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Presentation, possible action, and discussion of the Wildfire Assessment of wildland and Urban Interface in the City of College Station.

Relationship to Strategic Goals: (Select all that apply)

- Good Governance
- Financially Sustainable City
- Core Services and Infrastructure
- Neighborhood Integrity
- Diverse Growing Economy
- Improving Mobility
- Sustainable City

Recommendation(s):

Summary:

In 2013 the College Station Fire Department asked the Texas A&M Forest Service to conduct a wildfire threat assessment in conjunction with the help of CSFD. The assessment is complete and this presentation will point out possible problem areas.

Budget & Financial Summary: None

Attachments:



Wildfire Pre-Attack Plan

*Preparedness Strategies for
Emergency Response*

In Cooperation with



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PREPAREDNESS STRATEGIES INTRODUCTION

Mitigation and response functions directly affect each other. By developing preparedness strategies, the transition from mitigation to response becomes smoother. Additionally, critical information is identified that which assist responders who are not familiar with the community.

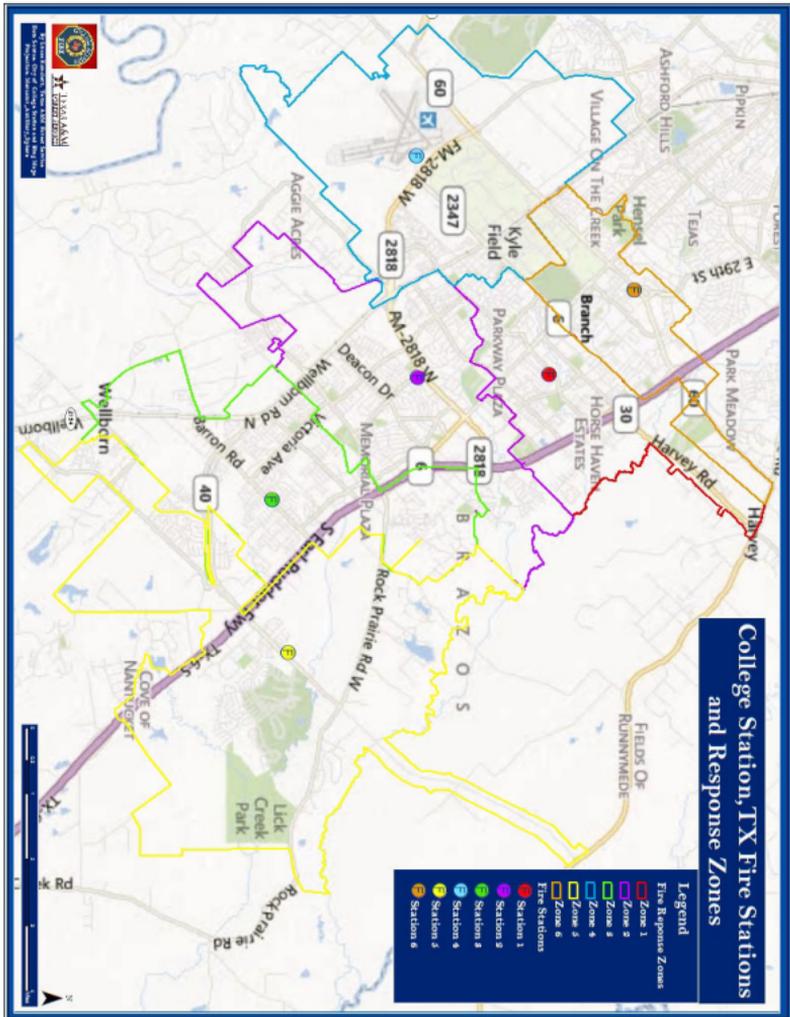


College Station Fire Department's Wildfire Pre-Attack Plan is tailored to suit the needs of the community and can be used as one of many tools to guide emergency responders in wildfire a wildfire incident.



PREPAREDNESS STRATEGIES INTRODUCTION

The City of College Station has six fire stations, each of which has a designated response zone. The Wildfire Pre-Attack Plan includes detailed information for response zones 1-6.



WILDLAND URBAN INTERFACE FIREFIGHTING

Structure protection is inherently dangerous because it involves indirect firefighting.

Do not commit to stay and protect a structure unless a safety zone for firefighters and equipment has been identified at the structure during size-up and triage. Move to the nearest safety zone, let the fire front pass and return as soon as conditions allow.

Fire Behavior Prediction:

- Base all actions on current and expected fire behavior. Do this first!
- An estimate must be made of the approaching fire intensity to determine if there is an adequate safety zone and time available before the fire arrives.
- Due to the dynamic nature of fire behavior, intensity estimates are difficult to make with absolute certainty. It is imperative that firefighters consider the worst case and build contingency actions into their plan to compensate for the unexpected.

Source: Incident Response Pocket Guide, a publication of the National Wildfire Coordinating Group

INCIDENT OBJECTIVES

- Provide for responders' safety, health, welfare and security.
- Provide for the public's safety, health, welfare and security. When necessary, provide for the safe evacuation and care of the displaced and their animals.
- Limit the amount of homes and land lost to wildland fire.
- Provide for security and investigation of wildfire cause.
- Provide for search and rescue of the trapped and missing; contain, control and mitigate all fires and hazardous substances.
- Protect and maintain access to vital infrastructure and utilities.
- Ensure compliance with the agency administrator and stakeholders' priorities.



Photo:
Stuart Villanueva

COMMAND CONSIDERATIONS

The City of College Station will maintain command of all incidents within the city limits.

The Incident Commander will:

- Establish an Incident Command Post (ICP) and direct and control emergency operations at the scene.
- Determine the need for and implement public warning and protective actions at and in the vicinity of the incident site.
- Determine whether the EOC should be activated.
- Provide periodic situation updates to the EOC, if that facility is activated.
- Identify resource requirements to the EOC, if that facility is activated.

The Emergency Management Coordinator will:

- Develop and maintain the Emergency Operations Center (EOC) staff roster and EOC operating procedures.
- Activate the EOC when requested or when the situation warrants.
- Serve as an EOC Manager.
- Coordinate resource and information support for emergency operations.
- Coordinate emergency planning and impact assessment.
- Coordinate analysis of emergency response and recovery problems and development of appropriate courses of action.

Source: Brazos County Interjurisdictional Emergency Management Plan, Annex N, Direction and Control

COMMAND CONSIDERATIONS

General Command Considerations:

- Structure protection groups should be created when high-risk areas are threatened.
- The City EMC may begin staffing Incident Management Team (IMT) positions as an incident transitions into extended attack.
- Any incoming resources should be checked in and demobilized during extended attack.
- All resources should be accounted for while at the incident.
- Heavy smoke over the city may require evacuations for special populations.
- The City of College Station EMC will establish shelter locations and coordinate the process for notifying evacuees of locations.
- The closest local Texas A&M Forest Service dozers are staged in Huntsville and LaGrange.
- PHI Air Medic, which provides helicopter transport for medical purposes, is permanently housed at St. Joseph Regional Health Center, 2801 Franciscan. PHI also can provide reconnaissance flights to locate or assist with mapping a wildfire.
- Air One, a two-seat Cessna, can provide reconnaissance flights when available. Contact Brazos County Dispatch.
- Consider a Wildland Alarm through Brazos County Dispatch-This is comprised of all 4 county departments, College Station FD brush engine and tender, and closest municipal structural engine.

TACTICAL CONSIDERATIONS

Information provided in the Tactical Considerations section can be used when making decisions about the best strategies for suppressing a wildfire.

General Tactical Considerations for the City of College Station:

- Some neighborhoods are vulnerable to structure-to-structure ignition because of the close proximity of homes.
- Some mobile home parks do not have hydrants.
- Most high-risk areas have combustible attachments and will require attention before and after the head fire passes.
- A significant amount of neighborhoods have dead-end streets and cul-de-sacs that make escape difficult during structure triage.
- Responders should attempt to protect the ignition point to allow the College Station Fire Marshal's Office to investigate.
- Temperatures can exceed 100° F in the summer. Firefighters should stay hydrated and a firefighter rehab group should be established to ensure responder safety.
- When in a drought situation, using water lines should be done carefully and minimally. Pipes can break when the ground is hard and dry. Valves on hydrants and trucks should be opened and closed slowly.
- Remote Automated Weather Stations (RAWS), which can observe potential wildfire conditions, are housed at Easterwood Airport in College Station and Coulter Airfield in Bryan.

TACTICAL CONSIDERATIONS

An Incident Command Post normally will be established at the incident scene, according to the Brazos County Interjurisdictional Emergency Management Plan, Annex N, Direction and Control.

Options for Incident Command Posts include:

- The College Station Police Department Mobile Operations Center. This unit is staged at the College Station Police Department. This unit will come staffed with a driver and a Communications Operator. Vehicle is self contained, has mobile communications and Computer Aided Dispatch abilities.
- The Bryan Mobile Command Post. This unit is staged at Bryan Fire Station 1 and is a regionally available asset. This unit will come staffed with a driver, a Communications Operator, a Geographical Information Systems member, and a group of Incident Management Team members from the Brazos Valley Search and Rescue Group. Vehicle is self contained, has mobile communications, multi radio frequency patching capability, computer networking, satellite communications, printing, GPS tracking devices, and a remote mast mounted camera.

TACTICAL CONSIDERATIONS

Fuel Model	Description	Rate of Spread	Flame Length	% of Land in City Limits	Acres of Land in City Limits
NB 91	Urban/Developed Land	n/a	n/a	46.1%	14,024
FM 9 HWD	Hardwood timber litter, with fluffy duff layer	Low	Low	15.9%	4,847
GR 1	Short, patchy, normally heavily grazed grass	Moderate	Low	14.2%	4,308
GR 2	Moderately coarse continuous grass (1 foot)	High	Moderate	13%	3,948
FM 8	Closed timber litter	Low	Low	8.4%	2,552

Peak Fire Seasons:

Primary – July through September with summer drying

Dry vegetation due to little or no rain, combined with temperatures of 98° to 105° F on a daily basis. Hurricanes or tropical storms close to Southeast Texas bring in dry, strong to gusty winds from the north and northeast.

Secondary – December through March with cured grasses and wind events

Cold front moves in from the north ushering in drier air. Relative humidity drops below 20 percent during the afternoon hours with winds gusting anywhere from 25 mph to 50 mph.

TACTICAL CONSIDERATIONS

Fuels:

The primary fuel group within and surrounding the City of College Station is short to tall grasses mixed with stands of hardwood. There are pockets of yaupon, juniper and oak throughout the city.

Under normal fire weather conditions, the grass fuel group will ignite and burn more intensely than timber litter. Under these conditions the rate of spread normally drops dramatically once it enters the timber, giving firefighters a better chance of extinguishing it.

Under more extreme fire conditions the grasses will ignite, burn intensely and spread rapidly. Hardwood stands also may produce group torching and, in the most extreme conditions, running crown fires. Since fires burn so intensely under these conditions, initial attack may be less successful.

Local Thresholds – Watch Out (combinations of any of these factors can greatly increase fire behavior):

- Winds – Greater than 15 mph *
- Relative humidity – Less than 25 percent
- Temperature over 90° F
- 100-hour fuel moisture – Less than 13 percent

** To best determine wildfire behavior, analysts calculate windspeeds 20 feet above the forest canopy. This calculation is commonly referred to as “20-foot winds.”*

TACTICAL CONSIDERATIONS

Past Experience:

When grass fuels are cured, rapid rates of spread can be expected on windy days when:

- 10-hour fuel moistures are below 7 percent

- Energy Release Component values above 46 exceed the 90th percentile

- 1,000-hour fuel moistures are less than 13 percent and below the 10th percentile

- Live woody fuel moistures are less than:

 - 90 percent in juniper

 - 120 percent in southern yellow pine

- KBDI values of 648 are at the 90th percentile

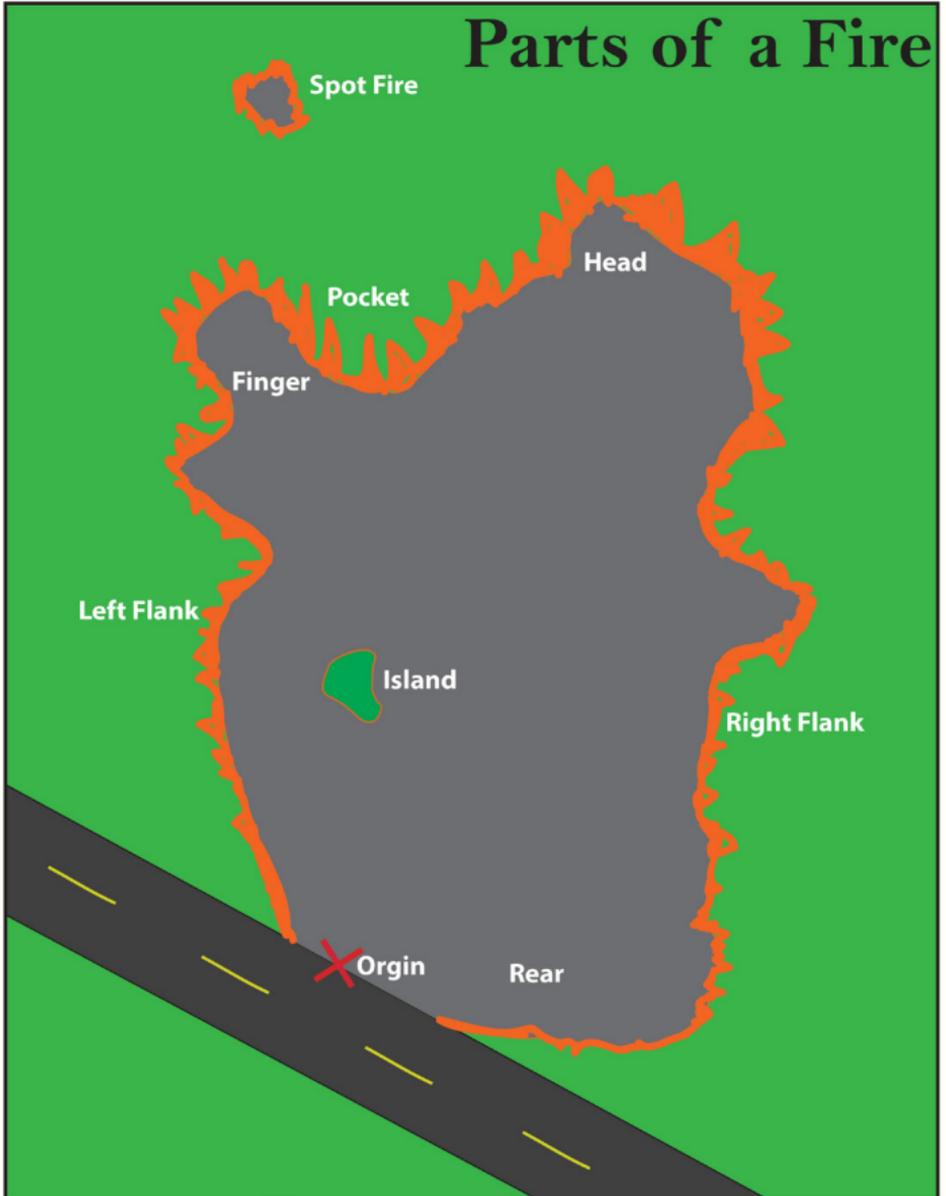


Photo: Stuart Villanueva

Information on fuels and fire danger is monitored by Texas A&M Forest Service and can be found at the Texas Interagency Coordination Center (TICC) website at

<http://ticc.tamu.edu/PredictiveServices/FuelsFireDanger.htm>

TACTICAL CONSIDERATIONS



COMMUNICATION

Communication is critical on wildfire incidents. Identifying the channels that will allow multiple resources to communicate will limit the amount of confusion and potentially dangerous situations on an incident. College Station Fire Department uses the 700 Mhz digitally trunked Brazos Valley Wide Area Communication System (BVWACS). Additional local and statewide narrowband VHF frequencies include:

Channel Name	System	Receive	Rx PL	Transmit	TX PL
CSFD 1	BVWACS				
CSFD 2	BVWACS				
CSFD 3	BVWACS				
Brazos Co. VFD 1*	BVWACS				
Brazos Co. VFD 1*	VHF	155.9400	141.3	153.9800	141.3
VFIRE21	VHF	154.2800	156.7	154.2800	156.7
VFIRE22	VHF	154.2650	156.7	154.2650	156.7
VFIRE23	VHF	154.2950	156.7	154.2950	156.7

**Channels have a full time operational patch for normal operations*

Brazos County VFD 1 is typically used to communicate with incoming resources. Brazos County VFD 1 is typically used by operations on the scene during wildland incidents. Additionally, the Mobile Command Post has capabilities that allow resources to communicate by radio on different frequencies.

WATER SOURCES

There are approximately 412 miles of pipe, 7,694 valves and 2,700 fire hydrants in the city's distribution system.

The largest body of water in the area is Lake Bryan. Managed by Bryan Texas Utilities, the lake has a surface area of about 829 acres and a maximum depth of 45 feet. The surface elevation is 356 feet. The lake serves as a cooling reservoir for the Dansby Power Plant.

There are numerous small ponds and bodies of water throughout and surrounding the City of College Station. Some of these water sources may be available to draft from but could potentially not have enough capacity to assist with wildfire suppression during dry conditions.



Lake Bryan

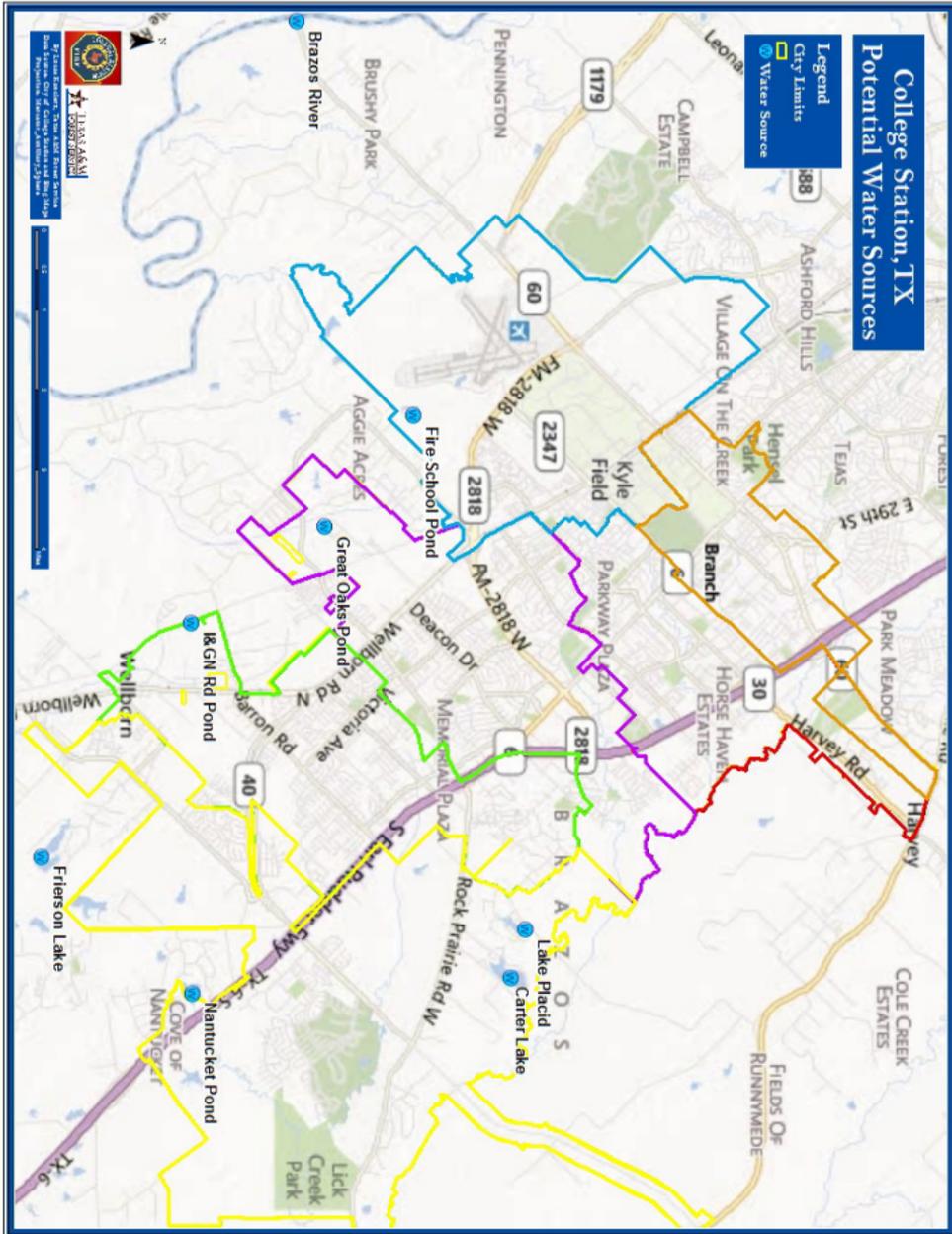
WATER SOURCES

Name	Location	Address	Draft	Dip
Fire School Pond	30° 34' 37" N 96° 21' 7" W	Access from Stillwater Rd at TEEX Fire Training Field	X	X
Great Oaks Pond	30° 33' 49" N 96° 19' 52" W	Access from Abbate Rd and Twin Lakes Circle	X	
I&GN Rd Pond	30° 32' 35" N 96° 18' 49" W	Access from I&GN Rd between Capstone Dr and S. Dowling Rd	X	
Frierson Lake	30° 31' 11" N 96° 16' 17" W	Between Woodlake Dr and Calumet Trail	X	X
Carter Lake	30° 35' 33" N 96° 14' 58" W	Access from Carter Lake Dr	X	X
Lake Placid	30° 35' 41" N 96° 15' 29" W	Access from Bird Pond Rd and E. Placid Dr	X	X
Nantucket Pond	30° 32' 35" N 96° 14' 47" W	1500 Nantucket Drive	X	X
Lake Bryan	30° 42' 33" N 96° 28' 19" W	8200 Sandy Point Dr	X	X
Indian Lakes	30° 30' 51" N 96° 14' 59" W	Access from Indian Lakes Dr and Aparaho Dr	X	X
Wichman Lake	30° 31' 45" N 96° 07' 45" W	Access from Land Ends Lane	X	X
Brazos River	N 30° 33' 32" W 96° 25' 24"	Access from Hwy 60	X	X

*Lake Bryan and Wichman Lake not shown on map

College Station, TX Potential Water Sources

- Legend**
- City Limits
 - Water Source



AIR RESOURCES

- Easterwood Airport could serve as a helibase for air resources on the west side of the city.

Lat/Long: N 30° 35' 17" / W 96° 21' 39"

Address: 1770 George Bush Dr West
College Station, TX



Easterwood Airport

HELICOPTERS

Type I Helicopters (Helitankers)

- Similar to a military Chinook helicopter, a helitanker is the most common aircraft used by Texas A&M Forest Service. They are equipped with snorkels that allow them to draw from shallow water sources such as stock tanks, swimming pools, small creeks, lakes and ponds.
- Generally carries 800 to 1,500 gallons of water.

Type 2 Helicopters

- Similar in size to a military Huey helicopter, these aircraft can be used to haul water or transport passengers.
- While some are tanked and snorkeled, most used in Texas have 300- to 350-gallon buckets. They generally are used in East Texas where buckets can dip out of ponds or lakes.

Type 3 Helicopters

- Similar to a civilian Jet Ranger helicopter or civilian Life Flight helicopter, these aircraft can be used to haul water or carry two to three passengers for reconnaissance flights.
- The aircraft can haul between 100 to 180 gallons of water, but are primarily used in Texas for recon missions by command or operations personnel or for mapping purposes.

EVACUATION CONSIDERATIONS

State law provides a county judge or mayor with the authority to order the evacuation of all or part of the population from a stricken or threatened area within their respective jurisdictions. Hence, the mayor of College Station may order an evacuation of the city upon issuing a local disaster declaration.

The Incident Commander or, for large-scale evacuations, the EOC shall assess the need for evacuation and plan the evacuation effort. Evacuations that must be conducted because of incidents that occur without warning may have to be planned quickly and carried out with only those resources that can be mobilized rapidly. The decision to recommend an evacuation in and around the area of an incident site rests with the Incident Commander. In general, the county judge and/or mayor shall issue the order for large-scale evacuations.

General Evacuation Considerations:

- When necessary, a law enforcement group should be established to develop an evacuation plan that covers traffic control, security issues and how best to safely evacuate residents, special needs populations and non-English speakers.
- Provide for safe evacuation of residents while also considering access for incoming resources (structure protection).
- Shelter locations should be identified during evacuations.
- If evacuation routes are cut off, safety zones should be considered.
- Utilize reverse 911

EVACUATION CONSIDERATIONS

Re-Entry Considerations:

- Initiate return of evacuees, when it is safe to do so.
- Coordinate temporary housing for those who cannot return to their homes.
- Provide traffic control for return.
- Initiate recovery activities for evacuees who have suffered loss of or damage to their homes or businesses.
- Carry out appropriate public information activities.
- Utilization of CART Team for re-entry.

Source: Brazos County Interjurisdictional Emergency Management Plan, Annex E, Evacuation



SPECIAL POPULATIONS

Special populations to consider for smoke management and evacuation include schools, hospitals and nursing homes.

College Station ISD Schools:

A&M Consolidated High, 1801 Harvey Mitchell Parkway South

A&M Consolidated Middle, 105 Holik Street

Alternate Education Programs, 105 Timber Avenue

Barbara Bush Parent Center, 1200 George Bush Drive South

College Hills Elementary, 1101 Williams Street

College Station Middle, 900 Rock Prairie Road

College Station High, 4002 Victoria Avenue

Community Education, 1812 Welsh Avenue

Creek View Elementary, 1001 Eagle Avenue

Cypress Grove Intermediate, 900 Graham Road South

Forest Ridge Elementary, 1950 Greens Prairie Road West

SPECIAL POPULATIONS

Greens Prairie Elementary, 4315 Greens Prairie Trail

Oakwood Intermediate, 106 Holik Street

Pebble Creek Elementary, 200 Parkview Drive

Rock Prairie Elementary, 3400 Welsh Avenue

South Knoll Elementary, 1220 Boswell Street

Southwood Valley Elementary, 2700 Brothers Boulevard

Private Schools:

Aggieland Country School, 1500 Quail Run

Balcones Kindercare, 937 Balcones Drive

Brazos Valley Adventist School, 1350 Earl Rudder Fwy South

Cornerstone Christian Academy, 2475 Earl Rudder Fwy South

Saint Thomas Early Learning Center, 906 George Bush Drive

Village Drive Kindercare, 1711 Village Drive

SPECIAL POPULATIONS

Higher Education:

Texas A&M University: Evacuation orders for campus are issued via Code Maroon messaging system

Treatment Centers:

St. Joseph Regional Health Center, 2801 Franciscan Drive

- 303 licensed beds; 36-bed medical/surgical ICU; 14 operating rooms
- MRI scanner, two CT scanners, dialysis unit (five machines)
- Emergency room: four trauma rooms, 16 exam rooms, five minor care/urgent care exam rooms, six-bed observation area
- 18 isolation beds
- Emergency power for indefinite number of hours (up to 96 without refueling)

The Physicians Centre Hospital, 3131 University Drive

- 16 licensed beds; no ICU; four operating rooms and two minor procedure rooms
- MRI scanner, CT scanner, no dialysis unit
- Unstaffed first aid suite with on-call doctor, no emergency rooms
- Emergency power for 24 hours

Scott and White Healthcare, 700 Scott & White Drive

- 143 beds; Level III emergency department
- MRI scanner, 64-slice CT scanner

SPECIAL POPULATIONS

Nursing Homes:

Arbor on the Brazos, 1103 Rock Prairie Road

Bluebonnet House, 3901 Victoria Avenue

- 39 beds, emergency power for 168-plus hours; propane generator

The Waterford at College Station, 1103 Rock Prairie Road

- 40 beds; 18 memory care

Fortress Health and Rehab, 1105 Rock Prairie Road

- 120 beds; emergency power for 72 hours

Magnified Health and Rehab, 1115 Anderson Street

- 115 beds; emergency power for 24 to 48 hours

POSSIBLE SHELTER LOCATIONS

Sheltering efforts should be coordinated with the College Station Emergency Management Coordinator and American Red Cross.

Forty-six locations within Brazos County have been identified as available for sheltering. Of those, 35 are designated for general purposes, four are designated for local needs, four are designated for special needs and three are designated for responders.

The Emergency Management Coordinator can provide a list of available facilities upon request.

Evacuations will require coordination with:

- EMC
- Fire Department
- Police Department
- Mayor's Office
- City/Incident Public Information Officers
- Dispatch
- Public Works

CONTINGENCY PLANNING

Contingency Planning:

Contingency plans identify high-risk neighborhoods and areas with the potential for large wildland incidents. These plans contain information that may be beneficial to incoming resources, including fuel types, water sources, staging areas and ICP locations.

A map of each high-risk neighborhood also is provided to give users an elevated view of the area and its potential threats.



ZONE 1

CONTINGENCY PLAN

Keep the Fire:

North of Highway 30
Southeast of Pate Road
North of Carters Creek

Additional Water Sources:

Lake Bryan
N 30° 42' 33"
W 96° 28' 19"
Access from Sandy Point Road

*Closest hydrant at FM 158
and Highway 30

Fuels:

Grass – High rates
of spread and flame
lengths

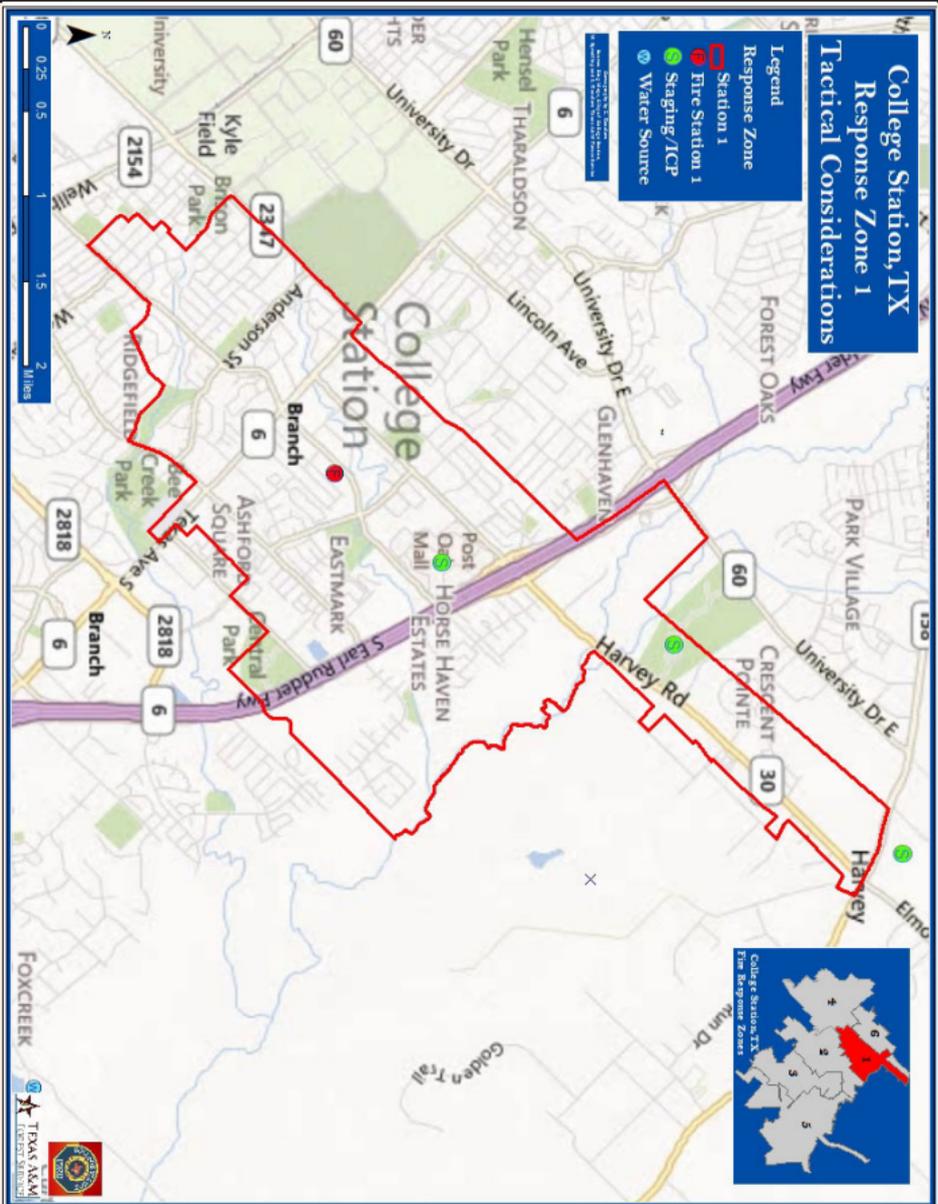
Juniper – High
flame lengths

Oak – High flame
lengths

Local Thresholds – Watch Out:

- Winds – Greater than 15 mph
- RH – Less than 25 percent
- Temperature – Over 90° F
- 100-hour fuel moisture – Less than 13 percent

ZONE 1 CONTINGENCY PLAN



ZONE 1

CONTINGENCY PLAN

General tactical considerations:

- Pipelines and electrical lines
- Refined Fuels

Evacuation Trigger Points:

- Extreme fire conditions
- Fire jumps Highway 30 or Pate Rd
- Heavy smoke within neighborhood

Evacuation Considerations:

- None

ZONE 1 CONTINGENCY PLAN

Potential Staging and ICP Locations in Response Zone 1:

Central Baptist Church, 1991 FM 158

N 30° 38' 24"

W 96° 16' 40"



Post Oak Mall, 1500 Harvey Rd

N 30° 37' 29"

W 96° 18' 11"

ZONE 1 CONTINGENCY PLAN

Veterans Memorial Park, 3101 Harvey Rd
3101 Harvey Rd
N 30° 38' 24"
W 96° 17' 34"



College Station, TX Response Zone 1 Wildfire Risk Areas

Legend

- Risk
 - High
 - Moderate
- Water Source
- Staging/ICP
- Fire Station 1
- Response Zone
- Station 1

At Risk Areas

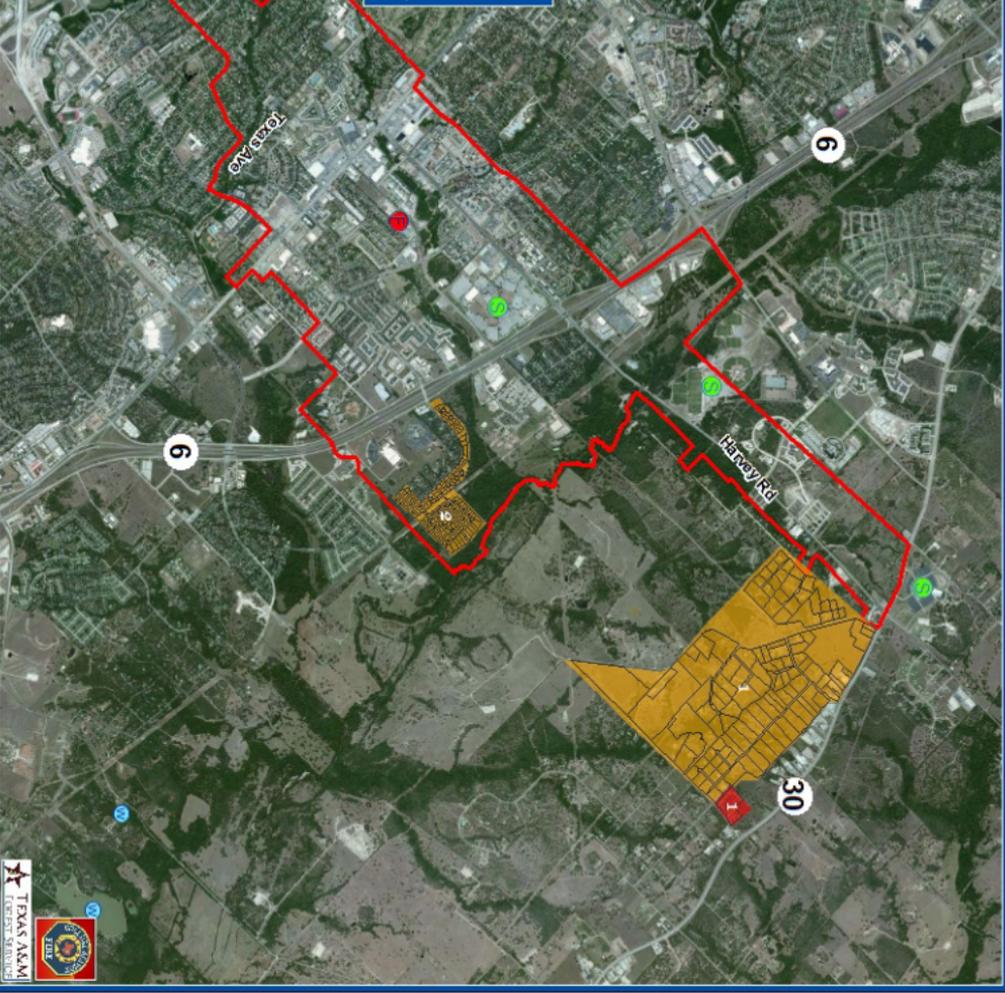
High

1: Glenwood Mobile Home Park

Moderate

1: Nunn Jones Rd and Deer Run Rd Area

2: Raintree



ZONE 1 HIGH-RISK AREAS

Glen Oaks Mobile Home Park

Location: Highway 30 and
Pate Road
N 30° 38' 36"
W 96° 15' 29"

Responding Station: 1

Wildland Areas:

Approximately 33 acres, N,
NE, NW

Fuels: Yaupon, oak, cedar (heavy fuel loading)

Primary Threats: Direct flame contact, ember intrusion (from N, NW, W)

Fire Behavior: Low-intensity grass fire – Extreme crown fire

Access: One point (Pate Road)

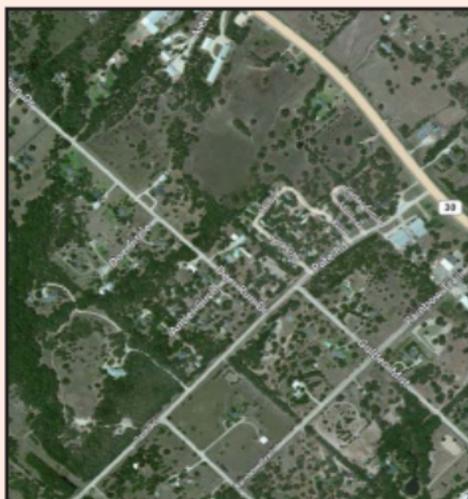
Home Construction: Vinyl with wooden **combustible attachments**

Defensible Space: Less than 30 feet/Not present

Fire Occurrence: Low

Estimated Values at Risk:

- \$383,210 total value
- 10 acres



ZONE 2 CONTINGENCY PLAN

Draft Site 1:

Great Oaks Pond

30° 33' 49" N

96° 19' 52" W

Access from Abbate Rd and Twin
Lakes Circle

Additional Water Sources:

Fire School Pond

30° 34' 37" N

96° 21' 7" W

Access from Stillwater Rd at TEEEX
Fire Training Field

*No fire hydrants located in high
risk areas.

