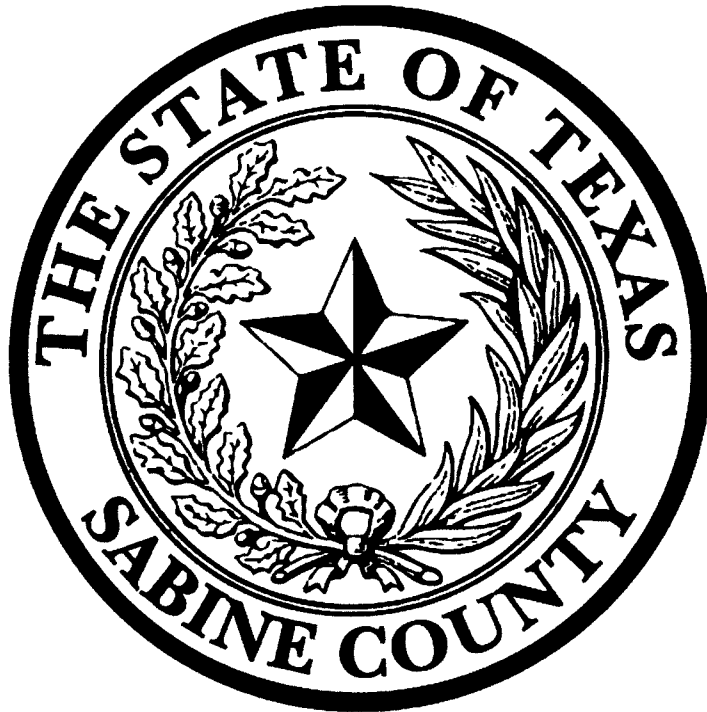


SABINE COUNTY TEXAS

Community Wildfire Protection Plan (CWPP)



**A collaborative approach to help protect life, property and natural resources
through community-based planning**

Sabine County, City of Hemphill, City of Pineland,
Pineland VFD, Hemphill VFD, Six Mile VFD,
Bronson VFD, Pendleton VFD, Shamrock Shores VFD,
Rosevine VFD, Fairmount VFD,
Texas A&M Forest Service, Sabine National Forest

September 2019

Developed by the Sabine County Community Wildfire Protection Plan Committee with
assistance from MPTX Associates, Inc., in accordance with Title I of the Healthy Forest
Restoration Act (HFRA) and Title III Secure Rural Schools and Community Self-
Determination Act (SRS Act).

Vol 3R Page 276

ACKNOWLEDGEMENTS

Foremost, this document is developed in recognition of the risks, work, and sacrifices made by our volunteer firefighters, and represents the whole community's supportive effort to reduce the demands that are placed on these local heroes, and to assist the firefighter's mission.

Preparation of the Sabine County Community Wildfire Protection Plan (CWPP) involved collaboration among public, private and non-profit organizations including the Sabine County Office of Emergency Management, County Judge, incorporated cities Pineland and Hemphill, and volunteer fire departments: Pineland VFD, Hemphill VFD, Six Mile VFD, Bronson VFD, Pendleton VFD, Shamrock Shores VFD, Rosevine VFD, Fairmount VFD.

Equally important are the remarkable contributions from regional partner agencies the Texas A&M Forest Service and the Sabine National Forest. Through these agencies' ongoing operations and support for wildfire response, prevention and mitigation – the residents, assets and future of Sabine County are safer and stronger. Furthermore, this document is created with extensive use, reference, and citation of information provided by those agencies such as TxWRAP and Sabine NF GIS data. Sincere thanks and acknowledgement for production and availability of the valuable tools.

Key recognition and thanks are due to the elected and appointed local officials who comprise the leadership of Sabine County. Through the vision and guidance of the County Judge, Office of Emergency Management, fire chiefs and numerous other officials the overall wildfire protection effort has taken shape and produced both tangible and intangible results.

Additional recognition is paid to the many commercial and industrial operations of Sabine County whose integral partnership and cooperation make fire prevention and mitigation efforts most effective.

Thanks go out to all participants for their efforts to provide accurate and timely information and project ideas in the preparation of this plan. A complete listing of all CWPP Planning Team members is provided in Chapter 1. Many others not listed contributed greatly to the project, and all deserve thanks.

Finally, thanks to the staff of MPTX for their work to facilitate the process and prepare this planning document:

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The following is an outline of key subject matter collected during the planning and research process which relates to wildfire risk, and opportunities for mitigation.

Leadership of Sabine County is excellent at all levels of government and emergency response. The skill and dedication of these professionals have, up to this point in time, succeeded in preventing any widespread and damaging wildfire from afflicting the community.

The firefighters of Sabine County are primarily volunteers representing 8 fire departments with key support from the Texas A&M Forest Service and Sabine National Forest. New recruits are always welcome for these excellent, dedicated and knowledgeable teams.

Sabine County is located in one of the most densely forested regions of Texas, bounded by Toledo Bend Reservoir to the east and Sam Rayburn Reservoir to the west. Terrain and slopes are varied and relatively hilly compared to other regions of the state. This combination of dense forest and sloped terrain provides the factors for wildfires which can spread quickly and be difficult to access.

A high proportion of Sabine County's residential building stock is situated in close proximity to Toledo Bend Reservoir. Vehicular access to these communities, also referred to as 'ingress, egress' is commonly only available along a single route. These circumstances create a unique challenge for firefighters and homeowners, and highlight the importance of preventing wildfires in these areas.

It is a picturesque county with excellent recreation and communities. County-wide initiative to "Keep Sabine County Clean" is excellent and working. However, abandoned structures are a significant wildfire concern. Uninhabited structures create a potential source for illicit fires which can migrate through dense overgrowth with a direct fuel path to surrounding forest. Besides fire danger, abandoned structures also create various other health and safety issues for the community.

Firefighting equipment is generally good and in some cases excellent, with certain upgrades needed. A detailed list of equipment needs is found in Section 5.2 of this document.

Radio Communications: Newly installed / upgraded radio towers are an improvement but more improvement is needed. Goal is countywide clear radio contact on simple, easy to use system with modern, durable radios.

Cellular Communications: Overall cellular system upgrades are an important need. Current system is AT&T with spotty service area. Customers with other major carriers such as Verizon, T-Mobile, etc have no service in Sabine County. This is important because when available, cellular communications are a vital communications back-up for radio in emergency response scenarios. Also, cellular phone networks are even more important for community reports of wildfire or other danger.

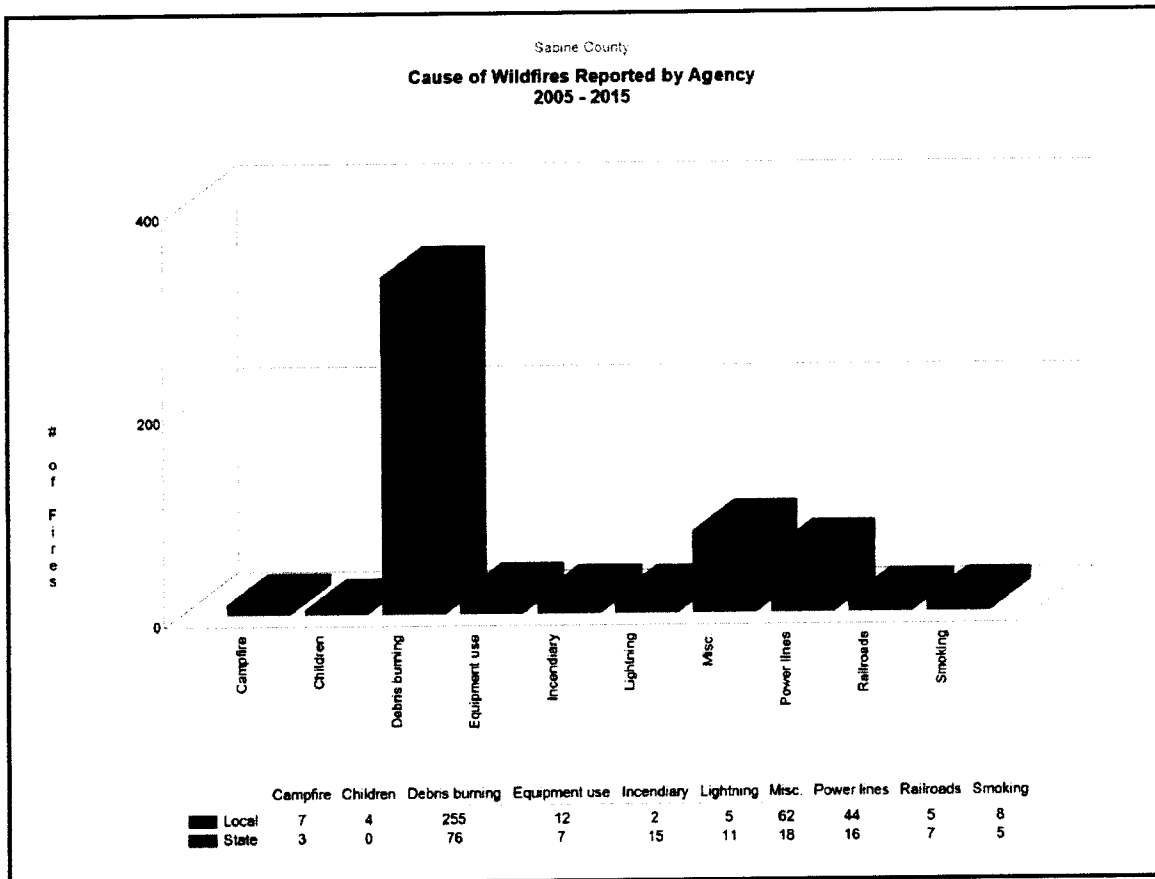
From a forest management perspective, promoting hardwood forests and mix of timber types may be encouraged on case by case basis. Also, encouraging the forestry harvesting practices including buffers for Streamside Management Zones may be a future focus for mitigation and other benefits.

