS Environmental Conservation Online System
Conserving the Nature of America

Search ECOS

Legends

- Final Critical Habitat
- Critical Habitat
- Proposed Critical Habitat
- Critical Habitat

[ECOS](#) / [Species Reports](#) / USFWS Threatened & Endangered Species Active Critical Habitat Report

USFWS Threatened & Endangered Species Active Critical Habitat Report

This page contains the spatial data for active proposed and final critical habitat for FWS only and Joint FWS/NMFS threatened and endangered species. ECOS is a FWS-sponsored platform for FWS data. The ECOS critical habitat on-line mapper includes (some, not all of the) proposed and final critical habitat for species listed as Threatened and Endangered by the FWS, or that are jointly managed by FWS/NMFS. The on-line mapper does not include species which are under the sole jurisdiction of NMFS. Users who are interested in critical habitat for NMFS species are referred to the NMFS critical habitat Website, here:

<https://www.fisheries.noaa.gov/national/endangered-species-conservation/critical-habitat>

To find Critical Habitat for species under the jurisdiction of the National Marine Fisheries Service, refer to the NOAA Protected Resources App. [NOAA Web App Viewer](#)

In addition to the individual species Shapefile download links within the report below, Critical Habitat is also available via:


- A [zip file](#) containing two shapefiles, one for lines, one for polygons, which aggregate all critical habitat shapes for all species. *Updated: May 18, 2021*
- A [zip file](#) containing all individual shapefiles and metadata for all species. undefined
- An [online mapper](#).

ArcGIS Online Web Services:

- Critical Habitat [ArcGIS Feature Service](#)
- Final Critical Habitat [ArcGIS Tile Service](#)
- Proposed Critical Habitat [ArcGIS Tile Service](#)

Important note

Not all of the critical habitat data designated by the Fish & Wildlife Service is available from this portal. If you require critical habitat spatial data not available here, please contact the [FWS Lead Region](#) for that species.



USFWS Critical Habitat Mapper

ecos.fws.gov → Critical Habitat Report → online mapper

The screenshot displays the USFWS Critical Habitat Mapper interface. The top navigation bar includes "Home", "Critical Habitat for Threatened & Endangered Species [USFWS]", and "Sign In". The search bar contains "Medoc Mountain State Park, Medoc State Park Rd, X". The map shows a topographic view of the area around Hollister, CA, with critical habitat features highlighted in pink and purple. A legend on the left side of the map is titled "Legend" and includes sections for "Final Linear Features", "Final Polygon Features", "Proposed Linear Features", and "Proposed Polygon Features". A data popup window is open over the map, displaying the following information:

Critical Habitat - Linear Features - Proposed: Carolina madtom	
comname	Carolina madtom
sciname	Noturus furiosus
scode	E03R
vipcode	V01
unit	Please check current species specific shapefile
subunit	Please check current species specific shapefile
unitname	Please check current species specific shapefile

The popup window also includes a "Zoom to" link at the bottom.



Information for Planning and Consultation

- IPaC – ecos.fws.gov/ipac
- Easy to access and use online
- Enter location and project area
- Receive a report of nearby species

The screenshot shows the IPaC web application interface. At the top, it says "IPaC Information for Planning and Consultation" and "U.S. Fish & Wildlife Service" with a "LOG IN" link. The main heading is "Explore location" with a sub-heading "LOCAL OFFICE RALEIGH ESFO". A map icon is shown next to the location "Halifax County, North Carolina" and a "CHANGE LOCATION" link. On the left, there is a "Resources" sidebar with a table:

ENDANGERED SPECIES	5
CRITICAL HABITATS	1
MIGRATORY BIRDS	7
FACILITIES	
WETLANDS	✓

Below the table is a "PRINT RESOURCE LIST" button. The main content area is titled "Endangered species" and contains the following text:

Listed species **1** and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries **2**).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

Additional information on endangered species data is provided [below](#).

The following species are potentially affected by activities in this location:



Information for Planning and Consultation

ecos.fws.gov/ipac → Get Started

The screenshot displays the IPaC web application interface. The main heading is "IPaC Information for Planning and Consultation". The interface is divided into three numbered steps:


- 1 Find location**: This step includes a search bar with the placeholder text "Find a place" and a "CONTINUE" button.
- 2 Define area**: This step includes instructions to "Modify the shape by clicking and dragging the vertices or clicking on a solid vertex to remove it" and a "START OVER" button.
- 3 Confirm**: This step includes the instruction "Verify the area where project activities will occur" and a "CONTINUE" button.

