

South Carolina House of Representatives Legislative Oversight Committee

#### ECONOMIC DEVELOPMENT, TRANSPORTATION, AND NATURAL RESOURCES SUBCOMMITTEE

Chairman Travis A. Moore

The Honorable Gary S. Brewer, Jr. The Honorable William M. "Bill" Hixon The Honorable Russell L. Ott The Honorable Marvin R. Pendarvis

#### AGENDA

Thursday, March 28, 2024 Immediately Upon Adjournment of the House Room 110 - Blatt Building

- I. Approval of minutes
- II. Discussion of the study of the South Carolina Forestry Commission
- III. Adjournment

Pursuant to Committee Rule 6.8, S.C. ETV shall be allowed access for internet streaming whenever technologically feasible.



South Carolina House of Representatives Legislative Oversight Committee

#### Chair Jeffrey E. "Jeff" Johnson

William H. Bailey Gary S. Brewer April Cromer Kambrell H. Garvin Leon Douglas "Doug" Gilliam Thomas Duval "Val" Guest, Jr. William M. "Bill" Hixon Joseph H. "Joe" Jefferson, Jr. Wendell Keith Jones Roger K. Kirby Josiah Magnuson John R. McCravy, III

> Lewis Carter Director

Cathy A. Greer Administration Coordinator Roland Franklin Legal Counsel Riley E. McCullough Research Analyst

**First Vice-Chair Chris Wooten** 

Timothy A. "Tim" McGinnis

Adam M. Morgan

Travis A. Moore

Russell L. Ott

Marvin R. Pendarvis

Marvin "Mark" Smith

Post Office Box 11867 Columbia, South Carolina 29211 Telephone: (803) 212-6810 • Fax: (803) 212-6811 Room 228 Blatt Building

#### **MEETING MINUTES**

Tuesday, March 5, 2024 Upon Adjournment of the House Blatt Room 427

#### Archived Video Available

 Pursuant to House Legislative Oversight Committee Rule 6.7, South Carolina ETV was allowed access for streaming the meeting. You may access an archived video of this meeting by visiting the South Carolina General Assembly's website (http://www.scstatehouse.gov) and clicking on Committee Postings and Reports, then under House Standing Committees click on Legislative Oversight. Then, click on Video Archives for a listing of archived videos for the Committee.

#### Attendance

 The Economic Development, Transportation, and Natural Resources Subcommittee meeting was called to order by Chair Travis A. Moore on Tuesday, March 5, 2024, in Room 427 of the Blatt Building. All subcommittee members (Chair Moore; Representative Gary S. Brewer, Jr.; Representative William M. Hixon; Representative Russell L. Ott; Representative Marvin R. Pendarvis) were present for all or a portion of the meeting.

#### Minutes

I. House Rule 4.5 requires standing committees to prepare and make available to the public the minutes of committee meetings, but the minutes do not have to be verbatim accounts of meetings.

#### **Approval of Minutes**

#### **Approval of Minutes**

I. Representative Brewer makes a motion to approve the meeting minutes from the February 15, 2024 meeting. A roll call vote is held and the motion passes.

<b>Rep. Brewer's motion to approve meeting minutes.</b>	Yea	Nay	Not Voting
Rep. Brewer	$\checkmark$		
Rep. Hixon			~
Rep. Pendarvis			~
Rep. Ott	✓		
Rep. Moore	$\checkmark$		

#### Discussion of the South Carolina Forestry Commission

- II. Prior to beginning his testimony, Chair Moore reminds the Forestry Commission's Forestry Management Chief, Russell Hulbright, that he was sworn in at the Thursday, February 15, 2024 meeting, and that he remains under oath. Chair Moore asks if there are any additional agency representatives who may address the subcommittee today or at future meetings that have not been placed under oath.
- III. David Jones, General Counsel for the Forestry Commission, begins the presentation with brief opening remarks concerning the recent filling of a vacancy on the Commission. Forestry Management Chief Hulbright then begins his presentation to the subcommittee and discusses the following topics:
  - 1. South Carolina forestland characteristics;
  - 2. Forest Management responsibilities and strategies;
  - 3. Program funding;
  - 4. Forest Management programs;
  - 5. Forest Management services;
  - 6. Forest Management challenges.

Throughout the presentation, members ask Forestry Management Chief Hulbright questions and he responds.

#### Adjournment

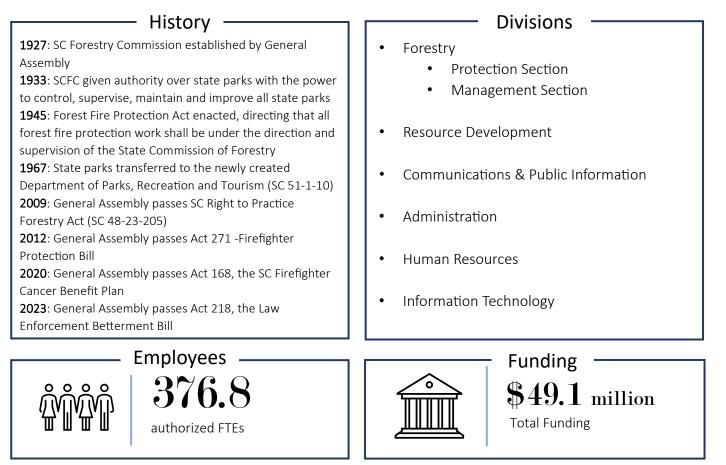
I. There being no further business, the meeting is adjourned.

#### FORESTRY COMMISSION OVERVIEW

#### Agency Mission

Protect, promote, and enhance South Carolina's forests for the benefit of all.

#### History and Resources



#### Successes and Challenges

Identified by the agency

#### Successes ·

- The agency has hybrid work schedules and other incentives for staff to promote staff retention.
- The agency performs our work with a statewide higher education perspective.
- Experienced workforce

"

- Employee engagement is high
- Strong relationship with partners
- High levels of customer satisfaction across a wide array of agency services
- Network of experienced foresters

#### - Challenges -

- Agency has difficulty recruiting employees in several job categories due to non-competitive wage.
- Limited opportunities to engage in new projects/partnerships due to vacancies and difficulty recruiting.
- Lack of capacity to perform services due to high employee turnover and/or vacancies in key program areas.
- Management restrictions due to endangered species, recreational users or deed restrictions limit revenue potential.
- Reduced firefighting capacity has lessened the agency's ability to protect homes, firefighters, and the forest resource. Increased costs for equipment, fuel, supplies and maintenance has strained the agency's operating funds.

# HOUSE LEGISLATIVE OVERSIGHT COMMITTEE PRESENTATION

South Carolina Forestry Commission

## **SC forestland characteristics**

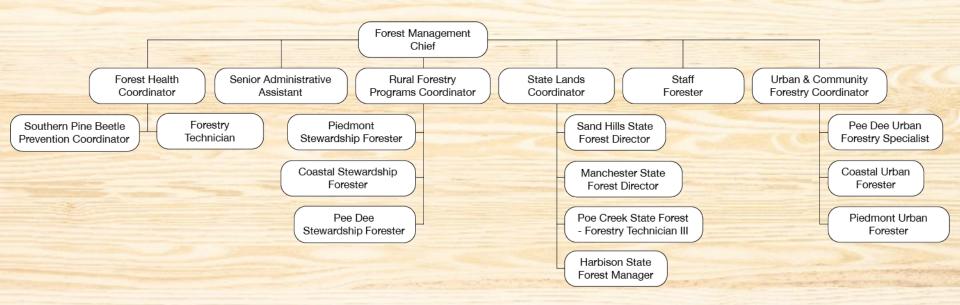
- 87% of the 12.8 million acres of forestland in SC is privately owned
  - 60% of privately owned forests are family-owned
- 84,000+ forest landowners own 10 acres or more; the average family forest is 97 acres
- Public agencies manage 13% of SC forestland; forest industry owns 330,000 acres
- Before 2010, forestland acreage had been relatively stable, but increased development since then has been negatively impacting scope

## Charges

- 1. Provide forest management assistance to private landowners
- 2. Administer the Forest Stewardship Program
- 3. Administer cost-share programs
- 4. Provide forestry services and equipment rental
- 5. Monitor and address forest health issues
- 6. Provide urban and community forestry assistance
- 7. Manage state forests and other SCFC landholdings
- 8. Provide forestry expertise to other agencies



## **Organizational Chart**



A CA

N N

FORE

### **Links to SCFC Strategic Plan**

**Goal 1 – Enhance Public Benefits from Trees and Forests** 

**Strategy 3** – Engage communities to grow and sustain healthy trees and forests.

#### **Goal 2– Protect Forests from Harm**

**Strategy 4** – Deliver programs and services to prevent and reduce damage from insects, diseases, invasive species and other threats to our forests.