The Texas A&M Forest Service (TFS) is an active regional partner and supporter of wildfire suppression, wildland urban interface (WUI) mitigation, and community education.

Sabine National Forest (Sabine NF): This agency is a federal land manager utilizing active programs for controlled burns to mitigate fuels growth and fire-adapted ecosystems for healthy, multi-purpose forests. The latest Sabine NF management principles relate to stewardship programs which evolve alongside changing forest conditions and priorities. The county maintains 109 miles of Sabine NF road, which exemplifies the importance of coordinated and cooperative efforts.

Burn Ban Orders are highly coordinated through the National Weather Service and TFS. Burn Bans typically involve a customized statement specific to the fire-risk circumstances, and are governed and enforced by county rules. The importance of this is shown in the following graphic, which shows a high proportion of wildfires are caused by debris burning, many of which occur when Burn Bans are in place and are preventable.

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Source: Texas A&M Forest Service, TxWRAP report for Sabine County

As indicated by the chart above, for the period 2005-2015, there were 599 wildfire response reports for Sabine County submitted as recorded by the Texas A&M Forest Service. 3,597 acres were burned in these occurrences ranging from 0.1 acres to 523 acres. Human activity caused the vast majority of these fires, attributed for 580 of the 599 total reports, or 96.8 percent.

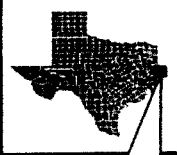
Table 3-20b Sabine County Wildfires by Cause: 2005-2015

| Fire Cause | Number | Percent of Total (Number) | Acres | Percent of Total (Acres) |
|----------------|------------|---------------------------|----------------|--------------------------|
| Debris Burning | 347 | 57.9% | 1,414.2 | 39.3% |
| Miscellaneous | 81 | 13.5% | 938.1 | 26.1% |
| Power Lines | 70 | 11.7% | 154.4 | 4.3% |
| Equipment Use | 19 | 3.2% | 187.3 | 5.2% |
| Lightning | 19 | 3.2% | 326.3 | 9.1% |
| Incendiary | 17 | 2.8% | 265.5 | 7.4% |
| Campfire | 11 | 1.8% | 16.9 | 0.5% |
| Railroads | 11 | 1.8% | 254.0 | 7.1% |
| Smoking | 11 | 1.8% | 29.9 | 0.8% |
| Children | 4 | 0.7% | 2.4 | 0.1% |
| Fireworks | 3 | 0.5% | 3.0 | 0.1% |
| TOTAL | 599 | 100.0% | 3,597.3 | 100.0% |

Source: Texas A&M Forest Service Compiled Wildfire Reports, various responding fire departments; Sabine County
 Note: Complete set of fire occurrences 2005-2015 is shown on wildfire ignitions and density maps.

MAJOR LAND HOLDINGS

SABINE COUNTY TEXAS COMMUNITY WILDFIRE PROTECTION PLAN



Sabine County, Texas

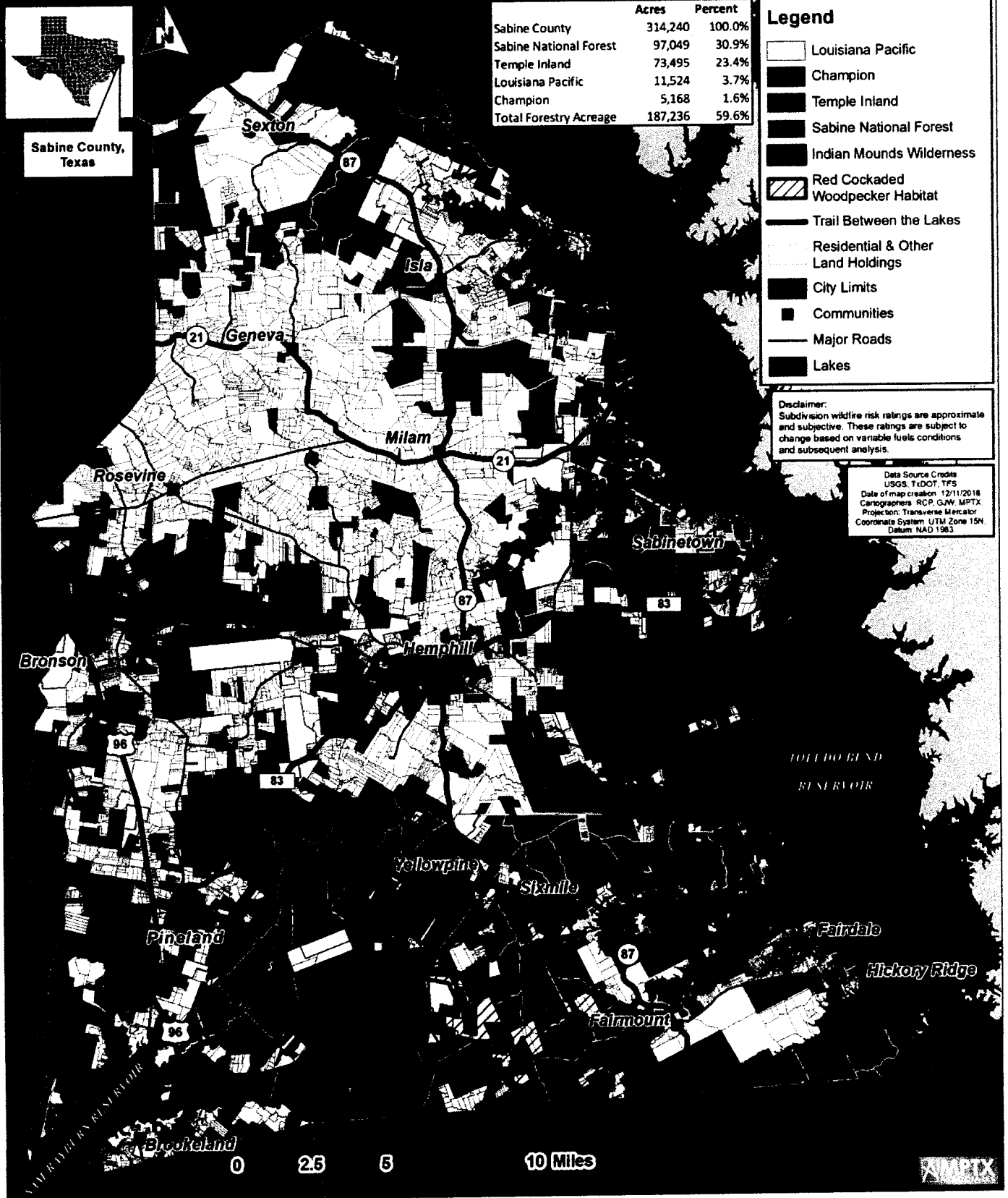
| | Acres | Percent |
|-------------------------------|----------------|--------------|
| Sabine County | 314,240 | 100.0% |
| Sabine National Forest | 97,049 | 30.9% |
| Temple Inland | 73,495 | 23.4% |
| Louisiana Pacific | 11,524 | 3.7% |
| Champion | 5,168 | 1.6% |
| Total Forestry Acreage | 187,236 | 59.6% |

Legend

- Louisiana Pacific
- Champion
- Temple Inland
- Sabine National Forest
- Indian Mounds Wilderness
- Red Cockaded Woodpecker Habitat
- Trail Between the Lakes
- Residential & Other Land Holdings
- City Limits
- Communities
- Major Roads
- Lakes

Disclaimer:
 Subdivision wildfire risk ratings are approximate and subjective. These ratings are subject to change based on variable fuels conditions and subsequent analysis.

Data Source Credits
 USGS, TxDOT, TFS
 Date of map creation: 12/11/2018
 Cartographers: RCP, GJV, MPTX
 Projection: Transverse Mercator
 Coordinate System: UTM Zone 15N
 Datum: NAD 1983



The following table is a general description of volunteer fire department response capabilities. Detailed information for each fire department is provided in the subsections that follow (Volunteer Fire Department Profiles).