The central part of the interface is a map showing a blue-shaded polygon representing a defined area. The map includes labels for roads such as "Elicker Ln", "Medoc Mountain Rd", "Calbird Ln", "Medoc Station Ln", "Macon Rd", and "200 ft" contour lines. A zoom control with "+" and "-" buttons is visible in the top left of the map area. On the right side, there is a smaller inset map showing the location of the area within the Eastern United States, with labels for "Montreal", "Boston", "New York", "Philadelphia", and "Washington".



Natural Heritage Data Explorer

- Offered by the NC Natural Heritage Program
- Another interactive web tool
- Produces an automated project report
- One-year access for FHW participants & training (Thanks, NHP!)



The screenshot shows the website's header with the logo for the North Carolina Natural Heritage Program (Science Guiding Conservation) and a navigation menu with links for Home, Map, Species/Community Search, Terms & Conditions, Data Download, Requests, and Help. The main content area features a welcome message and a user login form.

North Carolina Natural Heritage Program
SCIENCE GUIDING CONSERVATION

Home | Map | Species/Community Search | Terms & Conditions | Data Download | Requests | Help

Welcome to the

North Carolina Natural Heritage Data Explorer

Interactive maps of Natural Heritage resources for North Carolina.

User login

E-mail or username *

Password *



Natural Heritage Data Explorer

ncnhde.natureserve.org → User Login

The screenshot displays the Natural Heritage Data Explorer web application. The interface includes a top navigation bar with links for Home, Map, My Group, My Jobs, Species/Community Search, Terms & Conditions, Data Download, Requests, and Help. A search bar is located in the top right corner. The main content area features a map of North Carolina with various geographical features and data layers overlaid. A left sidebar contains a 'Layers' panel with several categories of data layers, each with a checkbox to toggle visibility. The map includes a scale bar (100km/60mi) and a scale of 1:4,622,324. The bottom of the map shows the coordinates Latitude: 32.8393 and Longitude: -81.2426. The Esri logo and other data sources (HERE, Garmin, FAO, NOAA, USGS, EPA) are listed at the bottom right of the map area.

Navigation Bar: Home, Map, My Group, My Jobs, Species/Community Search, Terms & Conditions, Data Download, Requests, Help

Search Bar: Find address or place

Layers Panel:

- Element Occurrences
 - Element Occurrences Tier 2
- Conservation Areas
 - Managed Areas
 - Natural Areas
- Conservation Planning
 - Biodiversity & Wildlife Habitat Assessment
 - 2012 Agricultural Lands Assessment (NCDA&C)
 - 2010 Forest Lands Assessment (NCFS)
 - Smoke Awareness Areas (NCWRC)
 - Game Land Hunting Safety Buffers (NCWRC)
- Regional Conservation Planning
- Land and Water Resources
 - Water Bodies
 - Coastal Wetlands
 - National Wetlands Inventory
 - NRCS Soil Data
 - Fishery Nursery Areas
 - Drinking Water Susceptibility
 - Subwatersheds (12-digit HUC)
 - Subbasins (8-digit HUC)

Map Information: Scale: 1 : 4,622,324. Latitude: 32.8393. Longitude: -81.2426. Esri, HERE, Garmin, FAO, NOAA, USGS, EPA



Natural Heritage Data Explorer

ncnhde.natureserve.org → Map → Find Location → Create Project

Natural Heritage Program
SCIENCE GUIDING CONSERVATION

My account Shopping cart Log out

Home Map **My Group** My Projects Species/Community Search Terms & Conditions Data Download Requests Help

My Projects

Title Contains

User Project Number Contains

Project ID Contains

Payment Status Is

Apply Reset

Project Title	User Project Number(s)	Submit date	Project Description	Project ID	Payment Status
FHW demo test1		05/24/2021 - 14:32	demo of how to use the data explorer	NCNHDE-14760	Payment Not Required