## **Links to SCFC Strategic Plan**

#### **Goal 3 – Conserve Working Forests**

**Strategy 1** – Support landowners with programs and services that promote active forest management and help them meet their goals.

Strategy 2 – Promote and increase the responsible use of prescribed fire.

**Strategy 3** – Demonstrate practices for the active, sustainable, multipleuse management of state forests and engage other public landowners to do the same.

**Strategy 4** – Actively seek opportunities to acquire land to grow the state forest system.

## Program Funding – 5-year averages

Forest Stewardship Program \$340,000State funds - 83%Forest Renewal Program \$1,000,000Other funds - 80%State Forests\$2,900,000Other funds - 99%Forest Health Program\$640,000Federal funds - 100%Urban Forestry Program\$440,000Federal funds - 50%

### Charge 1: Provide forest management assistance to landowners



Section 48-23-295
Forestry services to landowners
Scientific, technical, practical

### Charge 1: Provide forest management assistance to landowners

#### SCFC foresters:

- assess the condition of a landowner's forested areas
- determine the landowner's objectives
- develop a forest management plan
- help landowners implement the plan



### Charge 1: Provide forest management assistance to landowners

#### Refer to other professionals

- Consulting foresters
- Wildlife biologists
- Soil scientists



### Charge 1: Provide forest management assistance to landowners

Section 48-23-86 – duties with respect to forest disasters

- SCFC foresters assist with storm recovery
  - Damage assessment
  - Timber salvage
  - Recovery assistance



## **Charge 2: Administer the Forest Stewardship Program**

Section 48-23-90 General duties of the Commission

Cooperate with federal government



## **Charge 2: Administer the Forest Stewardship Program**

- Partnership US Forest Service, SCFC, other organizations, forest industry and private forestry consultants
- Develop comprehensive forest management plans
- Incentives for consulting foresters to write plans in high-priority areas



## **Charge 3: Administer cost-share programs**

- Cost-share programs help defray cost of forestry practices
- Incentivize landowners to actively manage their lands, which results in:
  - economic and environmental productivity
  - continued, enhanced ecosystem services
  - sustained production of forest products
  - less conversion to other purposes, particularly development

## **Charge 3: Administer cost-share programs**

Forest Renewal Program (FRP)

Title 48 Environmental Protection and Conservation Chapter 28 Forest Renewal Practices

**Chapter 30 Primary Forest Product Assessment** 



## **Charge 3: Administer cost-share programs**

#### Forest Renewal Program (FRP)

- State program 40% of cost
- 4:1 match from forest industry
- 1-year backlog
- Over 9,400 applicants
- Nearly 400,000 acres



## **Charge 3: Administer cost-share programs**

#### Southern Pine Beetle Prevention Program (SPB)

- Federal program 50% of cost
- USFS funding
- 1-year backlog
- Over 1,400 applicants
- Nearly 60,000 acres



### **Charge 3: Administer cost-share programs**



#### **Environmental Quality Incentives Program (EQIP)**

- Federal program NRCS 75-90%
- SCFC writes plans
- Many practices

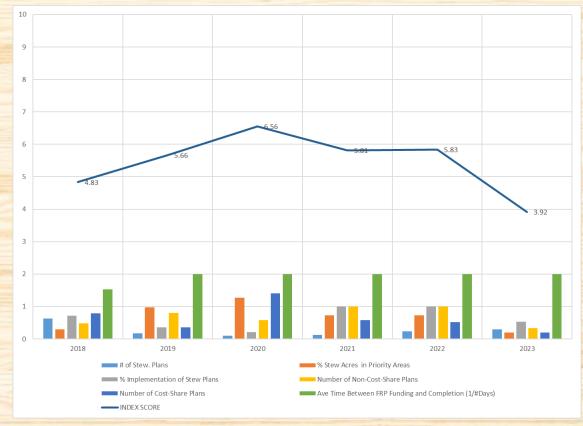
## **Charge 3: Administer cost-share programs**



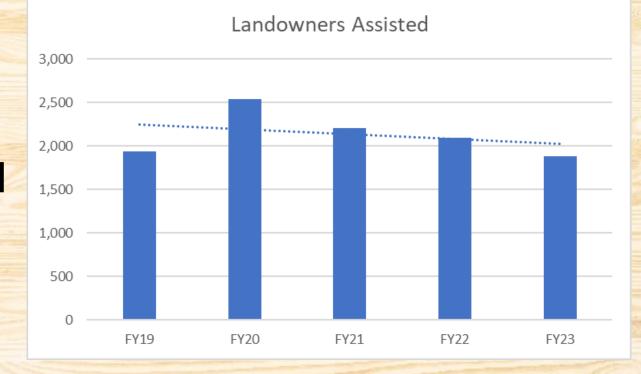
#### **Conservation Reserve Program** (CRP)

- Federal program FSA 50-90%
- Rental payments
- SCFC writes plans
- Limited enrollment

#### Program Metrics – Landowner Assistance Index



### Program Metrics – Landowners Assisted



#### Program Metrics – Landowner Satisfaction



## Challenges

#### Landowner Assistance

- Meeting forest management plan goals
  - Forester recruitment and retention FY24 funding improved compensation, but still have vacancies
  - Working with partners on outreach

### **Charge 4: Provide forestry services and equipment rental**



#### Section 48-23-295 Forestry services to landowners

Firebreak plowing

### **Charge 4: Provide forestry services and equipment rental**



Water bar construction

### **Charge 4: Provide forestry services and equipment rental**



Equipment extraction

## **Charge 4: Provide forestry services and equipment rental**



Prescribed burning

### **Charge 4: Provide forestry services and equipment rental**

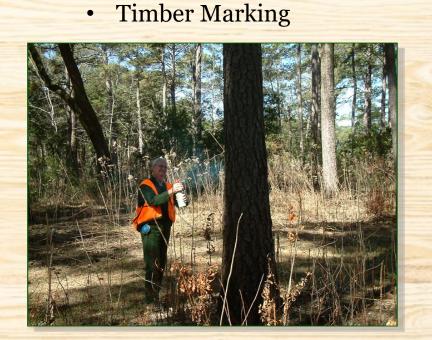


Standby for prescribed burning

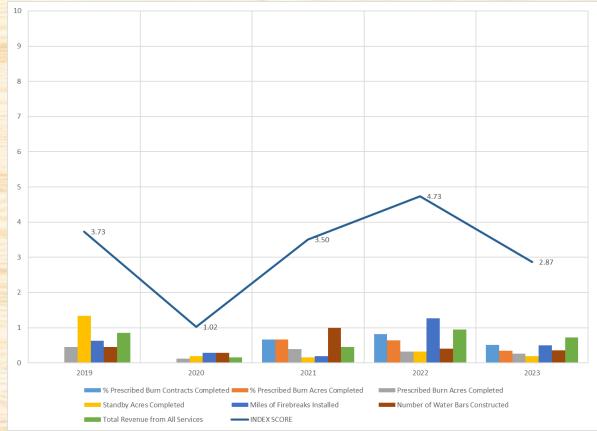
### **Charge 4: Provide forestry services and equipment rental**

Equipment Rental





### Program Metrics – Landowner Services Index



## Challenges

#### **Forestry Services**

Meeting targets for prescribed burning

- FMO and forester vacancies FY24 funding improved compensation, but still have vacancies
- Providing prescribed burning training for private landowners – CPFM, Learn to Burn, PBAs
- Hiring Prescribed Fire Coordinator



### **Charge 5: Monitor and address forest health issues**

Section 48-23-295 Forestry services to landowners

Scientific, technical, practical



### **Charge 5: Monitor and address forest health issues**

- Insect & Disease staff handle a variety of issues.
  - SCFC foresters and landowners report forest pests
  - I&D personnel examine tissue samples
  - Staff carry out aerial surveys



### **Charge 5: Monitor and address forest health issues**

Southern Pine Beetle (SPB) – SC's most destructive insect pest - last outbreak (1999-2003) - over \$300 million loss of pine timber

SCFC's strategies:

- Monitor SPB population through pheromone trapping.
- Outreach/training for landowners and foresters
- SPB cost-share program