Table 2-1 Volunteer Fire Department Summary Profiles

| Volunteer Fire Department Name | Emergency Services District Number | Number of Active Volunteers | Coverage Size (square miles) |
|--------------------------------|------------------------------------|-----------------------------|------------------------------|
| Pineland | 100 | 39 | 84.59 |
| Hemphill | 300 | 28 | 105.12 |
| Six Mile | 400 | 25 | 36.52 |
| Bronson | 500 | 17 | 38.23 |
| Pendleton | 600 | 21 | 65.15 |
| Shamrock Shores | 700 | 8 | 89.91 |
| Rosevine | 800 | 15 | 37.62 |
| Fairmount | 900 | 15 | 33.25 |

Pineland VFD

Chief Joseph Lane - 409-584-9022 - JLane143@yahoo.com

- 39 Personnel
- 2 Type I Fire Engines (both with foam capabilities)
- 1 Tanker (3000 gallons)
- 2 Brush Trucks (one with foam capabilities)
- 1 Heavy Rescue truck

Hemphill VFD

Chief Glen Chance - 936-201-8517 - hemphillvfd@hotmail.com

- 28 Personnel
- 2 Type I Fire Engines
- 1 Tanker (3000 gallons)
- 3 Brush Trucks
- 300 gallon Skid Load Foam Unit
- 1 Rescue Truck

Six Mile VFD

Chief Lonnie Johnston - 409-579-2857 - sixmilevfd@yahoo.com

- 25 Personnel
- 2 Brush Trucks
 - 1 Large (1800 gallons)
 - 1 Small (400 gallons) with a Compressed Air Foam System (CAFS) unit
- 1 Tanker (2000 gallons)
- 1 EMS Van
- 1 RTV for Search and Rescue Operations

Bronson VFD

Chief Robert Byley - 936-652-2490 - byledl@SFASU.edu

- 17 Personnel
- 2 Type I Fire Engines
- 2 Water Bladders (800-1000 gallons)
- 1 Brush Truck
- 1 Skid Load Foam Unit

Pendleton VFD

Chief Sammy McClelland - 409-625-3336 - devinc1210@hotmail.com

- 21 Personnel
- 1 Type 1 Fire Engine
- 2 Tanker/Pumper Combo's
- 2 Brush Trucks
- 1 Rescue Truck

Shamrock Shores VFD

Chief Mike Pennington - 409-625-0453 - smp49@windstream.net

- 8 Personnel
- 1 Tanker (1200 gallons)
- 1 Medical Sprint Unit

Rosevine VFD

Chief Penny Ridley - 936-275-6590 - pridley2000@yahoo.com

- 15 personnel
- 1 Tanker (1800 gallons)
- 2 Brush Trucks

Fairmount VFD

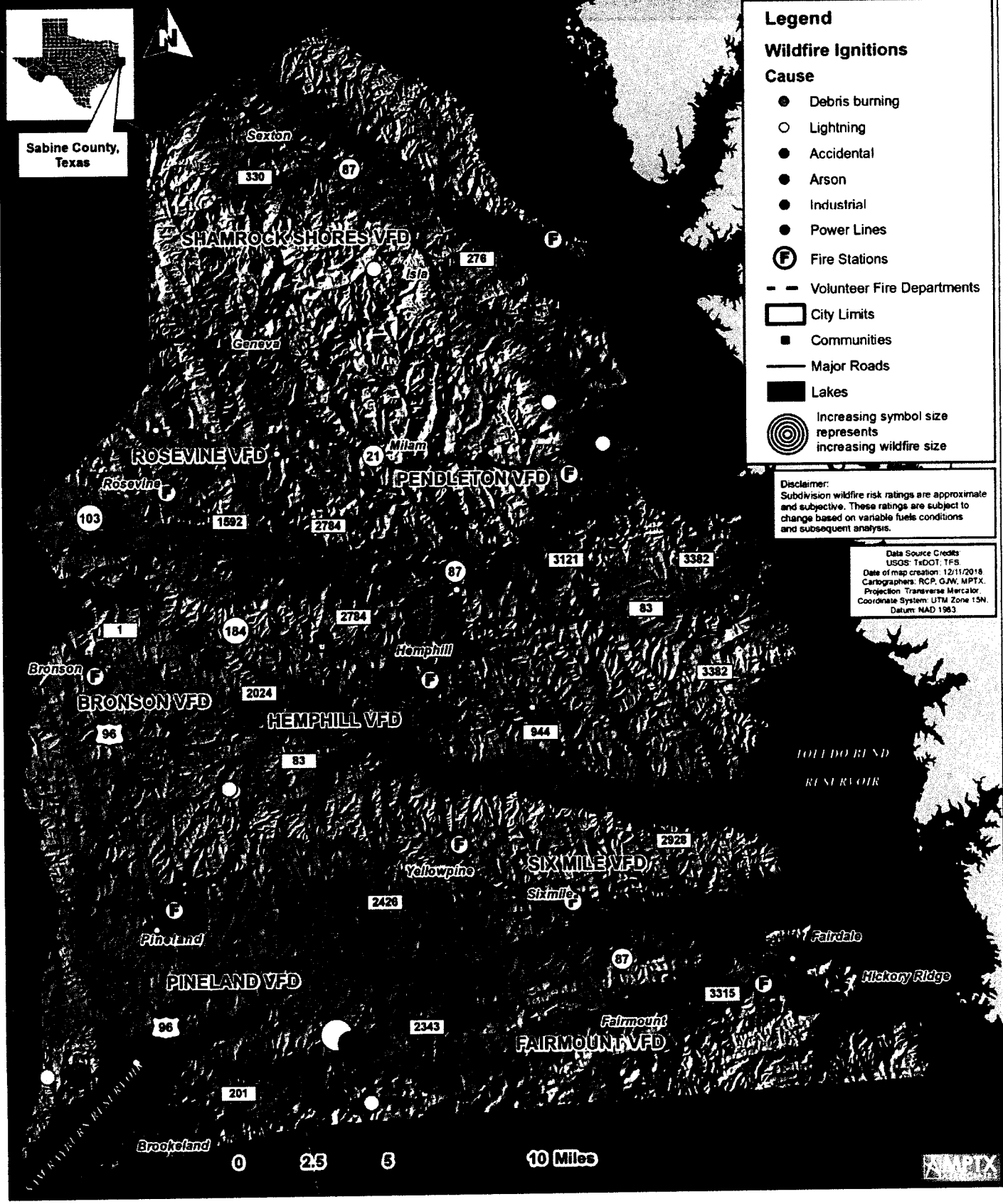
Chief David Clineman - 409-579-2351 - daveclineman@gmail.com

- 15 Personnel
- 2 Type I Fire Engines (both with foam capabilities)
- 1 Tanker (3000 gallons)
- 1 Brush Truck (with foam capabilities)



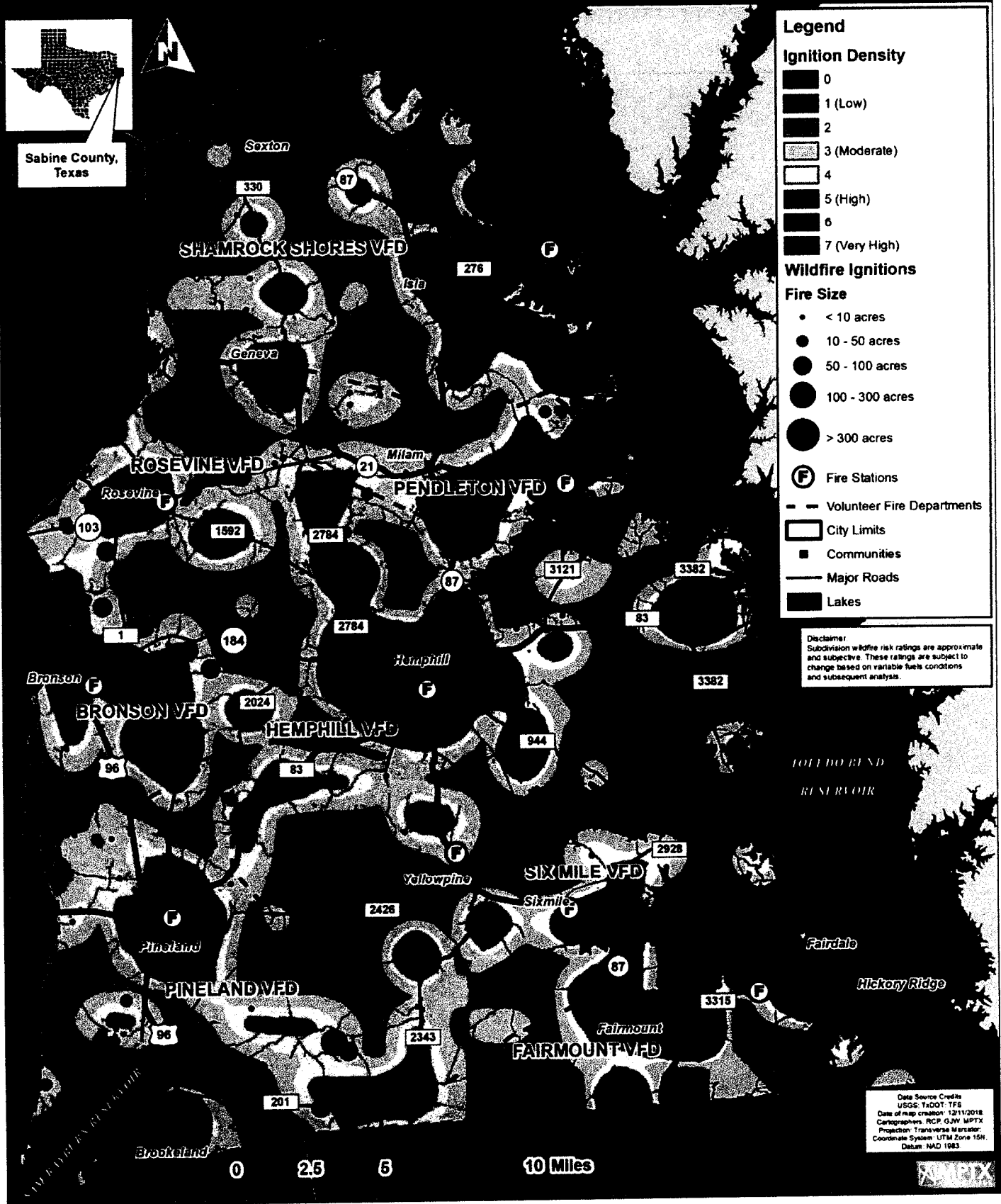
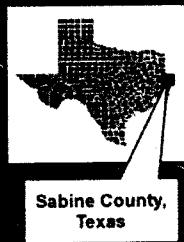
WILDFIRE IGNITIONS 2005 - 2015