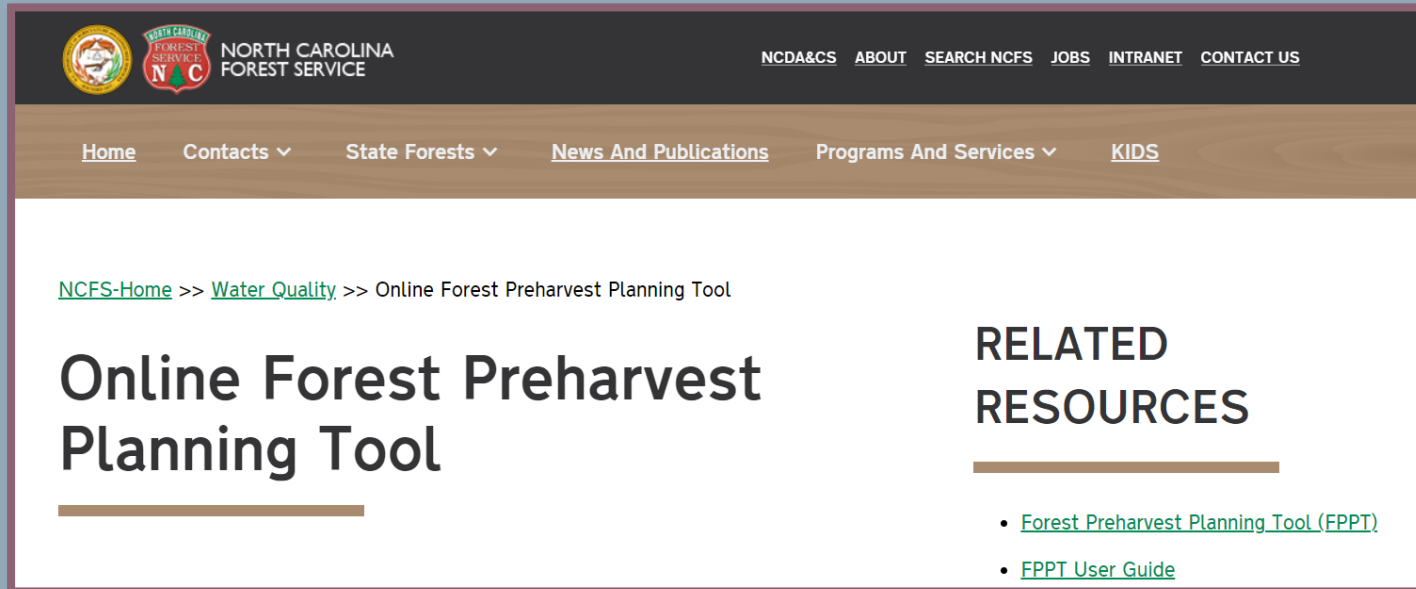
Other

Scale: 1 : 18,056
Latitude: 36.2343, Longitude: -77.8917
State of North Carolina DOT, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, NGA, EPA, USDA



NCFS Preharvest Planning Tool

- ncforestservice.gov/water_quality/fppt.htm
- Free, online web application – detailed handbook available
- Integrated suite of datasets to help plan harvests