### **Charge 5: Monitor and address forest health issues**

Forest Health staff help control invasive species



Cogongrass

### **Charge 5: Monitor and address forest health issues**

Forest Health staff help control invasive species



**Emerald Ash Borer** 



### **Charge 5: Monitor and address forest health issues**

Forest Health staff help control invasive species



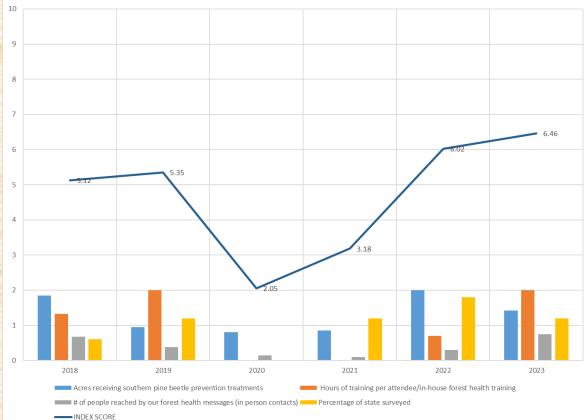


### **Charge 5: Monitor and address forest health issues**



- Forest health staff also assist:
  - Christmas tree growers
  - forest tree seedling nurseries
  - seed orchards
  - municipalities

### Program Metrics – Forest Health Index



## Challenges

#### **Forest Health**

- Funds to increase surveillance for forest health concerns
  - Southern pine beetle
  - Invasive species



### **Charge 6: Provide urban & community forestry services**



#### Section 48-23-90 General duties of the Commission

Cooperate with federal government

## **Charge 6: Provide urban & community forestry services**



- SCFC urban foresters help with:
  - Urban forest inventories and management plans
  - Tree ordinances
  - Grant project implementation
  - Tree City USA program
  - Tree selection, installation and care

### **Charge 6: Provide urban & community forestry services**



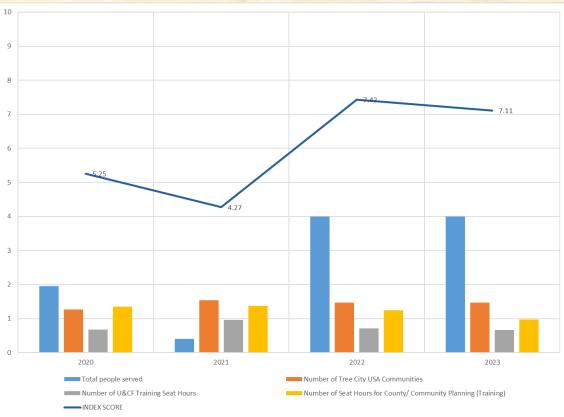
- SCFC partners with communities to incorporate "green infrastructure" in their planning for future growth
- Statewide Green Infrastructure Plan

### **Charge 6: Provide urban & community forestry services**

- Urban and forest management is critical for healthy and sustainable living
- Urban forests provide multiple benefits:
  - Carbon sequestration
  - Stormwater mitigation
  - Reduced cooling costs
  - Higher home values
  - Air and noise filtration



### Program Metrics – Community Forestry Index

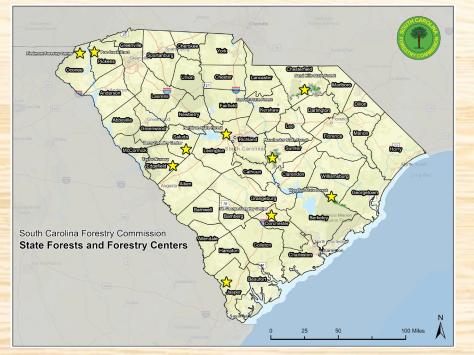


## Challenges

#### **Urban Forestry**

• Unable to recruit a registered forester for Pee Dee Urban Forester, so removed this requirement. FY24 funding improved compensation, which should help with future recruitment as well as retention of current staff.

### **Charge 7: Manage state forests and other SCFC landholdings**



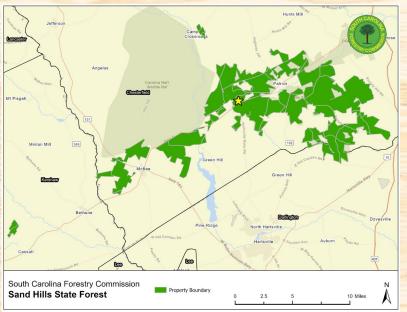
48-23-70, 200 - unlawful acts; penalties 48-23-80, 120, 130 - acquire land et.al. 48-23-132 – use of funds generated on state forests 48-23-160 - sell or lease lands 48-23-260 - Sharing state forest land revenues with counties

### **Charge 7: Manage state forests and other SCFC landholdings**

- Our state forests practice principles of high-quality multiple-use and sustained-yield forest management
  - Fish and wildlife habitat enhancement
  - Air, water, and soil quality
  - forest product sales (timber, pine straw, etc.)
  - recreation
  - aesthetic beauty
  - Scientific research
  - demonstration



## **Charge 7: Manage state forests and other SCFC landholdings**



Sand Hills State Forest - 46,572 acres

- Established in 1939, Title in 1991
- **Chesterfield and Darlington Counties**
- Endangered red-cockaded woodpeckers (RCW)
- Timber and pine straw sales
- Recreation hunting, fishing, horseback riding, hiking, camping (30 miles of equestrian trails)

## **Charge 7: Manage state forests and other SCFC landholdings**



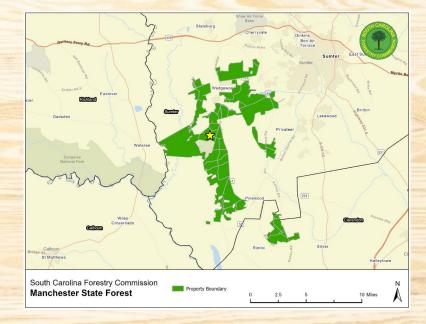
Sand Hills State Forest - 46,572 acres

- Established in 1939, Title in 1991
- Chesterfield and Darlington Counties
- Endangered red-cockaded woodpeckers (RCW)
- Timber and pine straw sales
- Recreation hunting, fishing, horseback riding, hiking, camping (30 miles of equestrian trails)

### **Charge 7: Manage state forests and other SCFC landholdings**

Manchester State Forest – 29,830 acres

- Established in 1939, Title in 1955
- Sumter and Clarendon Counties
- Habitat for red-cockaded woodpeckers
- Timber and pine straw sales
- Recreation: hunting, fishing, horseback riding, hiking, mountain biking, ATV/dirt bike use (67 miles of trails), three sections of the Palmetto Trail



## **Charge 7: Manage state forests and other SCFC landholdings**

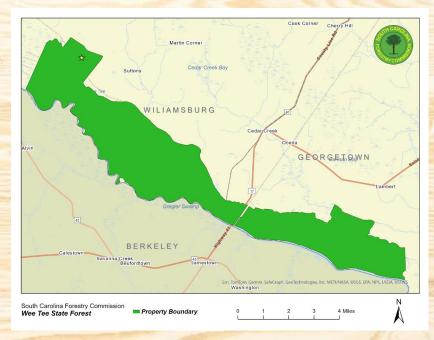
#### Manchester State Forest – 29,830 acres

- Established 1939, Title in 1955
- Sumter and Clarendon Counties
- Habitat for red-cockaded woodpeckers
- Timber and pine straw sales
- Recreation: hunting, fishing, horseback riding, hiking, mountain biking, ATV/dirt bike use (67 miles of trails), three sections of Palmetto Trail



### **Charge 7: Manage state forests and other SCFC landholdings**

- Established in 2003 12,394 acres
- Williamsburg and Georgetown Counties
- Significant additions in 2022 and 2023
- Habitat for a variety of migratory bird species
- Infrequent timber sales
- Recreation: hunting, fishing



### **Charge 7: Manage state forests and other SCFC landholdings**

- Established in 2003 12,394 acres
- Williamsburg and Georgetown Counties
- Significant additions in 2022 and 2023
- Habitat for a variety of migratory bird species
- Infrequent timber sales
- Recreation: hunting, fishing



## **Charge 7: Manage state forests and other SCFC landholdings**

- Access challenges bridges
- Agency received \$4.5 million (non-recurring) in FY23
- Replaced one bridge in 2023
- Two additional bridges scheduled for replacement in 2024
- FInal two bridges scheduled for replacement in 2025



### **Charge 7: Manage state forests and other SCFC landholdings**

- Access challenges bridges
- Agency received \$4.5 million (nonrecurring) in FY23
- Replaced one bridge in 2023
- Two additional bridges scheduled for replacement in 2024