Keep the Fire:

North of F.M. 2818

Southwest of N.

Dowling Rd

Fuels:

Primarily grasses, –
High rates of spread
and moderate flame
lengths

Yaupon, juniper and
oak – High flame
lengths



Mobile homes at greatest risk

Local Thresholds –

Watch Out:

- Winds – Greater than 15 mph
- RH – Less than 25 percent
- Temperature – Over 90° F
- 100-hour fuel moisture – Less than 13 percent

ZONE 2 CONTINGENCY PLAN

General tactical considerations:

- Pipelines and electrical lines
- Union Pacific Railroad

Evacuation Trigger Points:

- Extreme fire conditions
- Fire jumps F.M. 2818
- Heavy smoke within neighborhood
- Fire reaches Union Pacific railroad

Evacuation Considerations:

- None



ZONE 2 CONTINGENCY PLAN

Potential Staging and ICP Locations in Response Zone 2:

A&M Consolidated High School, 1801 Harvey Mitchell
PkwY South
30° 35' 31" N
96° 19' 05" W

Brian Bachmann Community Park, 1600 Rock Prairie
Rd
30° 34' 45" N
96° 17' 52" W

College Station, TX Response Zone 2 Wildfire Risk Areas

Legend

- Wildfire Risk Areas
 - High
 - Moderate
 - Response Zone
- Response Zone
 - Response Zone 2
 - Response Zone 3
- Staging Area
- Water Source

At Risk Areas

High
1: Woodway and Pleasant Forest
Mobile Home Parks
2: Sherwood Heights

Moderate
1: Sandstone
2: Great Oaks



Map data © OpenStreetMap contributors, U.S. Geological Survey, Esri, © 2014

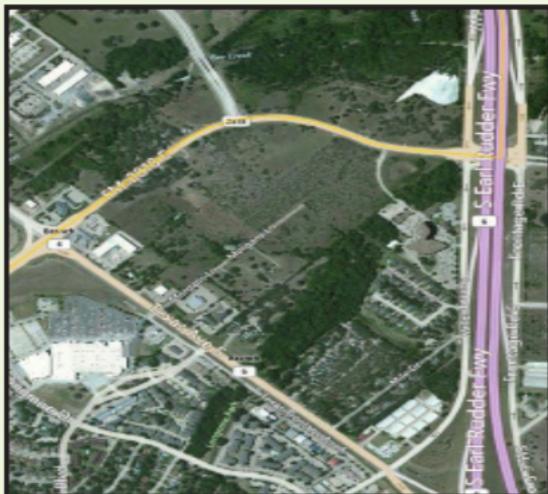


ZONE 2 HIGH-RISK AREAS

Woodway and Pleasant Forest Mobile Home Park

Location: Mile Drive
and Texas Ave
N 30° 35' 48"
W 96° 17' 39"

Responding Station:
2



Wildland Areas: Approximately 20 acres, N

Fuels: Grass, juniper and oak

Primary Threats: Direct flame contact, ember intrusion,
radiant heat (from N)

Fire Behavior: Low-intensity grass fire – Group torching

Access: One point (Texas Ave)

Home Construction: Homes have vinyl siding, open at
foundation, and **combustible attachments**

Defensible Space: Less than 30 feet

Fire Occurrence: High

Estimated Values at Risk:

- \$907,420 total value
- 34 acres

ZONE 2 HIGH-RISK AREAS

Sherwood Heights/Robin Drive

Location: Rock
Prairie Road and
Dowling Road
N 30° 33' 23"
W 96° 20' 0"

Responding Station:
2



Wildland Areas: Approximately 125 acres, SW, S, SE, NE

Fuels: Yaupon, juniper and oak

Primary Threats: Direct flame contact, ember intrusion (from SW, S, SE, NE)

Fire Behavior: Low-Moderate intensity fire – Group torching

Access: Two access point on Rock Prairie Road

Home Construction: Ignition-resistant material and vinyl sided homes with **combustible attachments**

Defensible Space: Less than 30 feet

Fire Occurrence: Low

Estimated Values at Risk:

• 110 homes • \$8,505,110 total value • 74 acres

ZONE 3 CONTINGENCY PLAN

Fuels:

Large areas of grasslands surround the neighborhood.

Depending on grazing methods, grasses may range from short to tall and can produce extreme fire behavior.

Grass - High rates of spread and moderate flame lengths

Local Thresholds – Watch Out:

- Winds – Greater than 15 mph
- RH – Less than 25 percent
- Temperature – Over 90° F
- 100-hour fuel moisture – Less than 13 percent



Zone 3 fuels

Keep the Fire:

North of Capstone Dr
West of S. Dowling Rd

Draft Site 1:

I&GN Road Pond

30° 32' 35" N

96° 18' 49" W

Access from I&GN Rd
between Capstone Dr
and S. Dowling Rd

Additional Water

Sources:

Lake Placid

30° 35' 41" N

96° 15' 29" W

Access from Bird Pond
Rd and E. Placid Dr

Fire School Pond

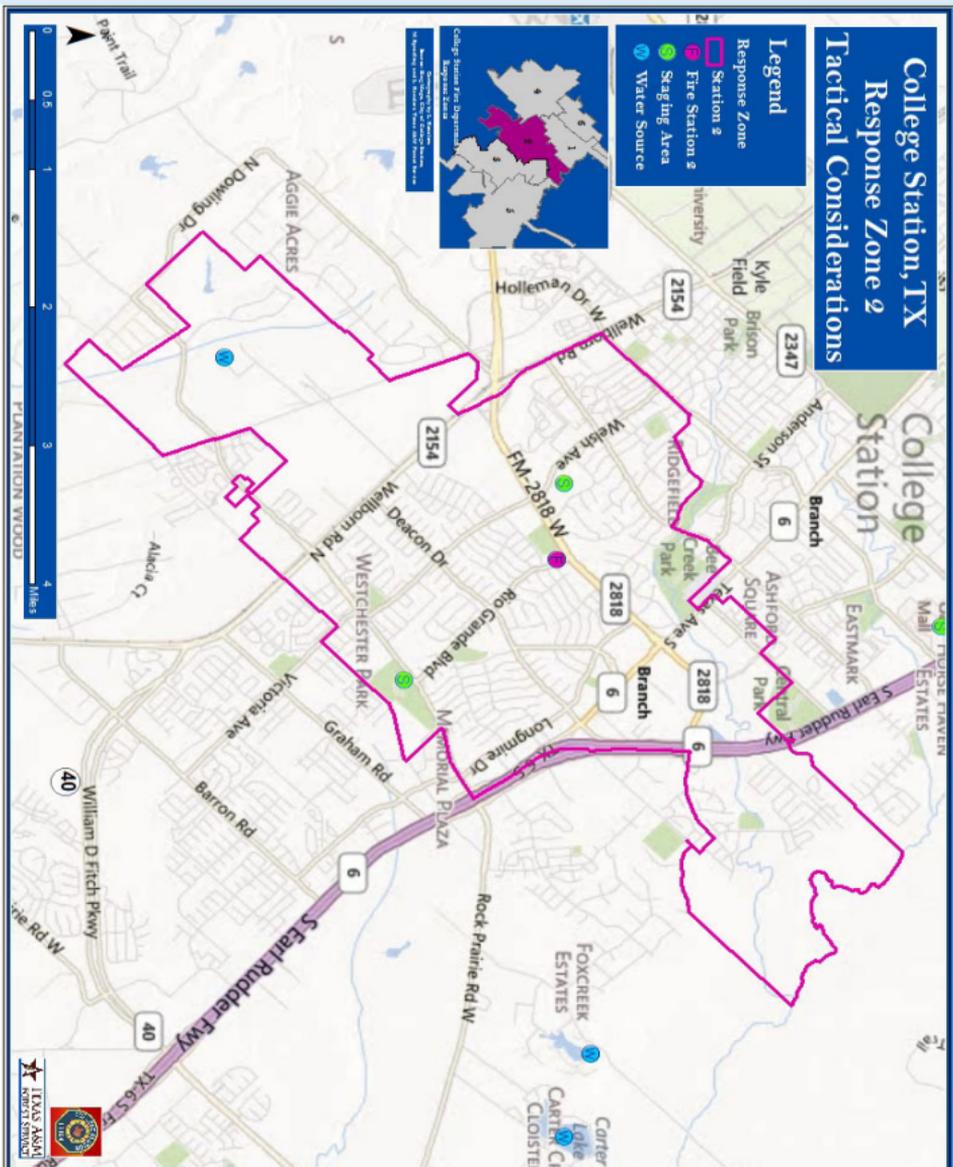
30° 34' 37" N

96° 21' 7" W

Access from Stillwater
Rd at TEEX Fire
Training Field

*Hydrants are located
throughout area

ZONE 3 CONTINGENCY PLAN



ZONE 3 CONTINGENCY PLAN

Evacuation Trigger Points:

- Extreme fire behavior and high rates of spread
- Heavy smoke within neighborhood
- Heavy smoke within Wellborn
- Bluebonnet House-Assisted Living Center

Evacuation Considerations:

Villas of Rock Prairie-Assisted Living Center

Potential Staging and ICP Locations in Response Zone 3:

College Station High School, 4002 Victoria Ave

30° 33' 34" N

96° 17' 14" W

Cypress Grove Intermediate School, 900 Graham Rd

30° 34' 16" N

96° 17' 35" W

College Station, TX Response Zone 3 Wildfire Risk Areas

Legend

- Wildfire Risk Areas
 - High
 - Moderate
- Response Zone
 - Station 3
- Station 3
- Staging Area
- Water Source

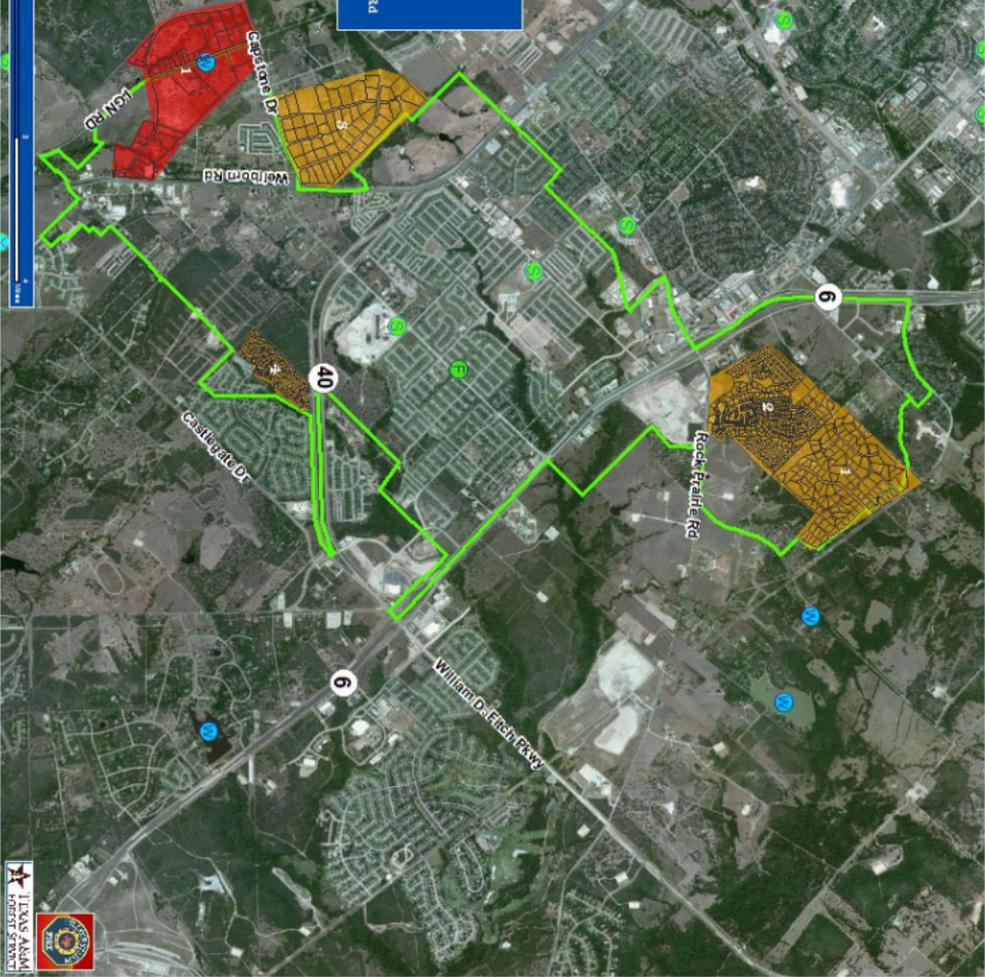
At Risk Areas

High

- 1: Ike G N Rd and S Dowling Rd Area

Moderate

- 1: Postville
- 2: Woodruff Dr Area
- 3: Willow Run Capistrano Dr and Wellborn Rd
- 4: Castlegate

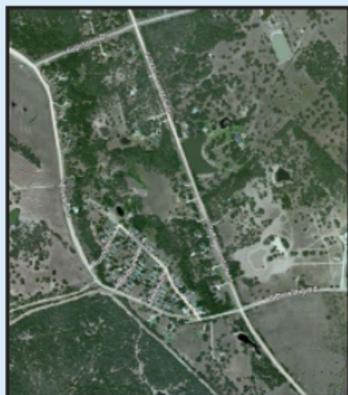


ZONE 3 HIGH-RISK AREAS

South Dowling and I&GN Road

Location: South Dowling and
I&GN Road
N 30° 32' 17"
W 96° 18' 43"

Responding Station: 3



Wildland Areas: Approximately 80 acres, S, W, E

Fuels: Grass, juniper and oak

Primary Threats: Direct flame contact, ember intrusion, radiant heat (from S, W, E)

Fire Behavior: Low-intensity grass fire – Group torching

Access: Several points to I&GN Rd

Home Construction: Homes constructed of brick and composite roofs with **combustible attachments**

Defensible Space: 30 feet

Fire Occurrence: Moderate

Estimated Values at Risk:

- 36 homes
- \$12,538,680 total value
- 252 acres

ZONE 4

CONTINGENCY PLAN

Keep the Fire:

East and North of S. Traditions
Drive
South of Highway 60

Fuels:

Short grass with
patches of tall grass
– Low to high rates
of spread

Yaupon – Moderate
to high flame
lengths

Oak – High flame
lengths

Local Thresholds – Watch Out:

- Winds – Greater than 15 mph
- RH – Less than 25 percent
- Temperature – Over 90° F
- 100-hour fuel moisture – Less than 13 percent

Draft Site 1:

Fire School Pond
30° 34' 37" N
96° 21' 7" W
Access from Stillwater
Rd at TEEX Fire
Training Field

Additional Water

Sources:

Lake Bryan
N 30° 42' 33"
W 96° 28' 19"
Access from Sandy Point
Road

Brazos River
N 30° 33' 32"
W 96° 25' 24"
Access from Highway 60

ZONE 4

CONTINGENCY PLAN

General Tactical Considerations:

- Easterwood Airport is located in Zone 4 and can be used as a Helispot
- Air traffic from to and from Easterwood Airport
- Radioactive waste building from Nuclear Science Center

Evacuation Trigger Points:

- Fire jumps Highway 60 or S. Traditions Drive
- Extreme fire conditions and high rates of spread

Evacuation Considerations:

- None

Potential Staging and ICP Locations in Response Zone 4:

TEEX Brayton Fire Training Field, 1595 Nuclear Science Road

N 30° 33' 32"

W 96° 25' 24"



ZONE 4 CONTINGENCY PLAN

Easterwood Airport, 1770 George Bush Drive West
N 30° 35' 17"
W 96° 21' 39"

George Bush Library, 1000 George Bush Drive West
N 30° 35' 17"
W 96° 21' 39"



Reed Arena, 730 Olsen Blvd
N 30° 36' 20"
W 96° 20' 46"

College Station, TX Response Zone 4 Wildfire Risk Areas

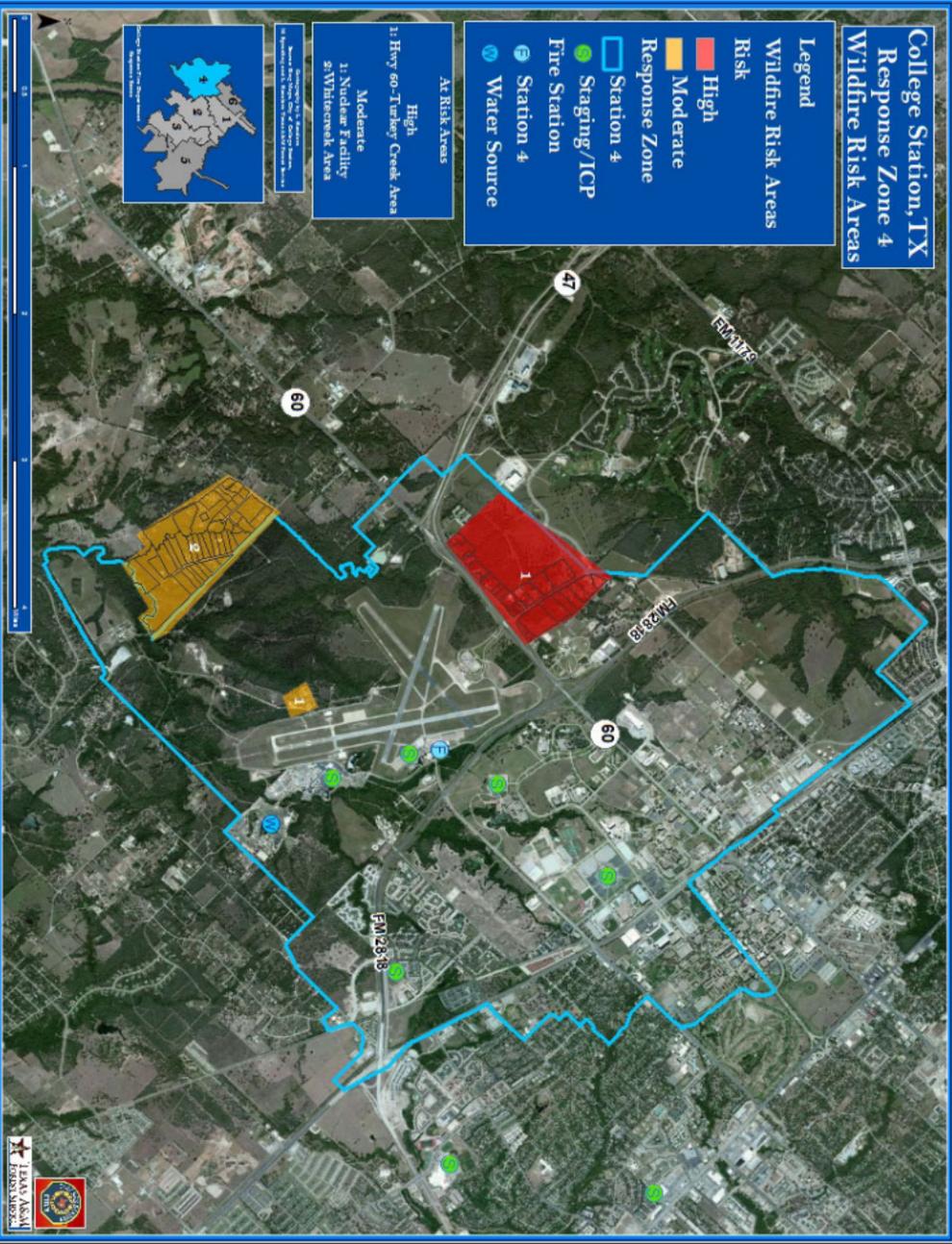
Legend

- Wildfire Risk Areas
- Risk
 - High
 - Moderate
- Response Zone
- Station 4
- Staging/ICP
- Fire Station
- Station 4
- Water Source

At Risk Areas

- High
 - 1: Hwy 60-Turkey Creek Area
- Moderate
 - 1: Nudex Facility
 - 2: Whitecreek Area

Map of the State of Texas showing the location of the Response Zone 4 area.



ZONE 4 HIGH-RISK AREAS

Highway 60 and Turkey Creek Road

Location: Highway 60 and
Turkey Creek Road
N 30° 35' 51"
W 96° 22' 37"

Responding Station: 4

Wildland Areas:

Approximately 140 acres,
intermix

Fuels: Grass, yaupon and oak

Primary Threats: Direct flame contact, ember intrusion, radiant heat

Fire Behavior: Low-intensity grass fire – Group torching

Access: Two points to Highway 60 and S. Traditions Drive

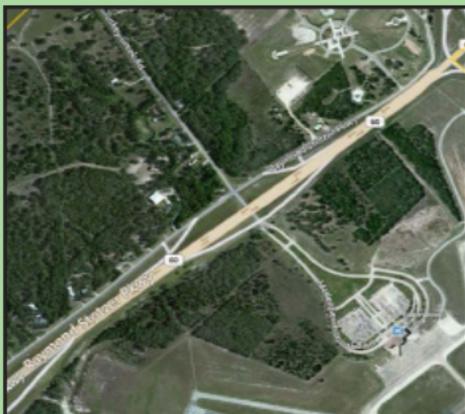
Home Construction: Homes are constructed of wood and vinyl with **combustible attachments**

Defensible Space: Less than 30 feet

Fire Occurrence: Moderate

Estimated Values at Risk:

- 23 homes
- \$4,622,380 total value
- 108 acres



ZONE 5

CONTINGENCY PLAN

Keep the Fire:

Southeast of Royder Rd
East of Bird Pond Rd

Fuels:

Primarily grass fields intermixed with areas that have oak, yaupon and floodplain forest

Grass - High rates of spread and moderate flame lengths

Juniper – High flame lengths

Yaupon – Moderate flame lengths

Floodplain Forest– High flame lengths (drought conditions)

Draft Site 1:

Lake Placid
30° 35' 41" N
96° 15' 29" W
Access E. Placid Dr and Bird Pond Rd

Draft Site 2:

Carter Lake
30° 35' 33" N
96° 14' 58" W
Access from Carter Lake Dr

Draft Site 3:

Nantucket Pond
30° 32' 35" N
96° 14' 47" W
Access at 1500 Nantucket Dr

Additional Water Sources:

Frierson Lake
30° 31' 11" N
96° 16' 17" W
Between Woodlake Dr and Calumet Trail

Indian Lakes

30° 30' 51" N
96° 14' 59" W
Access from Indian Lakes Dr and Aparaho Dr

Local Thresholds – Watch Out:

- Winds – Greater than 15 mph
- RH – Less than 25 percent
- Temperature – Over 90° F
- 100-hour fuel moisture – Less than 13 percent

ZONE 5 CONTINGENCY PLAN

Evacuation Trigger Points:

- Extreme fire behavior
- High rates of spread
- Group torching and crown runs
- Fire jumps Highway 6, Royder Rd, or Carters Creek

Evacuation Considerations:

- Narrow roads

Potential Staging and ICP Locations in Response Zone 5:

Pebble Creek Country Club, 4500 Pebble Creek Pkwy

N 30° 34' 01"

W 96° 14' 09"

Pebble Creek Elementary, 200 Parkview Dr

N 30° 33' 31"

W 96° 14' 56"



ZONE 5 CONTINGENCY PLAN

Texas World Speedway, 17529 State Highway 6 South

N 30° 33' 31"

W 96° 14' 56"

Texas A&M Forest Service, 200 Technology Way

N 30° 33' 06"

W 96° 14' 34w"

College Station, TX Response Zone 5 Wildfire Risk Areas

Legend

Wildfire Risk Areas

Extreme

High

Moderate

Response Zone

Station 5

Staging Area

Station 5

Water Source

At Risk Area

Extreme

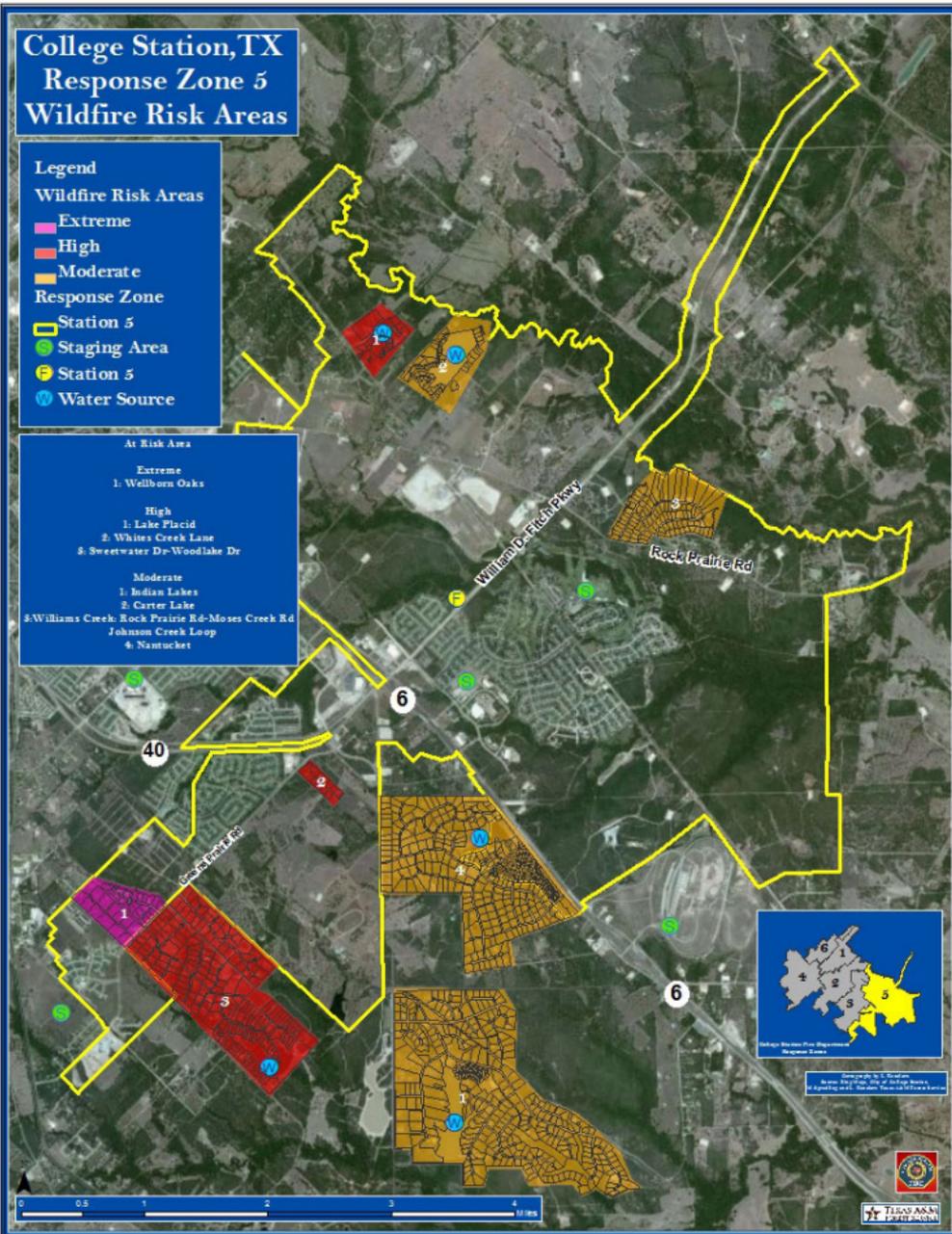
1. Wellborn Oaks

High

1. Lake Placid
2. Whites Creek Lane
3. Sweetwater Dr-Woodlake Dr

Moderate

1. Indian Lakes
2. Carter Lake
3. Williams Creek, Rock Prairie Rd-Moses Creek Rd
- Johnson Creek Loop
6. Nantucket

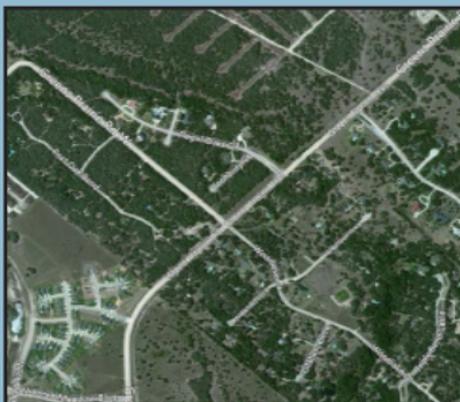


ZONE 5 EXTREME-RISK AREAS

Wellborn Oaks

Location: Greens Prairie
Road and Royal Oak
Drive
N 30° 32' 7"
W 96° 17' 24"

Responding Station: 5



Wildland Areas:

Approximately 91 acres, N, NE

Fuels: Grass, yaupon, and oak

Primary Threats: Direct flame contact, ember intrusion

Fire Behavior: Low-intensity grass fire – Extreme crown fire

Access: One point (Greens Prairie Road)

Home Construction: Mix of Brick and Vinly with **combustible attachments**

Defensible Space: Less than 30 feet/Not Present

Fire Occurrence: Low

No Fire Hydrants Present

Estimated Values at Risk:

- 133 homes
- \$34,467,640 total value
- 377 acres

ZONE 5 HIGH-RISK AREAS

Lake Placid

Location: Bird Pond Road and East Placid Drive

N 30° 35' 36"

W 96° 15' 24"

Responding Station: 5

Wildland Areas: Approximately 100 acres, NW, W

Fuels: Grass, yaupon, oak, flood plain forest

Primary Threats: Direct flame contact, ember intrusion, radiant heat (from N and E)

Fire Behavior: Low-intensity grass fire – Group torching

Access: One access point to from Bird Pond Road

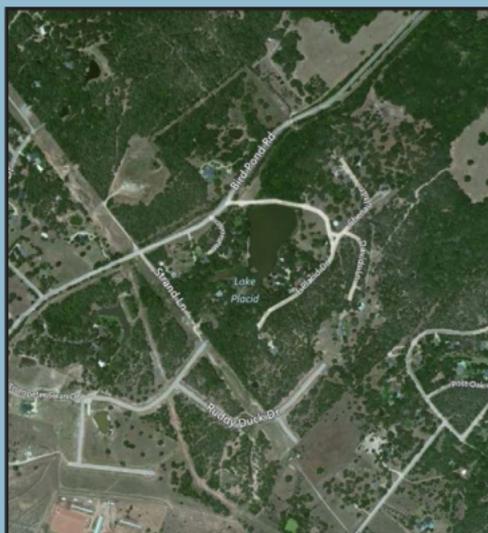
Home Construction: Brick with compisite roofs

Defensible Space: Less than 30 feet

Fire Occurrence: Low

Estimated Values at Risk:

- 15 homes
- \$3,135,300 total value
- 50 acres



ZONE 5 HIGH-RISK AREAS

Sweetwater Dr-Woodlake Dr

Location: Sweetwater Dr-Woodlake Dr off Green Prairie Rd
N 30° 31' 58"
W 96° 16' 36"

Responding Station: 5

Wildland Areas: Approximately 580 acres, NE, E, SE, S, S, SW

Fuels: Grass, yaupon, cedar and oak

Primary Threats: Direct flame contact, ember intrusion, radiant heat (from NE, E, SE, S, S, SW)

Fire Behavior: Low-intensity grass fire – Group torching

Access: One point each to
Green Prairie Road

Home Construction: Brick and
Stucco with Composite roofs or
vinyl siding with **combustible
attachments**

Defensible Space: Less than feet

Fire Occurrence: Moderate

Estimated Values at Risk:

- 168 homes
- \$53,050,000 total value
- 470 acres



ZONE 5 HIGH-RISK AREAS

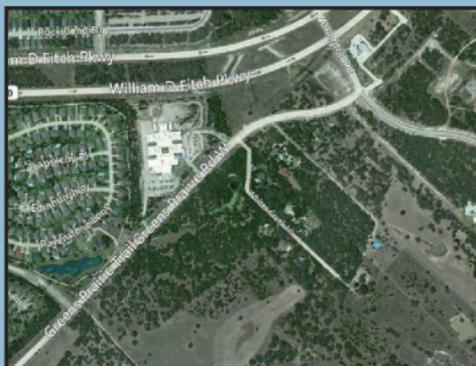
Whites Creek Lane

Location: Greens Prairie
Road and Whites Creek
Lane

N 30° 32' 57"

W 96° 15' 58"

Responding Station: 5



Wildland Areas:

Approximately 308 acres, intermix

Fuels: Grass, yaupon, and oak

Primary Threats: Direct flame contact, ember intrusion

Fire Behavior: Low-intensity grass fire – Extreme crown fire

Access: One point to Greens Prairie Road

Home Construction: Ignition-resistant with **combustible attachments**

Defensible Space: 30 feet

Fire Occurrence: Low

Estimated Values at Risk:

- 12 homes
- \$2,297,770 total value
- 21 acres

ZONE 6 INFORMATION

Response Zone 6 does not have any risk areas due most of the area being urban. Station 6 could be used as a staging location or incident command post.

Fire Station 6 is located at 610 University Drive East.



REGIONAL FIRE RISK LEVELS

Fire managers at the regional and state level use Fire Risk Levels as a planning and staffing tool. The state is divided into 18 fire risk regions. A regional fire risk level is determined for each region. One preparedness level is determined for the state.

Fire Risk Level I

- Low to moderate daily fire danger when critical fire weather is present
- Low to moderate fire occurrence
- Drought Monitor lists no drought levels in region
- Fuel dryness is at normal moisture (blue level)
- Herbaceous fuel moistures are above 150 percent and grasses are green
- 1,000-hour dead fuel moisture is above the 50th percentile
- ERC percentile is below the 50th percentile

Fire Risk Level II

- Moderate to high daily fire danger when critical fire weather is present
- Moderate to active fire occurrence
- Drought Monitor defines D1 (moderate) drought or abnormally dry areas within region
- Fuel dryness is at normal moisture (blue level) or dry (yellow level)

REGIONAL FIRE RISK LEVELS

- Herbaceous fuel moistures are cured or transitioning from green to cured
- 1,000-hour dead fuel moisture is between the 26th and 50th percentile (blue)
- ERC percentile is between the 50th and 75th percentile (blue)

Fire Risk Level III

- High to very high daily fire danger when critical fire weather is present
- Active fire occurrence
- Drought Monitor defines D1 or D2 (moderate to severe) drought in region
- Fuel dryness is at dry (yellow) or critically dry (orange) level
- Herbaceous fuels are cured
- 1,000-hour dead fuel moisture is between the 10th and 25th percentile (yellow)
- ERC percentile is between the 75th and 90th percentile (yellow)

Fire Risk Level IV

- Very high to extreme daily fire danger when critical fire weather is present
- Very active fire occurrence
- Drought Monitor defines D2 or D3 (severe to extreme)

REGIONAL FIRE RISK LEVELS

drought in region

- Fuel dryness is at critically dry (orange) or extreme (red) level
- Herbaceous fuels are cured
- 1,000-hour dead fuel moisture is between the 3rd and 10th percentile
- ERC percentile is between the 90th and 97th percentile (orange and red)

Fire Risk Level V

- Very high to extreme daily fire danger when critical fire weather is present
- Very active to extreme fire occurrence
- Drought Monitor defines D3 or D4 (extreme to exceptional) drought in region
- Fuel dryness is at critically dry (orange) or extreme (red) level
- Herbaceous fuels are cured
- 1,000-hour dead fuel moisture is at or below the 97th percentile (red)

Source: Texas Fire Response Handbook

STATE PREPAREDNESS LEVELS

Listed below are the criteria for determining State Preparedness Levels (PL). The PL is established by Texas A&M Forest Service's Planning and Preparedness Section in conjunction with the Risk Assessment Section.

Preparedness Level 1

- Fire activity is within the capabilities of local fire departments with minimal support from TFS.
- TFS fire expenditures are within budgeted funds.
- Consider when no more than two regions are in a Risk Level (RL) II.
- Supervisors should expect minimal impact on daily activities.

Preparedness Level 2

- Freeze-cured fuels are present in winter months.
- Fire activity may begin to exceed local capabilities.
- Mobilization of additional fire departments and TFS resources may be required.
- External fire resources may be required.
- TFS fire expenditures may begin to exceed budgeted funds.
- Consider when one or more regions are in a RL III or multiple regions are in RL II.
- Supervisors should be aware of regional risk levels when planning daily activities.

STATE PREPAREDNESS LEVELS

Preparedness Level 3

- Fire activity may exceed the capabilities of local fire departments and TFS.
- External fire resources may be required.
- TFS fire expenditures begin to exceed budgeted funds.
- Consider when at least one region is in RL IV or a significant number of regions are in RL III.
- Supervisors will consider regional risk levels when planning daily activities.

Preparedness Level 4

- Fire activity may exceed the capabilities of state agency resources.
- External fire resources are required.
- TFS fire expenditures exceed budgeted funds.
- Consider when a significant number of regions are in RL IV or higher.
- Supervisors will consider regional risk levels when planning daily activities.

STATE PREPAREDNESS LEVELS

Preparedness Level 5

- Fire activity exceeds the capabilities of state agency resources.
- The scope of fire operations typically requires multiple Zone Commands.
- External resources are required.
- TFS fire expenditures exceed budgeted funds.
- Consider when a significant number of regions are in RL IV or higher.
- Supervisors will consider regional risk levels when planning daily activities.

The State Preparedness Level may be elevated due to response to all-hazard incidents.

Source: Texas Fire Response Handbook

TEXAS WILDFIRE RESPONSE PROCESS

The State of Texas is composed of 254 counties with approximately 98 percent privately-owned land. The eastern one-seventh of the state is heavily forested with loblolly pine plantations, while the remainder of the state has a wide range of fuel models from coastal grasses to thick oak and mesquite stands to sparsely vegetated areas in parts of the west.

Fire seasons in Texas can occur any time of the year. A fall and winter fire season typically starts in grass fuels after the first hard freeze. In spring and early summer, fires mostly occur in West Texas, and the summer fire season occurs during periods of drought, strong winds and lower relative humidity.

The majority of wildfires in Texas are handled by the 1,900 fire departments throughout the state, 1,500 of which are volunteer departments. However, by Texas State statute, Texas A&M Forest Service has been given the authority to “... take any actions deemed necessary to prevent and extinguish forest fires.” Therefore, direct communication between local government and TFS is authorized. Additionally, all TFS employees and their representatives have the authority to enter onto privately-owned land whenever it is necessary to investigate or suppress forest and grass fires when they are known to be burning uncontrolled.

Source: Texas Fire Response Handbook

REQUESTING RESOURCES

For immediate resource requests on a Type 5, 4 or 3 incident, the on-duty College Station Fire Department Battalion Chief or Incident Commander should contact the College Station Emergency Management Coordinator.

The College Station EMC will contact the appropriate personnel at Brazos County for notification of additional requests and the information will be passed on to the Texas Division of Emergency Management District Coordinator and the Disaster District Chairman as needed.

Emergency responders assigned to an incident in the City of College Station should consult with the Incident Commander about the preferred process for requesting resources, as it may vary depending on the complexity of the incident.

The Incident Commander is responsible for managing emergency resources at the incident site and may begin staffing Incident Management Team positions as the incident grows in scope or complexity.

The Incident Command System (ICS) structure includes a Logistics Section which is responsible for obtaining and maintaining personnel, facilities, equipment and supplies committed to the emergency operation.