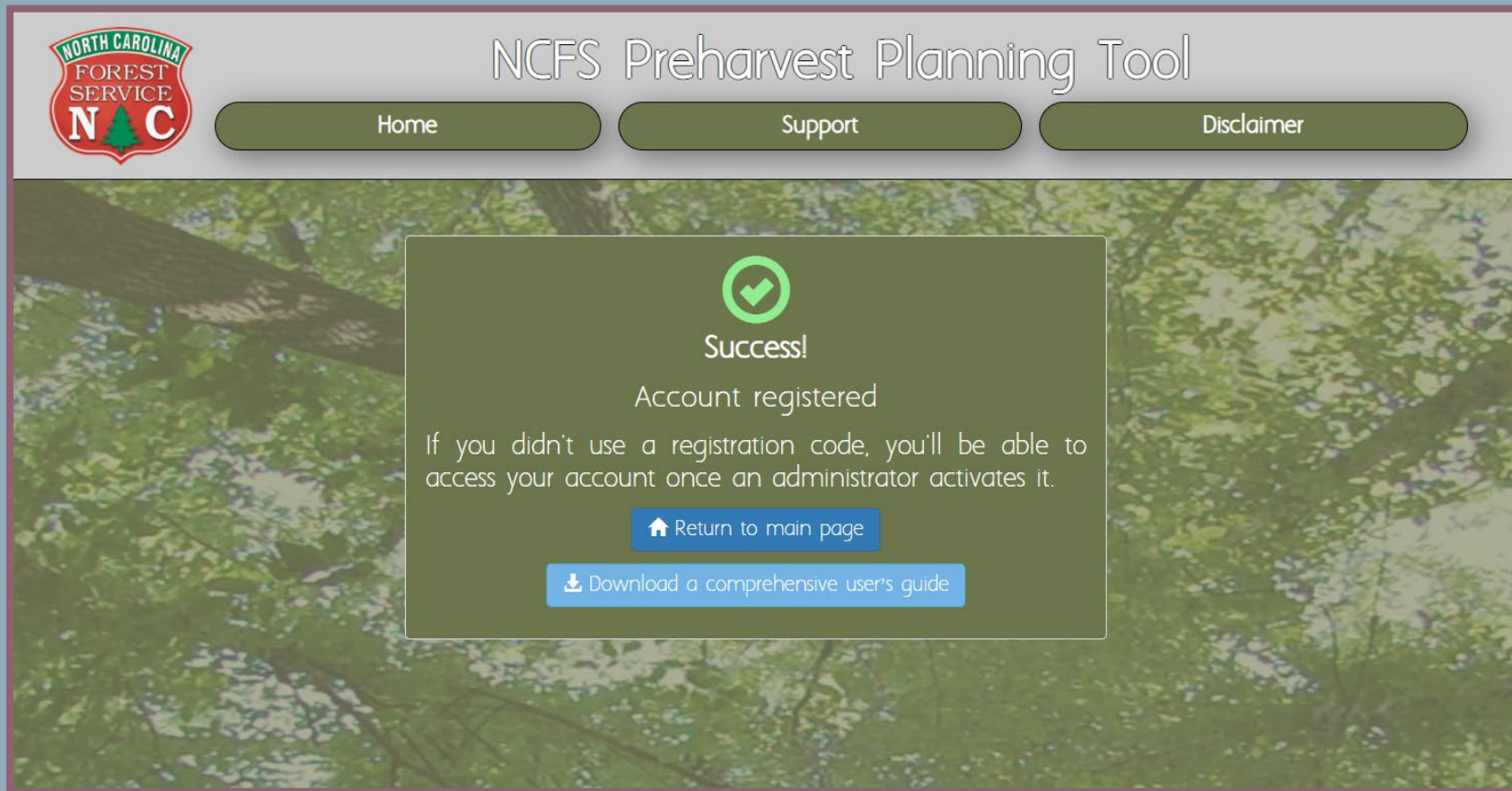


The screenshot shows the North Carolina Forest Service website. The header includes the NCFS logo and navigation links: NCDA&CS, ABOUT, SEARCH NCFS, JOBS, INTRANET, CONTACT US. The main navigation bar contains: Home, Contacts, State Forests, News And Publications, Programs And Services, KIDS. The page content features a breadcrumb trail: [NCFS-Home](#) >> [Water Quality](#) >> Online Forest Preharvest Planning Tool. The main heading is "Online Forest Preharvest Planning Tool". To the right, under "RELATED RESOURCES", there are two links: [Forest Preharvest Planning Tool \(FPPT\)](#) and [FPPT User Guide](#).




NCFS Preharvest Planning Tool


- Create an account for access
- Email confirmation from NCFS – FPPT



The screenshot shows the NCFS Preharvest Planning Tool interface. At the top left is the North Carolina Forest Service logo. The title "NCFS Preharvest Planning Tool" is centered at the top. Below the title are three navigation buttons: "Home", "Support", and "Disclaimer". The main content area features a green background with a white checkmark icon and the text "Success! Account registered". Below this, a message states: "If you didn't use a registration code, you'll be able to access your account once an administrator activates it." Two buttons are provided: "Return to main page" and "Download a comprehensive user's guide".

 NCFS Preharvest Planning Tool

Home Support Disclaimer


Success!
Account registered

If you didn't use a registration code, you'll be able to access your account once an administrator activates it.

[Return to main page](#)

[Download a comprehensive user's guide](#)



NCFS Preharvest Planning Tool

- Create or edit a tract
- Find location, then select by parcel

The screenshot displays the NCFS Preharvest Planning Tool interface. At the top left is the North Carolina Forest Service logo. The main header reads "NCFS Preharvest Planning Tool" with navigation buttons for Home, Support, Disclaimer, Administration, and Logout. The central map shows a green-outlined tract within a larger area labeled "Medoc Mountain State Park". The right-hand panel, titled "Create a Tract", contains a "Create" button (circled in yellow), a "Layers" icon, and a list of selected parcels. The first parcel is "STATE OF N.C., MEDOC MOUNTAIN RD, Halifax County" with "Add to Selected" and "Clear" buttons. The second parcel is "STATE OF N.C., PICNIC AREA RD, Halifax County" with a red "X" icon. At the bottom of the panel is a green button labeled "Create Tract from Selected Parcels".