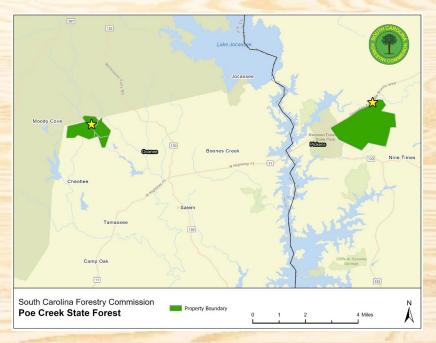
### **Charge 7: Manage state forests and other SCFC landholdings**

#### Piedmont Forestry Center – 700 acres

- Purchased in 1969
- Oconee County
- Nursery

#### Poe Creek State Forest - 1,808 acres

- Purchased in 2000
- Pickens County
- Recreation: hunting, fishing, hiking



### **Charge 7: Manage state forests and other SCFC landholdings**

#### Piedmont Forestry Center – 720 acres

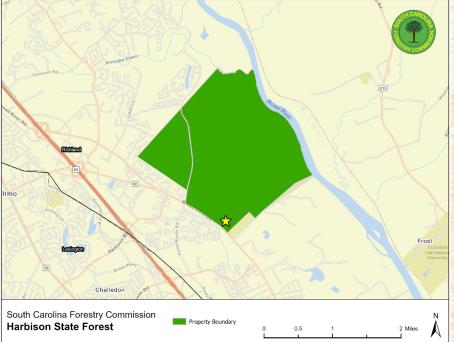
- Established in 1969
- Oconee County
- Nursery

#### Poe Creek State Forest – 1,808 acres

- Established in 2000
- Pickens County
- Recreation: hunting, fishing, hiking



### **Charge 7: Manage state forests and other SCFC landholdings**



#### Harbison State Forest – 2,176 acres

- Purchased in 1945
- Columbia/Richland County
- One of largest greenspaces in city limits
- Environmental Education Center
- Recreation: mountain biking, hiking, running, scout camping (30 miles of trails)

## **Charge 7: Manage state forests and other SCFC landholdings**



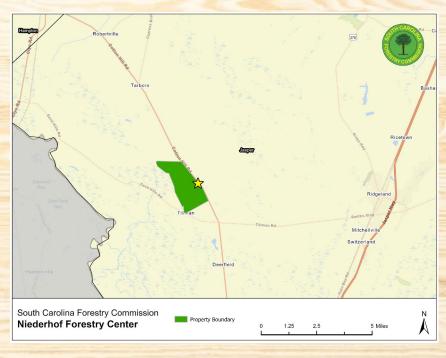
#### Harbison State Forest – 2,176 acres

- Established in 1945
- Columbia/Richland County
- One of largest greenspaces in city limits
- Environmental Education Center
- Recreation: mountain biking, hiking, running, scout camping (30 miles of trails)

### **Charge 7: Manage state forests and other SCFC landholdings**

#### Niederhof Forestry Center- 1,596 acres

- Established in 1983
- Jasper County
- Seed orchards and cone processing facility
- Recreation: specialty hunts



### **Charge 7: Manage state forests and other SCFC landholdings**

#### Niederhof Forestry Center- 1,596 acres

- Established in 1983
- Jasper County
- Seed orchards and cone processing facility
- Recreation: specialty hunts



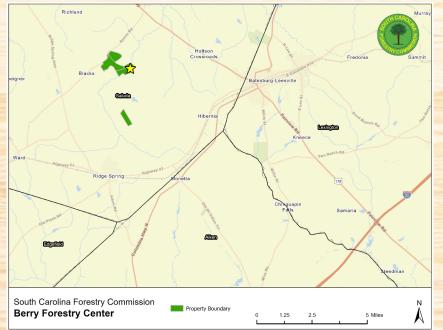
### **Charge 7: Manage state forests and other SCFC landholdings**

#### Niederhof Forestry Center- 1,596 acres

- Established in 1983
- Jasper County
- Seed orchards and cone processing facility
- Recreation: specialty hunts



### **Charge 7: Manage state forests and other SCFC landholdings**



#### Berry Forestry Center - 567 acres

- Established in 2021
- Saluda County
- Donated by Eugene Berry

### **Charge 7: Manage state forests and other SCFC landholdings**



#### Berry Forestry Center - 567 acres

- Established in 2021
- Saluda County
- Donated by Eugene Berry

CERTIFIED

### **Charge 7: Manage state forests and other SCFC landholdings**

FO

#### State Forests are third-party certified

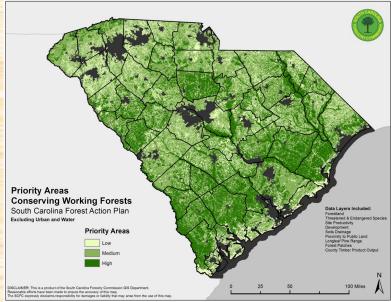


### **Charge 7: Manage state forests and other SCFC landholdings**

#### **Land Acquisitions**

What are we looking for?

- Inholdings and adjacent Lands
- Priority Forest Lands
- New State Forest
   Who are we working with?
- SC Conservation Bank
- State Conservation Agencies
- SC Land Trusts and Other Conservation Groups



as:

#### **Charge 8: Provide forestry/expertise to other agencies**

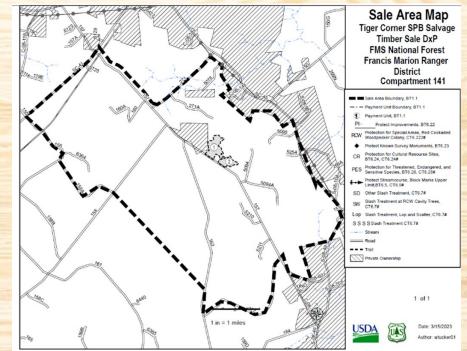
SCFC provides forest management assistance to other state and federal agencies such

<image>

#### **Charge 8: Provide forestry/expertise to other agencies**

#### **Good Neighbor Authority**

- Master Agreement
- Supplemental Agreement Francis Marion NF
  - Timber sales
  - Tree planting
  - SPB salvage
  - Road Work



Public Lands Management Index 10 8.75 9 8.53 8.35 8 7.60 7 6.13 6 5 4 3 2 1 2020 2019 2021 2022 2023 Net Annual Carryover Net Cumulative Carryover % of Harvested Acres Goal Attained Acres of Pinestraw Sold Mof T&E (Active RCW Clusters) Growth Attained Cher Public Lands Consultation Response Rate 

Program Metrics State Forests / State Lands

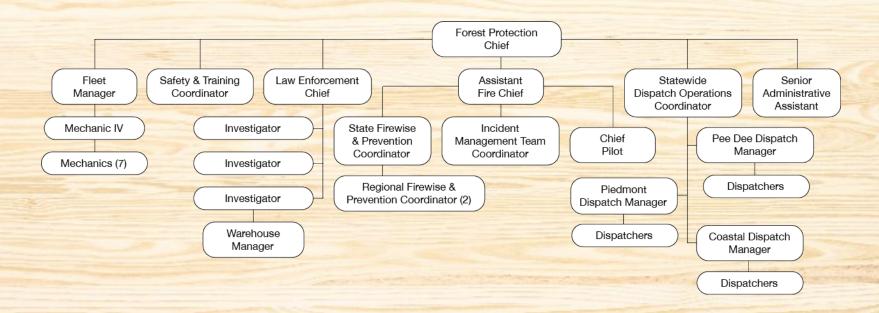
#### Challenges

#### State Forests/State Lands

- Attaining strategic plan goals for state forests
  - Forest technician vacancies agency recently reclassified and adjusted salaries for these positions, which should improve recruitment and retention
  - Forest markets drive revenue we make effort to sell products at the most opportune times



#### **Organizational chart**





### Charges

- 1. Respond to wildfires
- 2. Prevent wildfires / decrease wildfire risk
- 3. Document and authorize burning notifications
- 4. Enforce forest laws; investigate wildfires and forestrelated crimes
- 5. Educate public about prescribed burning and smoke management guidelines
- 6. Respond to disasters
- 7. Administer federal property and assistance programs





#### **Statutes**

Section 48-23-90: General Duties of Commission

- Prevent, control and extinguish fires
- Enforce forest laws

Sections 48-23 95 through 97: Forest Law Enforcement



### Statutes: SC Code of Laws Title 48

**Chapter 33: Forest Fire Protection Act** 

- Definitions of forest land/forest fire
- SCFC shall direct forest fire protection work
   Chapter 34: Prescribed Fire Act
   Chapter 35: Regulation of fires on certain lands
   Chapter 37: Southeastern Interstate Forest Fire Protection
   Compact



### **Links to SCFC Strategic Plan**

Goal 2: Protect Forests From Harm

- Strategy 1
  - Ensure prompt and effective response to wildfires and other disasters in an increasingly complex environment
- Strategy 2
  - Develop and deliver innovative prevention programs that reduce wildfire risks to forests and communities
- Strategy 3
  - Deliver law enforcement services to reduce wildfire risks, illegal dumping, and forest product theft and fraud



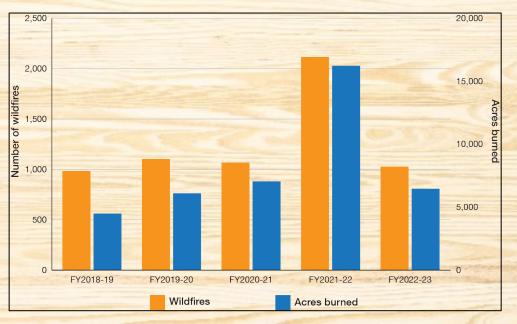
- SCFC is the lead agency for wildfire suppression on 13+ million acres of forested and agricultural land in South Carolina, using highly trained wildland firefighters with specialized equipment and techniques.
- In cooperation with local fire departments, the SCFC suppresses approximately 2,000 fires annually.