REQUESTING RESOURCES

If the EOC is activated, the Incident Commander will continue to manage emergency resources committed at the incident site. The Resource Manager in the EOC will monitor the state of all resources, manage uncommitted resources and coordinate with the Incident Commander to determine requirements for additional resources at the incident site.

Source: Brazos County Interjurisdictional Emergency Management Plan, Annex M, Resource Management

TRANSITIONING INTO EXTENDED ATTACK

Incident Complexity:

A fire complexity analysis should be conducted as part of initial size-up and subsequent size-ups to ensure that the appropriate level of management is applied to an incident and to determine the need for transitioning into extended attack.

There are five levels of complexity that have been defined. Type 1 is the most complex and requires the highest level of skill and management. Type 5 is the least complex incident. Type 3 complexity requires a transition to extended attack.

The complexity analysis of an incident is not a completely objective process. There are many factors to consider that can influence the determination of incident complexity.

Some of the major factors that should be considered in an incident complexity analysis include the number and type of resources engaged or needed for suppression operations, values at risk, threat to life and property, jurisdictional boundaries, fuel types, fire behavior, significant fire potential and firefighter safety.

Type 5 Complexity:

- Generally a small fire or a larger fire with a high percentage of inactive perimeter.
- Two to seven firefighters with one to two units and the local

TRANSITIONING INTO EXTENDED ATTACK

fire department are an adequate number of resources to contain fire.

- Fire presents low resistance to control. Initial attack will be successful.
- Fire behavior and fire intensities allow for direct attack.

Type 4 Complexity:

- Fire is large enough to require multiple units and a designated supervisor with no collateral responsibilities.
- Local resources include two to five units and one to five fire departments.
- A reconnaissance aircraft and/or one to two tactical aircraft may be present.
- Fire behavior and intensities can cause containment problems near the head fire with slopovers and short-range spotting.
- Direct tactics are generally used but indirect tactics may sometimes be used to cross the head fire due to high fire intensities or high rate of spread.
- Fuel dryness levels may require extended mop-up after containment.
- Fire behavior drops off significantly with sunset and increased moisture recovery.
- Fires are contained in one burning period.

TRANSITIONING INTO EXTENDED ATTACK

Type 3 Complexity Transition Indicators:

The more indicators that are present increase the likelihood that you have transitioned to a Type 3 fire.

- Attempt(s) to contain head have failed.
- Indirect tactics are being used.
- Significant fire potential rating is high or very high.
- Peak burning period has yet to occur.
- Cannot see the entire fire.
- Tactical aircraft are engaged or ordered.
- Evacuations have occurred or are recommended.
- Number of resources (agency, fire departments, law enforcement) exceed span of control.
- Difficult to manage/monitor all communications.
- Fuels and/or terrain limit access.

Regardless of size or complexity, if any of the following are present an ICT3 must be ordered:

- Entrapment
- Shelter deployment
- Burnover
- Fatality or serious injury

Type 3 Complexity:

- Cannot see the entire fire or cannot gain access to the entire fire.
- Resources may include 20 to 50 responders from a variety of

TRANSITIONING INTO EXTENDED ATTACK

organizations including wildland agencies, fire departments, law enforcement and relief agencies.

- Regional resources may be dispatched to fill some of the command and general staff positions, usually at the division/group or unit leader level.



- Tactical aircraft are dispatched when available.
- Fire will be an extended attack fire.
- Containment in a single burning period will not be possible due to fuel types, dry to critically dry fuel conditions, active fire behavior or limited access to fire.
- Indirect tactics and structure protection are part of containment strategies.
- Public safety is at risk prompting evacuations or road closures.

Source: Texas A&M Forest Service State Fire Operations Plan

FMAG PROCESS

A Fire Management Assistance Grant (FMAG) offers federal financial assistance to states and local government for the mitigation, management and control of fires on public or private land. If approved, an FMAG can reimburse 75 percent of eligible expenses on a specific incident or wildfire.

To be eligible for an FMAG, an incident has to constitute the threat of a major disaster.

To begin the FMAG application process, the governor or the governor's authorized representative submits to FEMA a request for an FMAG program declaration. The application must be submitted while the fire is burning uncontrolled and threatening such destruction as would constitute a major disaster.

When submitting a declaration request, the governor should provide factual data and professional estimates as available to support the request. The state's verbal request must be followed up with official, completed forms.

FMAG PROCESS

Local officials are responsible for providing accurate and sufficient data to the state documenting costs incurred in response to an FMAG Declaration and fire suppression efforts.

Information required:

- Size of fire(s) in acres or square miles
- Name, location and population of area (or areas) threatened
- Number of primary and secondary residences and businesses threatened
- Distance of fire to nearest neighborhoods
- Number of persons evacuated to date, if applicable
- Current and predicted (24-hour) weather conditions
- Degree to which state and local resources are committed to this fire and other fires in federal, state or local jurisdictions

To further support a declaration request, the state may append additional documentation including:

- Fire severity maps
- Geographic, topographical or land assessment maps
- Incident status summary report (ICS-209)

Source: Federal Emergency Management Agency FMAG Program Guide

ATTACK STRATEGIES: DIRECT ATTACK

Advantages:

- Minimal area is burned; no additional area is intentionally burned.
- Safest place to work; firefighters can usually escape into the burned area.
- The uncertainties of firing operations can be reduced/eliminated.

Disadvantages:

- Firefighters can be hampered by heat, smoke and flames.
- Control lines can be very long and irregular.
- Burning material can easily spread across mid-slope lines.
- May not be able to use natural or existing barriers.
- More mop-up and patrol is usually required.

Source: Incident Response Pocket Guide, a publication of the National Wildfire Coordinating Group

ATTACK STRATEGIES: INDIRECT ATTACK

Advantages:

- Control lines can be located using favorable topography.
- Natural or existing barriers can be used.
- Firefighters may not have to work in smoke and heat.
- Control lines can be constructed in lighter fuels.
- There may be less danger of slopovers.

Disadvantages:

- More area will be burned.
- Must be able to trade time and space for line to be constructed and fired.
- Firefighters may be in more danger because they are distant from the fire and have unburned fuels between them and the fire.
- There may be some dangers related to firing operations.
- Firing operations may leave unburned islands of fuel.
- May not be able to use control line already built.

SAFETY ZONES

A safety zone is an area where a firefighter can survive without a fire shelter. Considerations for effective safety zones:

- Take advantage of heat barriers such as lee side of ridges, large rocks or solid structures.
- When possible, burn out safety zones prior to arrival of fire front.
- Avoid locations upslope or downwind from the fire; chimneys, saddles or narrow canyons; and steep uphill escape routes.
- Not intended for structure protection.

Separation distance between the firefighter and the flames should be at least four times the maximum continuous flame height. Distance separation is the radius from the center of the safety zone to the nearest fuels.

Source: Incident Response Pocket Guide, a publication of the National Wildfire Coordinating Group

MEDICAL PLAN

Incident Command System principles dictate that an Incident Action Plan, to include a Medical Plan (ICS Form 206), be prepared for wildfires and other incidents.

PHI Air Medic, located at St. Joseph Regional Health Center, 2801 Franciscan, transports patients by helicopter.

The closest burn units are:

- Shriners Hospitals for Children Pediatric Burn Center in Galveston
- University of Texas Medical Branch Blocker Adult Burn Center in Galveston

College Station Fire Department responds to medical calls. Fire stations are located at the following addresses:

- Fire Station No. 1, 304 Holleman Drive East
- Fire Station No. 2, 2100 Rio Grande
- Fire Station No. 3, 1900 Barron Road
- Fire Station No. 4, 1550 George Bush West
- Fire Station No. 5, 1601 William D. Fitch Parkway
- Fire Station No. 6, 610 University Drive East

Treatment centers in the area include:

- St. Joseph Regional Health Center, 2801 Franciscan, Bryan
- College Station Medical Center, 1604 Rock Prairie Road, College Station
- Scott & White Healthcare, Highway 6 and Rock Prairie Road, College Station

STRUCTURE PROTECTION CHECKLIST

Rapid mitigation measures

- Remove small combustibles immediately next to structure.
- Close windows and doors, including garage (leave unlocked).
- Clean area around fuel tank and shut off tank.
- Charge garden hoses.
- Apply CAF, foam or gel retardants if available.

Equipment and water use

- Mark entrance to indicate a staffed location if it is not obvious.
- Charge hose lines.
- Long hose lays are not recommended.
- Keep 100 gallons of water in reserve.
- Identify a backup water source.

STRUCTURE PROTECTION CHECKLIST

Equipment and water use (continued)

- Identify power lines for aerial resources.
- Never rely on water for firefighter safety.

Patrol following the fire front

- Most structures do not burn until after the fire front has passed.
- Move to closest safety zone and let fire front go through.
- Return as soon as conditions allow safe access to structures.
- Secondary ignition is usually due to residual spot fires or creeping ground fire.
- Take suppression actions within your capability.
- Call for assistance if needed.

Source: Incident Response Pocket Guide, a publication of the National Wildfire Coordinating Group

ACRONYMS

- AAR – After Action Review
- AHIMT – All-Hazard Incident Management Team
- BI – Burning Index
- BLM – Bureau of Land Management
- CAF – Compressed Air Foam
- CEOC - Community Emergency Operations Center
- CTR – Crew Time Report
- DHS – Department of Homeland Security
- DIVS – Division Supervisor
- EAS – Emergency Alert System
- EMT – Emergency Medical Technician
- EOC – Emergency Operations Center
- ERC – Energy Release Component
- FAA – Federal Aviation Administration
- FD – Fire Department
- FEMA – Federal Emergency Management Agency
- FMAG – Fire Management Assistance Grant
- FMO – Fire Management Officer
- GPS – Global Positioning System
- HAZMAT – Hazardous Material
- IA – Initial Attack
- IC – Incident Commander
- ICP – Incident Command Post
- ICS – Incident Command System
- IIMT – Interagency Incident Management Team
- JIC – Joint Information Center

ACRONYMS

- JIS – Joint Information System
- KBDI – Keetch-Byram Drought Index
- LAT – Large Air Tanker
- LCES – Lookout, Communication, Escape Routes, Safety Zones
- LE – Law Enforcement
- LEO – Law Enforcement Officer
- LODD – Line of Duty Death
- MAFFS – Modular Airborne Firefighting System
- MCP - Mobile Command Post
- MRE – Meal Ready to Eat
- NFPA – National Fire Protection Association
- NICC – National Interagency Coordination Center
- NIFC – National Interagency Fire Center
- NIMO – National Incident Management Organization
- NIMS – National Incident Management System
- PAO – Public Affairs Officer
- PD – Position Description
- PIO – Public Information Officer
- PL – Preparedness Level
- PPE – Personal Protective Equipment
- RAWS – Remote Automated Weather System
- RFC – Regional Fire Coordinator
- RFD – Rural Fire District
- RH – Relative Humidity
- RL – Risk Level
- ROS – Rate of Spread

ACRONYMS

- SACC** – Southern Area Coordination Center
- SAIT** – Safety Accident Investigation Team
- SCBA** – Self-Contained Breathing Apparatus
- SEAT** – Single-Engine Air Tanker
- SITREP** – Situation Report
- SOP** – Standard Operating Procedure
- TAC** – Tactical Channels
- TFLD** – Task Force Leader
- TFR** – Temporary Flight Restrictions
- TFS** – Texas A&M Forest Service
- UAC** – Unified Area Command
- UC** – Unified Command
- USDA** – United States Department of Agriculture
- USFS** – United States Forest Service
- UTF** – Unable to Fill
- VFD** – Volunteer Fire Department
- VFR** – Visual Flight Rules
- WCT** – Work Capacity Test
- WUI** – Wildland Urban Interface

GLOSSARY

The following terms are from the Incident Command System (ICS) National Training Curriculum documentation.

AGENCY REPRESENTATIVE: An individual assigned to an incident from an assisting or cooperating agency who has been delegated authority to make decisions on matters affecting that agency's participation at the incident. Agency Representatives report to the Incident Liaison Officer.

AREA COMMAND: An organization established to: 1) oversee the management of multiple incidents that are each being handled by an Incident Command System organization; or 2) to oversee the management of a very large incident that has multiple Incident Management Teams assigned to it. Area Command has the responsibility to set overall strategy and priorities, allocate critical resources based on priorities, ensure that incidents are properly managed and ensure that objectives are met and strategies followed.

BRANCH: The organizational level having functional or geographic responsibility for major parts of incident operations. The Branch level is organizationally between Section and Division/Group in the Operations Section, and between Section and Units in the Logistics Section. Branches are identified by the use of Roman numerals or by functional name (e.g., medical, security, etc.).

GLOSSARY

CACHE: A pre-determined complement of tools, equipment and/or supplies stored in a designated location, available for incident use.

CHECK-IN: The process whereby resources first report to an incident. Check-in locations include: Incident Command Post (Resources Unit), Incident Base, Camps, Staging Areas, Helibases, Helispots and Division Supervisors (for direct line assignments).

CHAIN OF COMMAND: A series of management positions in order of authority.

COMMAND: The act of directing and/or controlling resources by virtue of explicit legal, agency or delegated authority. May also refer to the Incident Commander.

COMMAND STAFF: The Command Staff consists of the Information Officer, Safety Officer and Liaison Officer. They report directly to the Incident Commander. They may have an assistant or assistants, as needed.

COMPLEX: Two or more individual incidents located in the same general area which are assigned to a single Incident Commander or to Unified Command.

GLOSSARY

COORDINATION CENTER: Term used to describe any facility that is used for the coordination of agency or jurisdictional resources in support of one or more incidents.

DELEGATION OF AUTHORITY: A statement provided to the Incident Commander by the Agency Executive delegating authority and assigning responsibility. The Delegation of Authority can include objectives, priorities, expectations, constraints and other considerations or guidelines as needed. Many agencies require written Delegation of Authority be given to Incident Commanders prior to their assuming command on larger incidents.

DEMOBILIZATION UNIT: Functional unit within the Planning Section responsible for assuring orderly, safe and efficient demobilization of incident resources.

DIRECTOR: The ICS title for individuals responsible for supervision of a Branch.

DISPATCH: The implementation of a command decision to move a resource or resources from one place to another.

DIVISION: Divisions are used to divide an incident into geographical areas of operation. A Division is located within the ICS organization between the Branch and the Task Force/Strike Team. Divisions are identified by alphabetic characters

GLOSSARY

for horizontal applications and, often, by floor numbers when used in buildings.

DOCUMENTATION UNIT: Functional unit within the Planning Section responsible for collecting, recording and safeguarding all documents relevant to the incident.

EMERGENCY MANAGEMENT COORDINATOR/DIRECTOR: The individual within each political subdivision that has coordination responsibility for jurisdictional emergency management.

EMERGENCY MEDICAL TECHNICIAN (EMT): A health-care specialist with particular skills and knowledge in pre-hospital emergency medicine.

EVENT: A planned, non-emergency activity. ICS can be used as the management system for a wide range of events, e.g., parades, concerts or sporting events.

GENERAL STAFF: The group of incident management personnel reporting to the Incident Commander. They may each have a deputy, as needed. The General Staff consists of:

- Operations Section Chief
- Planning Section Chief
- Logistics Section Chief
- Finance/Administration Section Chief

GLOSSARY

GROUP: Groups are established to divide the incident into functional areas of operation. Groups are composed of resources assembled to perform a special function not necessarily within a single geographic division. Groups are located between Branches (when activated) and Resources in the Operations Section.

HELIBASE: The main location for parking, fueling, maintenance and loading of helicopters operating in support of an incident. It is usually located at or near the incident base.

HELISPOT: Any designated location where a helicopter can safely take off and land. Some helispots may be used for loading of supplies, equipment or personnel.

INCIDENT: An occurrence either human caused or by natural phenomena that requires action by emergency service personnel to prevent or minimize loss of life or damage to property and/or natural resources.

INCIDENT ACTION PLAN: Contains objectives reflecting the overall incident strategy and specific tactical actions and supporting information for the next operational period. The Plan may be oral or written. When written, the Plan may have a number of forms as attachments (e.g., traffic plan, safety plan, communications plan, map, etc.).

GLOSSARY

INCIDENT COMMANDER: The individual responsible for the management of all incident operations at the incident site.

INCIDENT COMMAND POST (ICP): The location at which the primary command functions are executed. The ICP may be collocated with the incident base or other incident facilities.

INCIDENT COMMAND SYSTEM (ICS): A standardized on-scene emergency management concept specifically designed to allow its user(s) to adopt an integrated organizational structure equal to the complexity and demands of single or multiple incidents, without being hindered by jurisdictional boundaries.

INCIDENT MANAGEMENT TEAM: The Incident Commander and appropriate Command and General Staff personnel assigned to an incident.

INFORMATION OFFICER: A member of the Command Staff responsible for interfacing with the public and media or with other agencies requiring information directly from the incident. There is only one Information Officer per incident. The Information Officer may have assistants.

LIAISON OFFICER: A member of the Command Staff responsible for coordinating with representatives from cooperating and assisting agencies.

GLOSSARY

LOGISTICS SECTION: The Section responsible for providing facilities, services and materials for the incident.

MOBILIZATION: The process and procedures used by all organizations federal, state and local for activating, assembling and transporting all resources that have been requested to respond to or support an incident.

MULTI-AGENCY COORDINATION (MAC): A generalized term which describes the functions and activities of representatives of involved agencies and/or jurisdictions who come together to make decisions regarding the prioritizing of incidents and the sharing and use of critical resources. The MAC organization is not a part of the on-scene ICS and is not involved in developing incident strategy or tactics.

MUTUAL AID AGREEMENT: Written agreement between agencies and/or jurisdictions in which they agree to assist one another upon request, by furnishing personnel and equipment.

NATIONAL INTERAGENCY INCIDENT MANAGEMENT SYSTEM (NIIMS): An NWCG-developed program consisting of five major subsystems which collectively provide a total systems approach to all-risk incident management.

GLOSSARY

NATIONAL WILDFIRE COORDINATING GROUP (NWCG):

A group formed under the direction of the Secretaries of the Interior and Agriculture to improve the coordination and effectiveness of wildland fire activities, and provide a forum to discuss, recommend appropriate action or resolve issues and problems of substantive nature.

OPERATIONAL PERIOD: The period of time scheduled for execution of a given set of operation actions as specified in the Incident Action Plan. Operational Periods can be of various lengths, although usually not over 24 hours.

OPERATIONS SECTION: The Section responsible for all tactical operations at the incident. Includes Branches, Divisions and/or Groups, Task Forces, Strike Teams, Single Resources and Staging Areas.

OVERHEAD PERSONNEL: Personnel who are assigned to supervisory positions which include Incident Commander, Command Staff, General Staff, Directors, Supervisors and Unit Leaders.

RESOURCES: Personnel and equipment available, or potentially available, for assignment to incidents. Resources are described by kind and type, e.g., ground, water, air, etc.

GLOSSARY

SECTION: That organization level with responsibility for a major functional area of the incident, e.g., Operations, Planning, Logistics, Finance/Administration. The Section is organizationally between Branch and Incident Commander.

SINGLE RESOURCE: An individual, a piece of equipment and its personnel complement, or a crew or team of individuals with an identified work supervisor that can be used on an incident.

SPAN OF CONTROL: The supervisory ratio of from three-to-seven individuals, with five-to-one being established as optimum.

STAGING AREA: Staging Areas are locations set up at an incident where resources can be placed while awaiting a tactical assignment. Staging Areas are managed by the Operations Section.

STRIKE TEAM: Specified combinations of the same kind and type of resources, with common communications and a leader.

TACTICAL DIRECTION: Direction given by the Operations Section Chief which includes the tactics appropriate for the selected strategy, the selection and assignment of resources, tactics implementation and performance monitoring for each operational period.

GLOSSARY

TASK FORCE: A combination of single resources assembled for a particular tactical need, with common communications and a leader.

TEMPORARY FLIGHT RESTRICTIONS (TFR): Temporary airspace restrictions for non-emergency aircraft in the incident area. TFRs are established by the FAA to ensure aircraft safety, and are normally limited to a five-nautical-mile radius and 2,000 feet in altitude.

TWENTY-FOOT WINDS: Sustained winds averaged over a 10-minute period and measured 20 feet above the average height of nearby vegetation.

TYPE: Refers to resource capability. A Type 1 resource provides a greater overall capability due to power, size, capacity, etc., than would be found in a Type 2 resource. Resource typing provides managers with additional information in selecting the best resource for the task.

UNIFIED COMMAND: In ICS, Unified Command is a unified team effort which allows all agencies with responsibility for the incident, either geographical or functional, to manage an incident by establishing a common set of incident objectives and strategies.

ICS FORMS

Incident Command System forms may be tailored to meet an agency's needs. More importantly, even though the format is flexible, the form number and purpose of the specific type of form must remain intact to maintain consistency and facilitate immediate identification and interoperability, and for ease of use.

The following provides brief descriptions of selected ICS forms. This list is not all-inclusive. All ICS forms can be downloaded at <http://www.nwcg.gov/pms/forms/icsforms.htm>

ICS 201 - Incident Briefing

Most often used by the initial Incident Commander, this four-section document (often produced as four pages) allows for the capture of vital incident information prior to the implementation of the formal planning process. ICS 201 allows for a concise and complete transition of command briefing to an incoming new IC. This form is designed to be transferred easily to the members of the Command and General Staff as they arrive and begin work. It is not included as a part of the formal written Incident Action Plan.

ICS FORMS

ICS 202 - Incident Objectives

ICS 202 serves as the first page of a written IAP. It includes incident information, a listing of the IC's objectives for the operational period, pertinent weather information and a general safety message. Signature blocks are provided.

ICS 203 - Organization Assignment List

ICS 203 is typically the second page of the IAP. It provides a full accounting of incident management and supervisory staff for that operational period.

ICS 204 - Assignment List

ICS 204 is included in multiples, based on the organizational structure of the Operations Section for the operational period. Each Division/Group will have its own page, listing the Supervisor for the Division/Group (including Branch Director if assigned) and the specific assigned resources with leader name and number of personnel assigned to each resource. This document then describes in detail the specific actions the Division or Group will be taking in support of the overall incident objectives.

ICS FORMS

Any special instructions will be included as well as the elements of the Incident Radio Communications Plan (ICS 205) that apply to that Division or Group.

ICS 205 - Incident Radio Communications Plan

ICS 205 is used to provide information on all radio frequency assignments down to the Division/Group level.

ICS 206 - Medical Plan

ICS 206 presents the incident's Medical Plan to care for responder medical emergencies.

ICS 209 - Incident Status Summary

ICS 209 collects basic incident decision support information and is the primary mechanism for reporting this situational information to incident coordination and support organizations and the Agency Administration/Executives.

ICS 211 - Incident Check-In List

ICS 211 documents the check-in process. Check-in recorders report check-in information to the Resources Unit.

ICS FORMS

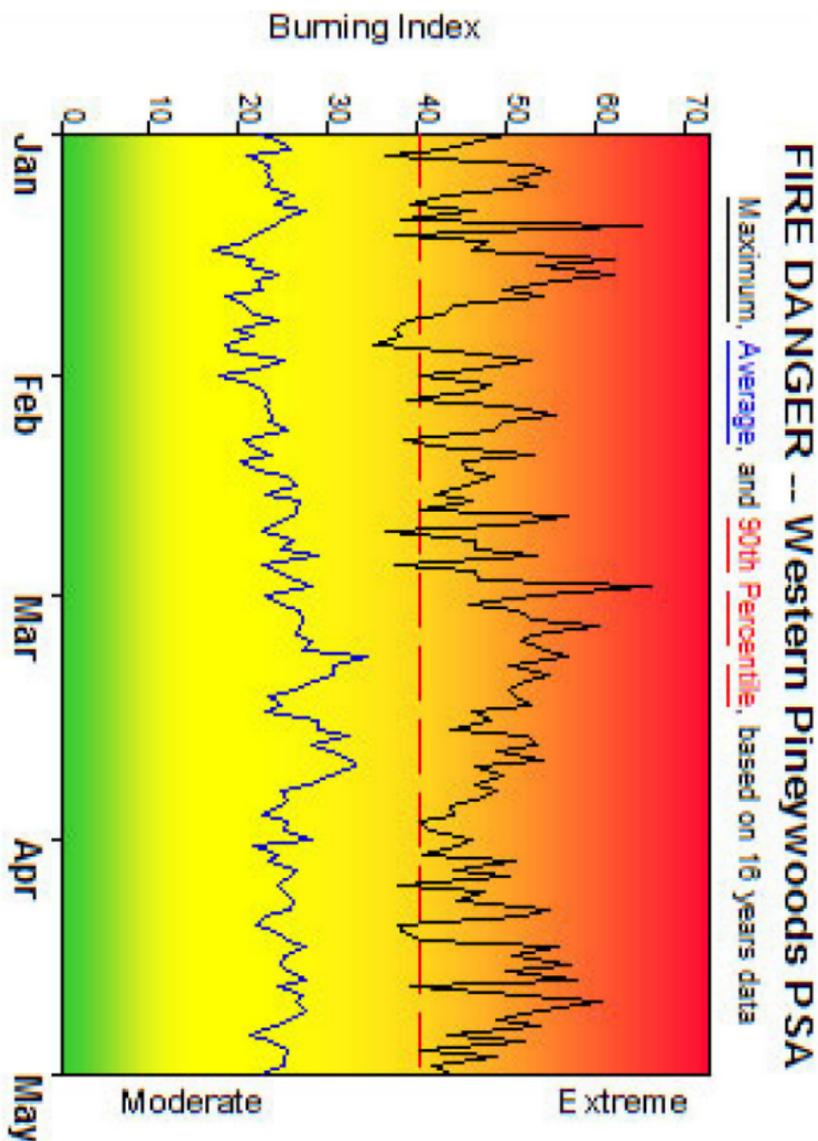
ICS 215 - Operational Planning Worksheet

ICS 215 is used in the incident Planning Meeting to develop tactical assignments and resources needed to achieve incident objectives and strategies.

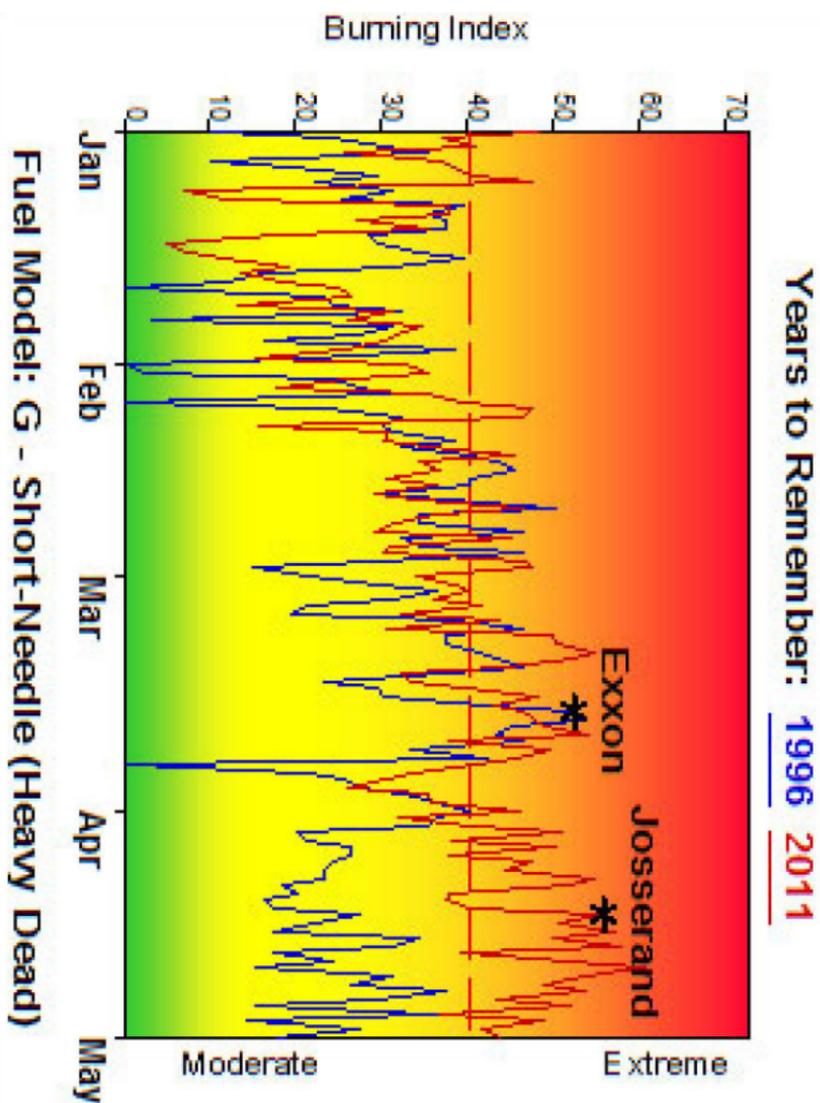
ICS 215A - Safety and Risk Analysis

ICS 215A communicates to the Operations and Planning Section Chiefs the safety and health issues identified by the Safety Officer. It also identifies mitigation measures to address the identified safety issues.

Western Pineywoods Predictive Services Area



Western Pinewoods Predictive Services Area



Western Pineywoods Predictive Services Area

Fire Danger Area:

- ◆ Dead F.M. Critical %'s
 - ◆ 10Hr. - 8%, 100Hr. - 13%
 - ◆ 1000Hr. - 15%
- * Meets NWCWG Wx Station Standards



Fire Danger Interpretation:



- EXTREME** -- Use extreme caution
- (Caution)** -- Watch for change
- Moderate** -- Lower Potential, but always be aware

Maximum -- Highest Burning Index by day

for 1996 - 2011

Average -- shows peak fire season over 16 years (1927 observations)

90th Percentile -- Only 10% of the 1927 days from 1996 - 2011 had an Burning Index above 40

Local Thresholds - Watch out: Combinations

of any of these factors can greatly increase fire behavior:

20' Wind Speed over 15 mph, RH less than 30%,

Temperature over 90, Energy Release Component over 38

Western Pineywoods Predictive Services Area

Remember what Fire Danger tells you:

- ✓ Burning Index gives day-to-day fluctuations calculated from 2 pm temperature, humidity, wind, daily temperature & rh ranges, and precip duration.
- ✓ Wind is part of BI calculation.
- ✓ Watch local conditions and variations across the landscape – Fuel, Weather, Topography.
- ✓ Listen to weather forecasts – especially WIND.

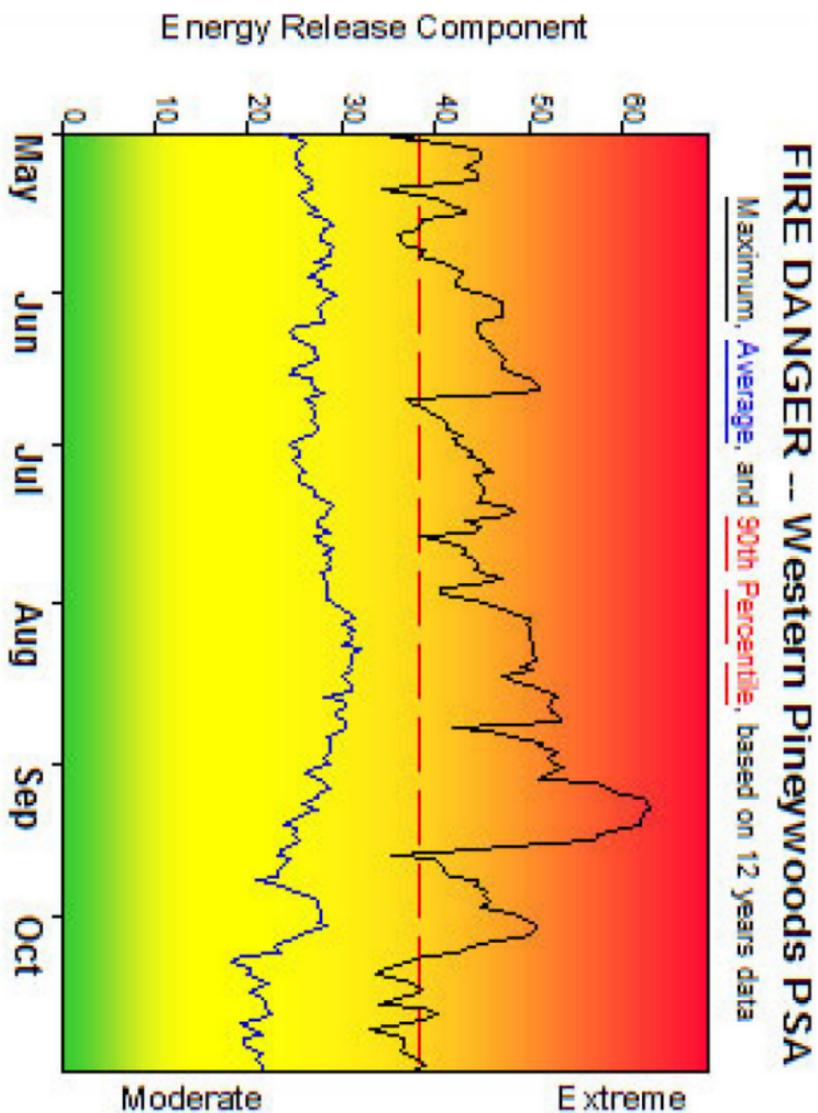
Past Experience:

The Josseland South Fire occurred on 4/15/11 in Trinity County, burning 1,389 acres and was started by debris burning. The majority of the fire burned in high risk pine plantation. A minimum RH of 11%, maximum temperature of 80 degrees, sustained winds from 10-15 mph from the Northwest with gusts to 29 mph was observed at the Lukin RAWS. Extreme fire behavior was observed in plantation fuels, associated with the passage of a strong dry cold front. Live fuel moisture measured from pine in nearby Houston County, was 102%. The 3rd percentile for pine in the Western Pineywoods PSA is 105%.

Responsible Agency: Mike Duniwan, Texas Forest Service
FF+4.0.2 03/01/2012-12:51 (C:\Users\m duniwan\Fire Family Plus 4IT...ITX_Dec09_PSA_v3)

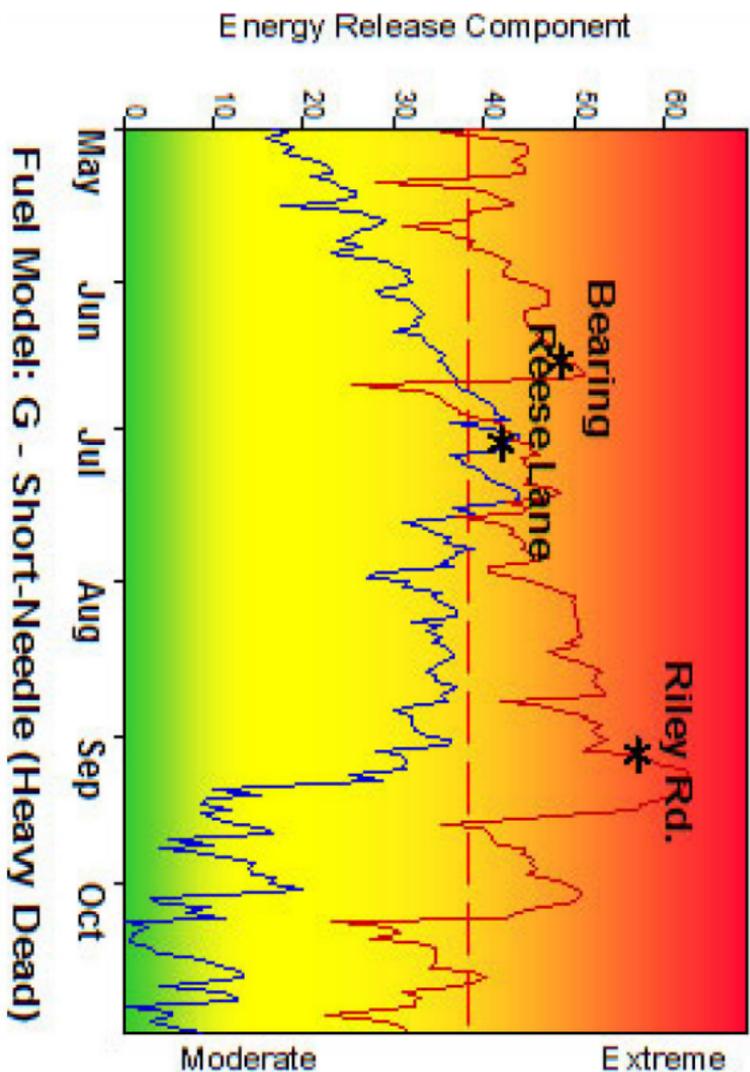
Design by NWCG Fire Danger Working Team

Western Pineywoods Predictive Services Area



Western Pinewoods Predictive Services Area

Years to Remember: 2009 2011



Western Pinewoods Predictive Services Area

Fire Danger Area:

- ◆ Dead F.M. Critical %'s
- ◆ 10Hr. - 6%, 100Hr. - 13%
- ◆ 1000Hr. - 15%
- ◆ Meets NWCG Wx Station Standards

Fire Danger Interpretation:



- EXTREME** -- Use extreme caution
- (Caution)** -- Watch for change
- Moderate** -- Lower Potential, but always be aware

Maximum -- Highest Energy Release Component by day

for 2000 - 2011

Average -- shows peak fire season over 12 years (2207 observations)

90th Percentile -- Only 10% of the 2207 days from 2000 - 2011

had an Energy Release Component above 38

Local Thresholds - Watch out: Combinations

of any of these factors can greatly increase fire behavior:

20' Wind Speed over 15 mph, RH less than 30%.

Temperature over 90, Burning Index over 44



Western Pineywoods Predictive Services Area

Remember what Fire Danger tells you:

- ✓ Burning Index gives day-to-day fluctuations calculated from 2 pm temperature, humidity, wind, daily temperature & rh ranges, and precip duration.
- ✓ Wind is part of BI calculation.
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Responsible Agency: Mike Duniwan, Texas Forest Service

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Desion by MWCG Fire Danger Working Team

CONTACT LIST

District Coordinator, Texas Department of Public Safety,
Division of Emergency Management
979-412-0003

Texas A&M Forest Service Contact Info

Regional Fire Coordinator
200 Technology Way, Suite 1162
College Station, TX 77845-3424
979-458-6507

Assistant Chief Regional Fire Coordinator
700 South Reynolds Street
La Grange, Texas 78945
979-968-5555

LaGrange Dispatch
979-968-5555

texaswildfirerisk.com
ticc.tamu.edu
texasforests-service.tamu.edu
texasfirewise.com

STANDARD FIREFIGHTING ORDERS

WATCH OUT SITUATIONS

Standard Firefighting Orders

1. Keep informed on fire weather conditions and forecasts.
2. Know what your fire is doing at all times.
3. Base all actions on current and expected behavior of the fire.
4. Identify escape routes and safety zones, and make them known.
5. Post lookouts when there is possible danger.
6. Be alert. Keep calm. Think clearly. Act decisively.
7. Maintain prompt communications with your forces, your supervisor and adjoining forces.
8. Give clear instructions and be sure they are understood.
9. Maintain control of your forces at all times.
10. Fight fire aggressively, having provided for safety first.