NCFS Preharvest Planning Tool

- Generate reports → View Site Summary Report

NORTH CAROLINA FOREST SERVICE N C

NCFS Preharvest Planning Tool

Home Support Disclaimer

Google Hybrid

Medoc Mountain Picnic area & trailhead

Fishing Creek

Medoc Mountain State Park

Ivory Hill Baptist

1002

1002

Tract Stands **Reports** Layers

Create PDF Map

Download GIS Data

Report data last generated on: Tue May 25 2021 15:00:27 GMT-0400 (Eastern Daylight Time)

* Reports can take several minutes to generate. You will be emailed when they are ready.

Update Site and Soils Information

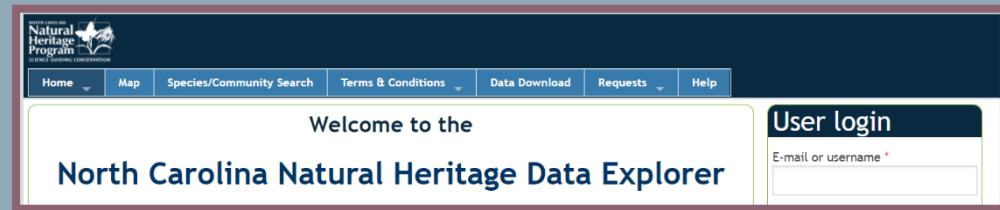
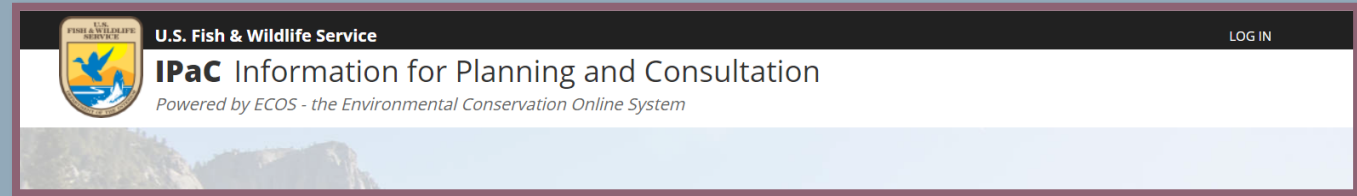
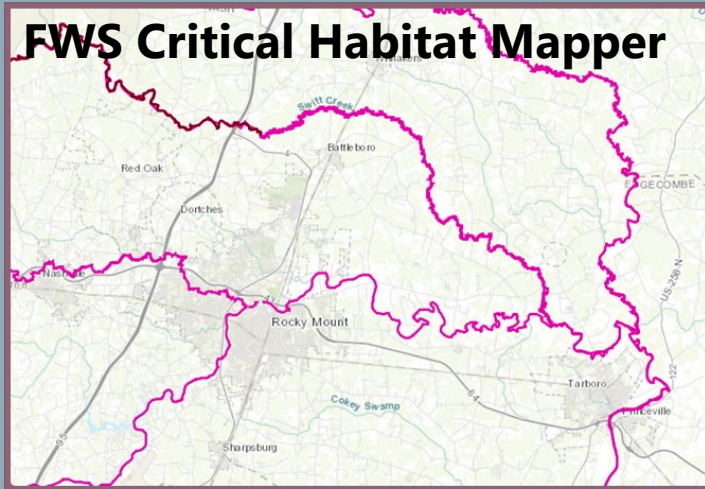
View Site Summary Report

View Detailed Soil Report

View Soil Summary Report



Summary of Resources



Endangered Species Act

Goal and protections

"4(d) rules" for Threatened Species



Endangered Species Act

“An Act to provide for the conservation of endangered and threatened species of fish, wildlife, and plants...”