SABINE COUNTY TEXAS COMMUNITY WILDFIRE PROTECTION PLAN



WILDFIRE IGNITION DENSITY 2005 - 2015

SABINE COUNTY TEXAS COMMUNITY WILDFIRE PROTECTION PLAN



Legend

Ignition Density

- 0
- 1 (Low)
- 2
- 3 (Moderate)
- 4
- 5 (High)
- 6
- 7 (Very High)

Wildfire Ignitions

Fire Size

- < 10 acres
- 10 - 50 acres
- 50 - 100 acres
- 100 - 300 acres
- > 300 acres

ⓕ Fire Stations

- - - Volunteer Fire Departments

▭ City Limits

■ Communities

— Major Roads

▬ Lakes

Disclaimer: Subdivision wildfire risk ratings are approximate and subjective. These ratings are subject to change based on variable fuels conditions and subsequent analysis.

TOLEDO BEND RESERVOIR

Fairdale Hickory Ridge

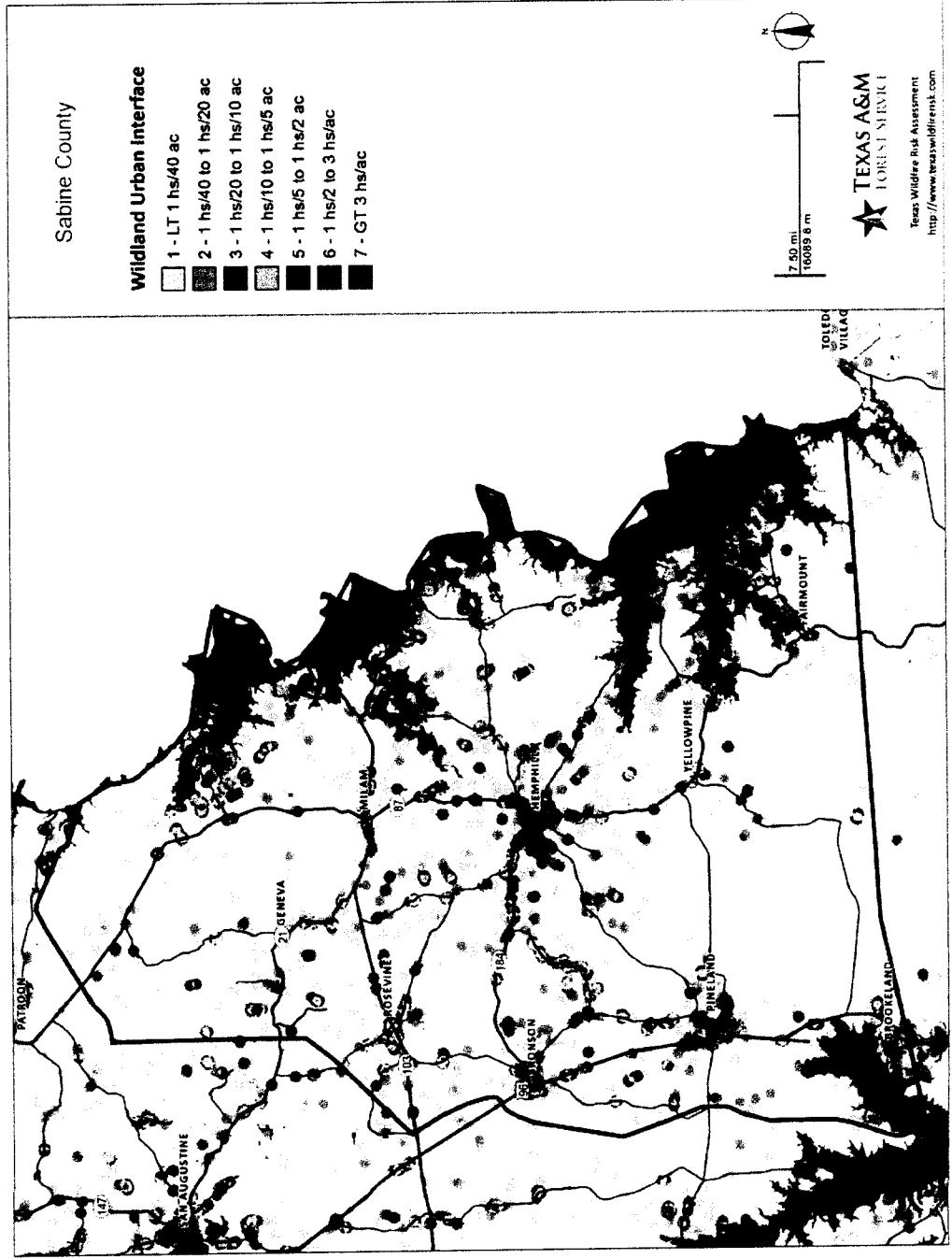
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Date of map creation: 12/11/2018
Cartographers: RCP, GJW, MPTX
Projection: Transverse Mercator
Coordinate System: UTM Zone 15N
Datum: NAD 1983

0 2.5 5 10 Miles

Wildland – Urban Interface (WUI) Defined

In general terms, structures located outside the fringes of cities and towns have notably higher propensity for wildfire impacts. This includes both individual home units that are relatively isolated from other development, and rural neighborhoods with variable physical layouts. Wildfire vulnerability is higher in these areas due to a number of factors. Fire detection and response is typically slower in outlying areas than in cities and towns, water supply and fire-fighting resources are more limited, and density of fuels (trees, brush, tall grass, etc.) generally increases along with distance from urban centers and communities.

The following map produced by Texas A&M Forest Service TxWRAP program shows concentrations of structures in the wildland urban interface. The map depicts where humans and their structures meet or intermix with wildland fuel.



