

# Prescribed Burn

FMN

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# I Smell Fire

- Alarm and fear are first natural responses
- Wild fires of California
- Smokey the Bear-flawed approach
- Multiple causes for wild fires
  - Lightning
  - Spontaneous combustion
  - Safety violations
  - Accidents
  - crime



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YOU  
CAN PREVENT  
WILDFIRES**

Ad  
Council  
SMOKEYBEAR.COM





# Beneficial Fires

## Florida prescribe burning act 1990



# FIRE

- Prescribed fires to prevent succession
- Fire is natural disturbance process
  - Recycles nutrients
  - Utilized by surviving plants and new plants
  - New growth provides forage for herbivores
- Fire stimulates many plant species
- Fire renews, reinvigorates and maintains health of fire-adapted plant communities

# **Prescribed Fire Plan**

**For the  
Coffeen Nature Preserve**



**Prepared by  
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**For the  
Coffeen Land Trust, Inc.**

**In cooperation with  
Topsail Hill Preserve State Park**



# Equipment



# PPE

- High top leather boots - rubber soles
- Long cotton pants (no shorts)
- Helmet
- Mask filter- official smoke barrier
- Glasses
- Neck drape shields
- Work gloves
- Physical conditioning
  - Exposure to sun, heat, smoke
  - On feet a lot

















# Prescribed Burn Technique Anatomy

- Firebreak - natural barrier
- Back line - fuel removed
- Backfire- burning against the wind- 10-20 ft
- Hand line
- Start of first head fire- burn with the wind
- Head fire full effort of fire- takes off- can be fast
- Igniter
- Pump truck
- Drip torch: two parts diesel/one part gasoline. Has loop in neck to PREVENT FLAME from reaching fuel in tank



# Safety: Hazards for Fire Team Members

- Dehydration
- Stubbed toes
- Leg grabber (vine and thorns)
- Venomous snakes
- Scared animals
- Safety comes before everything
- Watch out for others
- Follow safety rules

# Fire plan in action





# The end



# When Fire Escapes

- Safety zone: free of fuel- blackened area, forest roads
- In drought conditions: beware under ground burning
- Flapper suppression
  - Low amplitude
  - Water
  - Smoke mask
  - Mopping up

# Restoration Projects

- Restoration projects need:
  - People
  - Plan
  - Funds
  - Equipment
  - Native plants reintroduced
    - Burned areas in winter attract snipes
    - Mowed grass - rabbits
    - Thatch: loggerhead shrike
      - Song sparrow



# Prescribed Fire: 3 Elements

- Burn unit
  - Perimeter created by mowing or tilling
- Conduct under precise weather conditions
  - Wind speed and direction
  - Relative humidity
- Ecological objective
  - Control invasion of woody plants : trees and shrubs
  - Safety reduced fuel load on ground and tree trunks

# Fire

- Natural causes
- Burn till encounter natural barrier
- Man: fire as tool. Frequent until colonization by Europeans: agriculture and settlements

# Plant Competition: Sunlight

- Trees and shrubs shut out sunlight which starves grasses and plants
- Leads to loss of habitat and habitat fragmentation