#### Facts, figures and charts – Wildfires

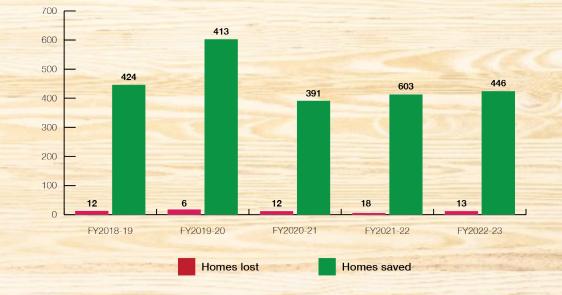
- In FY 23, the SCFC responded to 1,050 wildfires that burned 6,920 acres
- Wildfire occurrence varies over time and is directly tied to seasonal weather patterns, drought, and frontal passages
- Peak wildfire occurrence is February-April, but wildfire occur year round





#### Facts, figures and charts – Wildfires

- Many homes are in areas with high risk from wildfires
- Home losses to wildfires varies widely due to weather, fuel conditions, and topography
- SCFC firefighters are trained to protect lives and homes first
- The Highway 31 Fire in 2009 destroyed 76 homes and significantly damaged an additional 97 homes



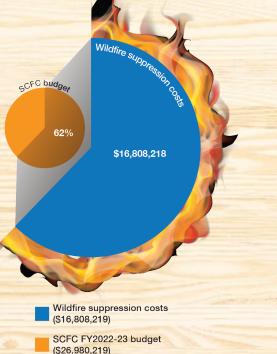


### Facts, figures and charts – Wildfires (FY23)

- 1,050 wildfires / 6,920 acres burned
- No. 1 cause of wildfires: escaped debris burns (56%)
- Escaped backyard debris burns and Incendiary (arson) have been the top causes consistently over time

ightning	1%
Campfire	1%
Smoking	1%
Railroad	1%
Children	1%
ireworks	1%
Structure	1%
Power line	5%
Equipment use	5%
<b>Aiscellaneous</b>	9%
ncendiary	14%
Debris burning	59%
	Campfire Smoking Railroad Children Fireworks Structure Power line Equipment use Miscellaneous Incendiary

### **FOREST PROTECTION** Wildire Suppression Funding (FY23)



State	Federal	(
	i ouorui	

Other

KH LARO



### **Charge 1: Respond to wildfires**

#### How we fight wildfires

- The primary tool to create firebreaks is a tractor plow unit, consisting of a modified bulldozer equipped with a fire plow and blade. These units allow firefighters to rapidly create firebreaks near the fire, while protecting the firefighter from direct contact with the heat and flames.
- In mountainous areas where tractor plow units cannot operate, crews of firefighters use hand tools such as fire rakes, pulaskis and shovels to construct firebreaks.
- SCFC has used grant funds to purchase Bambi Buckets to equip helicopters owned by the SC Army National Guard, SLED, and Greenville County Sheriffs Office







- The SCFC maintains a fleet of 160 specialized bulldozers as our frontline units
- Other tools are:
  - Wildland fire engines
  - Hand tools
  - Chainsaws
  - Portable pumps
  - Firetracks
- Wildfire suppression organization grows as a fire gets larger or increases in complexity
- SCFC Firefighters are trained to meet national standards for wildland fire





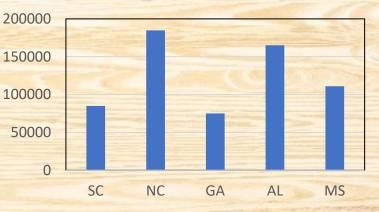




### **Charge 1: Respond to wildfires**

- When fully staffed, the SCFC has 160 frontline firefighters that operate our fleet of firefighting dozers
- If fully staffed and trained with 100% on duty, each unit is responsible for protecting 85,000 acres of forest and agriculture lands
  - Vacancies increase coverage area per unit and extend travel times
  - Trainee firefighters cannot respond to fires alone
  - Many fire require more than one dozer to ensure safety for firefighters and to reach containment sooner, further impacting travel times

#### Acres Protected Per Frontline Dozer Unit



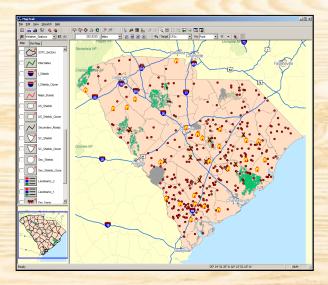


- Wildfire response is initiated by dispatchers using a computer-aided dispatch system via a statewide radio network
- Regional dispatch centers operate daily to manage call volume
- Dispatch identifies the closest available unit to respond to wildfires or other calls for service
- Dispatch system helps dispatchers track resources and capture fire size-up, containment progress, and creates fire reports





- Pee Dee Dispatch (Florence) operates 24/7, taking over the whole state at night
- Dispatchers answer more than 300,000 calls each year, including wildfire reports, smoke complaints, LE requests, and burn notifications
- Most notifications occur in the morning; most wildfires are reported between 1-5 PM, after fuels dry and winds increase
- Current staffing:
  - 29 FTEs (3 vacancies)
  - 7 Temporary positions (4 vacant)



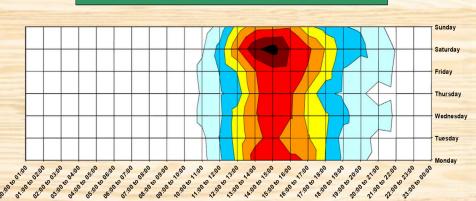


50-75

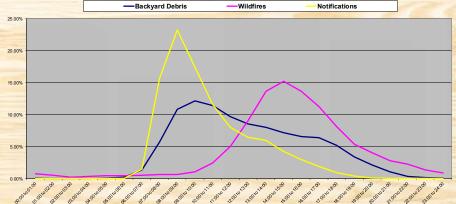
### **Charge 1: Respond to wildfires**

#### Wildfires, By Time & Day Of Week

100-125



#### Percentage of Calls Received by Hour





### **Charge 1: Respond to wildfires**

SCFC maintains 10 fixed-wing aircraft

- All are on loan from the USFS
- 2 full-time pilots and two vacant FTEs plus 9 hourly pilots
- Aircraft help locate fires in remote areas
- Once a fire is located, aircraft enhance safety for firefighters on the ground- "eye in the sky"
  - Watch for obstacles or locate ingress/egress routes
  - Monitor fire behavior and weather
  - Often fly at very low levels and during challenging flight conditions





### **Charge 1: Respond to wildfires**

#### Air operations

- Aircraft support other SCFC and state missions
  - Assist DPS during full coastal evacuations by providing overflight of assigned routes
  - Search and Rescue missions
  - Flights to support Forest Health and Water Quality
- In FY 23, SCFC aircraft flew 231 missions for 534.5 hours

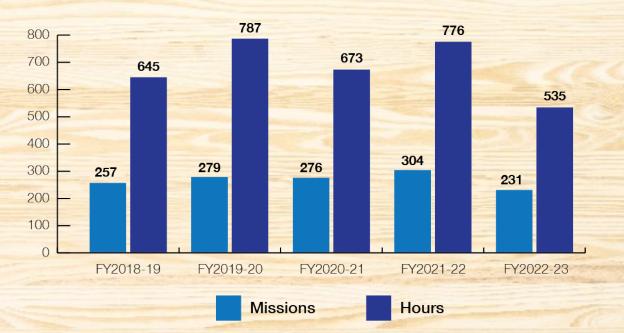




### **Charge 1: Respond to wildfires**

#### Air operations

- Flights for fire detection and to support wildfire suppression are scheduled based on fire weather
- Detection flights are focused on rural and remote areas where fires may not be easily seen from roads