SUBDIVISION WILDFIRE RISK ASSESSMENT

SABINE COUNTY TEXAS COMMUNITY WILDFIRE PROTECTION PLAN



Sabine County,
Texas

Legend

(F) Fire Stations

Subdivisions

Wildfire Risk Assessment Score

- 50 - 59
- 60 - 69
- 70 - 79
- 80 - 89
- 90 - 99

--- Volunteer Fire Departments

□ City Limits

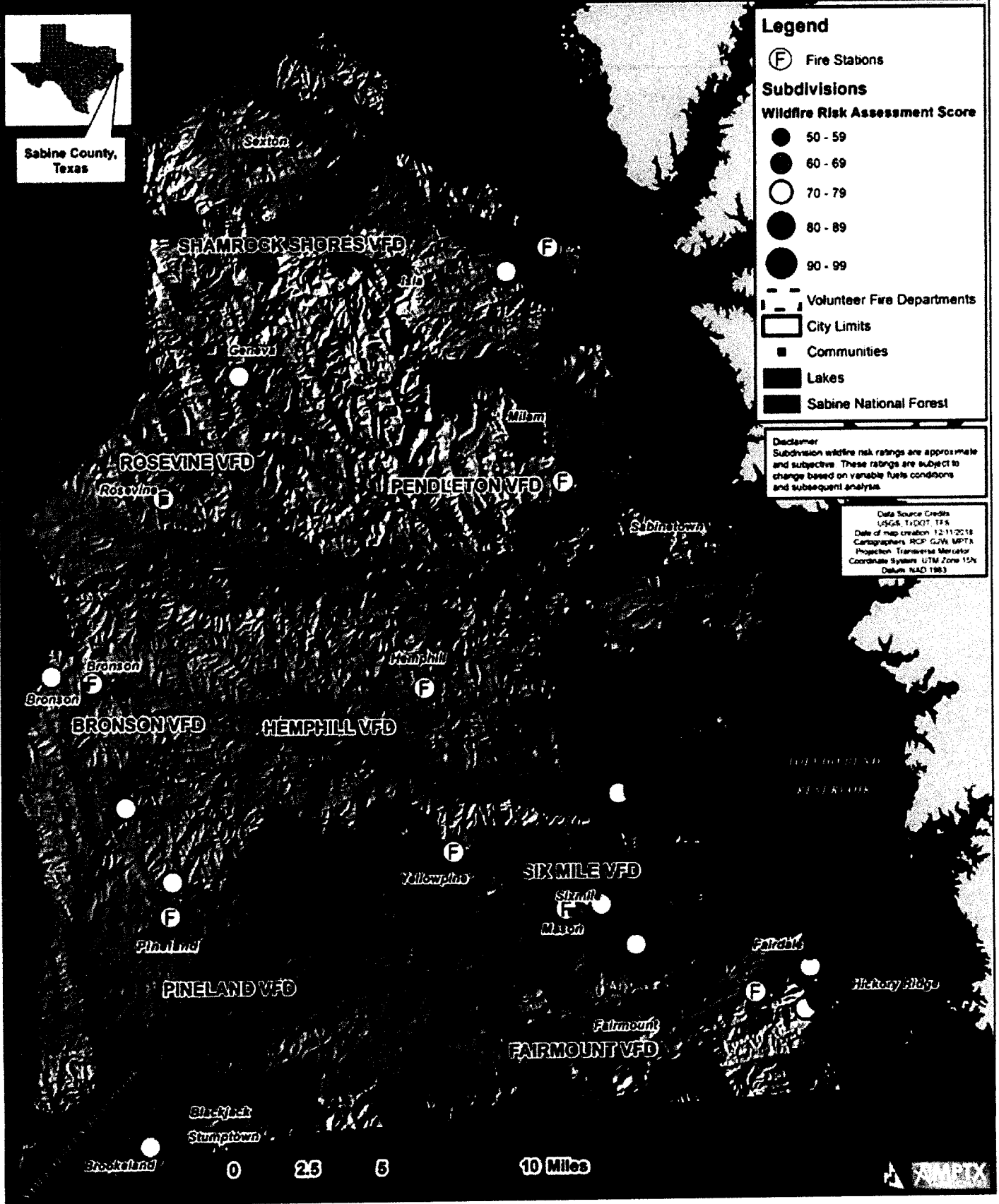
■ Communities

■ Lakes

■ Sabine National Forest

Disclaimer
Subdivision wildfire risk ratings are approximate and subjective. These ratings are subject to change based on variable fuels conditions and subsequent analysis.

Data Source Credits
USGS, TxDOT, TPA
Date of map creation: 12/11/2018
Cartographers: RCP, GJM, MPTX
Projection: Transverse Mercator
Coordinate System: UTM, Zone 12N
Datum: NAD 1983





CHAPTER 4. MITIGATION STRATEGY

As an introduction to the mitigation strategy for this plan, the following are general categories of wildfire mitigation with some specific implementation measures. Individuals and the community can reduce structural ignitability throughout the community by taking the following measures, and importantly, maintaining these activities over time. Federal agencies and private landowners of forests surrounding the identified communities, structures or areas of concern were invited to submit projects that provide protection and reduce risk.

Listed in no particular order, the following list of project types summarizes the range of mitigation tools available based on stakeholder input and community recommendations. Also listed in the subsection number where each mitigation tool is explained in further detail.

- **Mechanical Fuels Reduction** (Section 4.1.1)
- **Increase Defensible Space** (Section 4.1.2)
- **Prescribed Burns** (Section 4.1.3)
- **Reduce Structural Ignitability** (Section 4.1.4)
- **Improve Water Accessibility** (Section 4.1.5)
- **Enhance Public Awareness-Education - Burn-Ban Compliance** (Section 4.1.6)
- **Improve Emergency Access, Ingress, Egress** (Section 4.1.7)
- **Facilitate Multi-Agency Communication** (Section 4.1.8)
- **Initiate a "Cleaning Up to Prevent Wildfires" Proclamation** (Section 4.1.9)
- **Coordinate Mitigation with Oil/Gas, Timber, and Electric Utilities** (Section 4.1.10)
- **Eliminate or Mitigate Abandoned Structures** (Section 4.1.11)
- **Bioengineering, Forestry Management, and Landscape Mitigation Techniques** (Section 4.1.12)

4.1.1 Mechanical Fuel Reduction

Dense pine plantation, pine straw, and underbrush are the primary accelerants during a wildfire. It is a recommendation from this committee that each VFD participate in the Texas A&M Forest Service 'Mechanical Fuel Clean Up' program. Mechanical fuels reduction targets dense vegetation surrounding high priority/vulnerability communities and implements thinning and clearing via chipping and mechanical removal. A starting point for identifying high priority locations/communities can be found in Section 3.3 Mitigation Priority Assessment by community.

Establishing basic defensible space, strategic fuel breaks, and creating equipment access roads are the starting point for a mechanical fuel reduction project, if necessary. Secondary steps can be extending the defensible space perimeters to a variable radius from existing structures. Third stage fuels reduction involves clearing, crushing or chipping, and thinning small diameter vegetation and woody debris between larger standing trees beyond the extended defensible space perimeter. Final stage fuels reduction completes the thinning and clearing process across an entire timber stand.

Techniques for fuels reduction include: falling, yarding, and chipping densely packed trees; slash busters (rotating, chopping attachment mounted to excavator boom); grinders, chippers, and mower/masticators (bush hogs); goats (for brush, difficult access, steep or boggy areas). Additional considerations include obtaining appropriate property access permission and/or easements, liability, and biomass disposal. Biomass utilization projects that make products or generate electricity from small diameter woody materials may be a future opportunity.

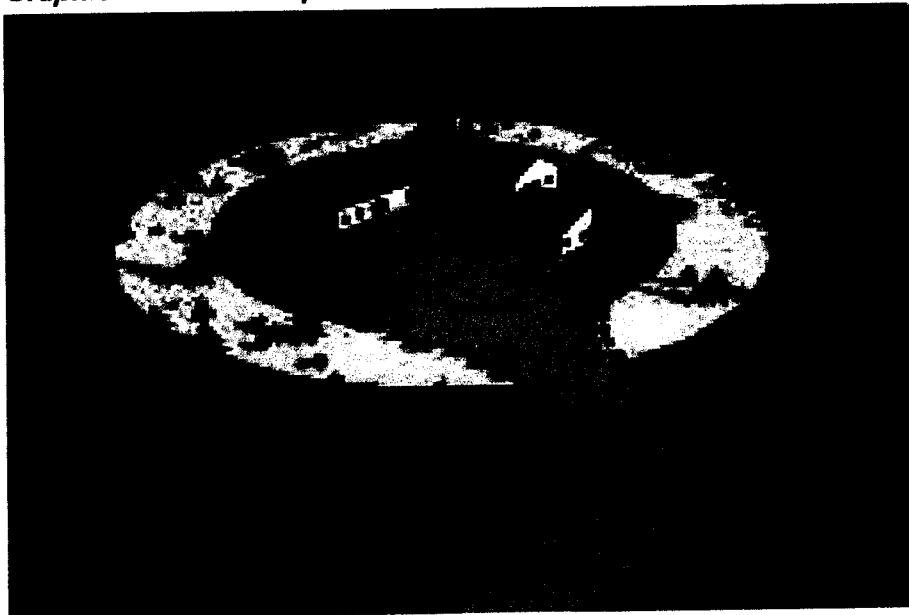


4.1.2 Increase Defensible Space

1. Increase Defensible Space (Residential Homes and Commercial / Industrial Facilities)

One of the single most important mitigating factors to increase the chances for the home's survival during a wildland-urban interface fire is the creation and maintenance of an asset protection zone (defensible space). The need for defensible space extends beyond homeowners to include pipelines, drilling sites and other industrial facilities. Defensible space refers to an area around the home where the native vegetation has been modified to reduce the wildland/urban interface fire threat to the home and provides a safe area for firefighters to work effectively and safely. Ready, Set, Go developed by the International Fire Chiefs Association is homeowners guide to implementing defensible space and reducing structural ignitability. See also Appendix B. (Homeowner's Guide) for more detailed information.

Graphic: Defensible Space Perimeters and Maintenance



Source: firewise.org

Defensible space around homes or industrial facility perimeters should be a minimum of 100 feet, and maintained according to the following guidelines and diagram shown above.

- **Zone 1 (Red)** Area immediately next to the home or facility perimeter to a distance of approximately 5 feet should be clear of flammables. The purpose of this zone is to have little or no flammable landscaping immediately adjacent to the home to prevent ignition from firebrands or direct flame.
- **Zone 2 (Yellow)** 5' to at least 30' from the home or facility perimeter. Zone 2 provides the critical area where firefighters can defend the home or facility perimeter and where fuels should be substantially reduced in height and volume.
- **Zone 3 (Blue)** 30' to approximately 100' from the structure or facility perimeter. This area lies outside the formal landscape area and should be thinned and cleared of any dense underbrush.

2. Fire Resistant Landscaping

Landscaping a yard is an integral component of the defensible space developed by the homeowner. Each lot should be thought of in terms of four zones according to the outline shown above, with each zone having a different purpose and emphasis in the overall defensible space concept for the property or facility. See also 4.1.12 for more details.

4.1.3 Prescribed Burns

Prescribed burning aka controlled burns can serve as an effective way to manage hazardous fuels and maintain a healthy fire-adapted forest ecosystem. Prescribed burns utilize the method of setting fire to brush and undergrowth under controlled circumstances in order to char or incinerate otherwise potentially hazardous fuel loads.