Watch Out Situations

1. Fire not scouted and sized up.
2. In country not seen in daylight.
3. Safety zones and escape routes not identified.
4. Unfamiliar with weather and local factors influencing fire behavior.
5. Uninformed on strategy, tactics and hazards.
6. Instructions and assignments not clear.
7. No communication link with crew members or supervisor.
8. Constructing line without safe anchor point.
9. Building fireline downhill with fire below.
10. Attempting frontal assault on fire.
11. Unburned fuel between you and fire.
12. Cannot see main fire; not in contact with someone who can.
13. On a hillside where rolling material can ignite fuel below.
14. Weather becoming hotter and drier.
15. Wind increases and/or changes direction.
16. Getting frequent spot fires across line.
17. Terrain and fuels make escape to safety zones difficult.
18. Taking a nap near fireline.



City of College Station Community Wildfire Protection Plan 2014



*A collaborative approach to
protecting lives, property and
natural resources in the City of
College Station*



In accordance with Title I of the Healthy Forest Restoration Act of 2003

This document was prepared by the College Station Fire Department
and Texas A&M Forest Service
and was completed on July, 2013.



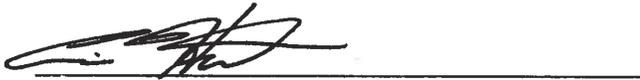
Kelly Templin

City Manager
College Station, Texas



Tom Boggus

Director
Texas A&M Forest Service



Eric Hurt

Fire Chief
College Station, Texas



Mark Stanford

Fire Chief
Texas A&M Forest Service



Brian Hilton

Emergency Management Coordinator
College Station, Texas



Bruce Woods

Department Head, Mitigation and Prevention
Texas A&M Forest Service

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Introduction

Eighty percent of wildfires in Texas occur within two miles of a community. That means 80 percent of Texas wildfires pose a threat to life and property. A Community Wildfire Protection Plan (CWPP) can help protect against the threats of wildfire and reduce losses. By developing a CWPP, the City of College Station is outlining a strategic plan to mitigate, prepare, respond and recover.

Statement of Intent

The intent of the City of College Station CWPP is to reduce the risk of wildfire and promote ecosystem health. The plan also is intended to reduce home losses and provide for the safety of residents and firefighters during wildfires.

Goals

- Provide for the safety of residents and emergency personnel.
- Limit the number of homes destroyed by wildfire.
- Promote and maintain healthy ecosystems.
- Educate citizens about wildfire prevention.

Objectives

- Complete wildfire risk assessments.
- Identify strategic fuels reduction projects.
- Address treatment of structural ignitability.
- Identify local capacity building and training needs.
- Promote wildfire awareness programs.

Some of the areas assessed and ranked as hazard areas are considered to be in Brazos County rather than in one of College Station Fire Department's response zone. College Station Fire Department provides mutual aid and responds to areas in the county when Volunteer Fire Department (VFD) personnel are not available.

Working Group

College Station Fire Department

- Fire Chief R.B. Alley III (Ret.)
- Fire Chief Eric Hurt
- Assistant Chief Jon Mies
- Battalion Chief Joe Warren
- Captain Tim Hamff
- Captain Mike Ruesink
- Driver / Engineer Andrea Ferrell
- Public Information Officer Bart Humphreys
- Emergency Management Coordinator Brian Hilton
- Public Education Officer Christina Seidel
- Training Coordinator Billy Bradshaw

Texas A&M Forest Service

- Wildland Urban Interface Specialist II Melanie Spradling
- Wildland Urban Interface Specialist I Luke Kanclerz

Planning Process

Meeting Date	Topics Covered	Attendees	Action Items
12/10/12	Review CWPP process	<ul style="list-style-type: none"> * College Station EMC Brian Hilton * Bryan Fire Chief Randy McGregor * Bryan EMC Jerry Henry * Brazos County EMC Chuck Frazier * Texas A&M University Office of Safety and Security representative Monica Weintraub * TFS Mitigation and Prevention Department Head Bruce Woods * TFS State WUI Coordinator Justice Jones * TFS WUI Specialist Jared Karns * TFS WUI Specialist Luke Kanclerz * TFS Communications Specialist April Saginor 	Each entity was tasked with determining whether it wants to pursue a CWPP and, if so, contacting Texas A&M Forest Service to begin the process
4/17/13	Risk assessment training for Response Zones 3, 4 and 5	<ul style="list-style-type: none"> * Capt. Joe Warren * PIO Bart Humphreys * Lt. Kevin Simmons * Lt. Tim Sullivan * Lt. Tim Hamff * Lt. Tim Valdez * TFS WUI Specialist Melanie Spradling * TFS WUI Specialist Luke Kanclerz 	Add collected data to CWPP
4/18/13	Risk assessments for Response Zones 1, 2 and 6	<ul style="list-style-type: none"> * Assistant Chief Jon Mies * Capt. Joe Warren * Public Education Officer Christina Seidel * Lt. Mike Ruesink * Lt. Jerry Duffy * Lt. Tim Hamff * TFS WUI Specialist Melanie Spradling * TFS WUI Specialist Luke Kanclerz 	Add collected data to CWPP
5/6/13	Risk assessment presentation and coordination of working group	<ul style="list-style-type: none"> * Chief R.B Alley * Assistant Chief Jon Mies * Fire Marshal Eric Hurt * Captain Joe Warren * PIO Bart Humphreys * Assistant Fire Marshal Eric Dotson * TFS WUI Specialist Melanie Spradling * TFS WUI Specialist Luke Kanclerz 	Add collected data to CWPP and discuss Pre-Attack Plan

Meeting Date	Topics Covered	Attendees	Action Items
5/7/13	Risk assessment presentation	<ul style="list-style-type: none"> * TFS WUI Specialist Melanie Spradling * TFS WUI Specialist Luke Kanclerz CSFD A Shift: * Joe Gibson * Andrea Ferrell * Brent Sanders * Adam McCullough * Brad Ballard * Clint Anderson * Richard Westbrook * Fred Rapczyk * Michael Swoboda * David Gillis * Nathan Hooper * Joshua Harrington * Bradley McPherson * Patrick Dugan * Tony Ray * Andrew Byorth * Richard Weisser * Tim Hamff * Darryl Smith * Chet Barker * Justin Woodard * Benjamin Miller * Tom Thraen * Charles Almanza * Stuart Marrs * Dan McNeill * David Moore * Doug Smith * Scott Giffen * Tommy Tharp * Jason Neuendorff * Chris Poole * Carter Hall * Patrick Mattina 	Add collected data to CWPP

Meeting Date	Topics Covered	Attendees	Action Items
5/8/13	Risk assessment presentation	<ul style="list-style-type: none"> * TFS WUI Specialist Melanie Spradling * TFS WUI Specialist Luke Kanclerz CSFD B Shift: * James Crook * Grant McKay * Tim Valdez * Jeremy Murders * Ernie Goode * Michael Middleton * John Kimbrough * John Shultz * Tim Sullivan * Jacob Prazak * Michael Brown * Lewis Clinkscales * Wade Amy * Mike Armstrong * Matthew Brunson * Eric Falke * Leon Moore * Lance Norwood * Greg Rodgers * Charles Selensky * Chad Phillips * Matt Tomas * Andy Throne * Stan Stephenson * Jeff Kuykendall * K. Simmons * David Copeland * Derek Gallion * Jake Pickard * Jarrod Dreher 	Add collected data to CWPP

Meeting Date	Topics Covered	Attendees	Action Items
5/9/13	Risk assessment presentation	<ul style="list-style-type: none"> * TFS WUI Specialist Melanie Spradling * TFS WUI Specialist Luke Kanclerz CSFD C Shift: *Anthony C. Marino *Jason Giles *Jason Murrell *Dominic Beran *Michael Cole *Phillip Markert *Zac Lawson *Mike Rohach *Michael Macias *Travis Towers *Pat Quinlan *Matt Harmon *Johnny Ward *Bill Walton *Jeremy Engel *William Shelton *J.P. Moore *Robert Mumford *Mike Ruesink *George Rosier *Layne Dussetschleger *Deborah Hamff *Chris Kelly *Christina Seidel *Austin Hoggard *Josh Varner *Danny Driskell *Jimmy Yow *Nathan Noynaert *Mike Clemente *Curtis Donahoe *Derek Bishop 	Add collected data to CWPP

Meeting Date	Topics Covered	Attendees	Action Items
5/30/13	CWPP Working Group Meeting	<ul style="list-style-type: none"> * TFS WUI Specialist Melanie Spradling * TFS WUI Specialist Luke Kanclerz College Station Fire Department *Fire Chief R.B. Alley III *Asst. Chief Jon Mies *Fire Marshal Eric Hurt *Capt. Joe Warren *Lt. Tim Hamff *Lt. Mike Ruesink *Public Information Officer Bart Humphreys *Emergency Management Coordinator Brian Hilton *Public Education Officer Christina Seidel *Training Coordinator Billy Bradshaw 	Discussed CWPP edits, signing ceremony and data needed for Pre-Attack Plan

Community Background

Location

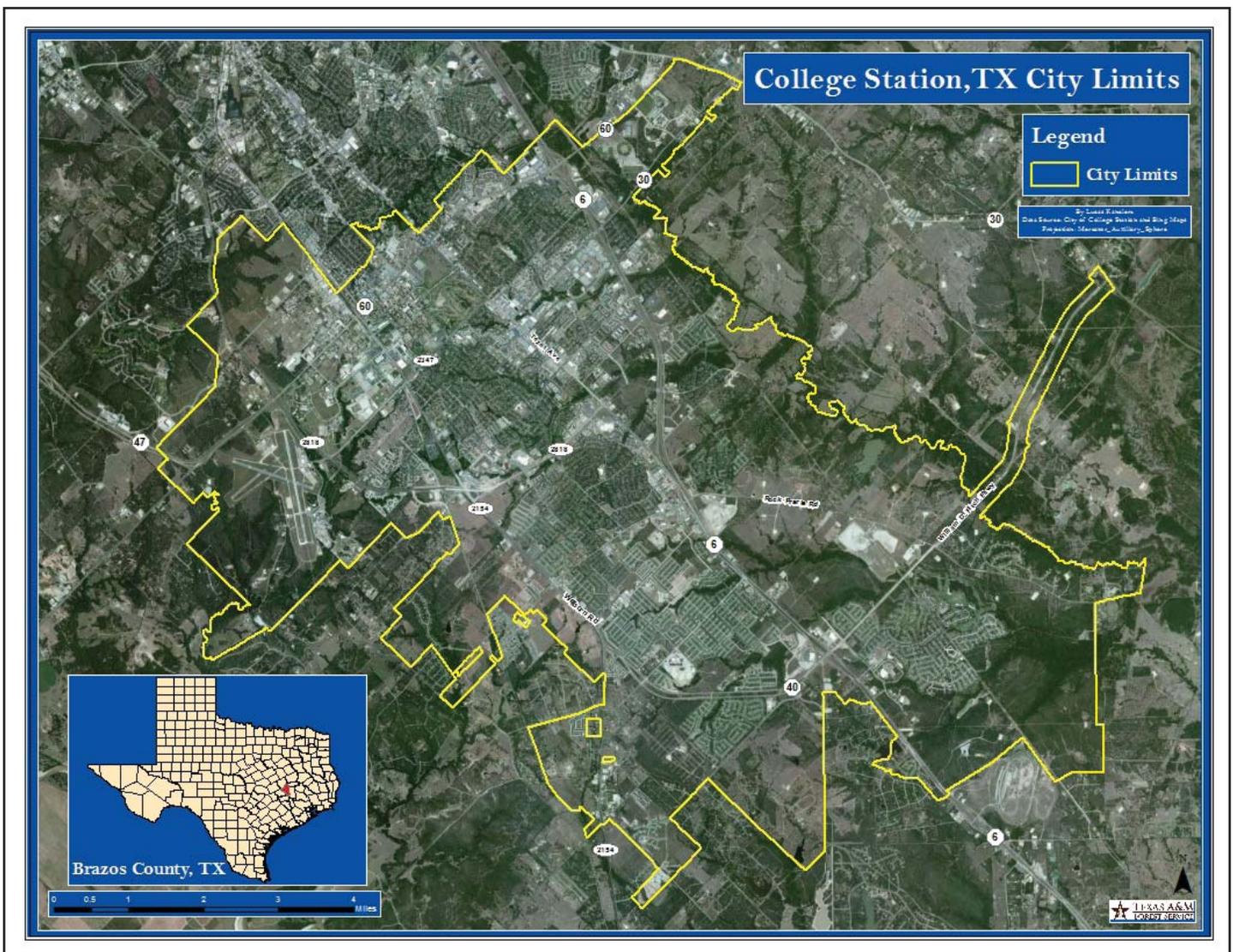
College Station, Texas

Brazos County

N 30° 34' 00"

W 96° 16' 04"

With a population of about 97,000 in 2012, College Station is the largest city in the metropolitan area, encompassing about 49 square miles. College Station is home to Texas A&M University, one of the country's largest public universities. The city is located in the heart of central Texas within a three-hour drive of five of the nation's 20 largest municipalities.



General Landscape

Texas is one of the fastest-growing states in the nation, with much of this growth occurring adjacent to metropolitan areas. This increase in population across the state will impact counties and communities within the Wildland Urban Interface (WUI). The topography within the city limits is primarily flat plains and smooth plains.

Predictive Service Areas (PSA) represent regions where the weather reporting stations tend to react similarly to daily weather regimes and exhibit similar fluctuations in fire danger and climate. Seven PSA are delineated in Texas. Fire weather thresholds, fuel moisture thresholds and National Fire Danger Rating System thresholds have been developed for each PSA and are unique to the designated PSA.

Critical fire weather thresholds for the PSA in which College Station is located are:

Relative humidity: 30 percent or less

20-foot windspeed (meaning windspeeds that are calculated at 20 feet above the forest canopy): 15 mph or more

Temperature: 10 percent above average

In the tables below, at the low end of the scale in the greens and blues we see normal to below-normal conditions. Initial attack should be successful with few complexities. At the upper end of the scale in the oranges and reds we see unusual or rare conditions and we would expect to see complex fires where initial attack may often fail. So the difficult category to describe and thus maybe the most important category for initial attack is the middle or transition zone in the yellow. Somewhere in the yellow, fires transition from normal to problematic.

NFDRS - National Fire Danger Rating System

ERC - Energy Release Component

BI - Burning Index

KBDI - Keetch-Byram Drought Index

Dead Fuel Moisture Thresholds

	Percentiles				
	3	4-10	11-25	26-50	51-100
1000-hr	13	14-15	16	17-18	19
100-hr	11	12-13	14	15-16	17
10-hr	5	6	7	8-9	10

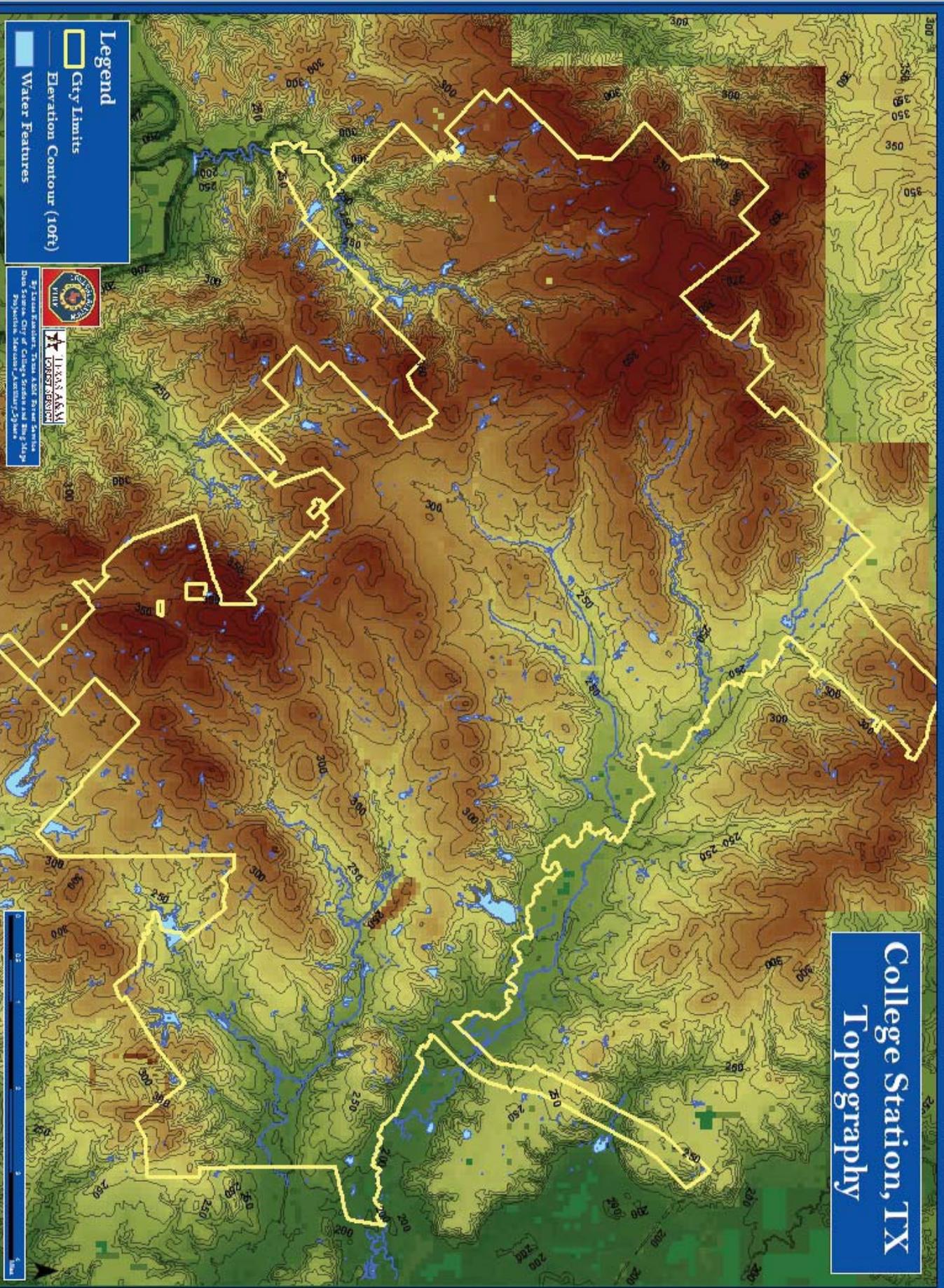
NFDRS Thresholds (Fuel Model G)

	Percentiles				
	97	90-96	75-89	50-74	0-49
ERC	47	38-46	31-37	25-30	0-24
BI	52	44-51	34-43	25-33	0-24
KBDI	758	683-757	606-682	470-605	0-469

Live Fuel Moisture

	Percentiles				
	3	4-10	11-25	26-50	51-100
Pine	105	106-120	121-130	131-150	151-300
Oak	75	76-90	91-100	101-125	126-300
Yaupon	100	101-115	116-130	131-150	151-300

College Station, TX Topography



Legend

City Limits

Elevation Contour (10ft)

Water Features

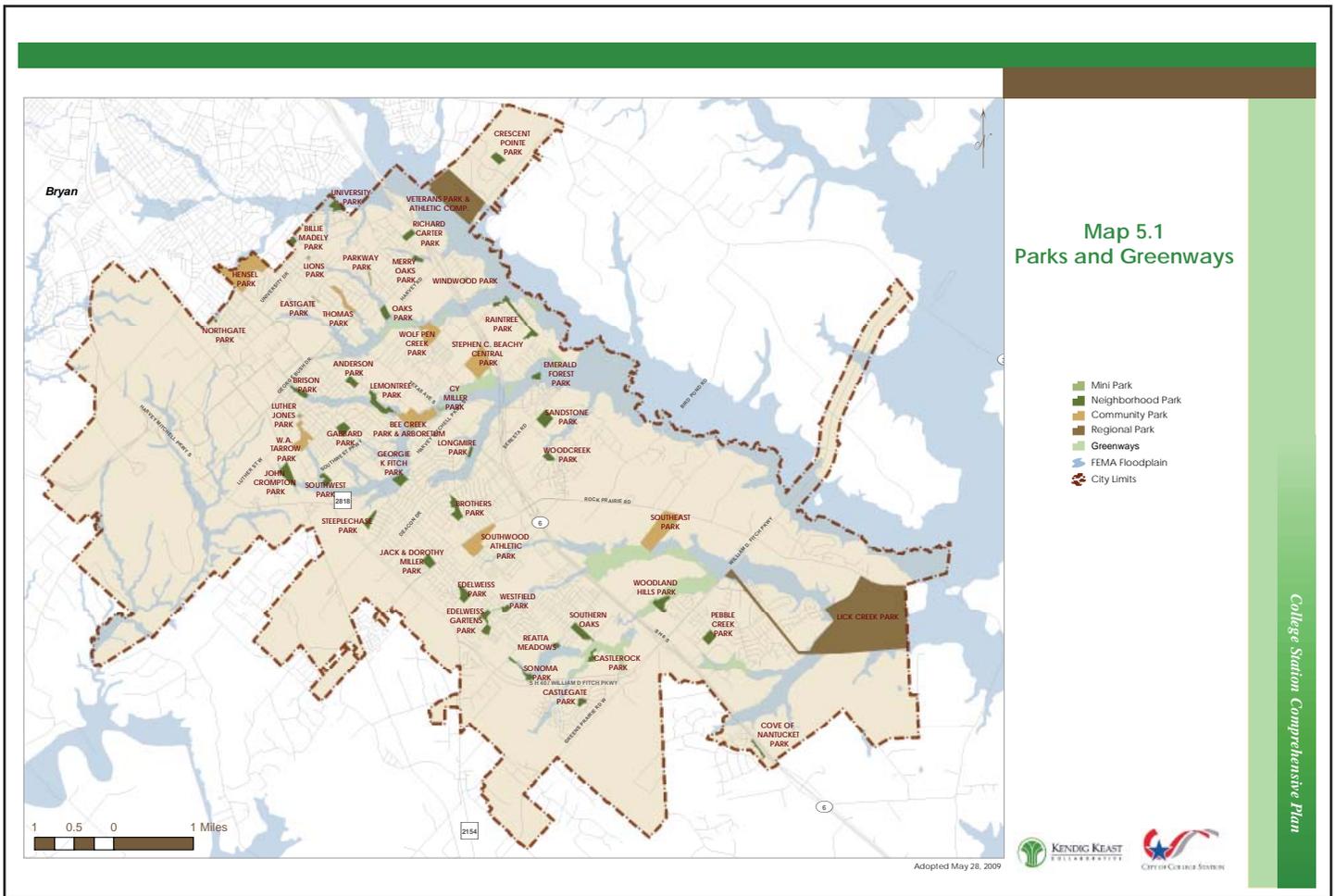


TEXAS A&M
UNIVERSITY

City of College Station
Data Source: City of College Station and Esri
Projection: NAD83 Texas StatePlane



Parks



The City of College Station currently has more than 1,305 acres of parkland and 500 acres of greenway that allow for active and passive recreation. They are classified as follows and displayed in the map above.

- Mini Parks – 7
- Neighborhood Parks – 34
- Community Parks – 8
- Regional Parks – 2 (Lick Creek Nature Park and Veterans Athletic Park)
- Special – 2 (Arboretum, Conference Center)
- Cemeteries – 2 (not included in total acreage above)
- Greenways trials – 3 miles of paved trails

Source: City of College Station Comprehensive Plan

Climate

Climate data for College Station, Texas													[hide]
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Record high °F (°C)	86 (30)	99 (37)	94 (34)	91 (33)	100 (38)	104 (40)	109 (43)	107 (42)	105 (41)	99 (37)	88 (31)	86 (30)	109 (43)
Average high °F (°C)	61 (18)	66 (19)	73 (23)	79 (26)	85 (29)	92 (33)	95 (35)	96 (36)	91 (33)	82 (28)	71 (22)	63 (17)	80 (27)
Average low °F (°C)	42 (6)	44 (7)	50 (10)	57 (14)	65 (18)	72 (22)	74 (23)	75 (24)	69 (21)	59 (15)	49 (9)	42 (6)	58 (14)
Record low °F (°C)	7 (-14)	14 (-10)	17 (-8)	28 (-2)	42 (6)	53 (12)	58 (14)	60 (16)	44 (7)	29 (-2)	19 (-7)	3 (-16)	3 (-16)
Precipitation inches (mm)	3.32 (84.3)	2.38 (60.5)	2.84 (72.1)	3.20 (81.3)	5.05 (128.3)	3.79 (96.3)	1.92 (48.8)	2.58 (65.5)	3.97 (100.8)	4.24 (107.7)	3.18 (80.8)	3.23 (82)	39.72 (1,008.9)

Source: weather.com^[9]

Peak Fire Seasons:

Primary – July through September with summer drying

Dry vegetation due to little or no rain, combined with temperatures of 98° to 105° F on a daily basis. Hurricanes or tropical storms close to Southeast Texas bring in dry, strong to gusty winds from the north and northeast.

Secondary – December through March with cured grasses and wind events

Cold front moves in from the north ushering in drier air. Relative humidity drops below 20 percent during the afternoon hours with winds gusting anywhere from 25 mph to 50 mph.

City of College Station Fuels

Fuel Model	Description	Rate of Spread	Flame Length	% of Land in City Limits	Acres of Land in City Limits
NB 91	Urban/Developed Land	n/a	n/a	46.1%	14,024
FM 9 HWD	Hardwood timber litter, with fluffy duff layer	Low	Low	15.9%	4,847
GR 1	Short, patchy, normally heavily grazed grass	Moderate	Low	14.2%	4,308
GR 2	Moderately coarse continuous grass (1 foot)	High	Moderate	13%	3,948
FM 8	Closed timber litter	Low	Low	8.4%	2,552

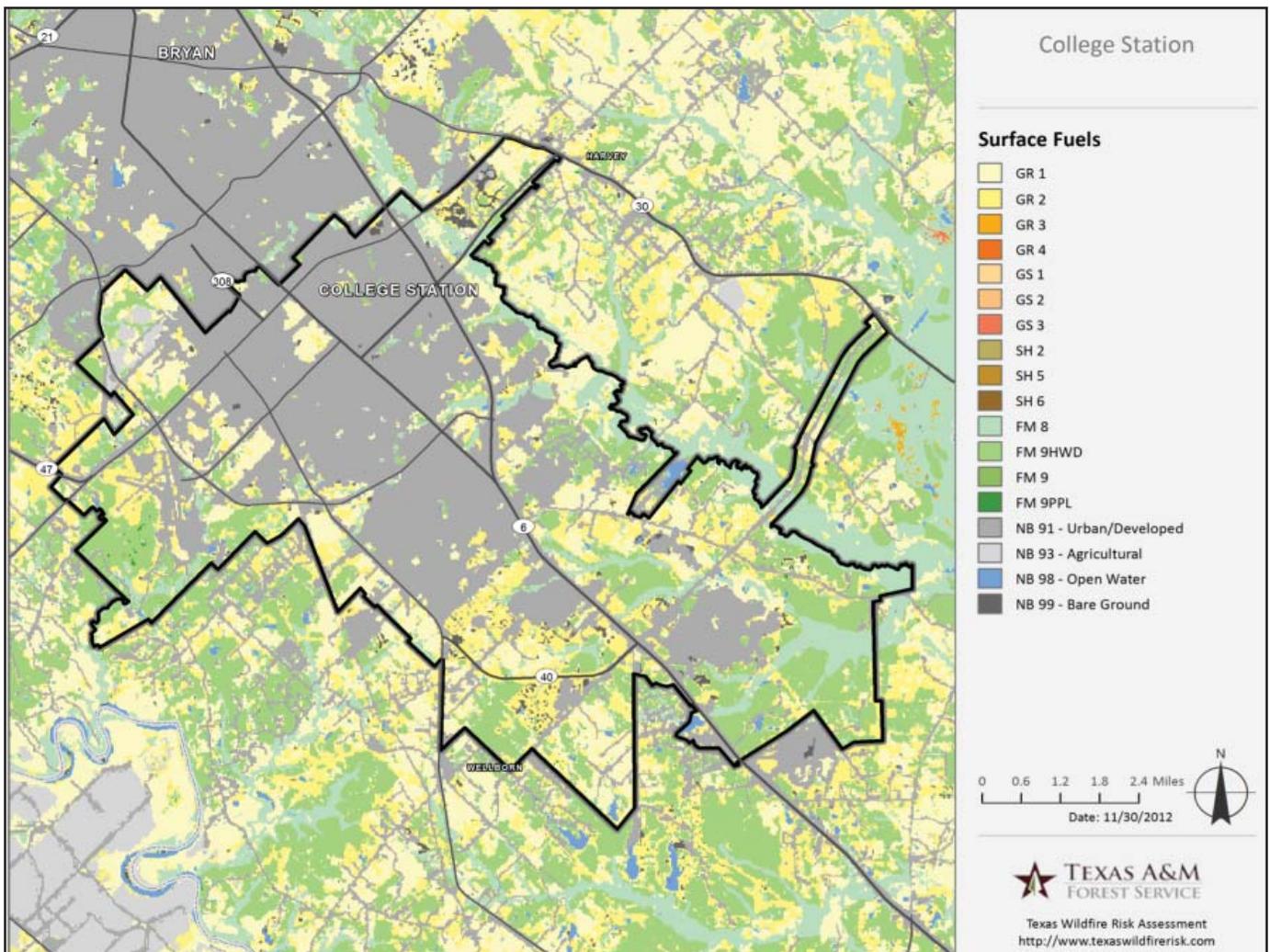
Surface fuels contain the parameters needed to compute surface fire behavior characteristics, such as rate of spread, flame length, fireline intensity and other fire behavior metrics. As the name might suggest, surface fuels only account for the surface fire potential.

Canopy fire potential is computed through a separate but linked process. The Texas Wildfire Risk Assessment accounts for both surface and canopy fire potential in the fire behavior outputs.

Surface fuels are typically categorized into one of four primary fuel types based on the primary carrier of the surface fire: 1) grass, 2) shrub/brush, 3) timber litter and 4) slash.

Surface Fuels - Acres

Surface Fuels	Description	FBPS Fuel Model Set	Acres	Percent
GR 1	Short, Sparse Dry Climate Grass (Dynamic)	2005	4,447	16.0%
GR 2	Low Load, Dry Climate Grass (Dynamic)	2005	2,829	10.2%
GR 3	Low Load, Very Coarse, Humid Climate Grass (Dynamic)	2005	12	0.0%
GR 4	Moderate Load, Dry Climate Grass (Dynamic)	2005	0	0.0%
GS 1	Low Load, Dry Climate Grass-Shrub (Dynamic)	2005	0	0.0%
GS 2	Moderate Load, Dry Climate Grass-Shrub (Dynamic)	2005	0	0.0%
GS 3	Moderate Load, Humid Climate Grass-Shrub (Dynamic)	2005	0	0.0%
SH 2	Moderate Load Dry Climate Shrub	2005	0	0.0%
SH 5	High Load, Dry Climate Shrub	2005	0	0.0%
SH 6	Low Load, Humid Climate Shrub	2005	0	0.0%
FM 8	Closed timber litter (compact)	1982	1,891	6.8%
FM 9 HWD	Hardwood litter (fluffy) - Low Load for Texas	Custom	2,967	10.7%
FM 9	Long-needle (pine litter) or hardwood litter	1982	18	0.1%
FM 9 PPL	Long-needle (pine litter, plantations) - High Load for Texas	Custom	7	0.0%
NB 91	Urban/Developed	2005	15,213	54.7%
NB 93	Agricultural	2005	58	0.2%
NB 98	Open Water	2005	126	0.5%
NB 99	Bare Ground	2005	247	0.9%
Total			27,814	100.0%

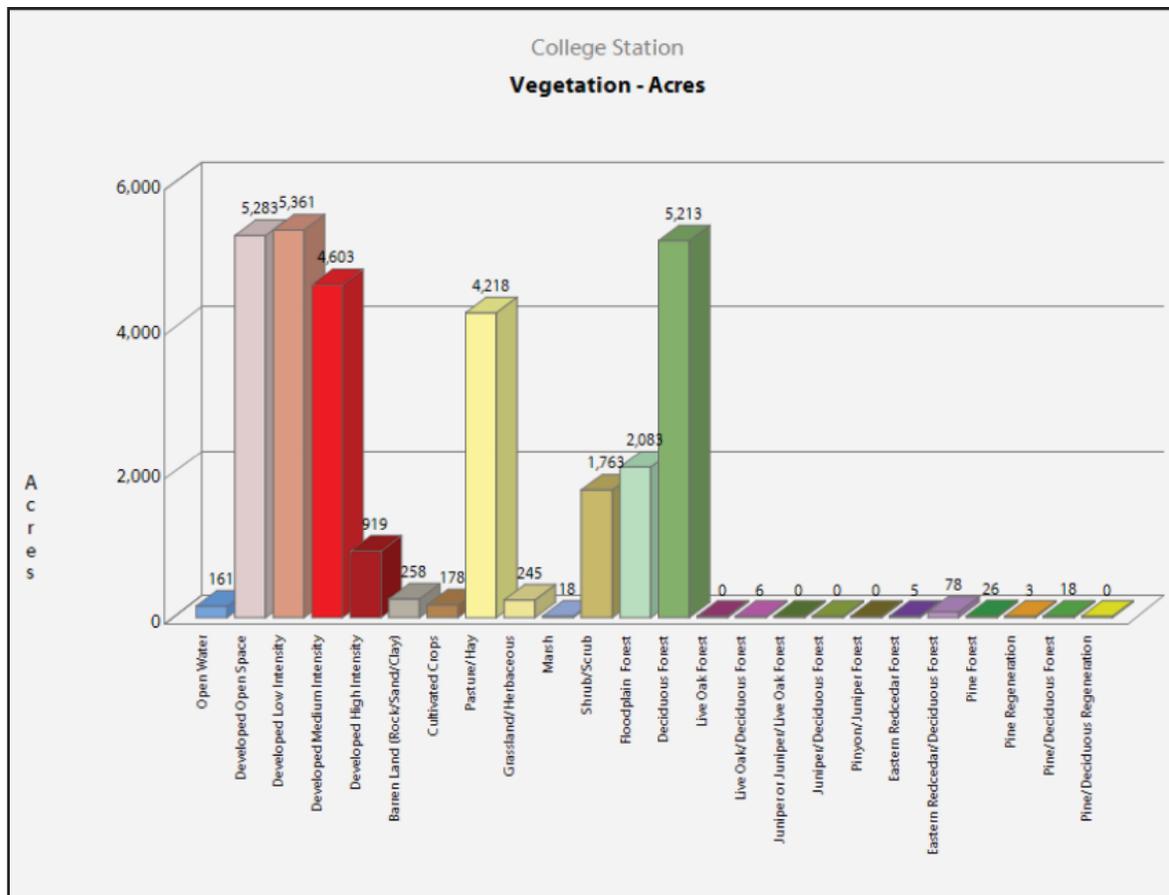
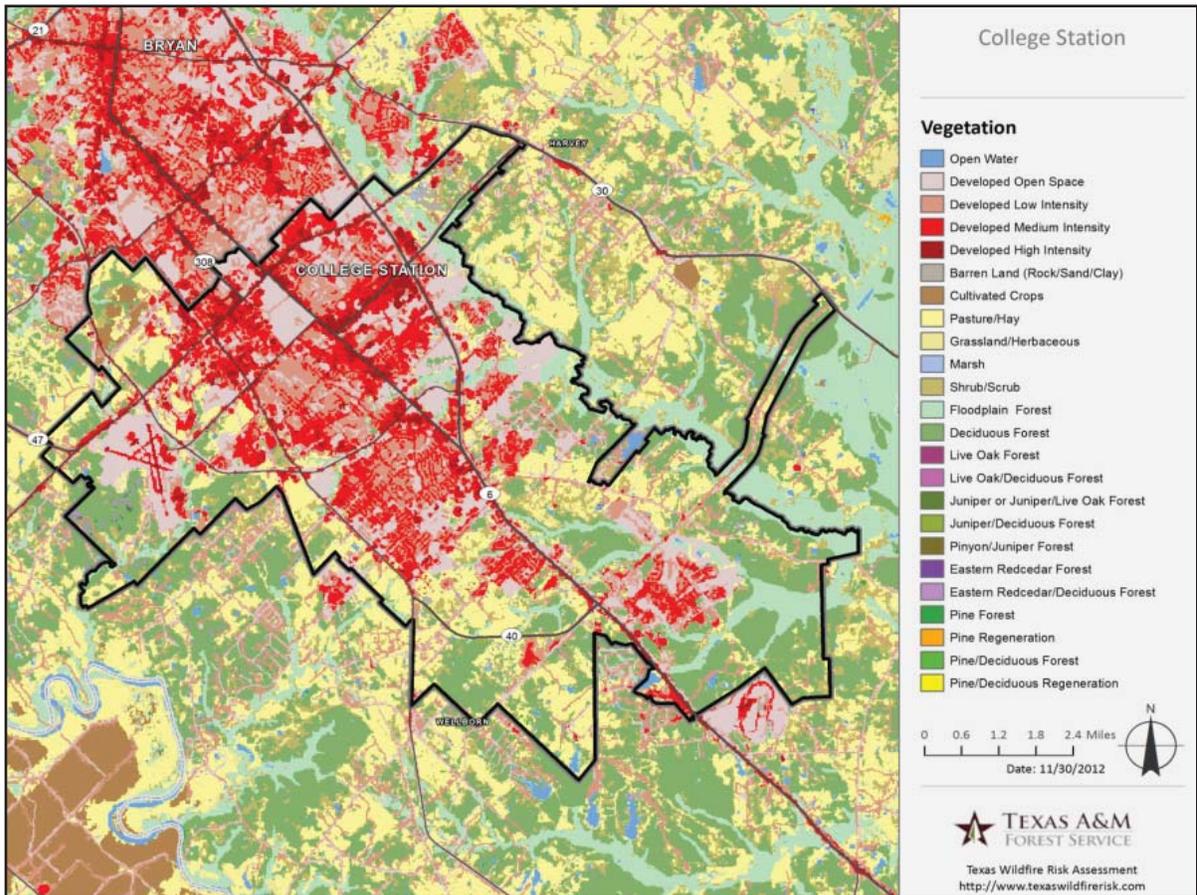




Vegetation

The vegetation map describes the general vegetation and landcover types across the state of Texas. In the Texas Wildfire Risk Assessment (TWRA), the vegetation dataset is used to support the development of surface fuels, canopy cover, canopy stand height, canopy base height and canopy bulk density datasets. The vegetation classes with descriptions are shown in the following table.