#### **Charge 1: Respond to wildfires**

#### **Repair Shops**

- SCFC maintains a network of 5 repair shops, staffed with 8 mechanics
- Mechanics are highly mobile and perform field repairs when breakdowns happen during wildfire suppression
- Complex repairs and routine maintenance are completed in shops

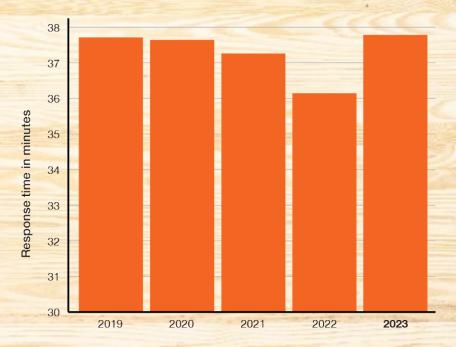




#### **Charge 1: Respond to wildfires**

#### **Links to SCFC Strategic Plan**

- Average Wildfire Response Time
  - For FY 23, the average wildfire response time was 37.84 minutes
  - The desired wildfire response time is 38 minutes



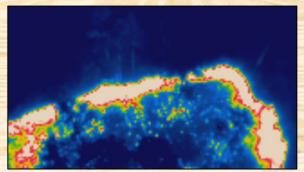


### **Charge 1: Respond to wildfires**

**UAS Program** 

- SCFC is scaling up drone program
  - Currently there are 10 FAA certified drone pilots (10 additional in training) and 21 drones
  - Most drones have thermal cameras to identify heat sources and provide intelligence during fire suppression
  - SCFC has two drones with the capability to ignite burnouts and prescribed burns
  - Drones are also used for mapping, forest health assessments, and tower inspections







### **Charge 1: Respond to wildfires**

Training & Safety The safety of our employees is a core priority for the SCFC

#### • Training demand is high:

- National Wildland Fire Coordinating Group training for firefighters
- SCFC Basic Firefighting
   School
- Defensive Driver Training
- CPR/First Aid
- IT Security
- CDL training
- CPFM

- Incident Management Team courses
- Administrative
   professionals training
- Continuing education for foresters
- In-service LE training
- Forest Technician training





### **Charge 1: Respond to wildfires**

Training & Safety

- Agency currently has one Training & Safety Manager
  - Chair of SCFC Safety Committee
  - Maintains training records
  - Coordinates training for all agency employees
  - Maintains training records for agency Law Enforcement Officers and facilitates training with the Criminal Justice Academy
  - Leads investigations into accidents and near misses
  - Administers SCFC Physical Fitness Program





### **Charge 1: Respond to wildfires**

Training & Safety

- SCFC Physical Fitness Program
  - Instituted in 2004
  - Goal is to improve firefighter health, increase fitness for duty, and reduce injuries
  - Employees hired after 7/1/2004 in fireline positions are required to participate annually in the moderate level work capacity test, developed by the USDA Forest Service
  - Requires medical screening
  - SCFC Standard: Walk 2 miles in 30 minutes carrying a 25pound weight vest
    - Medical exemption available





- SCFC Firefighters can respond to assist other state forestry agencies or federal agencies if our wildfire activity allows
- These assignments provide valuable experience and are an incredible learning tool
  - Exposure to different fire behavior
  - Experience on larger wildfires
  - Direct application of the Incident Command System
  - Opportunities to serve as trainees and progress to higher wildland firefighting qualifications





- Southeastern Interstate Forest Fire Protection Compact (Title 48, Chapter 37)
- The purpose of this compact is to promote effective prevention and control of forest fires in the southeastern region of the United States by the development of integrated forest fire plans, by the maintenance of adequate forest fire fighting services by the member states, by providing for mutual aid in fighting forest fires among the compacting states of the region and with states which are party to other regional forest fire protection compacts or agreements, and for more adequate forest protection.





- Southeastern Compact
  - Compact states request assistance
  - SCFC mobilizes personnel & equipment to assist if our fire situation allows
    - Equipment rates are updated every December
    - Personnel receive their normal pay for the first 40 hours a week, and upon their return, the SCFC invoices the receiving state for the equipment costs, base pay, and overtime (1.5 time the normal hourly rate)



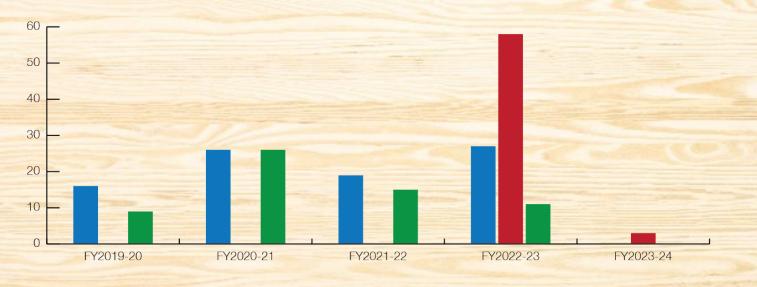


- Mobilizations to Federal Wildfires
  - Master Cooperative Agreement between SCFC and Federal Wildfire Agencies
    - Allows mobilization of SCFC firefighters that meet all federal training & physical fitness requirements to support wildfires under federal jurisdiction
    - Firefighters can mobilize as agency employees (same as compact) OR take annual leave and become temporary emergency firefighters





#### **Charge 1: Respond to wildfires**



Southern Compact

Reimbursement

Administrative Determination (A/D)



#### **Charge 2: Prevent wildfires and Reduce Risk**

- Fire prevention staff identify communities with significant wildfire risk (via SouthWRAP) and work with community leaders and fire departments to create Community Wildfire Protection Plans designed to reduce wildfire risk
- Communities that develop plans can receive recognition as Firewise Communities USA and become eligible to receive USDA grant funds to implement fuels reduction or other projects





### **Charge 2: Prevent wildfires and Reduce Risk**

- Agency firefighters conduct statewide and local fire prevention efforts to promote safe outdoor burning and raise awareness of wildfire risk
- Efforts include media campaigns, public events, direct contact with burners, and training/joint efforts with local fire departments

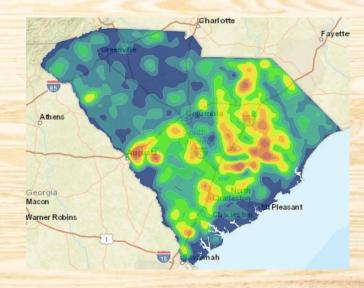






#### **Charge 2: Prevent wildfires**

- Enforcement of Outdoor burning laws is a primary tool used to reduce careless debris burns, the #1 cause of wildfires in the state
- In addition to Fire Management Officers enforcing these laws as they investigate wildfires, fire prevention is targeted using GIS and fire occurrence data
- USFS study determined that for every \$1 spent on wildfire prevention, \$35 in suppression cost is saved

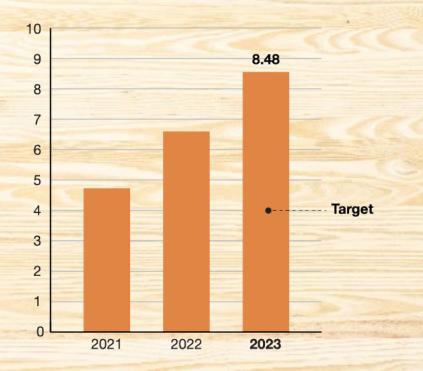




#### **Links to SCFC Strategic Plan**

#### Wildfire Prevention Index

- Target value for this index in FY 23 was 4.0
- Actual value was 8.48, largely driven by the success of the Cancel Wildfires SC campaign





#### **Charge 3: Document and authorize burning notifications**

State law requires that citizens who live outside of city/town limits notify the Forestry Commission before burning outdoors.