Important considerations fire managers take into account when planning a prescribed burn are:

- wind direction,
- moisture and humidity,
- water and equipment staging,
- crew placement and communications.

The Texas A&M Forest Service has established a recommended 3-step sequence prior to initiating a prescribed burn listed as follows:

- 1) Write a Prescribed Burn Plan
- 2) Fill out "Go/No-Go" Checklist for the day of the prescribed burn.
- 3) Complete report to Texas Prescribed Burn Reporting System.

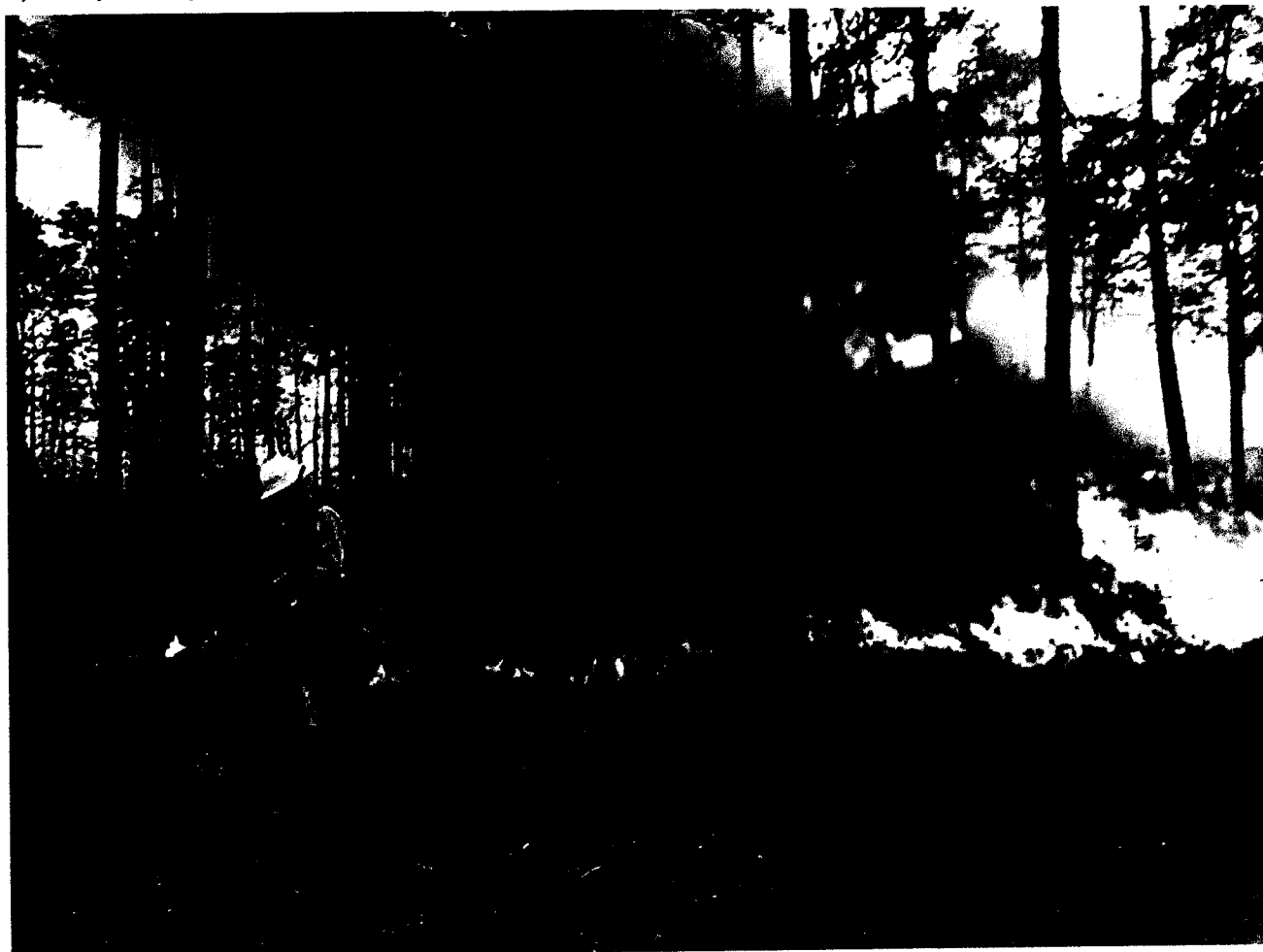


Photo: William Goodrich (W.G.) Jones State Forest. Credit: Houston Chronicle

4.1.4 Reduce Structure Ignitability

Encourage builders to consider tin, tile or ceramic roofing and brick, stucco framing materials and fire resistant fencing and decking. Educate homeowners to clean leaves and pine straw from roofs and gutters and keep wood piles away from structures. If evacuation is necessary, close vents, seal windows, safeguard propane tanks and turn yard irrigation on.

4.1.5 Improve Water Accessibility

1. More water storage sites throughout the county for easier access. Consider abandoned oil pad sites for tank sites.
2. Develop-expand drafting sites at bridge crossings
3. Identify and develop dry hydrant sites

4.1.6 Public Awareness-Education - Burn-Ban Compliance

1. Improve public awareness, understanding, and compliance with Burn Bans
2. Flags flown in more locations throughout the county
3. Large signs strategically placed throughout the county
4. Work with businesses: get addresses throughout the county and mail burn ban flyers to be placed on windows within their business for awareness
5. Signs placed throughout VFD boundaries in a manner that would not invite vandals
6. Write warnings-tickets for violations during a burn ban
7. Periodic articles in local newspapers focusing on ways to prevent wildfires as well as instructions to implement defensible spaces around homes
8. Events: Booth at County Fair; National Fire Week at schools, Smokey the Bear program
9. Pursue participation in the Firewise Community Program. Distribute "Ready, Set, Go" wildfire preparation brochure to homeowners.

4.1.7 Improve Emergency Access, Ingress and Egress

1. Maintain and improve 911 address system
2. Insure all roads have signs, and install dead end signs where needed
3. Widen narrow culverts
4. Educate-encourage subdivision developers and individual home builders to consider fire truck access and turn around space

4.1.8 Facilitate Multi-Agency Communication

1. Improve communication between county officials and all VFDs
2. Implement procedures to insure the correct VFD is notified of a fire call
3. Standardized fire reporting forms to be used uniformly throughout the county, continuing education on procedures to fill them out and submit to TFS

4.1.9 Initiate a "Cleaning Up to Prevent Wildfires" Proclamation

1. Implement a continuous county wide clean-up of fuels and debris
2. Focus on wooded areas used by county residents as dumping grounds for personal use rather than going to the dump

4.1.10 Coordinate Mitigation with Oil/Gas, Timber, and Electric Utilities

1. Educate managers of pipelines, drilling sites, and compressor stations of the need for defensible space surrounding their facilities.
 - a. Extend flare height from 24' to 40'
 - b. Extend pad size from 12x12 to 75x75
 - c. Obtain and improve inventories of old, abandoned pipeline locations, depth, and direction
 - d. Encourage oil/pipeline companies to provide foam to VFDs where they are located as well as insure that all lines and production sites are properly maintained as required by the Sara Act.
2. Build relationships with timber companies with the goal of:
 - a. Plow fire lanes with bigger brakes
 - b. Require that cut trees are moved from logging sites
 - c. Resolve inaccessibility to timber company land as a result of:
 - i. Locked gates to timber plantations and/or hunting clubs
 - ii. Brush piles placed at the entrance of plow lanes or roads
3. Encourage enlightened electrical transmission infrastructure design and continuous maintenance to reduce potential arcing and/or wildfire ignition.

4.1.11 Eliminate or Mitigate Abandoned Structures

Abandoned structures was a common concern raised throughout plan development from a risk management perspective. Uninhabited structures create a potential source for illicit fires which can migrate through dense overgrowth with a direct fuel path to surrounding forest. Besides fire danger, abandoned structures also create various other health and safety issues for the community. In order to address this concern, this plan suggests the following mitigation strategy:

1. Identify the specific locations of abandoned structures throughout the county, notating the county road, latitude and longitude, driving directions.
2. Establish this information in a database.
3. Research county records to identify ownership data and potential contact information for future reference.
4. Research methods for potential mitigation and suggest options.

4.1.12 Bioengineering, Forestry Management, and Landscape Mitigation Techniques

Bioengineered wildfire mitigation uses aspects of the natural environment to mitigate the risk of wildfire to the community, including residential and commercial property, utilities, and infrastructure.

Forestry management practices can include replanting plans which encourage adequate spacing of trees for forest health, mix of deciduous and coniferous tree species, and adequate buffers.

For residential site plans, design defensible space with driveways, walkways, lawn space, patios, and fences using materials such as brick, stone, and cement to reduce fuel loads. Use rock or gravel instead of bark or wood mulches. Refrain from using landscape timbers such as railroad ties. Integrate and use natural features such as rock outcroppings, wetlands, streams, lakes, ponds, and fish ponds.