Vegetation - Acres				
	Class	Description	Acres	Percent
	Open Water	All areas of open water, generally with < 25% cover of vegetation or soil	161	0.5%
	Developed Open Space	Impervious surfaces account for < 20% of total cover (i.e. golf courses, parks, etc...)	5,283	17.4%
	Developed Low Intensity	Impervious surfaces account for 20-49% of total cover	5,361	17.6%
	Developed Medium Intensity	Impervious surfaces account for 50-79% of total cover	4,603	15.1%
	Developed High Intensity	Impervious surfaces account for 80-100% of total cover	919	3.0%
	Barren Land (Rock/Sand/Clay)	Vegetation generally accounts for <15% of total cover	258	0.8%
	Cultivated Crops	Areas used for the production of annual crops, includes land being actively tilled	178	0.6%
	Pasture/Hay	Areas of grasses and/or legumes planted for livestock grazing or hay production	4,218	13.9%
	Grassland/Herbaceous	Areas dominated (> 80%) by grammanoid or herbaceous vegetation, can be grazed	245	0.8%
	Marsh	Low wet areas dominated (>80%) by herbaceous vegetation	18	0.1%
	Shrub/Scrub	Areas dominated by shrubs/trees < 5 meters tall, shrub canopy > than 20% of total vegetation	1,763	5.8%
	Floodplain Forest	> 20% tree cover, the soil is periodically covered or saturated with water	2,083	6.8%
	Deciduous Forest	> 20% tree cover, >75% of tree species shed leaves in response to seasonal change	5,213	17.1%
	Live Oak Forest	> 20% tree cover, live oak species represent >75% of the total tree cover	0	0.0%
	Live Oak/Deciduous Forest	> 20% tree cover, neither live oak or deciduous species represent >75% of the total tree cover	6	0.0%
	Juniper or Juniper/Live Oak Forest	> 20% tree cover, juniper or juniper/live oak species represent > 75% of the total tree cover	0	0.0%
	Juniper/Deciduous Forest	> 20% tree cover, neither juniper or deciduous species represent > 75% of the total tree cover	0	0.0%
	Pinyon/Juniper Forest	> 20% tree cover, pinyon or juniper species represent > 75% of the total tree cover	0	0.0%
	Eastern Redcedar Forest	> 20% tree cover, eastern redcedar represents > 75% of the total tree cover	5	0.0%
	Eastern Redcedar/Deciduous Forest	> 20% tree cover, neither eastern redcedar or deciduous species represent > 75% of the total tree cover	78	0.3%
	Pine Forest	> 20% tree cover, pine species represent > 75% of the total tree cover	26	0.1%
	Pine Regeneration	Areas of pine forest in an early successional or transitional stage	3	0.0%
	Pine/Deciduous Forest	> 20% tree cover, neither pine or deciduous species represent > 75% of the total tree cover	18	0.1%
	Pine/Deciduous Regeneration	Areas of pine or pine/deciduous forest in an early successional or transitional stage	0	0.0%
	Total		30,440	100.0%

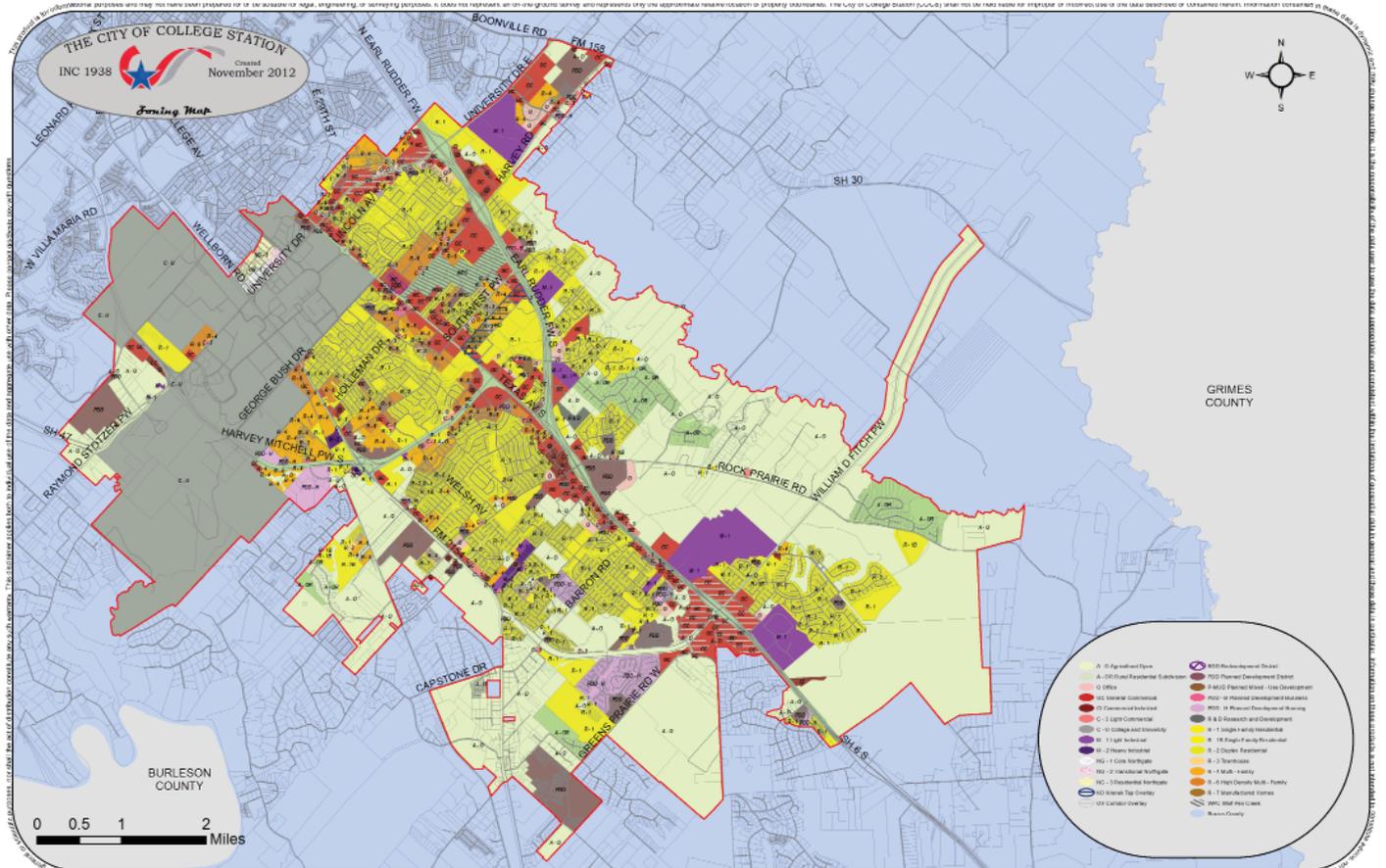


Land Use

According to the College Station Comprehensive Plan, the city is poised for significant population growth in the upcoming decades. This growth will bring with it significant demands for additional housing, shopping, recreation, public facilities and services, and transportation. How land is used and development occurs to serve this increasing population will have significant and long lasting impacts on the community.

The population of the City of College Station is projected to increase by approximately 40,000 for a total population of approximately 134,000 by 2030. The housing demand associated with this population increase is projected to equate to an additional 20,000 dwelling units. If current trends prevail about one-fourth or 5,000 of these will be new single-family homes and the remainder will consist of duplexes or apartment units. This projected increase in housing necessitates the availability of nearly 3,000 to 4,000 acres for new construction in greenfield areas or through redevelopment and infill development.

If population and housing demands continue to increase and the challenges associated with the physically expanding the City's boundaries persist, then the population density of College Station will likely increase. The current population density of the City is estimated at slightly more than 1,800 persons per square mile. Since 1940, the City's population density has ranged from a low of 856 persons per square mile (1940) to a high of 2,211 persons per square mile (1999). Though the population density remains quite low in comparison to other metropolitan areas, increasing population density offers opportunities for new building types, such as condominiums, townhomes and vertical mixed use. It also presents the need for more effective land use planning and capital investments.



Existing Land Use

Urban

Urban character is currently concentrated in the Northgate area. It primarily involves the businesses along either side of College Main, immediately north of University Drive. The public parking garage and recent multi-story residential projects built close to the street continue this urban feel. This area currently includes vertical development, minimal setbacks, minimal surface parking lots and a high level of pedestrian activity.

Suburban

Suburban character dominates College Station as a result of the time period of most of College Station's development (post-World War II), local preferences and building customs, and the dominance of the student population (dormitories and apartments). Much of this suburban character is auto-dominated, that is it consists of land uses that have extensive areas of parking in relationship to their floor area. Big-box retail areas and shopping malls are quintessential examples of this character. Most apartment complexes, duplexes, and even single-family residential developments catering to students exhibit similar auto-oriented character and design.

Areas of the City exhibit a less auto-dependent and more walkable character. These areas retain a balance between green areas (parks and open space) and the built environment. Often these areas include parks, schools, and small-scale, neighborhood-serving businesses.

The College Hills area is a good example of this type of suburban land use and character. A few of these areas are more specialized in land use, such as the College Station Business Center, which provides employment and business opportunities in a walkable environment with significant open space. There are also suburban areas that are dominated by open space. These estate areas are much more rural in character with homes generally placed on large lots. Foxfire subdivision is a good example of this type of suburban land use and character.

Rural

Rural areas that currently exist in and around College Station include areas that exhibit countryside, agricultural, and natural character. Countryside is typically dominated by a few lots of estate size fronting a road surrounded by agricultural or natural lands. The latter two tend to be determined by uses – crop or ranching in agricultural areas and wooded or savanna lands in natural areas. Rural areas tend to be more auto-suburban commercial along Earl Rudder Freeway.

TABLE 2.1
Future Land Use & Character

Designation	Acreage in City	% of Total	Acreage in ETJ	% of Total	Total	% of Total
Neigh. Conservation	1,408.6	5.0%	0.0	0.0%	1,408.6	1.0%
Rural	0.0	0.0%	94,930.4	87.6%	94,930.4	69.4%
Estate	3,498.9	12.4%	0.0	0.0%	3,498.9	2.7%
Restricted Suburban	4,030.4	14.3%	447.6	0.4%	4,478.0	3.3%
General Suburban	2,467.2	8.8%	601.7	0.6%	3,069.0	2.3%
Urban	2,690.8	9.6%	300.6	0.3%	2,991.5	2.1%
Urban Mixed Use	400.8	1.4%	0.0	0.0%	400.8	0.3%
General Commercial	882.3	3.1%	0.1	0.0%	882.4	0.6%
Suburban Commercial	912.8	3.2%	76.6	0.1%	989.4	0.7%
Business Park	1,203.2	4.3%	835.1	0.8%	2,038.3	1.5%
Institutional / Public	673.9	2.4%	0.0	0.0%	674.0	0.5%
Texas A&M University	5,259.4	18.7%	4.7	0.0%	5,264.1	3.9%
Natural - Protected	1,250.8	4.4%	17.9	0.0%	1,268.7	0.9%
Natural - Reserved	3,413.7	12.1%	11,137.7	10.3%	14,551.4	10.7%
Utilities	61.7	0.2%	2.4	0.0%	64.2	0.0%
TOTAL	28,154.5	100.0%	108,354.7	100.0%	136,509.7	100.0%

NOTE: The total area of the combined City limits and ETJ is approximately 141,370 acres. The total area in the land use categories is 136,509.7 acres. The difference is within street and highway rights-of-way (4,860.3 acres, or roughly 3.4% of the overall area).

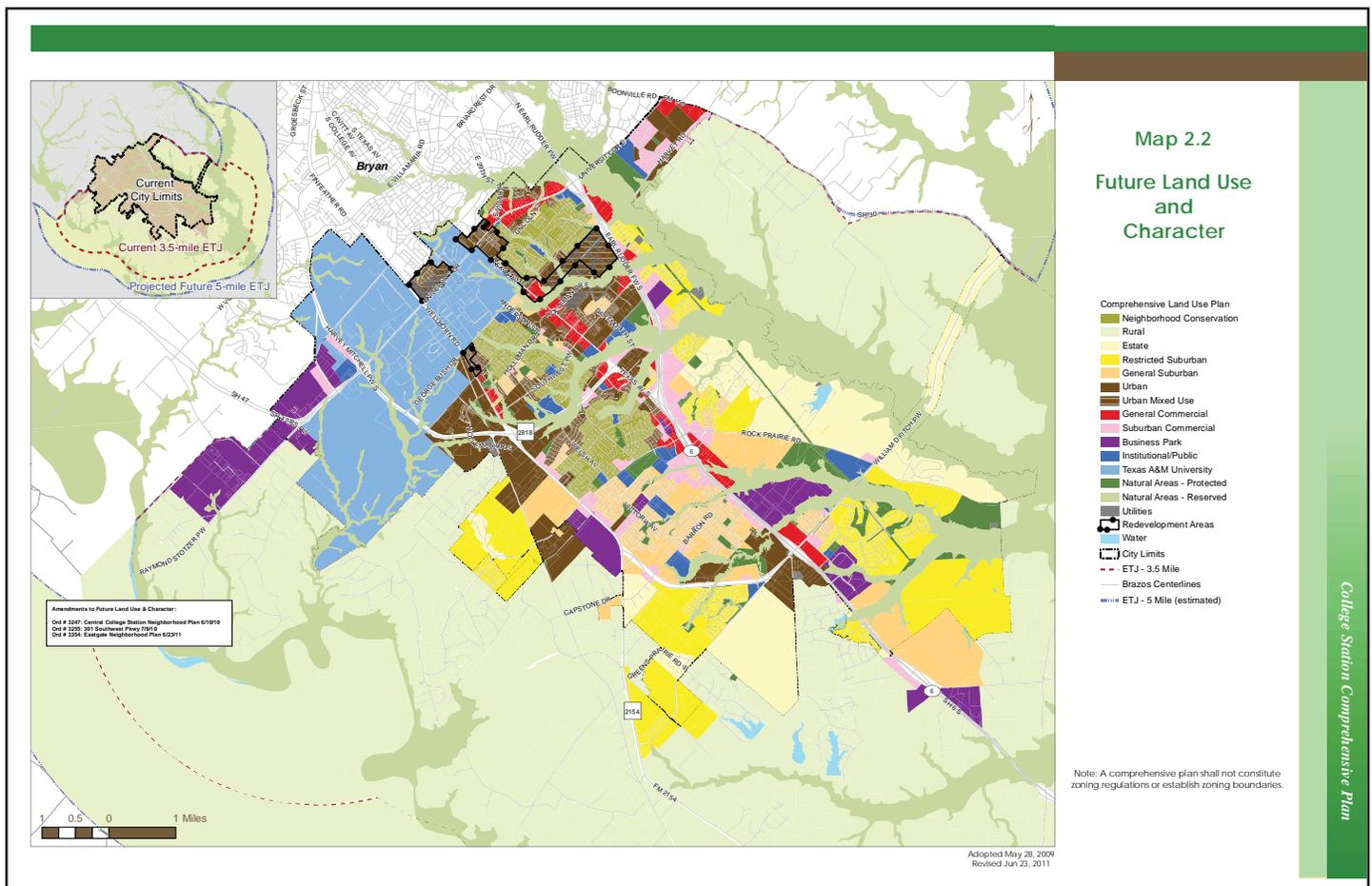
* Totals down to decimal place level may vary slightly due to rounding.

Future Land Use

The basic land use concept associated with the city's Comprehensive Plan is to achieve the highest quality of life by accommodating the projected demand for new housing, businesses and public facilities, resulting in multiple places of distinction. This concept focuses on:

- Strong and sustainable neighborhoods;
- Unique districts and corridors both natural and man-made;
- Growth areas flexible enough to respond to a changing marketplace while proscriptive enough to contribute to the community's quality of life;
- Rural areas that preserve open spaces and respect the limits of public infrastructure and services;
- Redevelopment areas that renew struggling or under-performing areas of the community through partnerships with public and private interests; and,
- Context-sensitive mobility system linking the community together.

In addition to meeting the projected demands associated with an increasing population, this concept enables the City to continue to strengthen its principal competitive advantage for attracting and retaining residents and visitors along with new businesses and the employment and tax revenues that accompany them – that is, a high quality of life.



Source: City of College Station Comprehensive Plan

Fire Response Capabilities

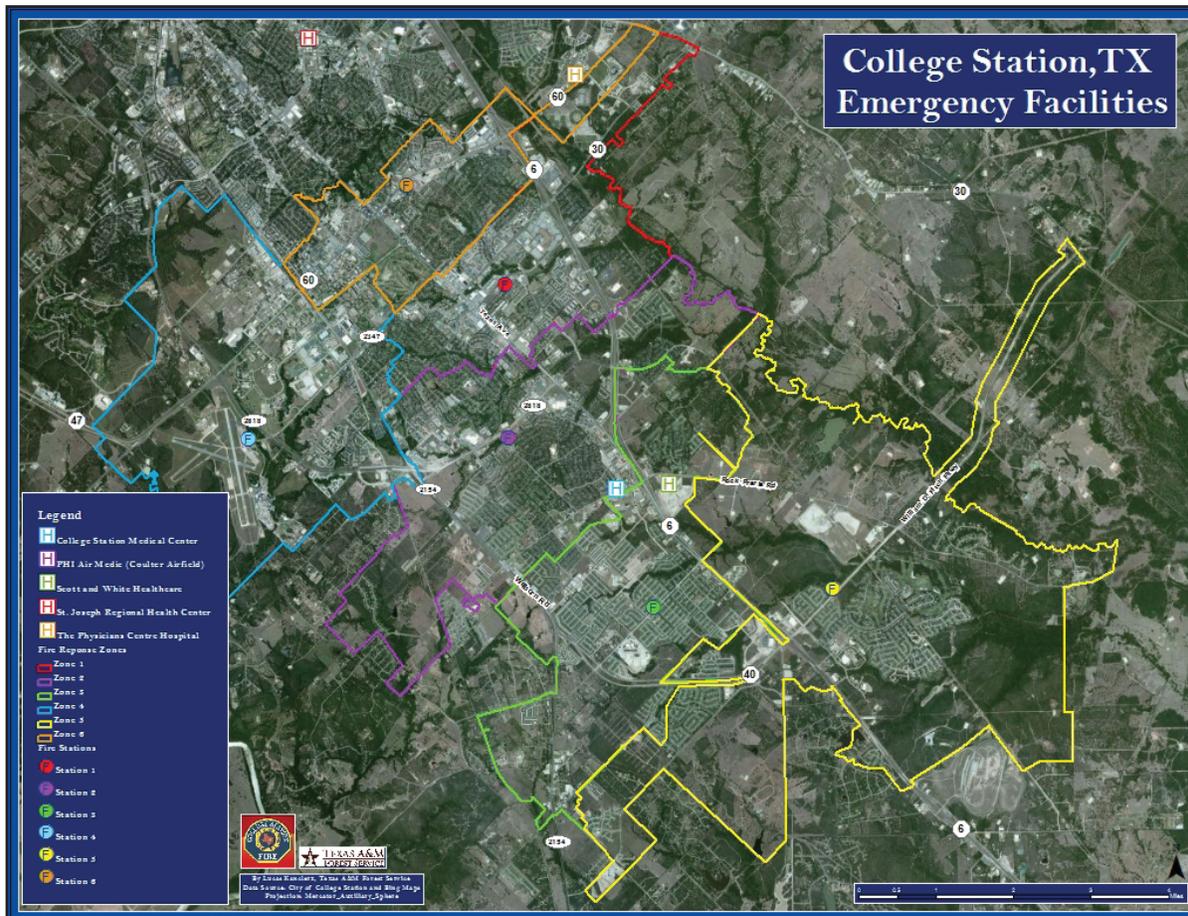
The College Station Fire Department has six fire stations and staffs six engines, one ladder tower, one tender, one aircraft rescue and firefighting vehicle, four Mobile Intensive Care Unit (MICU) capable ambulances, and one command vehicle.

There are 41 personnel assigned to each of three shifts, with minimum staffing daily at 33 personnel. Shift personnel work a 24-hour shift with 48 hours off between shifts, for an average of 56 hours worked each week.

The College Station Fire Department is the lead agency for a Hazardous Materials Response Group made up of personnel from the College Station and Bryan Fire Departments and personnel from the Environmental Health and Safety Office of Texas A&M University.

STATION	APPARATUS
Fire Station No. 1 304 Holleman Drive East	Engine – Compressed air foam (Unit # 721) Engine – reserve (#727) Ambulance (Unit # 761) Ambulance – reserve (Unit # 765) EMS Gator (Unit # 760) Fire/ EMS Gator (Unit # 799)
Fire Station No. 2 2100 Rio Grande Blvd.	Engine – compressed air foam (Unit # 722) Ambulance (Unit #762) Truck – 100 ft. ladder platform (Unit # 752) Truck – 75 ft. ladder – reserve (Unit # 751)
Fire Station No. 3 1900 Barron Road	Engine – compressed air foam (Unit # 723) Engine – reserve (Unit # 728) Ambulance (Unit # 763)
Fire Station No. 4 1550 George Bush Drive West	Engine – foam system (Unit # 724) Ambulance – reserve (Unit # 764) Truck – ARFF (Unit # 734) Truck – ARFF – reserve (Unit # 794)
Fire Station No. 5 1601 William D. Fitch Parkway	Engine – foam system (Unit # 725) Tender – 3,000 gal (Unit # 735) Truck – grass (Unit #745)
Fire Station No. 6 610 University Drive East	Engine – compressed air foam (Unit # 726) Ambulance (Unit # 766) Command Vehicle – Battalion Chief (Unit # 711) Command Vehicle – reserve (Unit # 706) Rehab/ Air (Unit # 796) Dodge Truck – dual utility truck (Unit # 790) HazMat Trailer – local and regional response Swift water/ dive trailer Inflatable Rescue Boat Flat Bottom Boat

Emergency Facilities



Treatment centers in the area include:

College Station Medical Center, 1604 Rock Prairie Road

- 171 licensed beds; 12-bed medical/surgical ICU; eight operating rooms (plus two cath labs)
- MRI scanner; CT scanner; dialysis unit
- 13 isolation beds (one in ER)
- Emergency power for 158 hours
- **Emergency room: 29 acute care beds**

Scott and White Healthcare, 700 Scott & White Drive

- 143 beds
- Level III emergency department
- MRI scanner, 64-slice CT scanner

St. Joseph Regional Health Center, 2801 Franciscan

- 266 licensed beds; 36-bed medical/surgical ICU; 16 operating rooms
- MRI scanner; two CT scanners; dialysis unit
- 30 isolation beds
- Emergency power for indefinite number of hours
- **Emergency room: 28 treatment room beds**

The Physicians Centre Hospital, 3131 University Drive

- 16 licensed beds; no ICU; four operating rooms and two minor procedure rooms
- MRI scanner, CT scanner, no dialysis unit
- Emergency power for 24 hours
- **Emergency Room: 16 patient suites**

PHI Air Medic, located at St. Joseph Regional Health Center, 2801 Franciscan

- Transports patients by helicopter

The closest burn units are:

- Shriners Hospitals for Children Pediatric Burn Center in Galveston
- University of Texas Medical Branch Blocker Adult Burn Center in Galveston

Utilities and Transportation

Utilities

College Station Utilities

(979) 764-3535

Bryan Texas Utilities

(979) 821-5700

Texas A&M University Utilities

(979) 458-5500

Mid-South Synergy

(936) 825-5100

Navasota Valley Electric Co-op

(979) 828-3232

Entergy

(800) 368-3749

Atmos Energy

(866) 322-8667

UTILITY RESTORATION FOR CRITICAL FACILITIES						
Utility Service Restoration Priorities:	1= Highest 5= Lowest					
Emergency Generation:	Yes= Emergency Generator on site. Ltd.= Generator available, but powers only a limited portion of the facility.					
Facility Name:	Emer. Gen.	Elec.	Phone	Water	WW	Gas
City of College Station/ TAMU						
Reed Arena	Yes	1	1	1	1	1
TAMU Campus	No	1	2	1	1	2
City Hall Administration	Yes	2	1	1	1	2
City Hall Administration	Yes	2	1	1	1	2
Central Fire Station	Yes	3	2	1	1	1
Police Station	Yes	2	1	1	1	2
Lincoln Center	Yes	3	3	1	1	1
USC	Yes	3	2	1	1	1
Greens Prairie Substation	Yes	3	3	2	2	2
Southwood Valley Subdivision	Yes	3	3	2	2	2
Post Oak Subdivision	No	1	1	1	1	1
Switch Subdivision	Yes	1	1	2	3	1
Lick Creek Wastewater Plant	Yes	1	3	NA	NA	1
Dowling Road Pump Station	Yes	1	3	NA	NA	1
College Station Medical Center	Yes	1	1	1	1	1
Scott & White Clinic	Yes	2	2	1	1	1
CSISD Schools	No	1	3	1	1	1

Hazardous materials transportation routes

Hazardous materials transportation routes are a concern in the event of a wildfire that prompts road closures or evacuations.

Highways

Texas State Highway 6

Primary chemical hazards: LPG; gasoline
Protective action distance: 800 meters-1,600 meters

Texas State Highway 21

Primary chemical hazards: LPG; gasoline
Protective action distance: 800 meters-1,600 meters

Texas State Highway 30

Primary chemical hazards: LPG; gasoline
Protective action distance: 800 meters-1,600 meters

Texas F.M. 2818

Primary chemical hazards: Ammonia
Protective action distance: 1,600 meters



Railroads

Union Pacific Railroad

Primary chemical hazards: Liquid and dry chemicals; hydrofluoric acid
Protective action distance: 800 meters, or as required for safety

Pipelines

Exxon/Mobil Pipeline

Primary chemical hazard: Petroleum
Protective action distance: 300 meters-800 meters

ConocoPhillips Pipeline

Primary chemical hazard: Petroleum
Protective action distance: 300 meters-800 meters

Teppco Pipeline

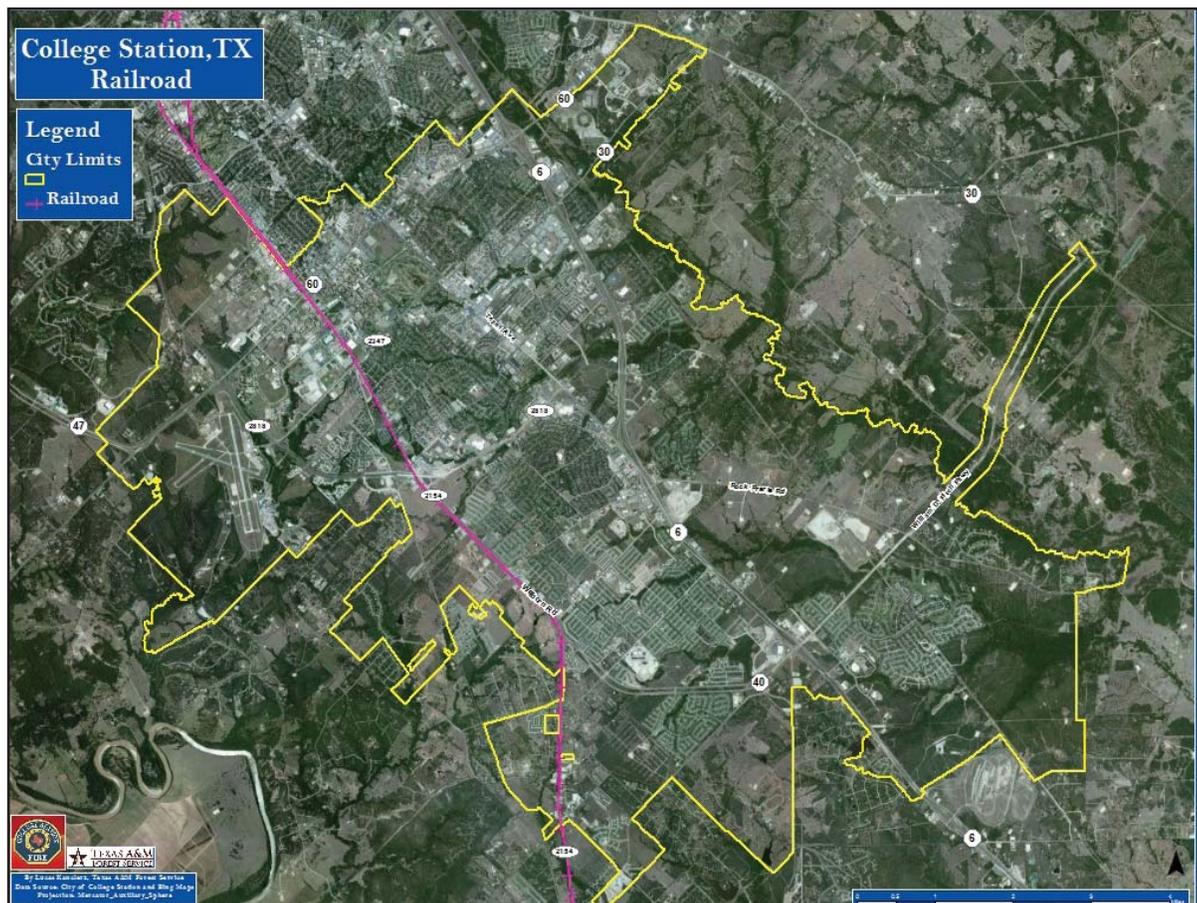
Primary chemical hazard: Petroleum
Protective action distance: 300 meters-800 meters

Koch Pipeline

Primary chemical hazard: Petroleum/crude oil
Protective action distance: 300 meters-800 meters

Enterprise Pipeline

Primary chemical hazard: Natural gas
Protective action distance: 800 meters-1,600 meters



The pink line shows the railroad's route through the city.

Pipeline Safety

Most highly explosive pipelines will be buried approximately three feet deep, but there are exceptions.

Some of the larger firefighting equipment will be powerful enough to rupture these lines. Other lines may not be as explosive but can also be very dangerous. Most of the plastic "flow lines" that lie on top of the ground are usually carrying less of a dangerous liquid but can still burn if ignited. This hazard requires the use of lookouts, especially at night. Some situations may require that the ground person walk in front of the equipment if pipelines are suspected in the vicinity.



Underground pipelines are marked with above-ground markers.

Schools

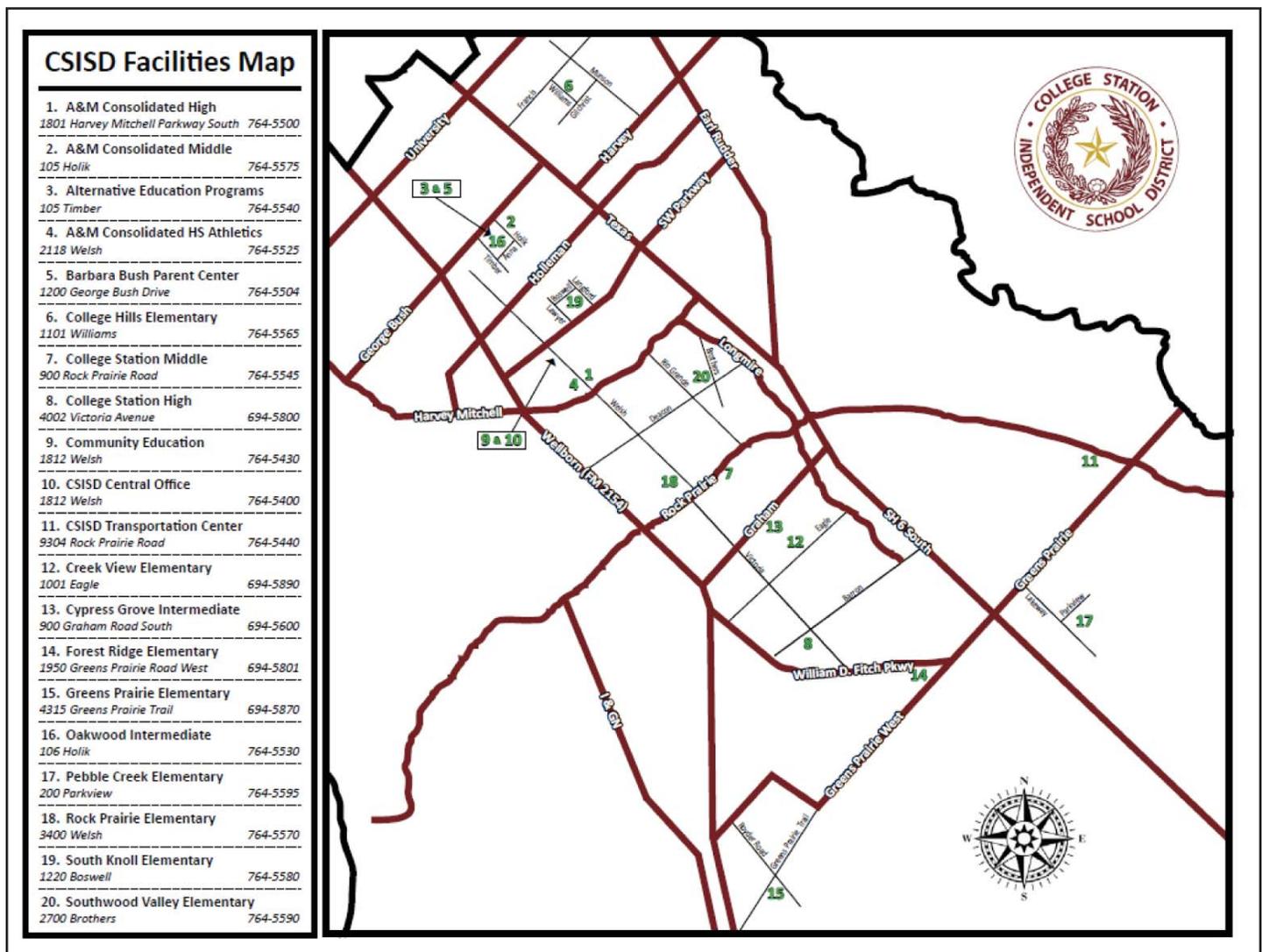
Texas A&M University

College Station is home to Texas A&M University, attended by approximately 50,000 students. Evacuation orders for the Texas A&M campus are issued via Code Maroon messaging system.

According to Texas A&M Campus Safety and Emergency Procedures, when a campus evacuation notice is issued:

- Pedestrians should exit campus by the shortest route, walking north toward Church Street or south toward Anderson Park - use crosswalks, obey police direction, do not impede traffic flow.
- Exit campus as directed in the Code Maroon message.
- You may use your vehicle to leave campus unless directed otherwise in the Code Maroon message.
- If possible, Transportation Services will continue to operate off-campus routes, outbound only. Bus pickup locations may be altered, changes will be announced and posted at <http://emergency.tamu.edu>.
- Transportation Services Paratransit can be reached by calling (979) 845-1971.
- Visit <http://emergency.tamu.edu> for regular updates on the emergency situation and information on returning to campus.

College Station Independent School District



School Evacuation and Sheltering

College Station ISD has emergency operations plans for each campus, which were developed in 2005. The emergency response plans are evaluated and updated annually, and in 2011 the plans went through a formal evaluation with security and safety experts from the Texas Engineering Extension Service. Each plan takes into account the campus location, design and age of students.

These respective campus plans contain multiple possible responses which can be applied to emergency situations in order to maximize student safety. All CSISD campuses practice multiple emergency responses, including evacuations, lockdowns and shelter-in-place drills, on a routine basis.



All CSISD campuses have emergency radios, which have the capability to directly contact the College Station Police Department dispatch. CSISD also works closely with the College Station PD, which has engaged in emergency response training in CSISD buildings. Additionally, CSISD contracts with an outside agency to conduct a safety audit every three years.

When school is not in session, CSISD facilities could potentially be used as staging locations or Incident Command Posts. Such arrangements are coordinated through the College Station Emergency Management Coordinator, American Red Cross and CSISD Director of Facilities.

Community Legal Authority

The City Council is composed of the Mayor and six council members elected at large. The Mayor is the presiding officer of the City Council and is recognized as the head of the city government for all ceremonial purposes. The Mayor is entitled to vote on all matters under consideration by the City Council. The City Council shall elect a Mayor Pro Tem from its membership who will act as Mayor during the absence or disability of the Mayor.

The Mayor and each council member will hold office for a period of three years until his or her successor is elected and qualified. No person shall be deemed elected to an office unless that person receives a majority of all the votes cast for such office.

In the event of an incident, the first responder on the scene will take charge and serve as the Incident Commander until relieved in accordance with local procedures (*Brazos County Interjurisdictional Emergency Management Plan, Annex N, Direction and Control*). The county judge or mayor will likely be responsible for declaring a disaster and ordering evacuations. The City of College Station employs Incident Command System principles during emergency response.

Burn bans are set by the Brazos County Commissioners Court for Brazos County. For the City of College Station, burning is only allowed by permit issued by the College Station Fire Marshal. Burn bans are evaluated based on the Keetch-Byram Drought Index (particularly when it is approaching 600), frequency of fire calls and other weather conditions.

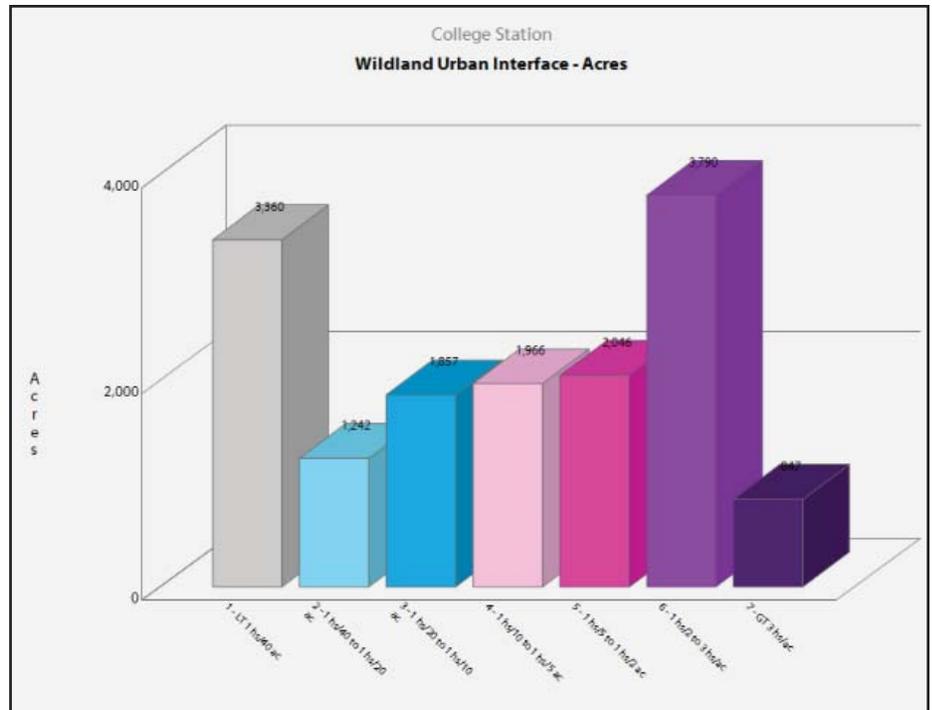
Fire Environment

Wildland Urban Interface

The Wildland Urban Interface (WUI) is described as the area where structures meet and intermingle with undeveloped wildland or vegetative fuels. Population growth within the WUI substantially increases wildfire risks. In Texas, more than 80 percent of wildfires occur within two miles of a community.

College Station's population is estimated to be 98,866.