- Prohibitions: import, export, sale, etc. ..., and take
- Includes **incidental take** – “a taking incidental to, and not the purpose of, the carrying out of an otherwise lawful activity.”
- Includes impacts to habitat that cause harm
- Protections apply anywhere the species occurs
- Permit required if an activity may result in a taking



“4(d) Rules” for Threatened Species

- Refers to Section 4 of the Act – T&E Determinations
- Allows for species specific-rule tailored to conservation needs
- Can specify any prohibitions
- **May include exceptions to the prohibition of incidental take**
- **If activities done as specified**, no need for incidental take permit
- Examples: species conservation efforts, stream restoration, forestry activities

Why excepted?

We expect them to have a net conservation benefit.



Listed Species in FHW Area

Endangered: Tar River Spiny mussel, Dwarf Wedgemussel, Carolina Madtom

- all prohibitions apply; take prohibited without permit

Threatened: Yellow Lance

- all prohibitions apply; no exceptions; take prohibited without permit

Threatened with 4(d) Rules: Neuse River Waterdog, Atlantic Pigtoe

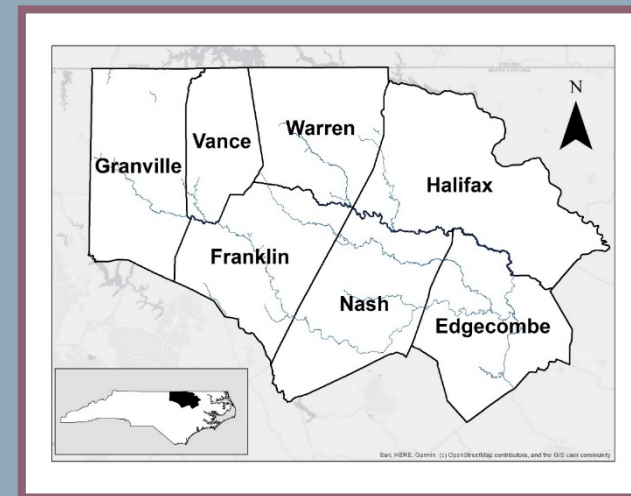
- species-specific 4(d) rules
- all prohibitions apply; some exceptions for incidental take
- forestry-related activities that follow specified conditions in the rule

For any, avoiding take is easy with good use of forestry BMPs!



Forestry 4(d) Exceptions in FHW Area

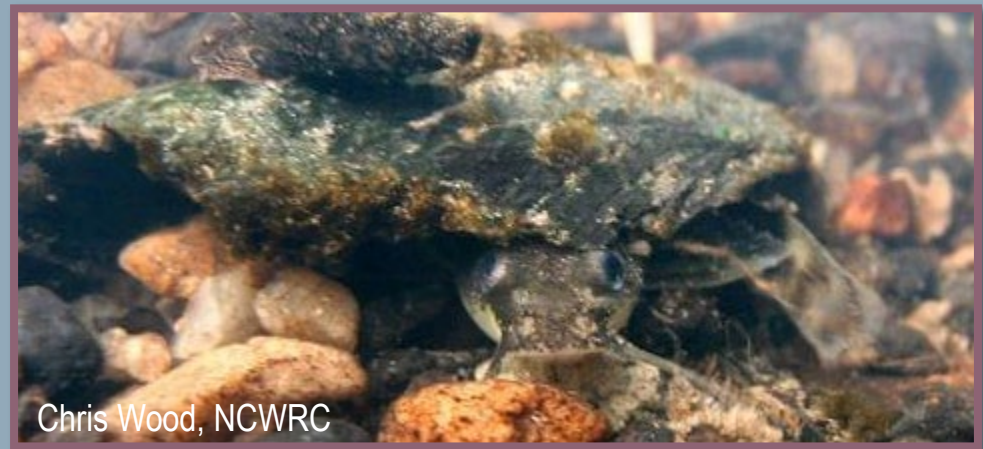
- Provide clarity on species conservation needs
- Developed with forestry stakeholder involvement
- Outcome-based; specific, but not prescriptive
- Same language for Neuse River Waterdog, Atlantic Pigtoe
- Specified conditions align with NC's Forest Practice Guidelines



Foresters for Healthy Waters Program = a good guide!



Summary



Required Plan Elements & Useful Resources

- Critical Habitat – USFWS Critical Habitat Mapper
- Aquatic Species – FWS IPaC, Natural Heritage Data Explorer, or Forest Preharvest Planning Tool

Endangered Species Act Considerations

- Species with different listing status overlap – awareness is key
- Some have forestry exceptions – conditions will help all species
- Good forest management → aquatic species/habitat stewardship
- FHW guidance & cost-share should benefit landowners & protect species