For residential landscaping design, avoid planting under eaves and vents, under trees or decks, and adjacent to siding. Prioritize plants that have high moisture content. Use herbaceous instead of woody plants, include succulents, perennials, and low shrubs. Use deciduous instead of evergreen plants. Avoid plants that have oils, resins, or waxes.

PROJECT 1: Fuels Reduction: Hemphill Independent School District Property

Project Scope: Fuels reduction treatment for approximately 30 acres of forestlands directly adjacent to city commercial center and structures. Project will involve mulching, thinning and culling of trees in partnership with Texas A&M Forest Service for joint use of mulching equipment in coordination with Hemphill ISD. Focus areas are north and west property boundaries in proximity to adjacent structures.

Background/Location: The property was last logged in the 1980's and is in direct proximity to commercial-retail establishments, a petroleum facility, and an adjacent housing authority subdivision. Location is within City of Hemphill south of Hwy 87 junction with FM 83 eastbound, Lat 31.3477N, - 93.8383W. It is 29.49 acres in area, thickly forested with approximately 25-year pine. The following map shows property outline in blue, color coded with Characteristic Fire Rate of Spread Index. The characteristic rate of spread index for this property (50-150 ch/hr) is equal to the highest index rating of any property in the county.

General Location Maps: Hemphill ISD Property, Central Hemphill



Sources: Sabine County Central Appraisal District, Texas A&M Forest Service



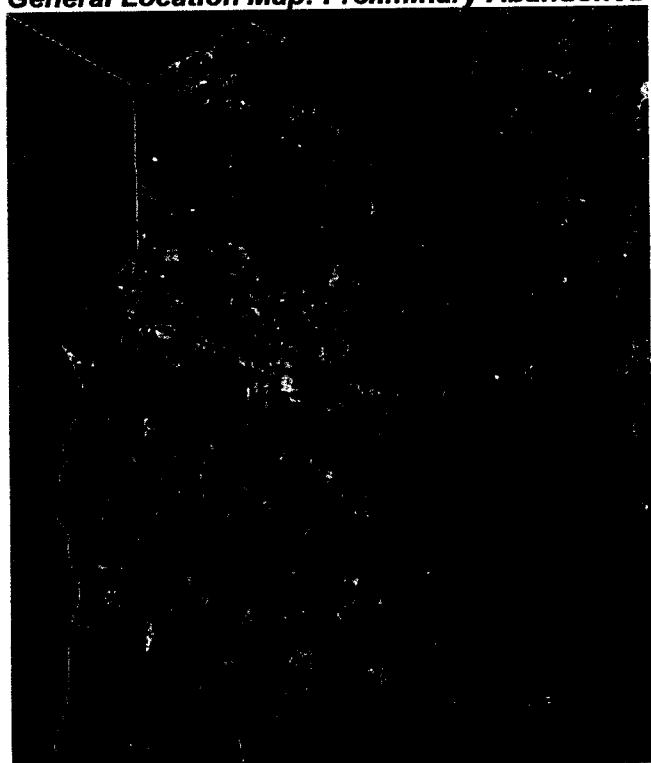
Source: Sabine County Central Appraisal District

PROJECT 2: Countywide Abandoned Structures Inventory Report

Project Scope: The countywide wildfire risk assessment for Sabine County resulted in strong consensus on the fire hazard associated with vacant, abandoned structures. These structures are a potential ignition point for large conflagrations due to the density of fuels which surround the buildings, as well as potential hazards of faulty electrical wiring, gas lines, and unauthorized use by trespassers. Due to the hazard posed to surrounding neighborhoods and forests, local fire officials, emergency management, and county executive staff place a high priority on proactive mitigation measures. The key initial step is systematically locating, mapping, and researching these vacant, abandoned structures, which will be the purpose of this report. Report will include a detailed catalog of vacant structures with owner records, street view photos, lat-lon coordinates, aerial map, and mitigation options. Final report will be incorporated as a formal annex to the CWPP

Background/Location: Strictly unincorporated county, primary focus in east Sabine County near lake.

General Location Map: Preliminary Abandoned Structures Inventory



Source: Sabine County Central Appraisal District

Example Photo: Preliminary Abandoned Structures Inventory



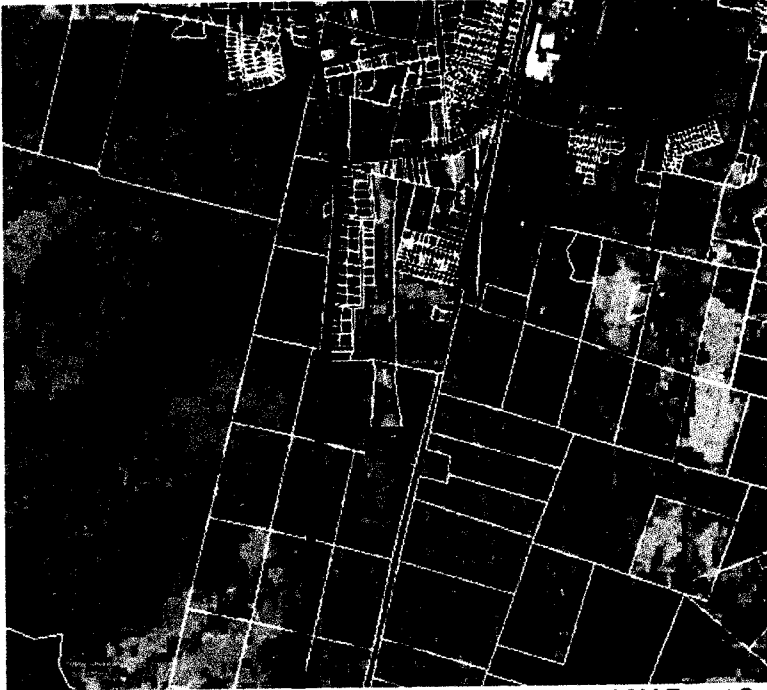
Source: Field Data Collection, May 2017

PROJECT 3: Fuels Reduction: Pineland Airport

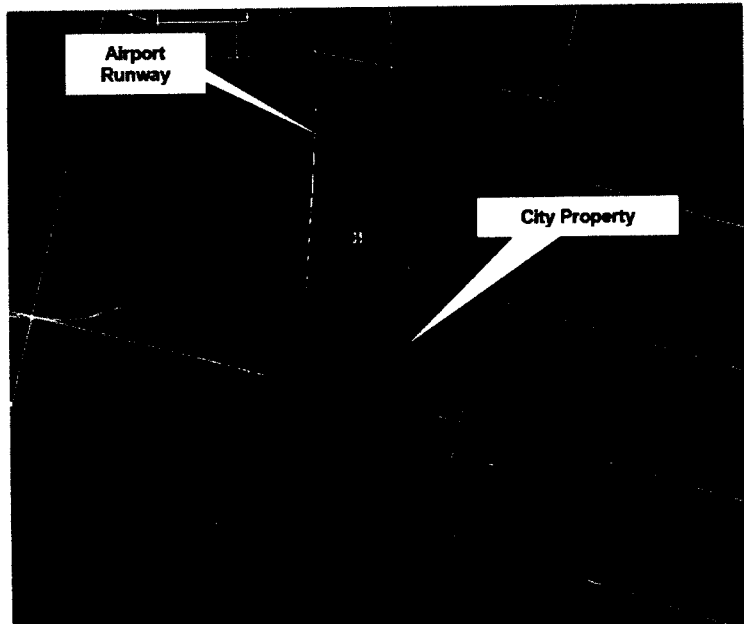
Project Scope: Fuels reduction / fire break treatment for 200 yard by 300 yard swath on south approach to Pineland Airport. Project to involve clearing of vegetation taller than 2 feet on southward approach area.

Background/Location: Current conditions present a significant safety risk for approaching flights and a wildfire would pose an even more serious problem. Area in direct proximity of runway is owned by City of Pineland. Location is east of Hwy 96, Lat 31.2257N, -93.981W. The following map shows property outline in blue, color coded with Characteristic Fire Rate of Spread Index. The characteristic rate of spread index for this property (30-150 ch/hr).