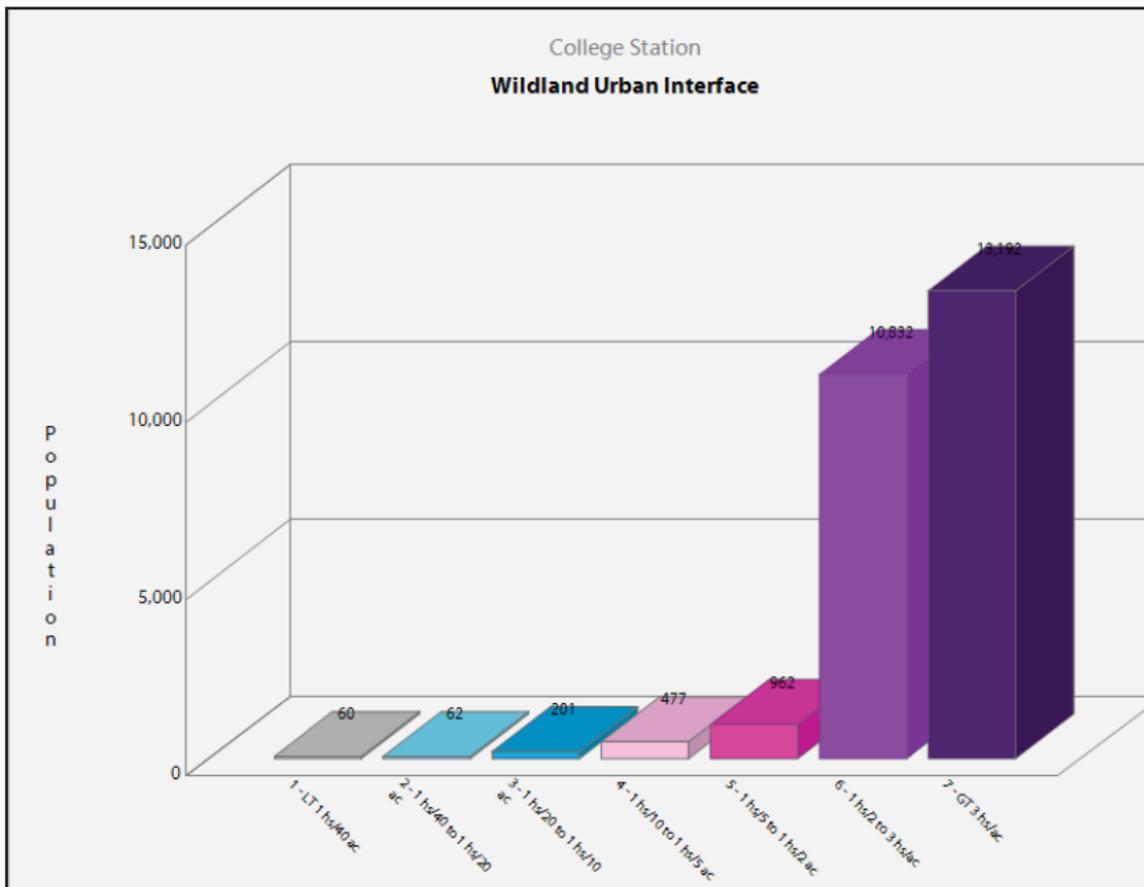
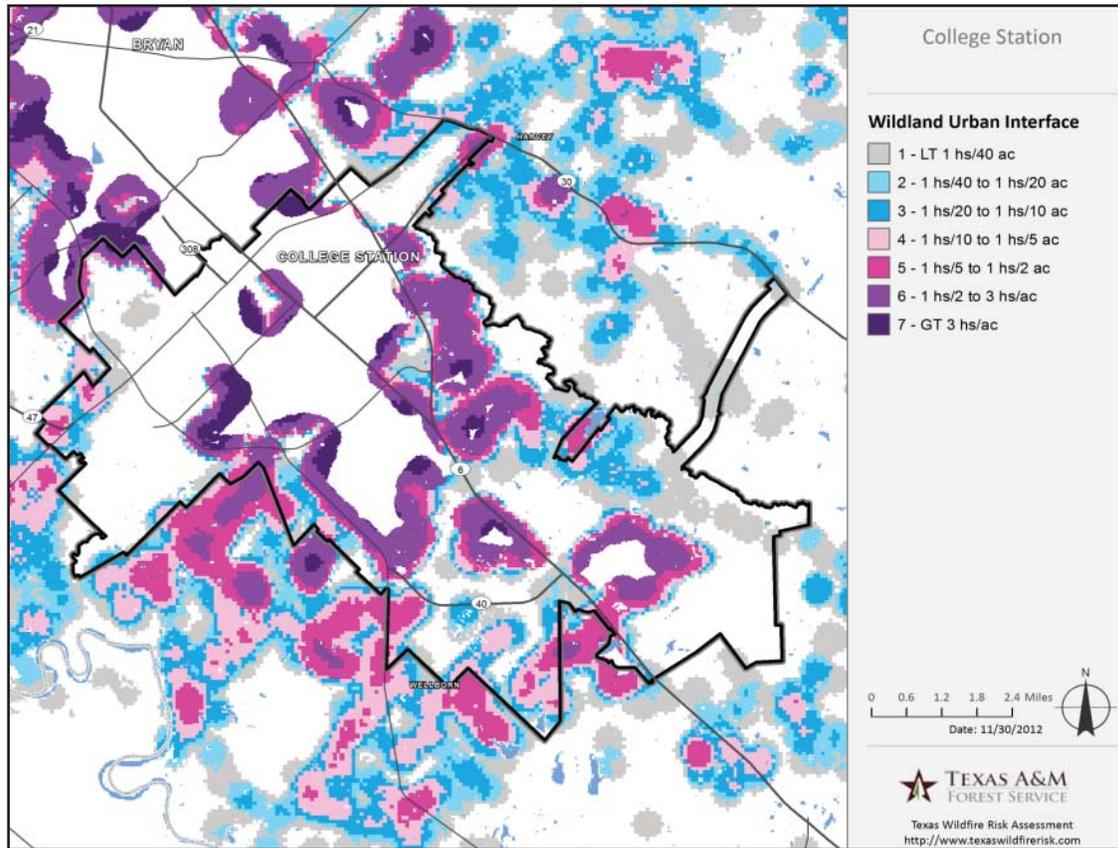
It is estimated that 25,786 people, or 45 percent of the population, live within the WUI.



Population is determined by the housing density of a certain area. This is measured in the number of houses per number of acres. The higher-density areas are calculated at three houses per acre and the less dense areas are calculated at one house per 40 acres. This information gives planners an idea of how many homes are at risk to wildfire and how many homes would need to be protected during a wildfire, which is useful when planning evacuations.

The scale below shows the lowest density (gray) to highest density (purple) and the WUI population and acreage reflected for each density level in College Station.

WUI – Population and Acres					
	Housing Density	WUI Population	Percent of WUI Population	WUI Acres	Percent of WUI Acres
	LT 1hs/40ac	60	0.2%	3,360	22.2%
	1hs/40ac to 1hs/20ac	62	0.2%	1,242	8.2%
	1hs/20ac to 1hs/10ac	201	0.8%	1,857	12.3%
	1hs/10ac to 1hs/5ac	477	1.9%	1,966	13.0%
	1hs/5ac to 1hs/2ac	962	3.7%	2,046	13.5%
	1hs/2ac to 3hs/1ac	10,832	42.0%	3,790	25.1%
	GT 3hs/1ac	13,192	51.2%	847	5.6%
	Total	25,786	100.0%	15,107	100.0%

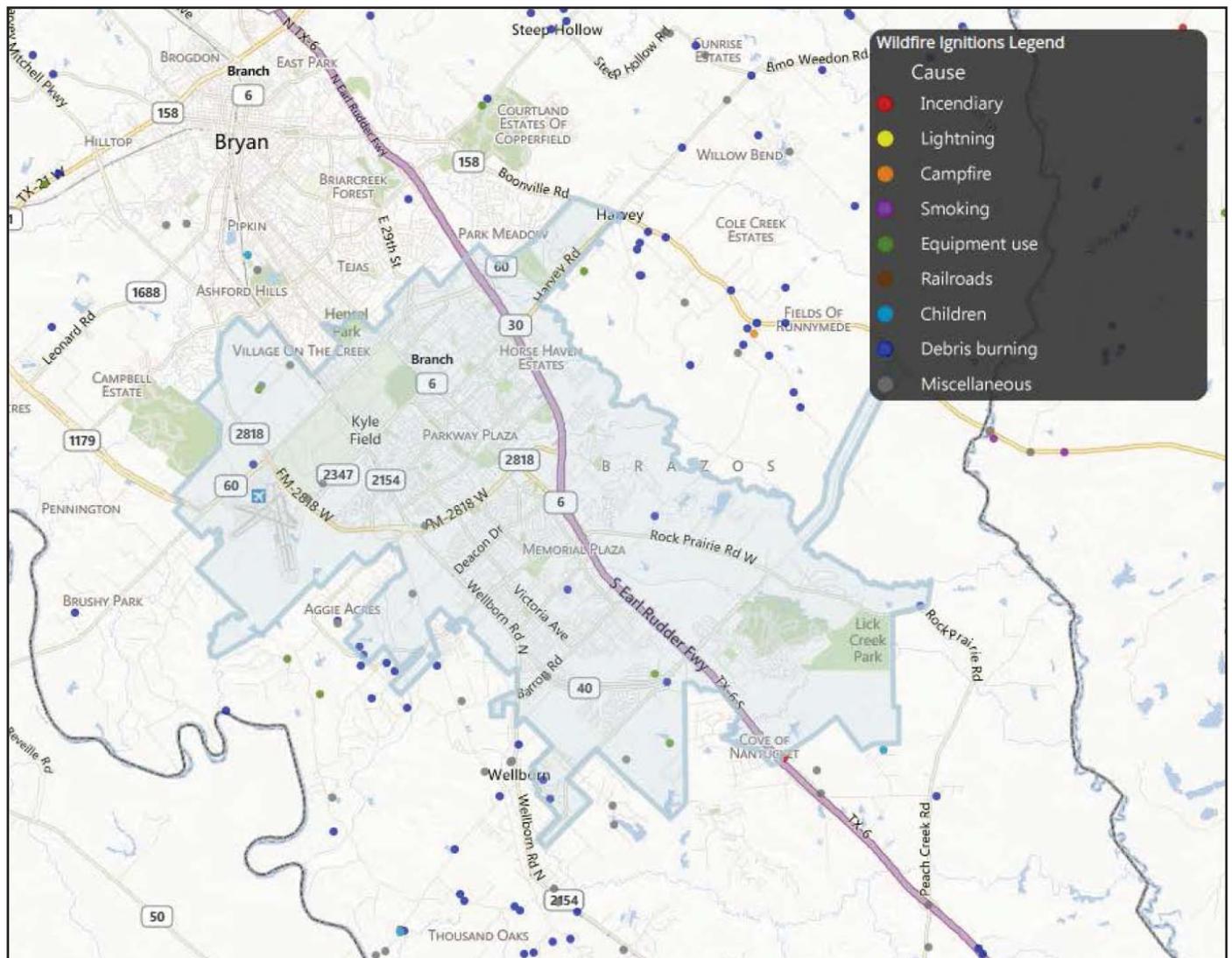


Fire Occurrence

Wildfire occurrence statistics provide insight into the number of fires, the cause of fires and acres burned. These statistics are useful for prevention and mitigation planning. They can be used to determine the time of year most fires typically occur and develop a fire prevention campaign aimed at reducing a specific fire cause. The fire occurrence statistics are grouped by primary response agency, which include:

- **Federal** – Fires reported by U.S. Forest Service, U.S. Fish and Wildlife Service and National Park Service.
- **Texas A&M Forest Service (TFS)** – Texas A&M Forest Service’s fire occurrence database represents all state-reported fires.
- **Local** – The local category includes fires reported via Texas A&M Forest Service’s online fire department reporting system. It is a voluntary reporting system that includes fires reported by both paid and volunteer fire departments since 2005.

Five years of historic fire report data was used to create the fire occurrence summary charts. Data was obtained from federal, state and local fire department report data sources for the years 2005-2009.



Fire Behavior

The City of College Station has two primary fuel types of concern: grasses and oak. During the dormant season, grasses pose the most risk especially during passing weather fronts. Cured grasses and high winds can produce extreme fire behavior during the dormant season. Depending on grazing practices, rates of spread and flame lengths can range from low to high. Since grasses are considered a one-hour fuel, they dry out quickly and burn rapidly.



Oak forests pose the most risk during late summer drying (July through September). Oaks can produce single-tree and group torching depending on live fuel moisture levels and the presence of understory fuels. Sustained crown runs also may be possible but are rare events. Oaks pose the most risk for spotting potential. Because oak leaves are large and thin, they retain heat well and can easily be lofted far ahead of the main fire, producing spot fires.



Yaupon and tall grasses are the primary ladder fuels in the area. Tall grasses can produce high flame lengths and under the right conditions, can cause oaks and eastern red cedars to torch. Yaupon can grow tall as well (6 to 12 feet) and can provide a route for a surface fire to climb and spread into the canopy.

While most wildland incidents will end with a successful initial attack, the City of College Station does have the potential for extended attack, especially during dry, windy conditions and when Energy Release Components are above the 97th percentile.

Peak Fire Seasons:

Primary: July through September with summer drying.

Secondary: December through March with cured grasses and wind events.

Fire Danger Tools:

Probably the most effective tool for gauging the day-to-day fire behavior in the City of College Station is the Significant Fire Potential Matrix that can be found on the Texas Interagency Coordination Center website (<http://ticc.tamu.edu>). The matrix, pictured at right, takes into account Burning Index (BI) and Energy Release Component (ERC). The BI provides the potential for initial attack activity, while the ERC provides the potential for extended attack activity. Together, these two indices produce a simple and accurate outlook for fire behavior on any given day.

For the City of College Station, these values can be found at:

BI/ERC Calculations: <http://ticc.tamu.edu/PredictiveServices/WeatherStation.htm>

* Click on "NFDRS Indices"

Fire Potential Matrix: <http://ticc.tamu.edu/PredictiveServices/WeatherStation.htm>

* Click on the "Round Prairie RAWs"

Round Prairie	RAWS	Preparedness Level Energy Release Component G (ERC)			
		1 0-29	2 30-41	3 42-45	4 46+
Dispatch Level Burning Index G (BI)	1 0-42	Low	Low	Moderate	Moderate
	2 43-57	Low	Moderate	Moderate	Moderate
	3 58-64	Moderate	Moderate	High	High
	4 65+	Moderate	Moderate	High	Very High

Texas Interagency Coordination Center

Home | Fire Reporting | Fire Departments | Training | **Predictive Services** | Incident Response | Other Links

Fuels/Fire Danger | Fire Weather | Fire Outlooks | Fire Intelligence | Preparedness | Drought | Staff | Links

Preparedness

Texas Fire Danger | Fuel Dryness | Fuels | **NFDRS Indices** | Observations | Forecasts | Drought and Rainfall Deficits

NFDRS Indices

Forecast and Observed ERC and BI Data (Generated: 12/29/2010 12:00:13 AM)

Station (SID)	Fuel Model	Obs ERC	Pcat ERC	Obs BI	Pcat BI
CARDO (410202)	70	12	17	0	26
CLARKSVI (410401)	80	8	6	0	0
TEXARKAN (410501)	80	16	12	11	17
LINDEN (411102)	80	20	13	19	19
GILMER (411401)	80	26	16	22	21
CARDO LA (411901)	80	20	13	14	13
ATHENS (412101)	80	29	25	28	28
HENDERSO (412202)	80	23	12	21	16
PALESTIN (412601)	80	23	21	23	28
SABINE V (413001)	70	21	11	20	18
ROUND FR (413101)	80	30	28	28	35
RATCLIFF (413302)	70	22	16	18	23
LUFKIN (413509)	80	32	20	25	23
HUNTSVIL (414102)	80	30	22	27	26
COLDSPRI (414201)	70	20	14	17	23
WOODVILL (414402)	80	29	19	31	22
KIRBYVIL (414501)	80	27	16	30	22
CONROE (415109)	80	29	19	30	26
DAYTON (415201)	80	31	20	43	29
DARTMOR (415501)	80	20	26	15	22
LAGRANGE (415602)	80	32	30	37	30
ANDREUC (416099)	80	29	-99	43	-99
SOUTHERN (416101)	80	22	14	25	20
ATWATER (416601)	80	24	16	40	31

SFP Matrices

Characteristic Rate of Spread

Characteristic Rate of Spread is the typical or representative rate of spread of a potential fire based on a weighted average of four percentile weather categories. Rate of spread is the speed with which a fire moves in a horizontal direction across the landscape, usually expressed in chains* per hour (ch/hr) or feet per minute (ft/min). For purposes of the Texas Wildfire Risk Assessment, this measurement represents the maximum rate of spread of the fire front.

Rate of spread is a fire behavior output, which is influenced by three environmental factors – fuels, weather and topography. Weather is by far the most dynamic variable as it changes frequently. To account for this variability, four percentile weather categories were created from historical weather observations to represent low, moderate, high and extreme weather days for each weather influence zone in Texas. A weather influence zone is an area where, for analysis purposes, the weather on any given day is considered uniform. There are 22 weather influence zones in Texas.

Characteristic Flame Length

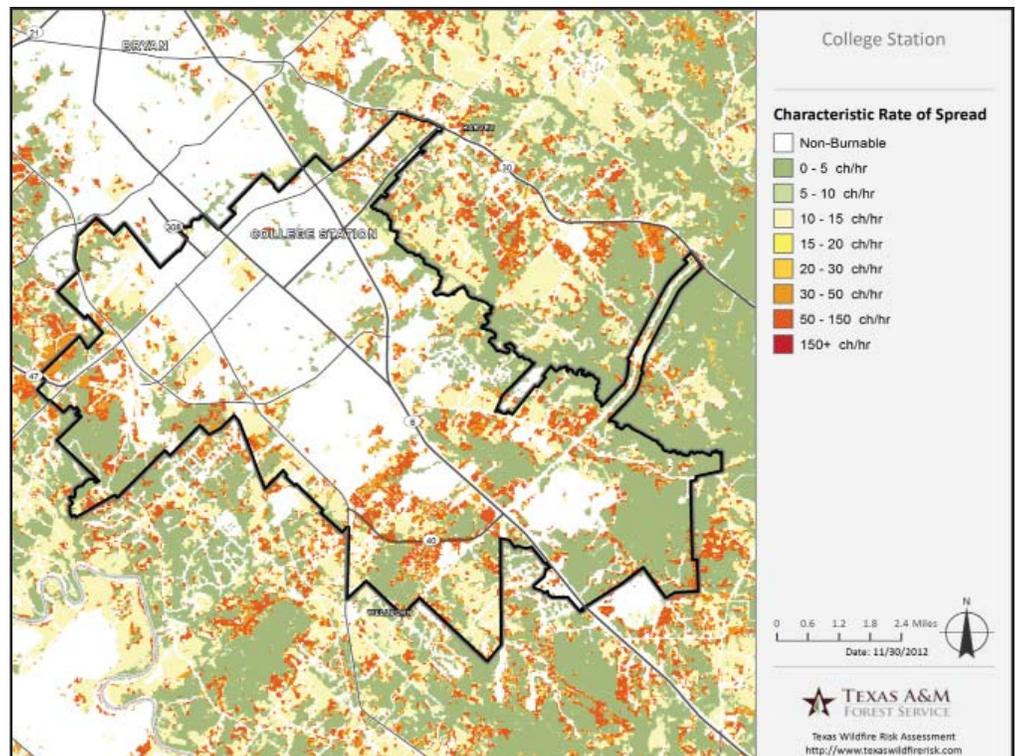
Characteristic Flame Length is the typical or representative flame length of a potential fire based on a weighted average of four percentile weather categories. Flame Length is defined as the distance between the flame tip and the midpoint of the flame depth at the base of the flame, which is generally the ground surface. It is an indicator of fire intensity and is often used to estimate how much heat the fire is generating. Flame length is typically measured in feet.

Flame length is a fire behavior output, which is influenced by three environmental factors – fuels, weather and topography.

* A chain is 66 feet.

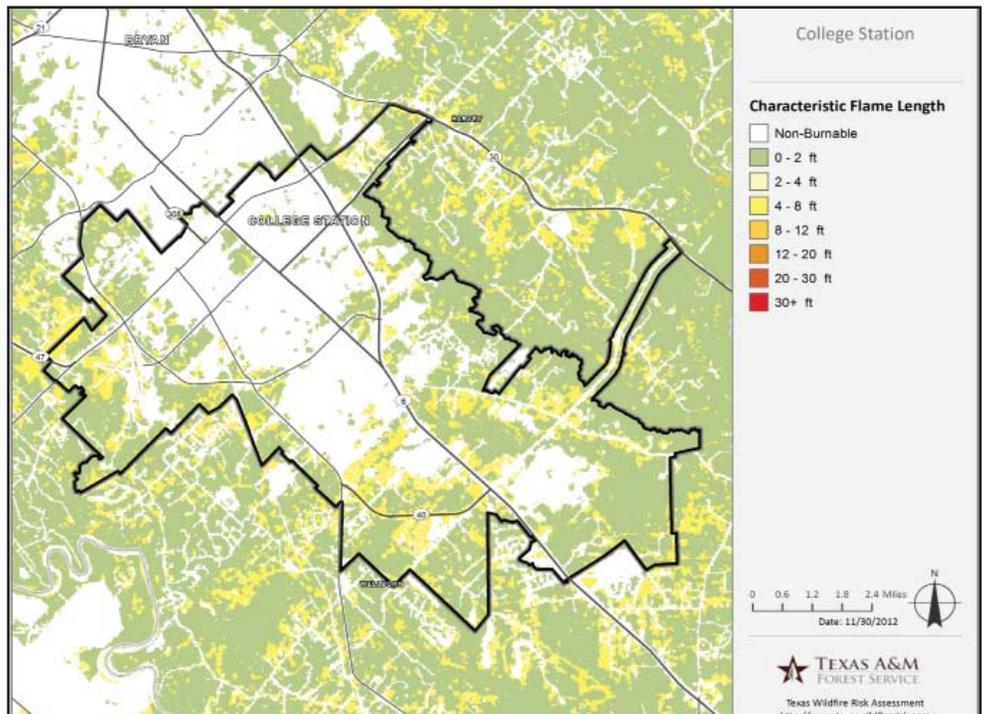
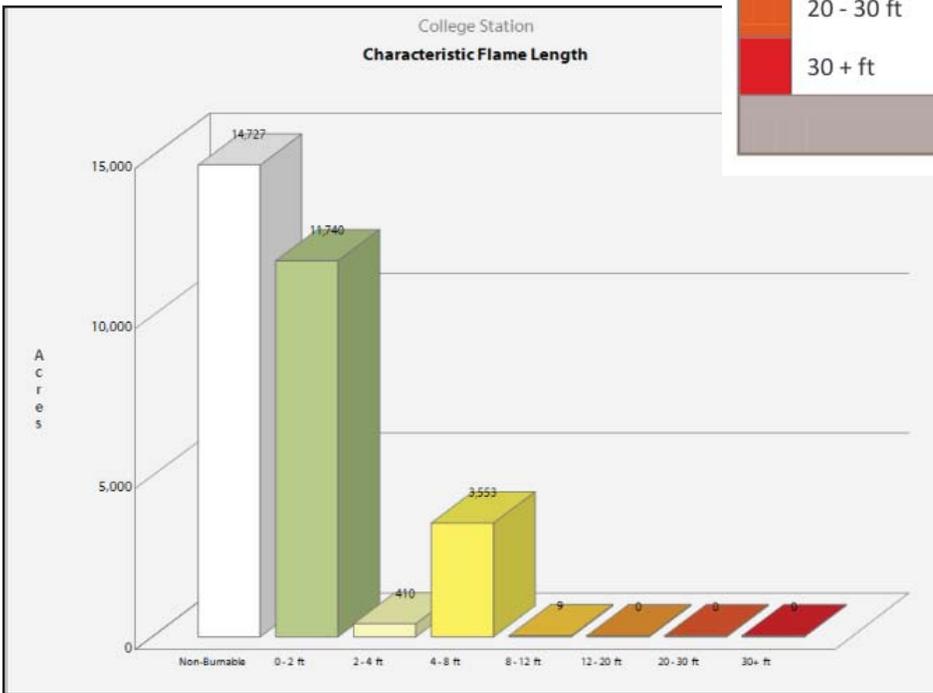
Characteristic Rate of Spread – Acres

Rate of Spread	Acres	Percent
Non-Burnable	14,727	48.4%
0 - 5 (ch/hr)	7,649	25.1%
5 - 10 (ch/hr)	364	1.2%
10 - 15 (ch/hr)	3,898	12.8%
15 - 20 (ch/hr)	239	0.8%
20 - 30 (ch/hr)	1	0.0%
30 - 50 (ch/hr)	1,077	3.5%
50 - 150 (ch/hr)	2,484	8.2%
150 + (ch/hr)	0	0.0%
Total	30,440	100.0%



Characteristic Flame Length – Acres

Flame Length	Acres	Percent
Non-Burnable	14,727	48.4%
0 - 2 ft	11,740	38.6%
2 - 4 ft	410	1.3%
4 - 8 ft	3,553	11.7%
8 - 12 ft	9	0.0%
12 - 20 ft	0	0.0%
20 - 30 ft	0	0.0%
30 + ft	0	0.0%
Total	30,440	100.0%



Risk Assessments

Risk assessments are conducted to gauge wildland fire hazards for the lands and neighborhoods in a particular area. Assessments are crucial to developing an understanding of the risk of potential losses to life, property and natural resources during a wildland fire.

Specifically, the risk assessment:

- Assesses risks, hazards, fire protection capability, structural vulnerability and values to be protected.
- Identifies the Wildland Urban Interface (WUI) within the planning area.
- Identifies and prioritizes areas in which to conduct fuels reduction treatments.

Risk assessment criteria includes:

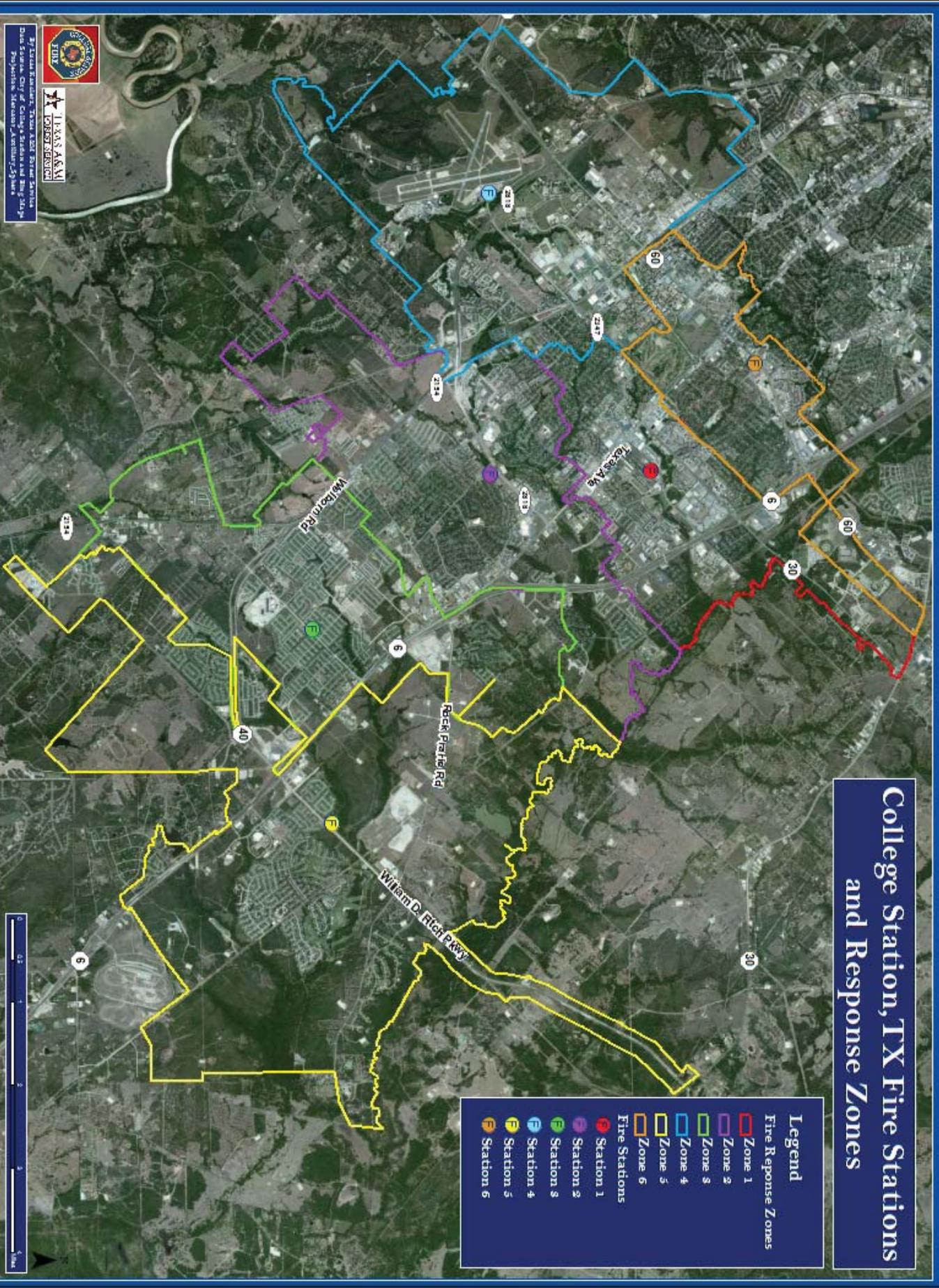
- Means of access (ingress and egress, road width, all-season road condition, fire service access and street signs)
- Vegetation (characteristics of predominate vegetation within 300 feet of a home, defensible space)
- Roofing assembly (roof class)
- Building construction (materials)
- Available fire protection (water source availability, organized response resources)
- Placement of gas and electric utilities

Risk assessments were conducted in the response zones for each of College Station's six fire stations. Members of the working group assessed 30 areas. The findings showed one extreme-risk area, seven high-risk areas, 15 moderate-risk areas and seven low-risk areas.

Once high-risk areas were identified, specific mitigation strategies were outlined to reduce wildfire risks.



College Station, TX Fire Stations and Response Zones



Legend

Fire Response Zones

- Zone 1
- Zone 2
- Zone 3
- Zone 4
- Zone 5
- Zone 6

Fire Stations

- Station 1
- Station 2
- Station 3
- Station 4
- Station 5
- Station 6



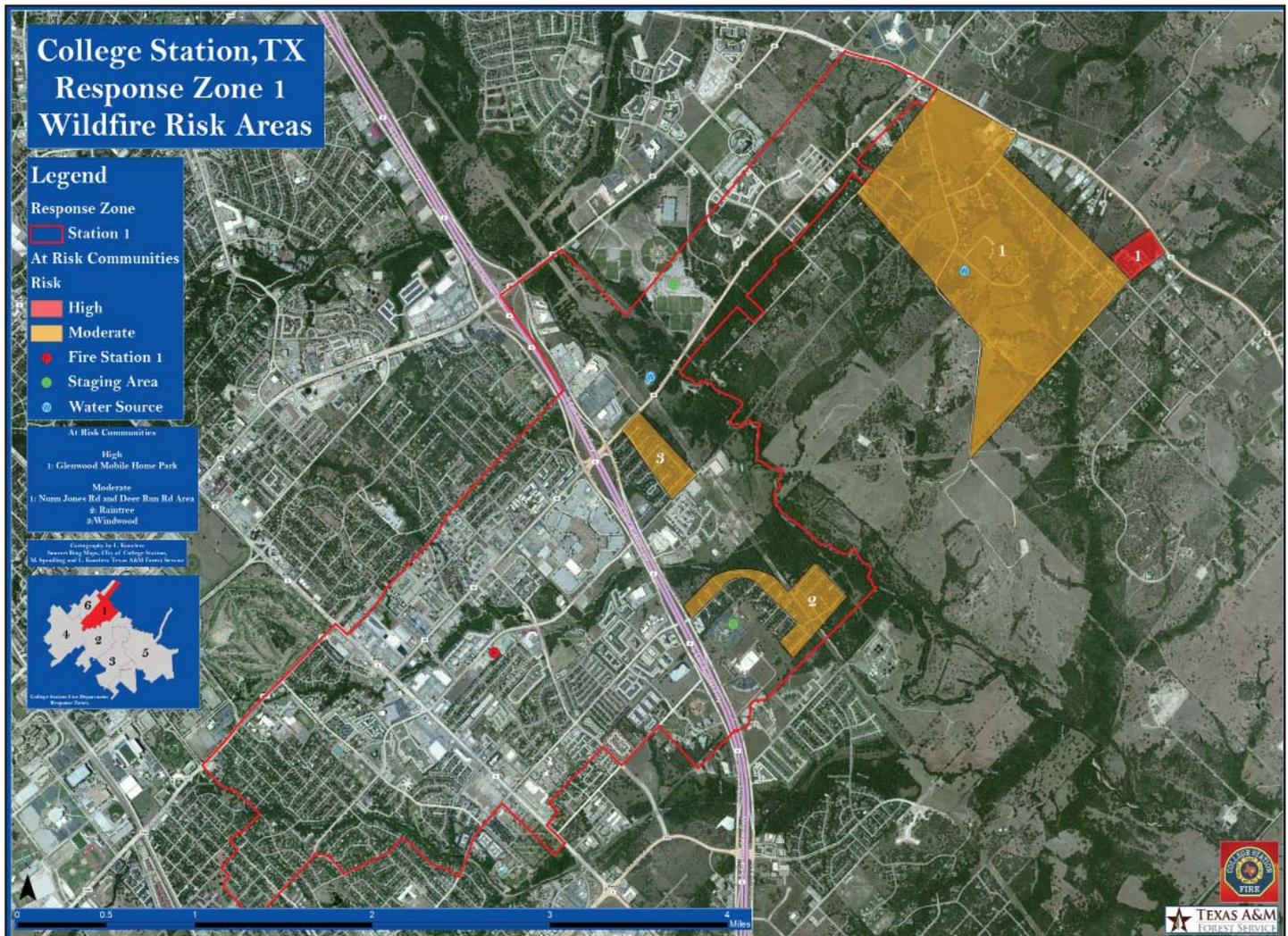


 City of College Station



Risk Assessment Findings by Zone

Response Zone 1



Seven individual risk assessments were conducted in Response Zone 1, which is covered by Fire Station No. 1 at 304 Holleman East.

Of the seven neighborhoods assessed, one was high risk, two were moderate risk and four were low risk.

Mitigation strategies identified for this response zone include the following:

- Fuels reduction
- Public education
- Code enforcement

1. Glen Oaks Mobile Home Park

High Risk

75 points

30° 38' 36" N

96° 15' 29" W

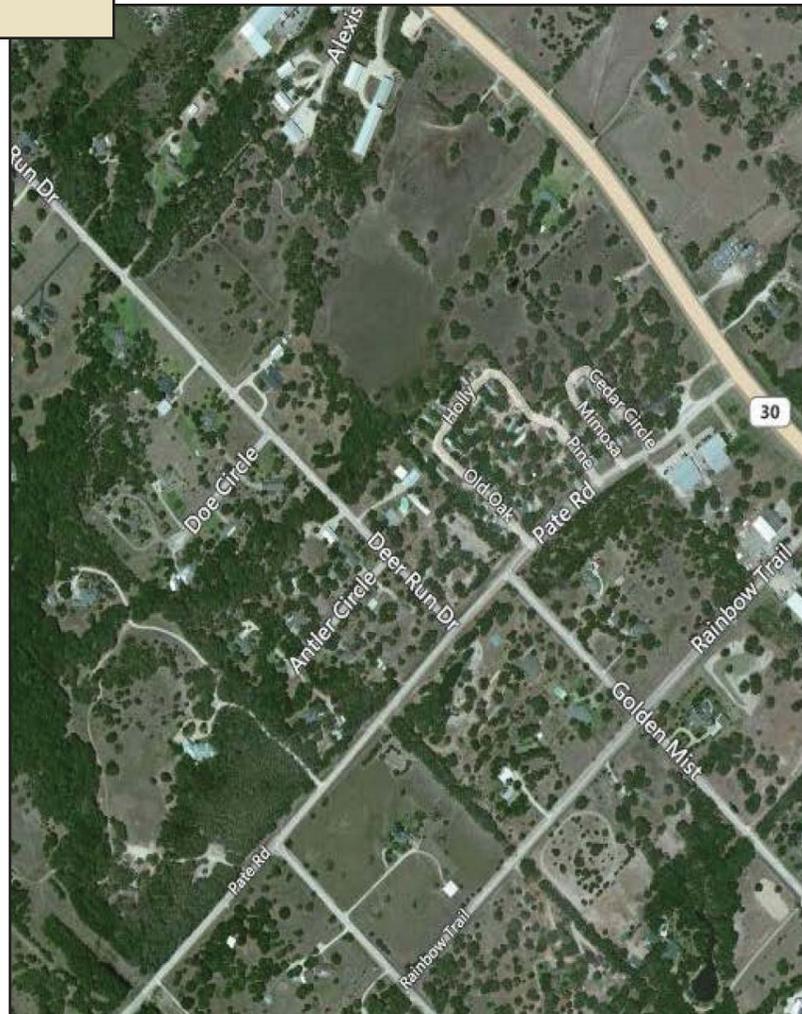
Located off Highway 30 and Pate Road, homes are built in and adjacent to 33 acres of dense cedar, yaupon and oak. There is sufficient access to homes. Homes are constructed of vinyl with wooden attachments. There are no fire hydrants present. This area is outside College Station's response zone, but Station 1 often responds to calls in this area.

Values at Risk:

- No individual parcel data
- \$383,210 total value
- 10 acres

Mitigation Strategies:

- Fuels reduction: mechanical, hand clearing
- Code enforcement
- Public Education (target defensible space, home construction and Ready, Set, Go!)



2. Nunn Jones Road

Moderate Risk

54 points

30° 38' 52" N
96° 16' 25" W

The area around Nunn Jones Road, Pamela Lane, Vista Lane and Deer Run Drive has many undeveloped lots containing a mix of grass, yaupon, oak and cedar. There are approximately 450 acres of wildland vegetation. Roads are paved, and there is readable address signage on homes. There are some dead-end streets in the area. Home construction is mainly brick and hardy plank with composite roofs. There are no fire hydrants in this area. The neighborhood is outside College Station's response zone, but Station 1 often responds to calls in this area.

Mitigation Strategies:

- Ingress/egress plan
- Public education (target Ready, Set, Go!)
- Water sources

4. Deer Run

Low Risk

32 points

30° 38' 14" N
96° 15' 04" W

Home construction is mainly brick and hardy plank with composite roofs. Fuels are light to medium closed timber litter, hardwood litter and short grasses. Landscape is not well maintained throughout the area; tall grasses are not watered regularly.

3. Raintree

Moderate Risk

42 points

30° 37' 16" N
96° 17' 0" W

Located off Raintree Drive and Wilderness Drive, this subdivision is surrounded by 118 acres of yaupon, oak and a grassy floodplain. There is potential that grasses in the floodplain could dry out and increase fire spread during drought conditions. There is only one way in and out. This area is adjacent to a power line/oil pipeline easement. Homes are constructed of brick and have composite roofs with wooden fences attached. Many homes have shrubs and bushes growing next to and under windows. City fire hydrants are present.

Mitigation Strategies:

- Ingress/egress plan
- Public education (target combustible attachments and Ready, Set, Go!)
- Fuels reduction: mechanical, hand clearing

5. Windwood

Low Risk

29 points

30° 37' 49" N
96° 17' 47" W

Located near Harvey Road and South Earl Rudder Freeway, Windwood is adjacent to 66 acres of oak and grasses. There is a power line and oil pipeline easement next to the subdivision. There are two ways in and out of the area. Many homes have wooden fences attached. Homes are mainly constructed of brick and composite roofs with good defensible space. City fire hydrants are present.