There are three types of outdoor burns for which the Forestry Commission takes notifications:

- Residential yard debris burns
- Forestry, wildlife and agricultural burns (also known as prescribed, or controlled, burns)
- Construction-related/land-clearing burns



# FORRES ALCOMME

### FOREST PROTECTION

#### **Charge 3: Document and authorize burning notifications**

- Automated phone system captures notifications for residential debris burns and construction-related/land clearing burns
  - Toll-free numbers provided for each county
  - Online notification system was added to website recently
- Messages provided as notifications are made remind burners of the requirements (Title 48, Chapter 35)
  - Notification made to the SCFC
  - Firebreak around burn
  - Equipment available to secure the fire and prevent spread
  - Burner should personally supervise burn





#### **Charge 3: Document burning notifications (exceptions)**

- In 2021, the South Carolina Forestry Commission sought a change in the state law governing the kinds of fires for which citizens in unincorporated areas must make notification.
- The change to the "notification & precautions law," as it is commonly called, specifies that fires in grills, portable outdoor fireplaces, permanent fire pits and chimineas are exempt from the notification rules (SC 48-35-55).
- Ability to issue warning tickets was also added





#### **Charge 3: Document burning notifications**

#### Who has jurisdiction over a burn?

- Purpose of the burn determines which rules apply
  - Campfires, recreational fires, and fire for cooking or warmth do not require notification to the SCFC
  - Notification to the SCFC is required for all outdoor burns in unincorporated areas (48-35-10).
  - Burns conducted for land clearing (development, housing) fall under DHEC Regulations (Regulation 61-62.2)





#### **Charge 3: Document burning notifications**

- Burns conducted for forestry, wildlife, and agriculture purposes require notification to SCFC Dispatch
  - Hazardous Fuel Reduction
  - Wildlife Management
  - Hardwood Control
  - Site Preparation
  - Insect/Disease Control
  - Agriculture



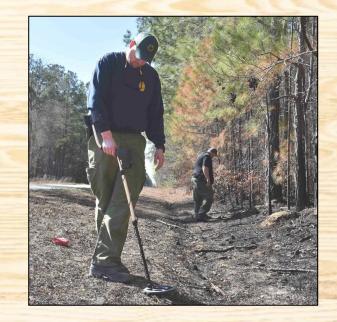
#### **EARCE ST PROTECTION** Charge 3: Document burning notifications

- Dispatchers take notifications for prescribed burns via phone to assess appropriate weather conditions, fuel loads, smoke-sensitive areas, and issue an authorization number for burns that comply with Smoke Management Guidelines
  - Location
  - Acres to be burned
  - Tons of fuel to be burned
  - Distance to nearest Smoke Sensitive
     Area
  - Start time
  - Contact information



#### 

- SCFC's enabling legislation provided for burning and timber-related law enforcement functions to safeguard the state's valuable natural resources and the health and property of citizens:
  - Arson; careless, negligent outdoor burning; notifications & precautions violations
  - Timber theft/fraud; mill ticket/contract disputes, other forest product theft
  - Enforcement of game & fish laws on State Forests



#### **EOREST PROTECTION** Charge 4: Enforce forest laws & investigate wildfires, crimes

- Other LE duties:
  - Provide officers to assist with coastal evacuations for hurricanes and security missions after natural disasters to support SLED and DPS
  - Assist other LE agencies
    - Complex arson cases
    - Litter enforcement
    - Search and rescue missions
    - Marijuana eradication efforts



#### **EOREST PROTECTION** Charge 4: Enforce forest laws & investigate wildfires, crimes

	FY2019	FY2020	FY2021	FY2022	FY2023
Fire Cases Prosecuted	43	74	49	90	35
State Forest Violations Prosecuted	12	11	17	4	54
Miscellaneous Violations Prosecuted	5	10	15	8	7
Game & Fish Violations Prosecuted	11	14	18	4	104
Warning Tickets Issued	n/a	n/a	n/a	214	141
Fire Investigations Conducted	223	381	259	436	319
Timber Investigations	112	122	109	98	124

# **EXAMPLE 1 EVALUATE: Charge 4: Enforce forest laws & investigate wildfires, crimes Timber Theft and Fraud Investigations**

	Timber theft cases investigated	Landowner losses	Value recovered	% Value recovered
FY2018-19	112	349,116	272,313	78
FY2019-20	122	495,793	239,215	48
FY2020-21	109	451,763	376,879	83
FY2021-22	98	211,949	159,415	75
FY2022-23	124	676,722	324,040	47

- SCFC fire staff work with SCDHEC to administer South Carolina's Smoke Management Guidelines for Vegetative Debris Burning Operations
- These regulations allow land managers to use prescribed burning as a tool to:
  - manage the accumulation of fuel that contributes to wildfires
  - maintain wildlife habitat
  - prepare sites for reforestation
  - facilitate agricultural plantings



- SCFC actively promotes prescribed burning as one of the best forest management tools and fuel management techniques
- SC Prescribed Fire Act (SC 48-34-10) established Certified Prescribed Fire Management (CPFM) program to provide certified burners liability protection
- SCFC provides CPFM training at least 4 times each year
- SCFC personnel work with partner agencies to provide "Learn To Burn" events for forest landowners



# FOR THE CAROLINE NO

### FOREST PROTECTION

- Certified Prescribed Fire Manager Program
  - Overview of state laws related to fire, burning, and smoke
  - Prescribed fire planning
  - Overview of liability concerns when burning
  - Fire weather considerations
  - Burning techniques



#### 

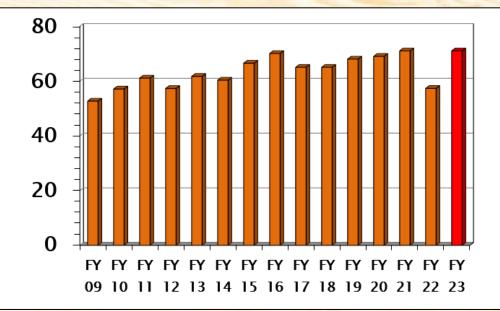
- To become a Certified Prescribed Fire Manager, burners must:
  - Attend CPFM course (one-day with precourse work)
  - Pass written Exam
  - Conduct 5 successful prescribed burns in SC after passing the course
  - Submit documentation to the SCFC
  - SCFC issues a CPFM Number
  - Currently there are 2,122 Certified Burners in SC





#### **Charge 5: Public education: Rx burning/smoke management**

- Last year, Certified
   Burners supervised more than 70% of the acres
   treated with prescribed
   fire in SC
- CPFM trained burners understand the laws & regulations and have more experience

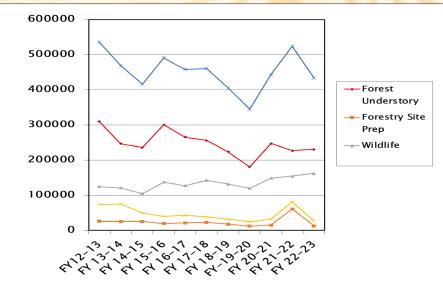


Percent Of Acres Burned By CPFM



#### Charge 5: Public education: Rx burning/smoke management

- Between 4-500,000 acres are prescribed burn annually in SC
- SCFC analysis estimated that burning 1.2 million acres a year would maintain reasonable fuel levels, wildlife habitat, and ecological function
- EPA changes to air quality standards to protect public health may reduce the number of good burning days

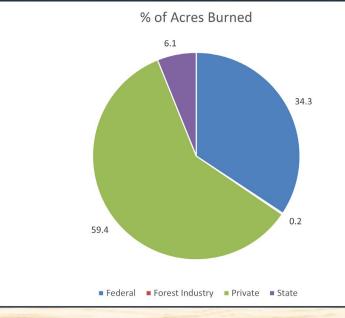


Acres Prescribed Burned by FY, FY 13-FY 23



#### **Charge 5: Public education: Rx burning/smoke management**

- Most of the acres burned in SC annually are completed by private landowners on their own land
- "Learn To Burn" events help teach new burners basic burn planning, burning techniques, and fire effects
- CPFM course improves knowledge of laws & regulations with a focus on smoke management
- Certified burners, on average, burn

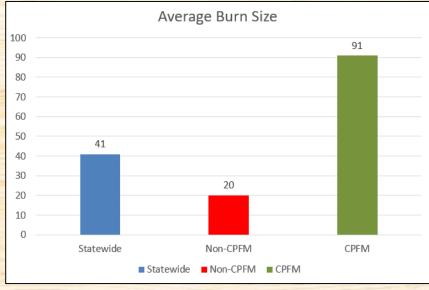


Percent Of Acres Burned By Landowner Type



#### **Charge 5: Public education: Rx burning/smoke management**

- CPFM course improves knowledge of laws & regulations with a focus on smoke management and provides increased liability protection
- Certified burners, on average, burn 4 times as many acres at a time as non-CPFM burners
- Increase private landowner participation in CPFM course is key to increasing acres burned annually