General Location Maps: Pineland Airport and Approach



Sources: Sabine County Central Appraisal District, Texas A&M Forest Service



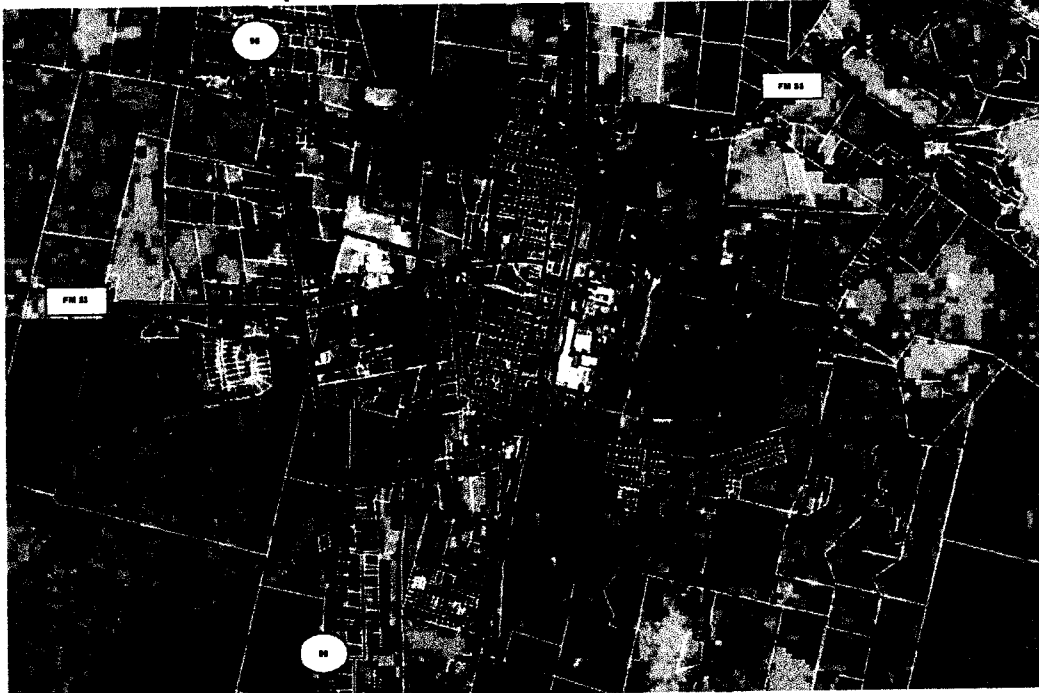
Source: Sabine County Central Appraisal District

PROJECT 4: Fuels Reduction: Pineland City Park and West Sabine ISD Property

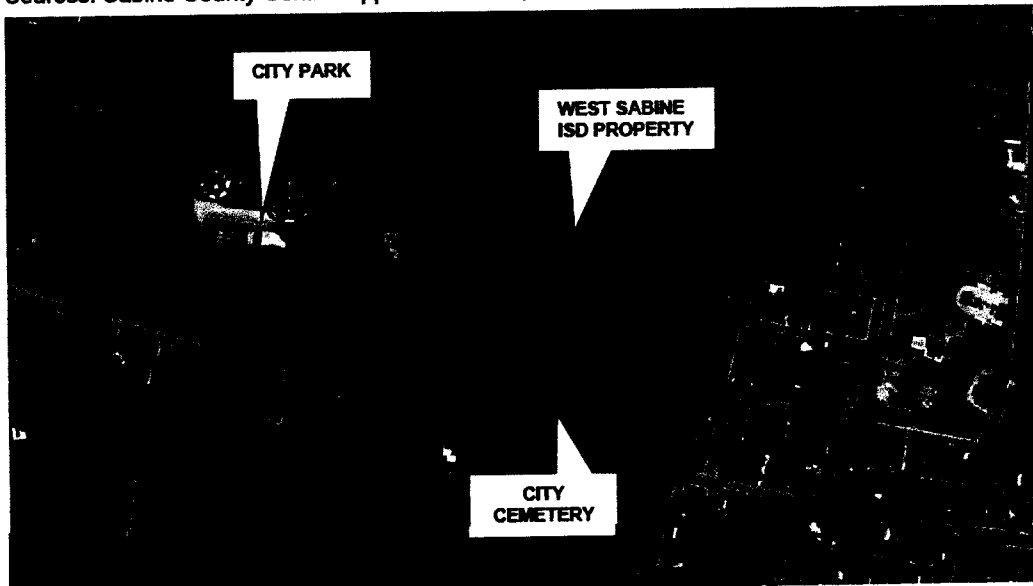
Project Scope: Fuels reduction treatment for forested portions of a 23-acre city owned park, portions of city cemetery, and potential shaded fuels breaks for portions of 25 acres directly to the east owned by West Sabine ISD. Project may involve mulching, thinning and culling of trees in partnership with Texas A&M Forest Service for joint use of mulching equipment in coordination with City of Pineland and West Sabine ISD. Focus areas include the city park itself, potential shaded fuel breaks for ISD property boundaries in proximity to adjacent structures.

Background/Location: Location is within City of Pineland east of Hwy 96, Lat 31.2567N, -93.9793W. The project site is directly adjacent to residential neighborhood to the east on Cypress Street. It is thickly forested with 35-year pine. Forested areas cover approximately 60% (15 acres) of the city park, 30% (2 acres) of the city cemetery, and 100% (25 acres) of the ISD property. The following map shows property outline in blue, color coded with Characteristic Fire Rate of Spread Index. The characteristic rate of spread index for this property (5-150 ch/hr).

General Location Maps: Pineland Park & West Sabine ISD Property, NW Pineland



Sources: Sabine County Central Appraisal District, Texas A&M Forest Service



Source: Sabine County Central Appraisal District



CHAPTER 5. CONCLUSIONS

Sabine County is located in a portion of east Texas with remarkable forest resources. Along with the natural conditions that make the County's forests so productive and scenic comes an increased probability for wildfires, and susceptibility for severe occurrences that can cause economic and ecosystem damage.

It is clear that concerns for forest health and productivity, in addition to the primary concerns of human safety and property protection, are vital for all residents and stakeholders. The primary conclusion of this report and plan is that these concerns and interests are compatible and mutually supportive. A primary focus of the parties engaged in the planning process will be to identify ways that stakeholders can improve working relationships in the future, remove obstacles to cooperation, open lines of communication, and create opportunities for dialogue and constructive decision-making.

An equal focus moving forward will be to address the specific causes and vulnerabilities of wildfire occurrence. Many of the identified wildfire issues involve private land owners and problems with accessibility to fight wildfires. Other identified issues revolve around maintenance of property and facilities (or lack of maintenance), on both small and large tracts, that can and often does present hazardous conditions. A third main theme identified by this report and plan is that the actions of a few: namely arsonists and those that do not abide by Burn Bans when they are in effect, cause an unacceptable number of wildfire flashpoints.

The participants in this Plan intend to assess progress annually and invite agencies and landowners to submit projects that provide community protection. As additional projects are conceived and implemented in the future, these will be displayed in an Appendix E of this plan (Plan Additions).

The following conditions, factors, and long-term trends were identified by planning team members as increasing the wildland-urban interface risk for Sabine County:

- Abandoned structures in Sabine County are a significant wildfire concern. Uninhabited structures create a potential source for illicit fires which can migrate through dense overgrowth with a direct fuel path to surrounding forest. Besides fire danger, abandoned structures also create various other health and safety issues for the community.
- Public's desire to live in a secluded area surrounded by natural vegetation with little or no defensible space.
- Challenges for conducting outreach and Burn Ban Notification including remote home sites and lack of phone service.
- Need to continue to promote public awareness. High percentages of wildfires in Sabine County are caused by human activities most prominently outdoor burning and arson. Noted general cooperation from community during latest drought and high fire hazard period (good).
- Water access and supply.
- Thick undergrowth and concentrated planting patterns on pine plantations.

Also, many if not most subdivisions are surrounded by forest, some privately owned land and some National Forests. During the planning process it was mentioned that the National Forest is very good about doing prescribed burns, but the majority of the private land is not. This leads to overgrowth and an abundance of fuel.

Inside of the subdivisions it was observed that the majority of the properties were between 30%-70% cleared for defensible space. However, those that were not were either owned by the elderly or infirmed,

or were abandoned properties, the last of which were severely overgrown and had forest encroaching upon the structure.

The lack of a water source for some of the subdivisions was a major concern, most notably the fact that there are no operational fire hydrants in Sabine County outside of the city of Hemphill. The time that it takes to locate a draft source, unload hard suction hose and get good flow costs quite a few minutes more than hooking up to an active hydrant. The fire departments do a great job of practicing this action, along with performing a water shuttle, in order to be quicker and shave seconds off the time between alarm and extinguishment.

All of the fire departments in Sabine County have mutual aid agreements and Pineland VFD has a mutual aid agreement with Jasper County for areas around Lake Sam Rayburn. There was consensus among all departments that the Texas A&M Forest Service class 'Firefighter Safety in the Urban Wildland Interface' is a high priority for new firefighters and continuing education for veterans.

All Fire Departments

- Wildland gear that meets NFPA Standards
- GPS systems for the VFDs
- Radio equipment meeting NFPA Standards
- Thermal Imaging Cameras (TIC)'s

Items Needed by Individual VFDs

Pineland Volunteer Fire Department

- Tanker Truck
- Battery Powered Rescue Tool (Cutter/Spreader/Ram)
- Bunker Gear

Bronson Volunteer Fire Department

- Wildland Gear

Fairmount Volunteer Fire Department

- Wildland Gear

Pendleton Volunteer Fire Department Station 1

- Slide in Foam units for skid units in Brush Trucks
- Wildland/Extrication Gear
- Bunker Gear
- Thermal Imaging Camera (TIC)
- 1st Responder/Rescue Sprint Vehicle for Lowe's Creek Station

Hemphill Volunteer Fire Department

- Wildland Gear

Shamrock Shores Volunteer Fire Dep't Station 2

- New Fire Station
- New SCBA's
- Thermal Imaging Camera (TIC)
- Grass Flaps, Class A Extinguishers

Rosevine Volunteer Fire Department Station 3

- Rebuild Station
- 4x4 Brush Truck
- 3" Deck Gun

Six Mile Volunteer Fire Department

- Improved Radio System
- Thermal Imaging Camera (TIC)