6. Horse Haven

Low Risk

25 points

30° 37' 41" N

96° 17' 34" W

The primary threat to the Horse Haven Lane area is a 38-acre hayfield on the backside of the development which could rapidly carry a surface fire. There are two ways in and out. Homes are constructed of brick and composite roofs with wooden fences attached. City fire hydrants are present. A power substation and police/ fire communication tower are in this area.

7. Summit Crossing

Low Risk

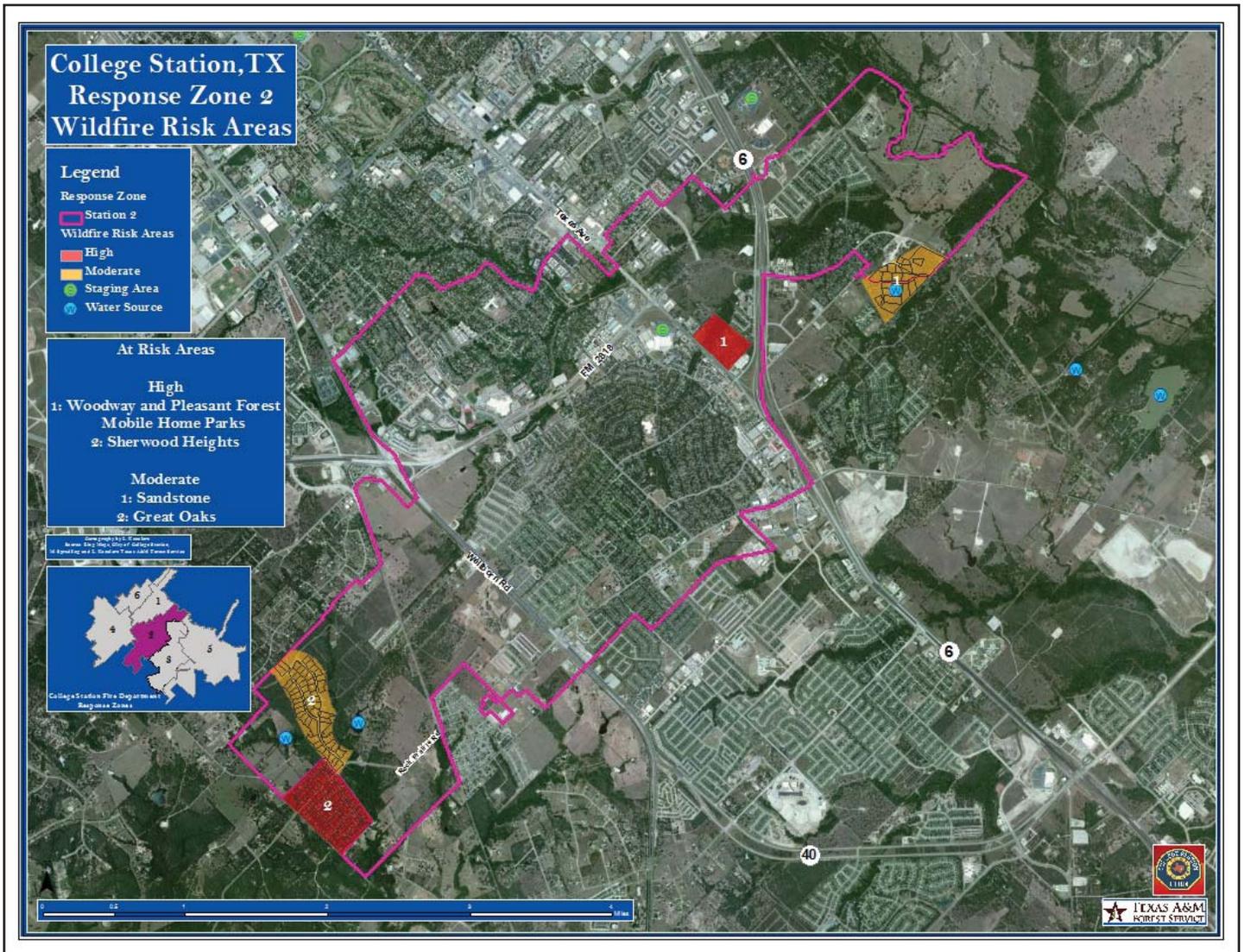
25 points

30° 38' 55" N

96° 17' 5" W

Located off of Harvey Road, Buena Vista Drive and Lonetree Drive, the primary fuel types in this area are grasses and oak. Homes are built close to each other and are constructed of fiber cement siding and composite roofing materials. City fire hydrants are present.

Response Zone 2



Five individual risk assessments were conducted in Response Zone 2, which is covered by Fire Station No. 2 at 2100 Rio Grande Blvd.

Of the five neighborhoods assessed, two were high risk, two were moderate risk and one was low risk.

Mitigation strategies identified for this response zone include the following:

- Ingress/egress plan
- Public education
- Fuels reduction
- Hydrant system
- Code enforcement

1. Woodway and Pleasant Forest Mobile Home Parks

High Risk

87 points

30° 35' 48" N

96° 17' 39" W

Located near Mile Drive and Texas Avenue, the area is mostly developed, but there is a 20-acre stand of oak, juniper and yaupon that poses a risk. There is only one point of ingress/egress. Many homes are vinyl, not enclosed under the foundation and have wooden attachments.

Values at Risk:

- No individual parcel data
- \$907,420 total value
- 34 acres

Mitigation Strategies:

- Ingress/egress plan
- Public education (target building materials, defensible space and Ready, Set, Go!)
- Fuels reduction: mechanical, hand clearing
- Code enforcement



2. Sherwood Heights/Robin Drive

High Risk

84 points

30° 33' 23" N

96° 20' 0" W

Located off Rock Prairie Road and Dowling Road, this area is surrounded by 125 acres of oak, cedar and yaupon. There are two ways in and out. Residences are a mixture of brick construction and mobile homes with wooden attachments. There is poor defensible space around and adjacent to homes. There are no fire hydrants present.

Values at Risk:

- 110 homes
- \$8,505,110 total value
- 74 acres



Mitigation Strategies:

- Implement hydrant system
- Public education (target building materials, defensible space and Ready, Set, Go!)
- Fuels reduction: mechanical, hand clearing
- Code enforcement

3. Sandstone Drive

Moderate Risk

55 points

30° 36' 9" N
96° 16' 31" W

The primary fuels in this area are 30 acres of short grasses, oak and yaupon. There is only one point of ingress/egress. Home construction is mostly brick and composite roofs with wooden fences attached. City fire hydrants are present.

Mitigation Strategies:

- Ingress/egress plan
- Public education (target Ready, Set, Go!)
- Fuels reduction: mechanical, hand clearing

4. Great Oaks

Moderate Risk

46 points

30° 33' 38" N
96° 20' 72" W

Homes are constructed of brick and composite roofs with wooden fences attached. There is good defensible space but just one point of ingress/egress. There is only one fire hydrant in the area.

Mitigation Strategies:

- Ingress/egress plan
- Public education (target combustible attachments, defensible space and Ready, Set, Go!)

5. Emerald Forest

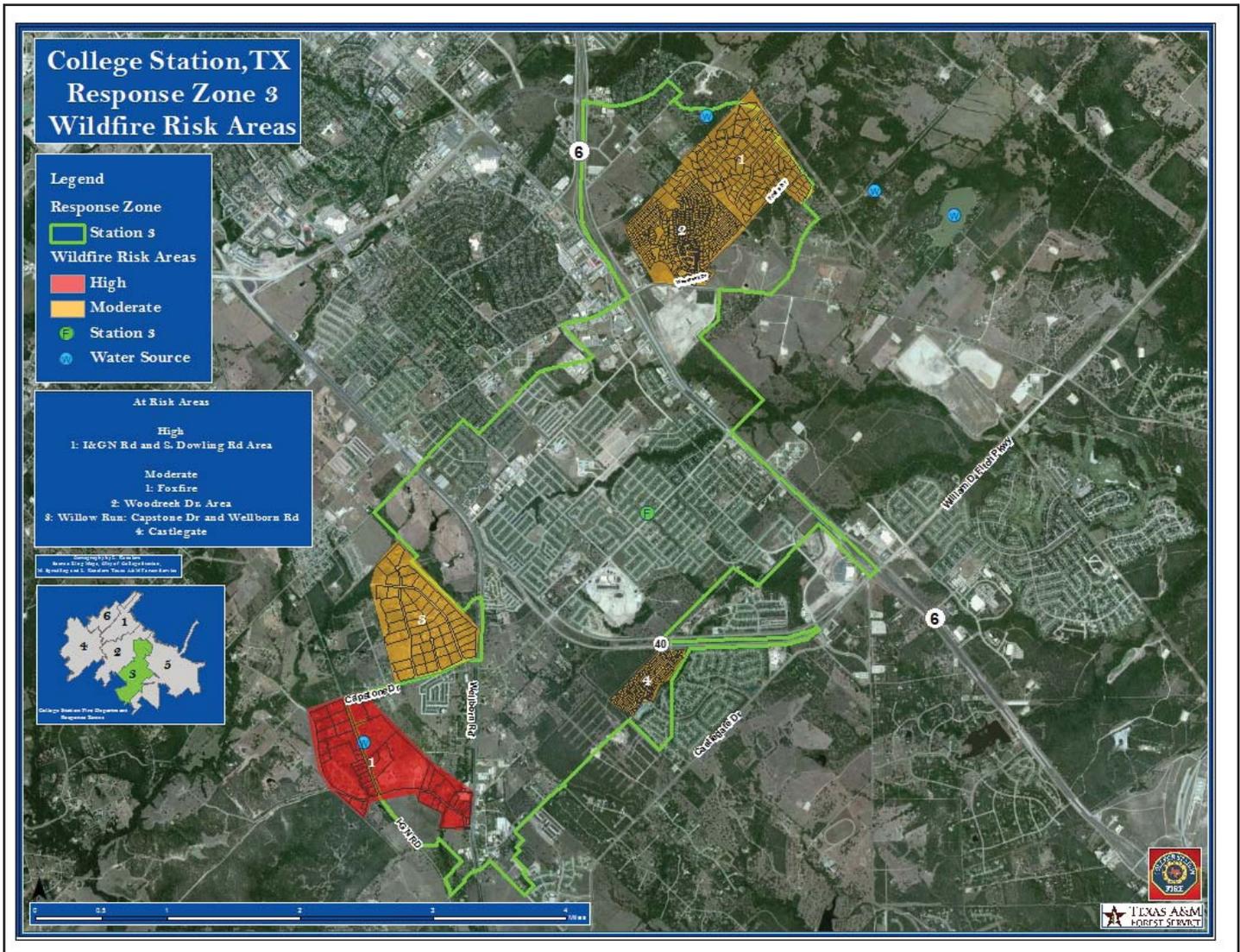
Low Risk

28 points

30° 36' 22" N
96° 17' 2" W

Located near Emerald Parkway and Appomattox Drive, the primary fuels are 65 acres of oak and yaupon. There are three ways in and out of this area. Homes are constructed of brick and composite roofs with wooden fences attached. City fire hydrants are present.

Response Zone 3



Five individual risk assessments were conducted in Response Zone 3, which is covered by Fire Station No. 3 at 1900 Barron Road.

Of the five neighborhoods assessed, one was high risk and four were moderate risk.

Mitigation strategies identified for this response zone include the following:

- Public education
- Fuels reduction
- Code enforcement

1. South Dowling and I&GN Road

High Risk

62 points

30° 32' 17" N

96° 18' 43" W

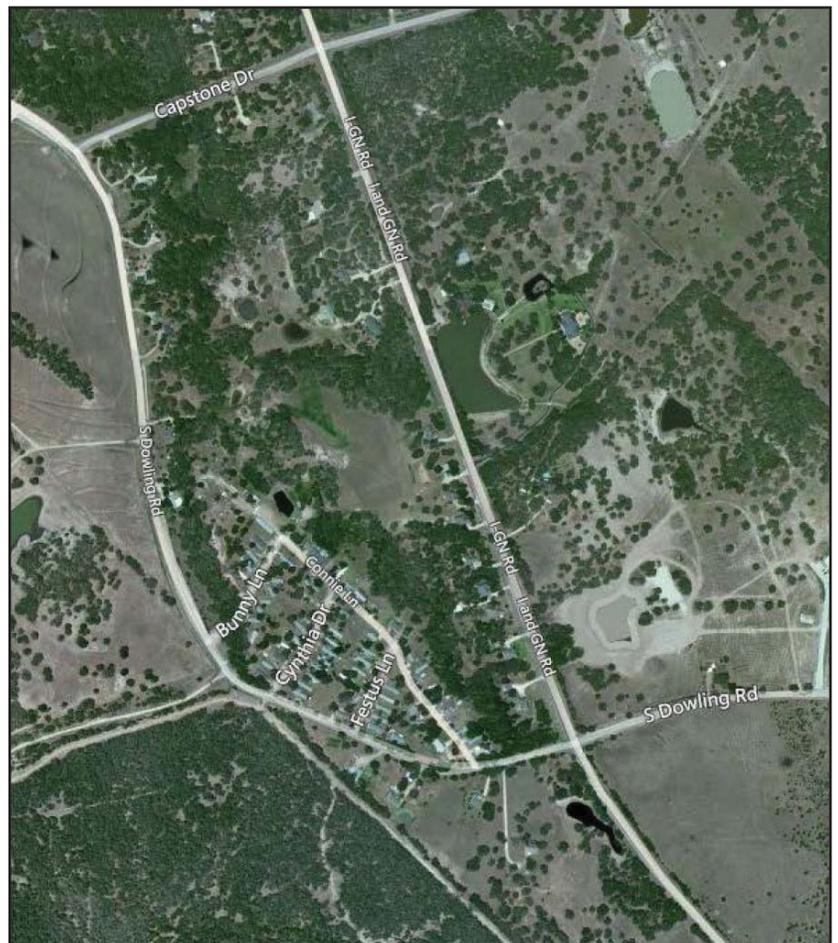
Primary fuels in this area are 80 acres of pasture land and tall grasses with some oaks stands. Grasses have the potential to rapidly carry a surface fire. There is good road access with more than one way in and out. Homes are constructed of brick and wood composite roofs with wooden attachments. There is good defensible space.

Values at Risk:

- 36 homes
- \$12,538,680 total value
- 252 acres

Mitigation Strategies:

- Public education (target building materials and defensible space)
- Fuels reduction: mechanical, hand clearing
- Code enforcement



2. Foxfire

Moderate Risk

46 points

30° 35' 47" N

96° 16' 9" W

Homes are located in and adjacent to 405 acres of dense oak and yaupon. There are at least two ways in and out of Foxfire with "No Outlet" signs posted at dead-end streets. Road width is at least 24 feet. Homes are constructed of brick and composite roofs, but some have open space under decks and porches. Defensible space needs to be improved. There is a power line and oil pipeline easement adjacent to the north and east of Foxfire.

Mitigation Strategies:

- Public education (target home construction, defensible space and Ready, Set, Go!)

3. Wood Creek Drive

Moderate Risk

45 points

30° 35' 24" N

96° 16' 39" W

The predominant fuels are 57 acres of short grasses, oak and yaupon. There are at least three ways in and out of this area. Some road signs are low to the ground and made of wood, meaning they could be compromised during a fire. Homes are primarily brick and composite roofs. Defensible space could be improved. City fire hydrants are present.

Mitigation Strategies:

- Public education (target signage, defensible space and Ready, Set, Go!)

4. Willow Run

Moderate Risk

41 points

30° 33' 10" N

96° 18' 14" W

Primary fuels in this area are 80 acres of pasture land and tall grasses with some oak stands. Grasses have the potential to rapidly carry a surface fire. There is good road access with more than one way in and out. Homes are constructed of brick and composite roofs with wooden attachments. There is good defensible space.

Mitigation Strategies:

- Public education (target home construction and Ready, Set, Go!)

5. Castlegate

Moderate Risk

33 points

30° 32' 48" N

96° 16' 37" W

The primary risk area in this area is along Victoria Avenue where 65 acres of dense oak and yaupon is present. There is good access on the main road into the subdivision. Homes are built close to each other and constructed of brick with composite roofs and attached combustible fences. City fire hydrants are present.

Mitigation Strategies:

- Public education (target combustible attachments and Ready, Set, Go!)

Response Zone 4



Three individual risk assessments were conducted in Response Zone 4, which is covered by Fire Station No. 4 at 1550 George Bush Drive West.

Of the three neighborhoods assessed, one was high risk and two were moderate risk.

Mitigation strategies identified for this response zone include the following:

- Public education
- Fuels reduction

1. Highway 60 and Turkey Creek Road

High Risk

75 points

30° 35' 51" N

96° 22' 37" W

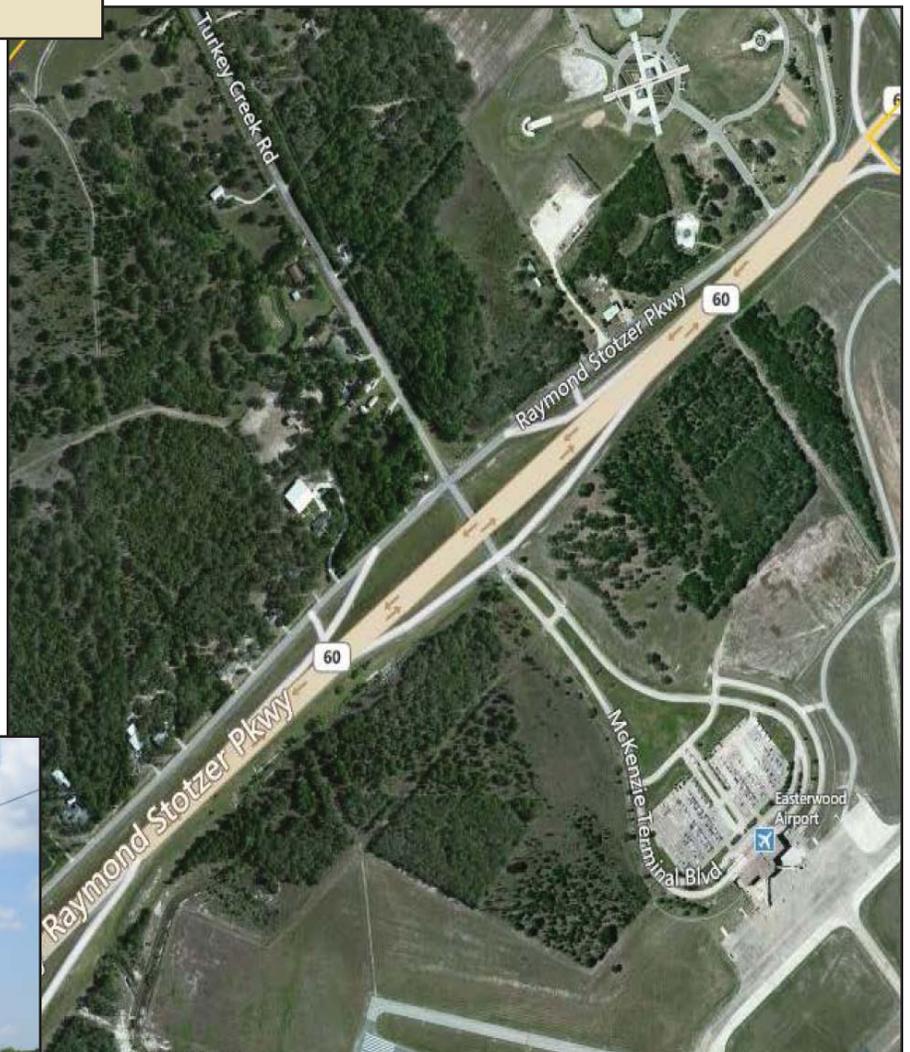
The primary fuels in this area are 140 acres of grass, oak and yaupon. There are two points of ingress/egress. Many homes are made of combustible materials and vinyl and have limited defensible space. There are no fire hydrants in this area.

Mitigation Strategies:

- Public education (target defensible space, construction and Ready, Set, Go!)
- Fuels reduction: grazing, mechanical

Values at Risk:

- 23 homes
- \$4,622,380 total value
- 108 acres



2. Nuclear Science Facility (Easterwood)

Moderate Risk

41 points

30° 34' 50" N

96° 21' 48" W

The primary fuels in this area are 610 acres of grasses, oak and cedar. There is only one way into this facility.

*Special considerations: Radio failure can occur when keying radios next to certain landing system equipment.

Mitigation Strategies:

- Ingress/egress plan

3. White Creek Road

Moderate Risk

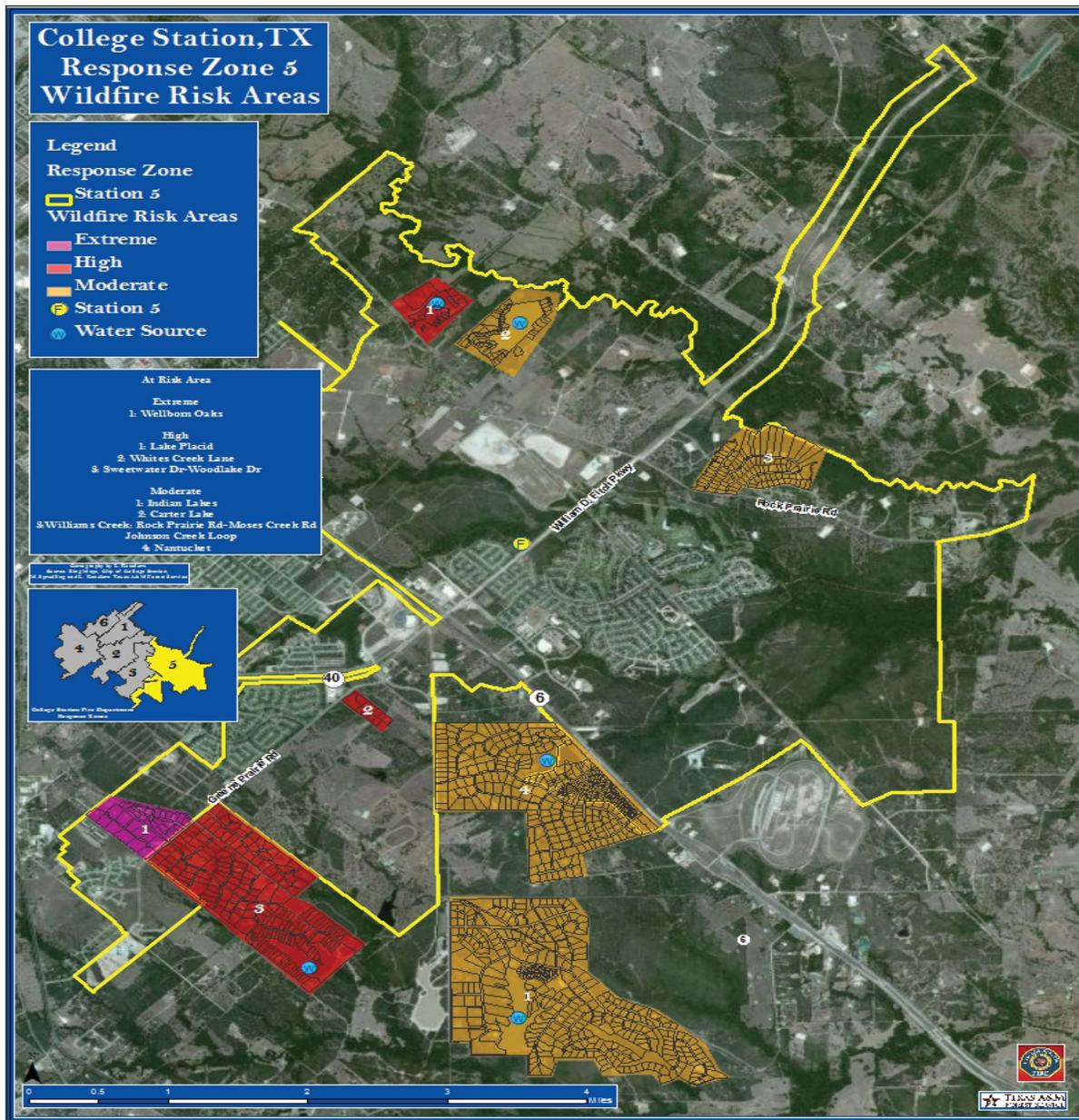
39 points

Fuels are primarily 610 acres of grass, oak, cedar and yaupon. There are at least two ways in and out, and road width is sufficient for engines to travel and turn around. There is a mixture of brick and wood homes with combustible fences attached. Defensible space could be improved around homes. There are no fire hydrants located in this area.

Mitigation Strategies:

- Public education (target defensible space, combustible attachments and Ready, Set, Go!)

Response Zone 5



Nine individual risk assessments were conducted in Response Zone 5, which is covered by Fire Station No. 5 at 1601 William D. Fitch Parkway.

Of the nine neighborhoods assessed, one was extreme risk, two were high risk, four were moderate risk and two were low risk.

Mitigation strategies identified for this response zone include the following:

- 911 addressing system
- Ingress/egress plan
- Structure protection plan
- Public education
- Hydrant system
- Code enforcement

1. Wellborn Oaks

Extreme Risk

92 points

30° 32' 7" N

96° 17' 24" W

The primary fuels are 580 acres of dense grasses, oak and yaupon. There is limited road access in this area and poorly labeled addresses with few street signs. Home construction materials include a mix of brick and vinyl with combustible decks. No fire hydrants are present.

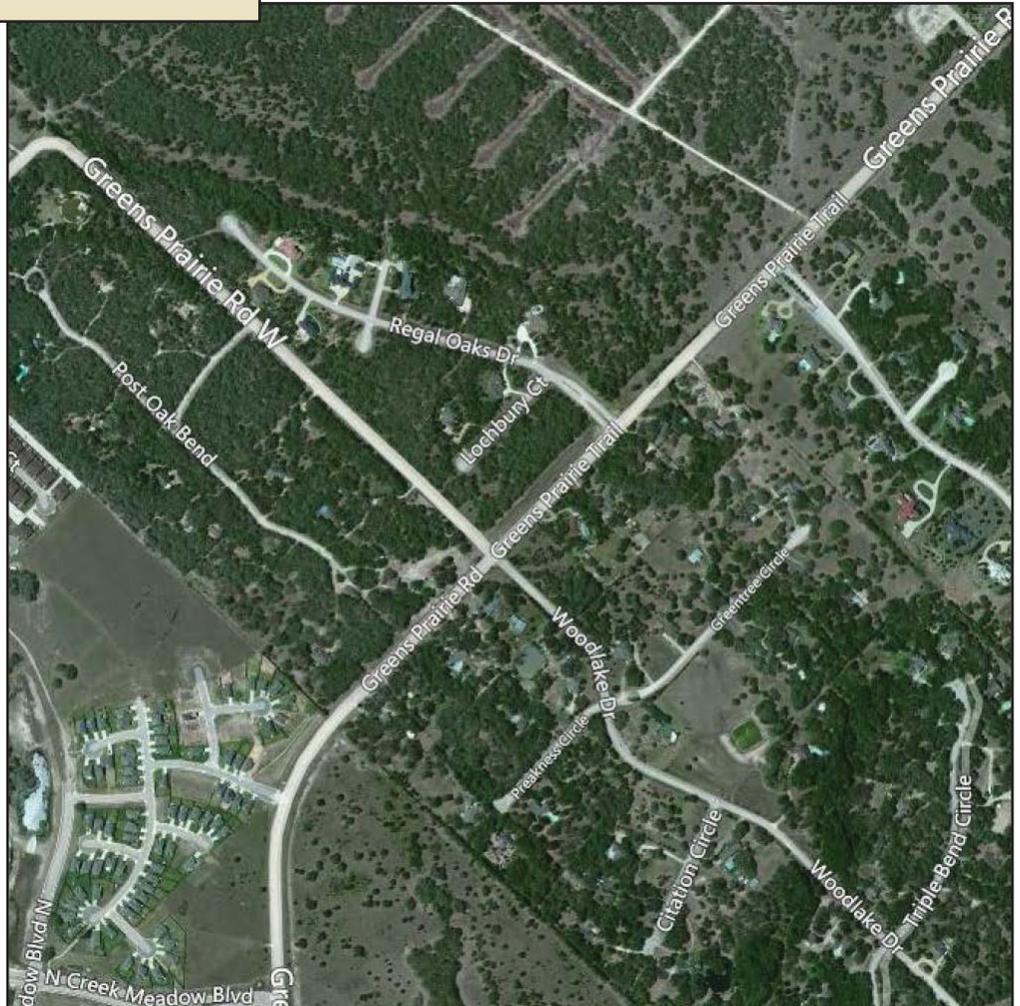
Values at Risk:

- 25 homes
- \$10,768,530 total value
- 84 acres



Mitigation Strategies:

- 911 addressing and street signs
- Ingress/egress plan
- Structure protection plan
- Public education (target defensible space, home construction and Ready, Set, Go!)
- Implement hydrant system
- Code enforcement



2. Lake Placid

High Risk

67 points

30° 35' 36" N

96° 15' 24" W

Fuels in this area include 500 acres of dense grasses, oak, yaupon and floodplain forest around Lake Placid.

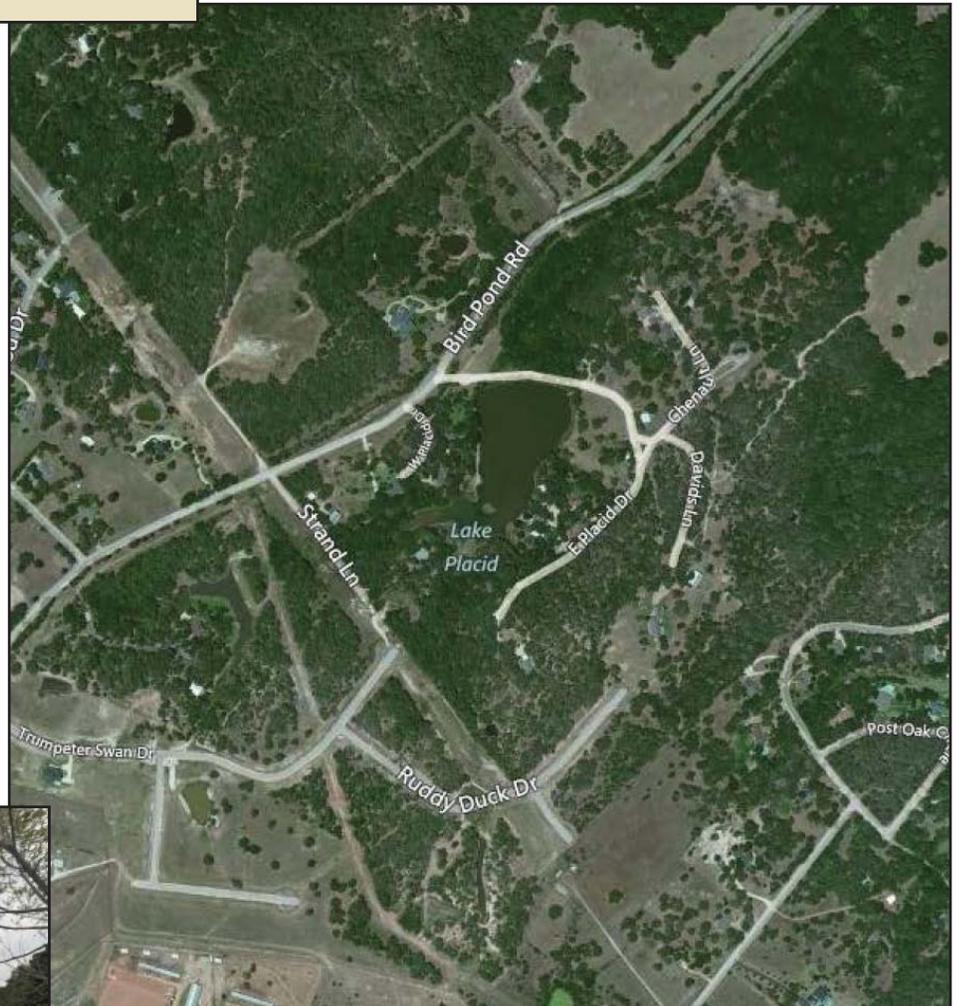
During drought conditions, there could be an abundant fuel source for fire in the floodplain forest. There is narrow, limited access with several dead-end streets. Homes are constructed of brick and composite roofs. Defensible space needs improvement. There is one dry fire hydrant in the area.

Mitigation Strategies:

- Ingress/egress plan
- Public education (target building materials, defensible space and Ready, Set, Go!)
- Fuels reduction: mechanical, hand clearing, code enforcement

Values at Risk:

- 15 homes
- \$3,135,300 total value
- 50 acres



3. Whites Creek Lane

High Risk

62 points

30° 32' 58" N

96° 15' 57" W

The primary fuels are 308 acres of dense grass, oak and yaupon. There is narrow, limited access with a dead end street. Homes on Whites Creek Lane have the minimum 30 feet of defensible space, but the road is very narrow with thick vegetation surrounding it. There is one primary point of ingress/egress for the homeowners with no turnaround for fire service access. Homes are constructed of brick and composite roofs. Three city hydrants are scheduled to be installed by late 2013.

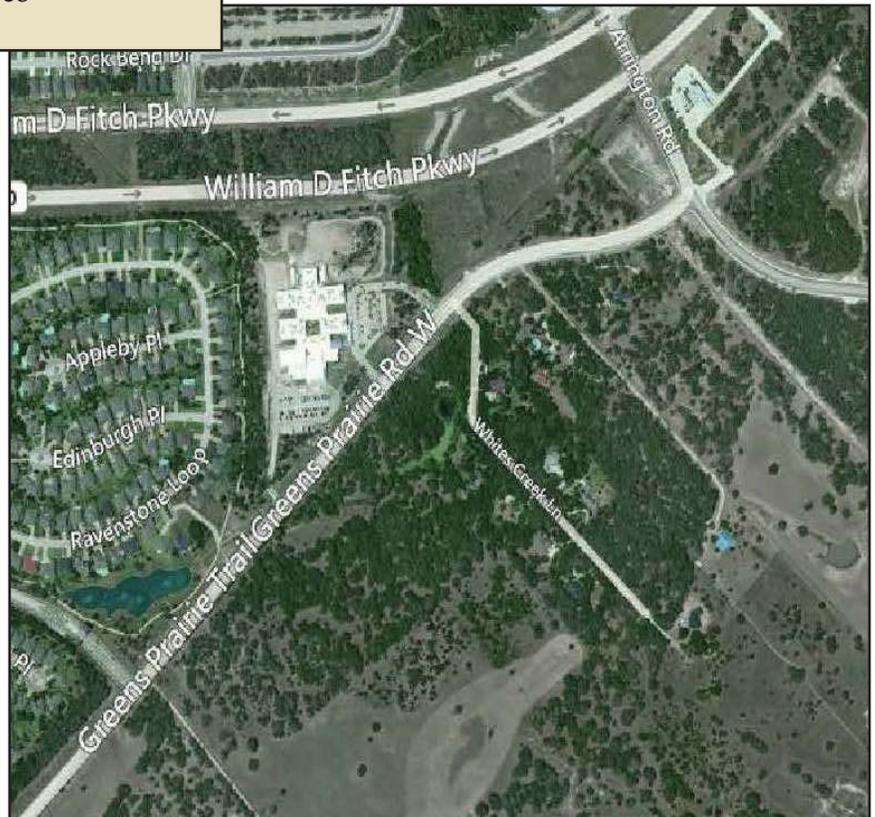


Values at Risk:

- 12 homes
- \$2,297,770 total value
- 21 acres

Mitigation Strategies:

- Ingress/egress plan
- 911 addressing
- Public education (defensible space and Ready, Set, Go!)
- Fuels reduction: mechanical, hand clearing
- Code enforcement



3. Sweetwater

High Risk

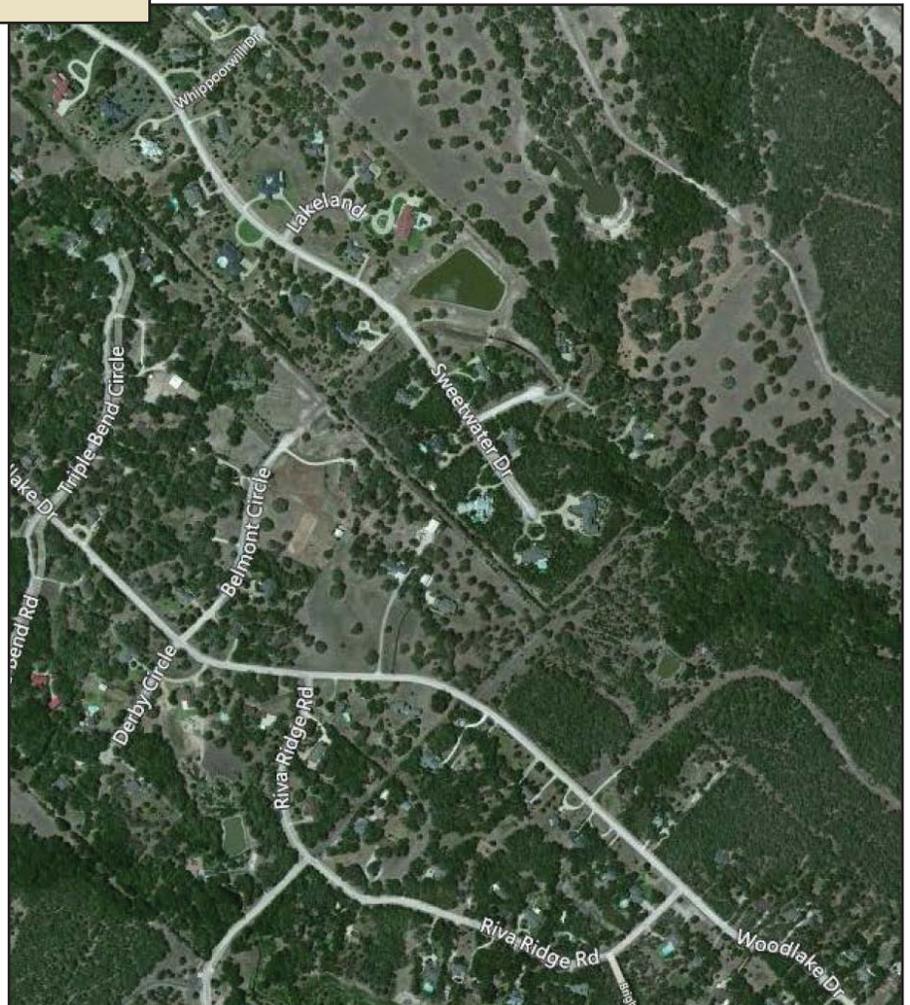
61 points

30° 31' 58" N
96° 16' 36" W

Homes are made of brick and stucco with composite roofs. Defensible space needs improvement. There is one primary point of ingress/egress for the subdivision. Primary fuels are medium to heavy hardwood litter and short grasses. Dry hydrants are present.