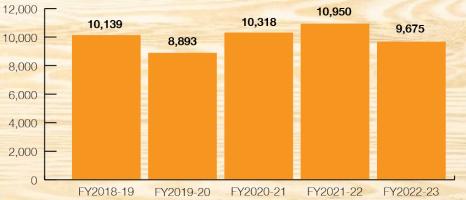
Average Burn Size

- As the agency with authority to regulate air quality, DHEC sets limits on smoke production daily, based on atmospheric conditions. SCFC uses these limits and the Smoke Management Guidelines to authorize prescribed fires through our Dispatch Centers
- In FY 23, the SCFC Dispatch received 9,675 notifications for forestry, wildlife, and agriculture burns



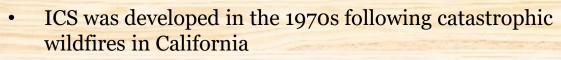


- As the agency with authority to regulate air quality, DHEC sets limits on smoke 12, production daily, based on atmospheric 10, conditions 8,
- SCFC uses these limits and the Smoke Management Guidelines to authorize prescribed fires through our Dispatch Centers



#### **FOREST PROTECTION** Charge 6: Respond to natural disasters

- SCFC manages the only Type II Incident Management Team (IMT) in the state, with dozens of agency personnel filling the full spectrum of Incident Command System (ICS) positions
- Type II IMTs are highly trained teams whose personnel meet the National Wildfire Coordinating Group (NWCG) training and experience requirements for their specific positions

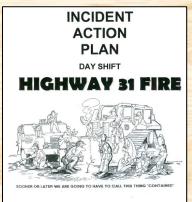




#### **FOREST PROTECTION** Charge 6: Respond to natural disasters

- SCFC IMT was built for wildfire, but is available to organize and manage response to any large disaster
- Team consists of Command and General Staff positions
  - Operations Section
  - Plans Section
  - Logistics Section
  - Finance Section

- Public Information Section
- Liaison Officer
- Safety Officer



Unified Command: SC Forestry Commission Horry County Fire and Rescue

HORRY COUNTY, SC

OPERATIONAL PERIOD 04/28/2009 - 0730-2000

DAY 7

- Team tracks resources assigned, orders resources, develops strategy and tactics, builds a daily plan with assignments, and provides for lodging, meals, fuel, and medical support for responders.
- Daily costs are tracked, maps are produced, and communication plans are created.

#### Charge 6: Respond to natural disasters (cont'd)

- SCFC IMT has deployed to large wildfires and other disasters/exercises:
  - Pinnacle Mountain Fire
  - Highway 31 Fire
  - Hurricane evacuations (I-26 lane reversals)
  - Flooding & housing missions post-hurricane
  - Landfill search (Seeking Neveah)
  - Planned events
- SCFC holds regular training exercises for and continued recruitment efforts among agency employees







#### Charge 6: Respond to natural disasters (cont'd)

- SCFC, with SC State Fire, serves as lead agency for Emergency Support Function 4- Firefighting under the SC Emergency Operations Plan
- Under this plan, SCFC coordinates and mobilizes fire, rescue, and emergency services personnel to respond to wildfire and other disasters
  - SCFC provides debris removal teams, law enforcement assistance, aircraft to support state missions, and the Type II Incident Management Team
  - SCFC Fire Chief is a member of the SC Firefighter Mobilization Committee, the state plan to provide resources to assist any fire department in the state with resources

#### Charge 7: Administer federal property, assistance programs

- In cooperation with USFS, SCFC administers two programs to help fire departments acquire firefighting equipment and vehicles to enhance rural firefighting capacity and response:
  - Federal Excess Personal Property (FEPP) Program
    - Excess property made available on long-term loan
  - Firefighter Property (FFP) Program
    - Excess property issued to fire departments; equipment becomes their property after program requirements met
- FY 23: 287 Fire Departments had 560 items in service under these programs, with a total value of over \$18.6M





#### Charge 7: Administer federal property, assistance programs

- In cooperation with USFS, SCFC administers the Volunteer Fire Assistance (VFA) program, which offers 50/50 matching-fund grants to local fire departments that want to increase their firefighting capacity, especially in the Wildland-Urban Interface (WUI).
  - Competitive, priority-driven application process
  - Fire departments serving rural communities with a population of 10,000 or fewer residents are eligible
- In FY 23, grants for over \$274,875 were awarded to 80 fire departments







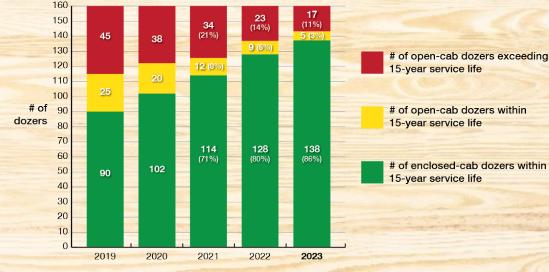
#### Increased Protection For SCFC Firefighters- Environmental Cab Dozers

- With outstanding support from the Legislature, the SCFC begin acquiring environmental cab dozers in 2012
- At the time, the SCFC had no environmental cab dozers, leaving agency firefighters more exposed to smoke, heat, and hazardous conditions



#### Increased Protection For SCFC Firefighters- Environmental Cab Dozers

- With continued support, the SCFC is on track to complete the conversion to all e-cab dozers by the end of FY 25
- Funding will also allow the SCFC to maintain the desired 15-year service life for front line units





#### **Public service and outreach**

#### **Real-time GIS maps on SCFC website**

- Active wildfires map:
  - Location
  - Size
  - Containment status
  - Running annual wildfire stats
- Prescribed burn notifications map:
  - All prescribed burns in the state
  - Acreage
  - Management objective





#### **Public service and outreach**

#### Mobile wildfire app for smartphones

- Push notifications alert users about burning bans, Red Flag fire alerts and other warnings
- Easy-to-use interface lets users:
  - See all the wildfires and prescribed burns in the state
  - See the day's fire weather
  - Watch our videos on how to conduct legal debris burns, including making notification to the Forestry Commission and taking the proper precautions
  - Report a wildfire or arson



#### **Public service and outreach**

#### **Cancel Wildfires SC**



- Very successful fire prevention effort was launched in October 2021
- Stickers, pins, and other items were produced
- USFS grant funds were used to develop and run public service announcements on both radio and TV for 3 months in 2022 and again in 2023
  - Clemson Coach Dabo Swinney and USC Coach Shane Beamer participated
- During 2022, the ads ran 12,377 times on radio and 7,130 times on TV
- Daily posts were created during Fire Prevention Month in October



#### **Notable Successes- Partnerships**

SLED SC National Guard SC EMD National Weather Service Local Fire Departments **USDA Forest Service US Fish & Wildlife Service** National Park Service **Highway Patrol** SC DOT The Nature Conservancy Many other organizations!



#### **Notable Successes**

- Funding provided to purchase environmental cab firefighting dozers that provide greater protection, and on target to have all frontline units upgraded by the end of FY 25
- Funding secured in FY 24 budget to have SEATs (single engine amphibious tankers) on contract for 5 years
- Ability to issue warning tickets has been a great tool



# OUTH CAROLINA NOR

### FOREST PROTECTION

#### **Notable Successes**

- Funding to support employee retention and recruitment for firefighters and law enforcement officers
- SCFC app provides all types of customers with wildfire and prescribed fire information- heavy use by fire departments, media outlets, burners, the general public, and public health officials
- Strong partnerships

SLED SC National Guard SC EMD National Weather Service

Local Fire Departments USDA Forest Service US Fish & Wildlife Service National Park Service Nature Conservancy Highway Patrol SC DOT County Emergency Management



#### Challenges

- Supply chain issues- long lead times for firefighting dozers and transports to arrive
- Turnover
  - frontline firefighters (competition for CDL drivers)
  - dispatchers
- Salary- Pilots, Mechanics, Dispatchers, Law Enforcement Officers
- Safety- need a dedicated staff position focused on safety for firefighters
- UAS Manager- need dedicated position to expand use
- Aviation funding- almost entirely reliant on US Forest Service grants for operations and maintenance

# FOR ALCOMMS

#### **FOREST PROTECTION** Challenges

- Dispatch software challenges- costs and developing new technology
- EPA Changes to air quality rules that will require changes to Smoke Management Guidelines and may limit the use of prescribed fire
- No statewide outdoor burning law related to backyard debris burning in developed areas
  - Notification and Precautions law applies
  - Does not include minimum setbacks from homes, property lines, or roads
  - Multiple counties have passed ordinances related to this, but they are not enforceable by the SCFC
- Increasing Wildland Urban Interface, making fire suppression more complex