Values at Risk:

- 168 homes
- \$53,050,000 total value
- 470 acres



Mitigation Strategies:

- Ingress/egress plan
- Public education (defensible space and Ready, Set, Go!)
- Fuels reduction: mechanical, hand clearing
- Code enforcement

4. Indian Lakes

Moderate Risk

54 points

30° 31' 32" N
96° 14' 34" W

This is a nature/equestrian area surrounded by 1,100 acres of grasses, oak and yaupon. There is good road access but there are dead-end streets. There is one primary point of ingress/egress for the subdivision. Homes are constructed of brick with metal and composite roofs. Defensible space needs improvement. Fire hydrants are limited.

Mitigation Strategies:

- Ingress/egress plan
- Public education (target defensible space and Ready, Set, Go!)
- Fuels reduction: mechanical, grazing, hand clearing

5. Carter Lake

Moderate Risk

49 points

30° 35' 33" N
96° 13' 31" W

The primary fuels in this area are 365 acres of oak, yaupon and floodplain forest around Carter Lake. During drought conditions, there could be an abundant fuel source for fire in the floodplain forest. There are two ways in and out of the area, but road access becomes narrow on the northeast side of the lake. Homes are constructed of both brick and wood with composite roofs. There are undeveloped lots, and defensible space needs improvement. No fire hydrants are present.

Mitigation Strategies:

- Fuels reduction: mechanical, hand clearing
- Public education (target defensible space and Ready, Set, Go!)

6. Williams Creek

Moderate Risk

44 points

30° 34' 34" N
96° 13' 31" W

Primary fuels include 460 acres of oak, yaupon and floodplain forest in Carter Creek. During drought conditions, there could be an abundant fuel source for fire in the floodplain forest. There is good access and at least three points of ingress/egress. The terrain is steep and homes are at different levels on opposite sides of the road. There is a green space in Johnson Creek Loop that could carry fire. Homes are constructed of brick and composite/metal roofs. Defensible space improvements are needed. Wellborn hydrants are present.

Mitigation Strategies:

- Fuels reduction: mechanical, hand clearing
- Public education (target defensible space and Ready, Set, Go!)

7. Nantucket

Moderate Risk

40 points

30° 32' 41" N
96° 15' 7" W

Primary fuels are 200 acres of grasses, oak and yaupon. There are multiple ways in and out of this area but some dead-end streets. Homes are constructed of brick and metal and have good defensible space. Hydrants are present, primarily serving Wellborn, but a few serve College Station.

Mitigation Strategies:

- Public education (target Ready, Set, Go!)
- Fuels reduction: mechanical, grazing, hand clearing

8. Spring Meadows

Low Risk

30 points

30° 33' 56" N

96° 15' 15" W

Fuels are 470 acres of oak, yaupon, and floodplain forest. During drought conditions, there could be an abundant fuel source for fire in the floodplain forest. There is only one way in and out of the area. Homes are made of brick and composite roofs with wooden fences. There are city fire hydrants and this area is in close proximity to Fire Station No. 5.

9. Pebble Creek

Low Risk

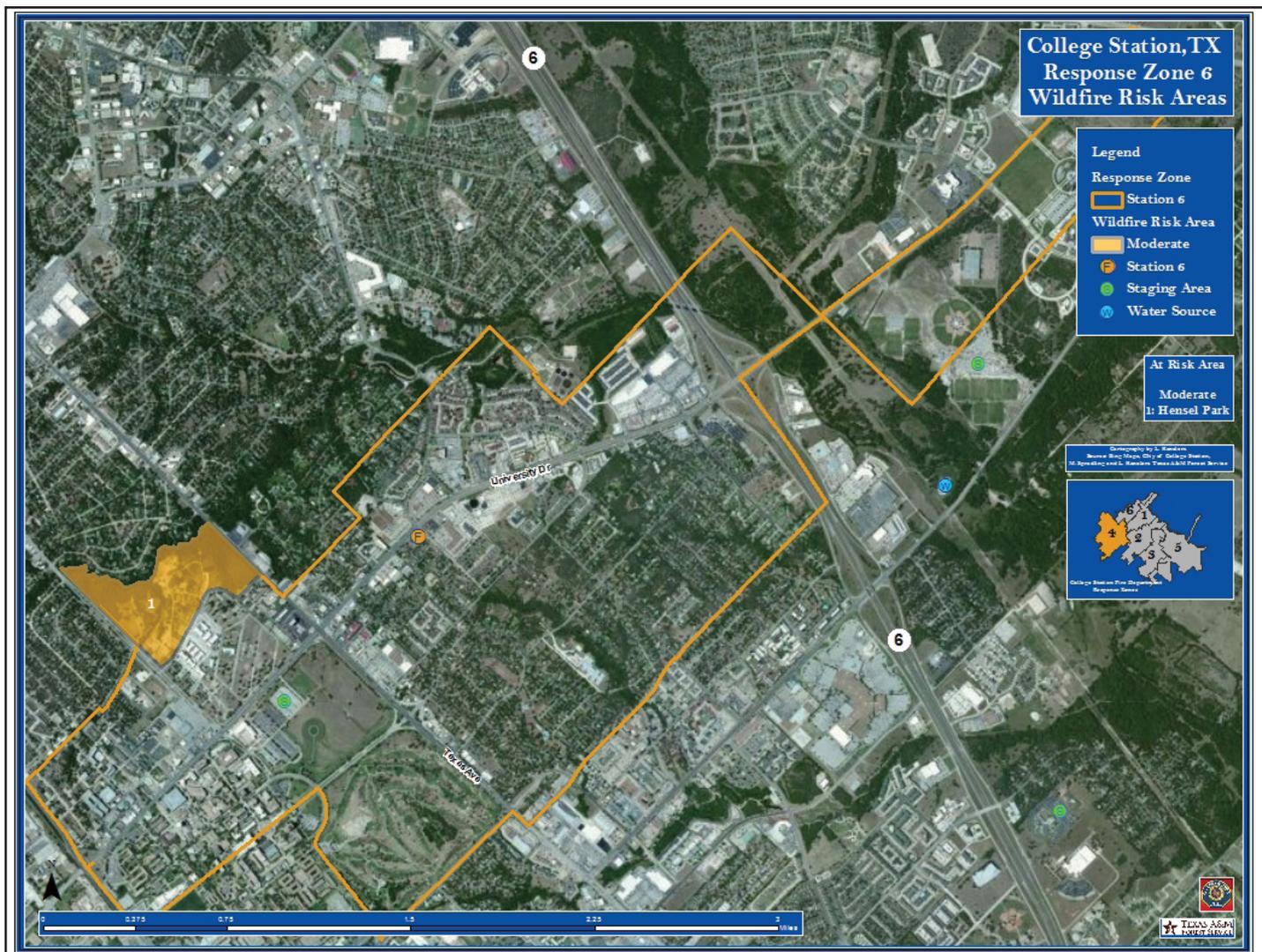
22 points

30° 33' 54" N

96° 13' 28" W

Fuels are primarily oak and yaupon. The area is adjacent to the 515-acre Lick Creek Park. The park is mostly a floodplain forest, and during drought conditions it could be an abundant fuel source for wildfire. There is one primary point of access for the subdivision. Homes are constructed of brick and composite roofs with combustible fences attached but have sufficient defensible space.

Response Zone 6



One individual risk assessment was conducted in Response Zone 6, which is covered by Fire Station No. 6 at 610 University Drive East.

The assessed neighborhood was moderate risk.

1. Hensel Drive

Moderate Risk

43 points

30° 37' 43" N

96° 20' 31" W

This area is near Hensel Drive, South Texas Avenue and South College Avenue on Texas A&M University property. Texas A&M's horticulture garden, a day care center and Hensel Park are nearby. The structures are built with vinyl siding, metal siding and brick. The primary fuels are juniper and oak with an understory of short and tall grasses and leaf litter. Texas A&M University hydrants are present.

Mitigation Strategies:

- Public education (target defensible space and Ready, Set, Go!)

Hazard Rating List

The following data was collected from risk assessments for Response Zones 1 through 6.

Response Zone 1:

- One **high-risk** neighborhood
- Two **moderate-risk** neighborhoods
- Four **low-risk** neighborhoods

Response Zone 2:

- Two **high-risk** neighborhoods
- Two **moderate-risk** neighborhoods
- One **low-risk** neighborhood

Response Zone 3:

- One **high-risk** neighborhood
- Four **moderate-risk** neighborhoods

Response Zone 4:

- One **high-risk** neighborhoods
- Two **moderate-risk** neighborhoods

Response Zone 5:

- One **extreme-risk** neighborhood
- Two **high-risk** neighborhoods
- Four **moderate-risk** neighborhoods
- Two **low-risk** neighborhoods

Response Zone 6:

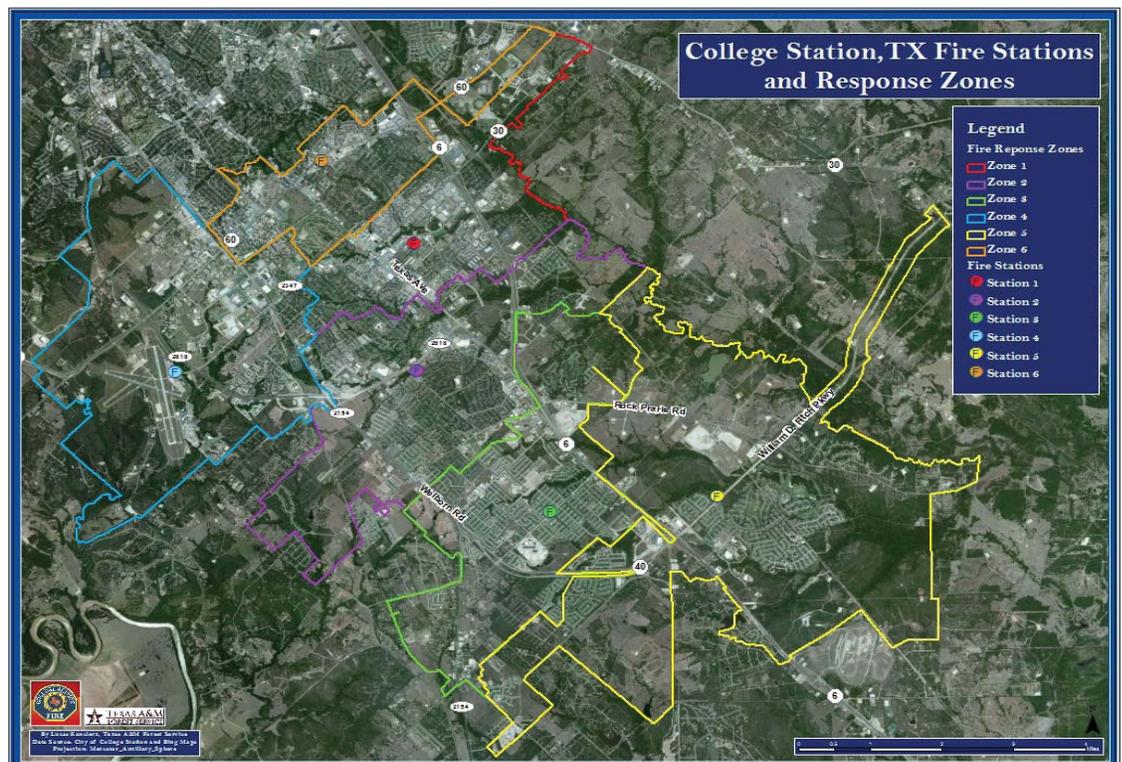
- One **moderate-risk** neighborhood

City of College Station general wildfire risk

The City of College Station has a generally urban environment but there are pockets of wildland fuels within the city and bordering the outskirts that pose threats.

The most likely areas for wildfire ignition will have sufficient grasses in order to allow wildfire to spread.

These threats will most likely come from outside the city but some pockets within the city limits also have the potential to ignite and spread.



NEIGHBORHOOD	SCORE	RESPONSE ZONE	RISK
Wellborn Oaks	92	Response Zone 5	Extreme
Woodway and Pleasant Forest Mobile Home Parks	87	Response Zone 2	High
Sherwood Heights/Robin Drive	84	Response Zone 2	High
Glen Oaks Mobile Home Park	75	Response Zone 1	High
Highway 60 and Turkey Creek Road	75	Response Zone 4	High
Lake Placid	67	Response Zone 5	High
South Dowling and I&GN Road	62	Response Zone 3	High
Sweetwater	61	Response Zone 5	High
Sandstone Drive	55	Response Zone 2	Moderate
Nunn Jones Road	54	Response Zone 1	Moderate
Indian Lakes	54	Response Zone 5	Moderate
Carter Lake	49	Response Zone 5	Moderate
Foxfire	46	Response Zone 3	Moderate
Great Oaks	46	Response Zone 2	Moderate

NEIGHBORHOOD	SCORE	RESPONSE ZONE	RISK
Wood Creek Drive	45	Response Zone 3	Moderate
Williams Creek	44	Response Zone 5	Moderate
Hensel Drive	43	Response Zone 6	Moderate
Raintree	42	Response Zone 1	Moderate
Willow Run	41	Response Zone 3	Moderate
Nuclear Science Facility	41	Response Zone 4	Moderate
Nantucket	40	Response Zone 5	Moderate
White Creek Road	39	Response Zone 4	Moderate
Castlegate	33	Response Zone 3	Moderate
Deer Run	32	Response Zone 1	Low
Spring Meadows	30	Response Zone 5	Low
Windwood	29	Response Zone 1	Low
Emerald Forest	28	Response Zone 2	Low
Horse Haven	25	Response Zone 1	Low
Summit Crossing	25	Response Zone 1	Low
Pebble Creek	22	Response Zone 5	Low

Mitigation Strategies

Public Education

Public education campaigns are designed to heighten community awareness for wildfire risks. They may be general and cover the entire city or they may be specific and targeted for a certain area or issue (i.e. an awareness campaign on combustible attachments for a high risk-area). Texas A&M Forest Service has a large selection of public education materials on Ready, Set, Go!, Firewise Communities, home hardening, fuels management, basic fire behavior and Firewise landscaping that can be customized for the City of College Station.

Additional opportunities for public education include:

- Wildfire Awareness Week (second week of April)
- Fire Prevention Week
- National Night Out (October)
- Fire station tours
- Smoke alarm program
- Fire extinguisher training
- Citizens Fire Academy
- Fire Safety House
- Ready, Set, Go! (or other) town hall meetings with Texas A&M Forest Service
- College Station Fire Department and City of College Station social media sites
- College Station Fire Department web page and City of College Station website
- Targeted outreach with Fire Marshal's Office to high-risk areas
- Partnerships with local media outlets

Hazardous Fuels Reduction

Fuels reduction projects are intended to clear overgrown vegetation, which can reduce the rate of spread and intensity of a wildfire and keep it out of the crowns of trees. In addition, these projects usually provide a safer environment for firefighters to work and extinguish a fire. Fuels reduction projects along evacuation routes may also give evacuees and incoming resources a safer ingress/egress.

Methods of treatment can vary. Treatment options include:

- Mechanical (mulcher, chipper)
- Hand clearing (chainsaws, handsaws)
- Herbicide application
- Prescribed fire

Some methods may be more effective than others, depending on the fuel types. Some methods may also be preferred when working around neighborhoods. The scope of each project will vary, but generally fuels reduction projects are completed along the border of neighborhoods and/or breaks in fuels (i.e. roads). Generally, fuels reduction projects are 100 to 200 feet wide depending on the fuel type.

Fuels Management Program

By establishing a self-sustaining fuels management program in the city, the College Station Fire Department can continuously identify and mitigate high-risk fuels. Fuels reduction projects can slow the spread of wildfire and create a safer atmosphere for firefighters to protect structures.

Equipment and training needs should be identified by the fire department before a fuels management program is implemented.

Considering the fuel types in the City of College Station, mulchers, chippers and chainsaws would be beneficial for fuels reduction. Such equipment could target oak, cedar and yaupon. Grazing, prescribed fire and herbicide treatments would be more beneficial in the grass fuel types.

Fuels management crews should invest time and training in wildfire behavior, fuels treatment methods, prescribed fire and best management practices. Texas A&M Forest Service can offer all these courses, either through one of its wildfire academies (<http://ticc.tamu.edu/Training/training.htm>) or by contacting a local TFS office.



Code Enforcement

Code Enforcement may involve adopting new codes or enforcing previously adopted codes. The International Code Council WUI code is designed to create safer living conditions in the Wildland Urban Interface. This code may give a jurisdiction the opportunity to enforce vegetation management, ignition-resistant construction, sprinkler systems, storage of combustible materials and land use limitations.

Adopting and enforcing certain parts of the International WUI Code could be beneficial to the City of College Station, particularly the sections of code that reference combustible attachments and vegetation management. High-risk neighborhoods would especially benefit from this during wildfire response. The goal of these codes is to develop neighborhoods that are more resilient to wildfires.

Existing College Station code already addresses some of these issues. For example, the following could help mitigate potential fire hazards:

Addressing requirements: This ordinance provides addressing requirements for both commercial and residential properties. All commercial structures shall have street numbers on the face of the building and on any rear door. Residential properties are required to have numbers on both sides of the mailbox, on the building or on a free standing structure. (*Chapter 12, Article 6*)

Open storage: Open storage of commodities and materials for sale, lease, inventory or private use shall not be permitted in residential areas. (*Chapter 7.3 B-9, #2302*)

Property maintenance: Occupancy limitations, garbage and rubbish, plumbing, mechanical, electrical and fire safety maintenance requirements are examples of violations addressed in this chapter. The property maintenance codes are adopted from the 2000 International Property Maintenance Code, referenced in the Unified Development Ordinance. (*Chapter 12, Article 3.3*)

Hazardous materials: Oil or any other hazardous substances shall be prohibited from being placed into a residential container. Motor oil can be properly disposed of for FREE at the O.R.C. at the Public Works Department. Oil shall not be dumped on the ground, according to Chapter 371 of the Texas Health and Safety Code. (*Chapter 11.5 2J*)

Weeds and grass: This ordinance refers to objectionable or unsightly vegetation including weeds and grass that exceed 12 inches in height. (*Chapter 7.1 C, #2592*)

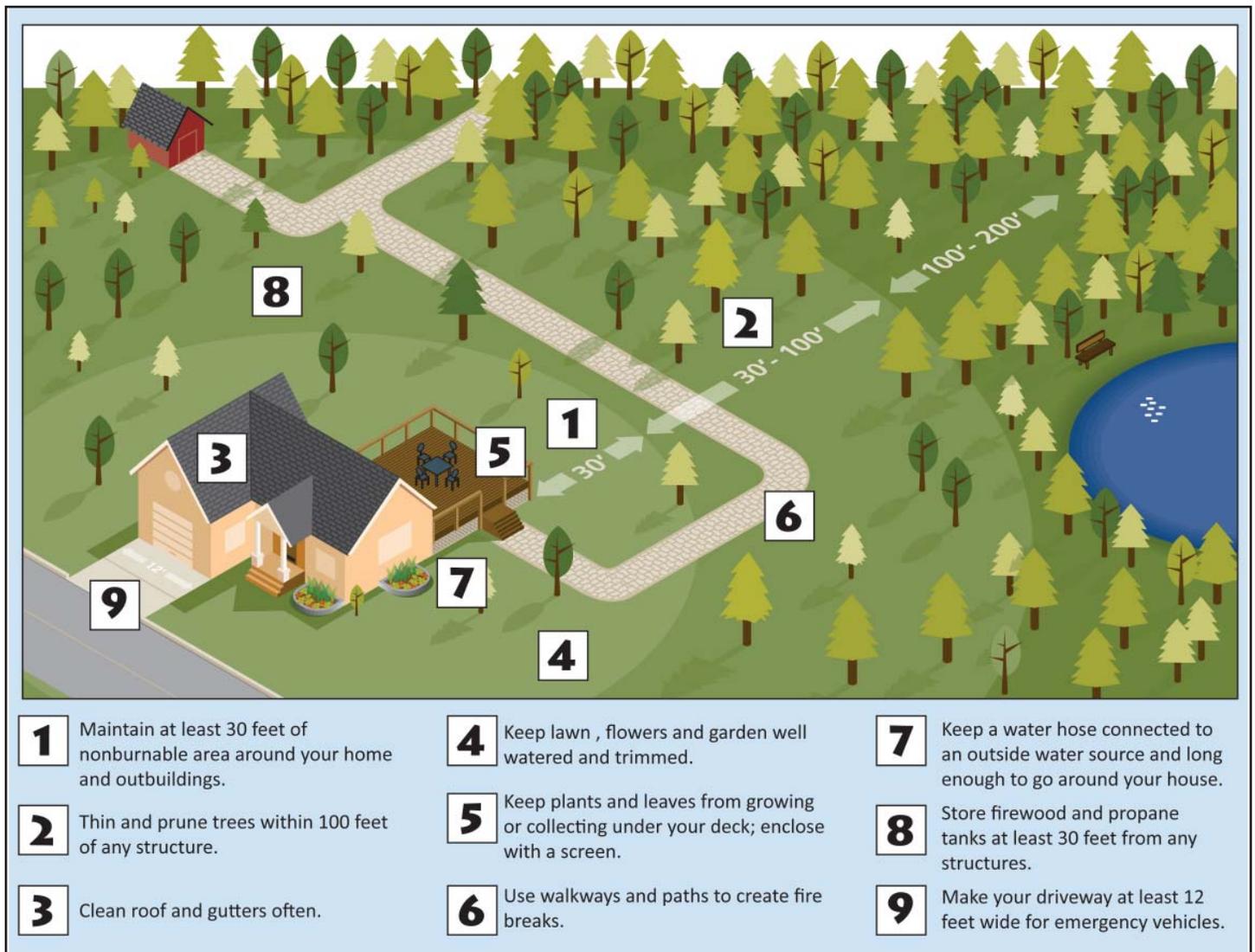


Defensible Space

The area immediately surrounding a home is critical to its survival in a wildfire. Thirty feet is the absolute minimum recommended defensible space zone.

The Home Ignition Zone (HIZ) extends to 200 feet from the home. The fuel loading and continuity in the HIZ is a critical part of the risk assessment process and the results should direct defensible space mitigation projects. Vegetation placement, lawn care and use of fire-resistant materials (such as rock) will play an important role during a wildfire. While home hardening – the practice of making your home fire-resistant – is important for everyone, it is especially important for those homeowners who cannot mitigate the entire HIZ.

The primary type of mitigation project regarding defensible space is public education.



Evacuation Planning

Evacuation plans can be created for high-risk neighborhoods, especially those with minimal egress routes, large populations or special populations. Plans should incorporate routes of ingress for emergency responders.

Emergency management, law enforcement, fire department, public works and the mayor's office may all be involved in the evacuation process.

General Evacuation Checklist

Planning:

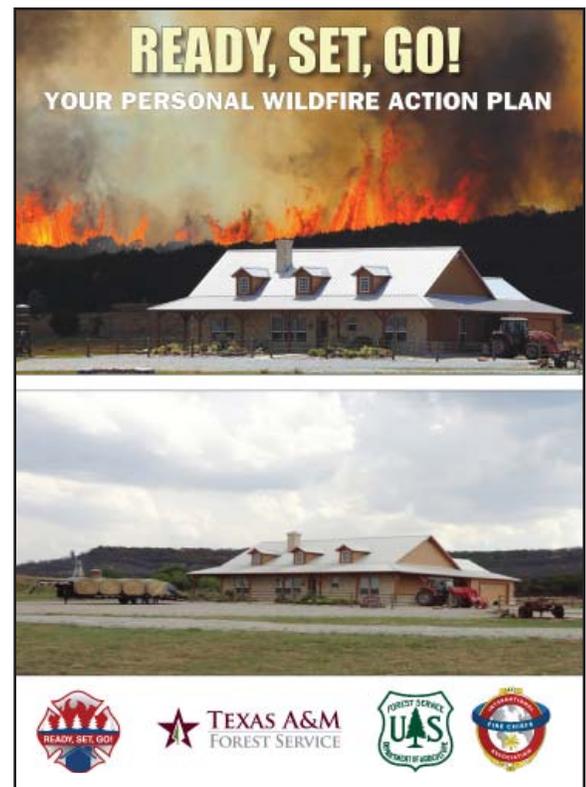
- Determine area(s) at risk:
 - Determine population of risk area(s).
 - Identify any special needs facilities and populations in risk area(s).
- Determine evacuation routes for risk area(s) and check the status of these routes.
- Determine traffic control requirements for evacuation routes.
- Estimate public transportation requirements and determine pickup points.
- Determine temporary shelter requirements and select preferred shelter locations.

Advance Warning:

- Provide advance warning to special needs facilities and advise them to activate evacuation, transportation and reception arrangements. Determine if requirements exist for additional support from local government.
- Provide advance warning of possible need for evacuation to the public, clearly identifying areas at risk.
- Develop traffic control plans and stage traffic control devices at required locations.
- Coordinate with special needs facilities regarding precautionary evacuation. Identify and alert special needs populations.
- Ready temporary shelters selected for use.
- Coordinate with transportation providers to ensure vehicles and drivers will be available when and where needed.
- Coordinate with school districts regarding closure of schools.

Evacuation:

- Advise neighboring jurisdictions and the local Disaster District that evacuation recommendation or order will be issued.
- Disseminate evacuation recommendation or order to special needs facilities and populations. Provide assistance in evacuating, if needed.
- Disseminate evacuation recommendation or order to the public through available warning systems, clearly identifying areas to be evacuated.
- Provide amplifying information to the public through the media. Emergency public information should address:
 - What should be done to secure buildings being evacuated
 - What evacuees should take with them



The Ready, Set, Go! program, which can be accessed at [texasfirewise.org](https://www.texasfirewise.org), provides information on how to prepare for wildfire, stay aware of current conditions and evacuate early when necessary.

- Where evacuees should go and how should they get there
- Provisions for special needs population and those without transportation
- Staff and open temporary shelters.
- Provide traffic control along evacuation routes and establish procedures for dealing with vehicle breakdowns on such routes.
- Provide transportation assistance to those who require it.
- Provide security in or control access to evacuated areas.
- Provide Situation Reports on evacuation to the local Disaster District.

Depending on the situation and availability of facilities, one or more of the following approaches will be used to handle evacuees arriving with pets:

- Provide pet owners information on nearby kennels, animal shelters and veterinary clinics that have agreed to temporarily shelter pets.
- Direct pet owners to a public shelter with covered exterior corridors or adjacent support buildings where pets on leashes and in carriers may be temporarily housed.
- Set up temporary pet shelters at fairgrounds, rodeo or stock show barns, livestock auctions and other similar facilities.

Return of Evacuees:

- If evacuated areas have been damaged, reopen roads, eliminate significant health and safety hazards and conduct damage assessments.
- Determine requirements for traffic control for return of evacuees.
- Determine requirements for and coordinate provision of transportation for return of evacuees.
- Advise neighboring jurisdictions and local Disaster District that return of evacuees will begin.
- Advise evacuees through the media that they can return to their homes and businesses; indicate preferred travel routes.
- Provide traffic control for return of evacuees.
- Coordinate temporary housing for evacuees who are unable to return to their residences.
- Coordinate with special needs facilities regarding return of evacuees to those facilities.
- If evacuated areas have sustained damage, provide the public information that addresses:
 - Documenting damage and making expedient repairs
 - Caution in reactivating utilities and damaged appliances
 - Cleanup and removal/disposal of debris
 - Recovery programs
- Terminate temporary shelter and mass care operations.
- Maintain access controls for areas that cannot be safely reoccupied.

SPECIAL CONSIDERATIONS FOR LIVESTOCK:

- Livestock are sensitive and responsive to wildfire anywhere within their sensory range.
- Normal reactions vary from nervousness to panic to aggressive and resistive escape attempts.
- Livestock often are injured or killed by fleeing from a wildfire into fences, barriers and other fire risks.
- Once the flight syndrome kicks in, it is retained long after the smoke, heat and noise stimuli are removed.
- Some animal species such as alpacas, llamas and especially horses become virtually unmanageable in the face of oncoming wildfire.
- In situations like this, experienced handlers (as many as possible), proper equipment and a firm and prompt evacuation approach is needed.
- If time is limited because of fire ground speed, open possible escape routes and recapture animals later.
- In the case of a fast-moving fire, some landowners spray paint their phone numbers on the sides of livestock before setting them free. Others attach identification tags to animals.
- If you choose to leave a halter on your animal, consider attaching identification, such as a luggage tag.
- Firefighters may cut fences and open gates if time and safety concerns allow.

In addition to **Emergency Facilities** (Page 23) and **Schools** (Pages 26-27), nursing homes also should be considered when evacuating special populations.

Local nursing homes include:

Arbor on the Brazos

1103 Rock Prairie Road

Bluebonnet House

3901 Victoria Ave.

- 39 beds; emergency power for 168-plus hours; propane generator

The Waterford at College Station

1103 Rock Prairie Road

- 40 beds; 18 memory care

Fortress Health and Rehab

1105 Rock Prairie Road

- 120 beds; emergency power for 72 hours

Magnified Health and Rehab

1115 Anderson

- 115 beds; emergency power for 24 to 48 hours



Special populations to consider for smoke management and evacuation needs include schools, hospitals and nursing homes.

Structure Protection Planning

Structure protection planning can involve home assessments or structure triage planning. It can be generalized for a neighborhood or target a specific block of homes that are at a greater risk to wildland fire. The goal is to have a general plan in place of how homes will be protected (including number of resources needed, access issues, tactical considerations and defensible/non-defensible list).

The Firescope publication *Wildland Urban Interface Structure Protection* suggests the following tactics may be implemented after a fire behavior forecast is made and assigned structures are triaged.

Check and Go

“Check and Go” is a rapid evaluation to check for occupants requiring removal or rescue.

Structure Triage Category – Threatened Non-Defensible

- This tactic is most appropriate when there is no Safety Zone or Temporary Refuge Area present and the forecasted fire spread, intensity and projected impact time of the fire front prohibit resources from taking preparation action to protect the structure.
- Complete a rapid evaluation to check for occupants and evaluate life threat.
- Used when fire spread, intensity, lack of time or inadequate defensible space prohibit firefighting resources from safely taking action to protect the home when the fire front arrives.
- Evaluate the structure for follow-up action when additional resources become available, the fire front passes or fire behavior intensity is reduced.

Prep and Go

“Prep and Go” implies that some preparation of the structure may be safely completed prior to resources leaving the area.

Structure Triage Category – Threatened Non-Defensible

- A tactic used when a Safety Zone and Temporary Refuge Area are not present and/or when fire spread and intensity are too dangerous to stay in the area when the fire front arrives but there is adequate time to prepare a structure for defense ahead of the fire front.
- Utilized for structures where potential fire intensity makes it too dangerous for fire resources to stay when the fire front arrives.
- There is some time to prepare a structure ahead of the fire; resources should engage in rapid, prioritized fire protection preparations and foam the structure prior to leaving.
- Resources should leave with adequate time to avoid the loss of Escape Routes.
- Advise residents to leave and notify supervisors of any residents who choose to stay so that you can follow-up on their welfare after the fire front passes.
- As with Check and Go, Prep and Go is well suited for engine strike teams and task forces.



Prep and Defend

“Prep and Defend” is a tactic used when a Safety Zone and Temporary Refuge Area are present and adequate time exists to safely prepare a structure for defense prior to the arrival of the fire front.

Structure Triage Category – Threatened Defensible

- An ideal multiple resource tactic especially in common neighborhoods where efforts may be coordinated over a wide area. A tactic used when it is possible for fire resources to stay when the fire front arrives. Fire behavior MUST be such that it is safe for firefighters to remain and engage the fire.
- Adequate escape routes to a safety zone must be identified. A safety zone or Temporary Refuge Area must exist on site.
- Adequate time must exist to safely prepare the structure for defense prior to the arrival of the fire front.

Fire Front Following

“Fire Front Following” is a follow-up tactic employed when Check and Go, Prep and Go or Bump and Run tactics are initially used.

- A tactic used to come in behind the fire front.
- This action is taken when there is insufficient time to safely set up ahead of the fire or the intensity of the fire would likely cause injury to personnel located in front of the fire.
- The goal of “Fire Front Following” is to search for victims, control the perimeter, extinguish spot fires around structures, control hot spots and reduce ember production.

Bump and Run

“Bump and Run” is a tactic where resources typically move ahead of the fire front in the spotting zone to extinguish spot fires and hot spots, and to defend as many structures as possible.

- Bump and Run may be effective in the early stages of an incident when the resource commitment is light and structure protection is the priority.
- Bump and Run may be used on fast-moving incidents when there are adequate resources available but where an effort must be made to control or steer the head and shoulders of the fire to a desired end point.
- Perimeter control and structure protection preparation are secondary considerations with the Bump and Run tactic.
- Resources must remain mobile during Bump and Run and must constantly identify escape routes to Safety Zones and Temporary Refuge Areas as they move with the fire front.
- Control lines in front of the fire should be identified and prepared with dozers and fire crews enabling the bump and run resources to direct the fire to a logical end point. This is a frontal attack strategy and a watch out situation.



Anchor and Hold

“Anchor and Hold” is a tactic utilizing control lines and large water streams from fixed water supplies in an attempt to stop fire spread. The goal is to extinguish structure fires, protect exposures and reduce ember production.

- Anchor and hold can be referred to as taking a stand to stop the progression of the fire.
- Anchor and hold tactics are more effective in urban neighborhoods where the fire is spreading from house to house.
- Establishing an anchor and hold line requires considerable planning and effort and utilizes both fixed and mobile resources.

Tactical Patrol

“Tactical Patrol” is a tactic where the key element is mobility and continuous monitoring of an assigned area.

Tactical Patrol can be initiated either:

- After the main fire front has passed and flames have subsided but when the threat to structures still remains.
- In neighborhoods away from the interface where there is predicted to be significant ember wash and accumulated ornamental vegetation.
- Vigilance, situational awareness and active suppression actions are a must.

Wildland Capacity Building

Capacity building should address training, personal protective equipment and apparatus or equipment needs within the department. This can include National Wildfire Coordinating Group (NWCG) classes, wildland engines, dozers, prescribed burning opportunities, etc.

Fire Department Assistance Programs

Rural Volunteer Fire Department Assistance Programs (HB 2604)

The Rural VFD Assistance Program (2604) provides grants for qualified fire departments to assist in the purchase of PPE, equipment and training. The program is designed to fund a full spectrum of cost-share projects and continues to make a significant impact on firefighters and communities.

GSA Wildland Fire Program

The Rural VFD Assistance Program
The U.S. General Services Administration permits non-federal organizations to purchase wildfire suppression equipment. The purpose is to help fire departments acquire standardized equipment, supplies and vehicles in support of wildland fire suppression efforts. Texas A&M Forest Service provides enrollment sponsorship.

Firesafe Program

The Firesafe program provides low-cost wildland and structural protective clothing, hose, nozzles and other water-handling accessories to rural and small community fire departments.

VFD Vehicle Liability Insurance

The Texas Volunteer Fire Department Motor Vehicle Self Insurance Program (risk pool) provides low-cost vehicle liability insurance to qualified volunteer fire departments.

Rural VFD Insurance Program

The Rural VFD Insurance Program provides grants to qualified fire departments to assist in the purchase of workers' compensation insurance, life insurance and disability insurance for their members.

TIFMAS Grant Assistance Program

The TIFMAS grant assistance program provides grants to qualified fire departments to assist in the purchase of training, equipment and apparatus.

Helping Hands Program

The Helping Hands Program provides liability relief to industry, businesses, cities and others to donate surplus fire and emergency equipment. Texas A&M Forest Service then distributes it to departments around the state.

Department of Defense Firefighter Property Program (FFP)

In partnership with the Department of Defense, Texas A&M Forest Service administers the Firefighter Property Program (FFP), which provides excess military property to emergency service providers.

Fire Quench Program

Fire Quench is a Class A Foam distributed to Texas A&M Forest Service offices throughout the state and made available for sale to local fire departments. Fire Quench is sold in 55-gallon drums and 5-gallon pails.

<http://texasfd.com>



Training

The College Station Fire Department is highly motivated to invest in wildland training and equipment so firefighters can respond to wildland incidents in the safest and most efficient manner. The NWCG typically sets standards for wildland firefighting, but Texas fire departments must meet certain criteria to participate in the Texas Intrastate Fire Mutual Aid System (TIFMAS).



Texas Intrastate Fire Mutual Aid System (TIFMAS)

TIFMAS Organization Chart and Position Qualifications



Training Recommendations

Basic Wildland Qualification

Recognized National Standard to meet this qualification – S130/190, L180, I100

Approved Basic Wildland Training to meet the TIFMAS Wildland qualification:

1. S130/S190, L180, I100 delivered at TFS sanctioned academies
2. TFS contracted Fire in the Field (FIF) 100 (I-100, S-190, S-130, and L-180) with Skills day.
3. TIFMAS Adjunct Instructor delivered (S130/S190, L180, I100) basic wildland fire training with a skills proficiency day.
4. TFS Training Section delivered S130/S190, L180, and I100.
5. Approved TFS sponsored training events
6. S130/S190, L180, I100 delivered by TEEX wildland approved instructors
7. SFFMA Curriculum with Wildland Certification completed on or after June 2008
8. Basic wildland training (S130/S190, L180) delivered by instructors with current Red Card qualifications meeting the 901-1 standards for instructors.

Recognized Certifications include but are not limited to:

1. NWCG S130/S190/L180 Course certification
2. TIFMAS S130/S190/L180 Course certification
3. SFFMA Wildland Certification completed as of June 2008
4. TCFP Basic Wildland (FFI) certification

Other recommended training:

TIFMAS Engine Module

Structural Qualification

Recognized National Standard to meet this qualification - NFPA 1001 Standards for Firefighter

Recognized Certifications include but are not limited to:

1. TCFP Basic Firefighter
2. SFFMA – NFPA Fire Fighter I/II (Was Advanced Firefighter).

Engineer – Pump Operator (ENOP) Qualification

Pre-requisites:

1. All Hazards-structural qualification
2. Basic Wildland qualification and complete one of the following
 - TCFP 60 hour Pump Operator Certification or
 - SFFMA 40 hour Driver/Operator class or
 - TFS/NWCG 40 hour Engine Operator course

and complete

TIFMAS Engine Operator (ENOP) task book

and receive a

Positive position task book review

Wildland Firefighter I (FFI)/ICT 5 Qualification

Pre-requisites:

1. All Hazards-structural
2. Basic Wildland
and complete

- Crosswalk G 131 for FFI/ICT5 or
- NWCG S131, S 133

and complete

NWCG Task Book PMS 311-14
and receive a

Positive position task book review

Other recommended NWCG training:

1. S211 Portable Pumps and Water Use
2. S212 Wildland Fire Chain Saws

Engine Boss (ENGB) Qualification

Pre-requisites:

1. All Hazards-structural qualification
2. Basic Wildland qualification
3. FFI-ICT5 qualification
4. Meet NFPA 1021 Fire Officer I standards
5. Current position of Driver/Operator or higher at home jurisdiction
6. NIMS Certifications through I-300

and complete

- Crosswalk G231 course for Engine Boss or
- NWCG S230, S231, S290

and complete

NWCG Task Books PMS 311-13
and receive a

Positive position task book review

Recognized Certifications for NFPA 1021 for Fire Officer I include but are not limited to:

1. TCFP Fire Officer I certificate
2. SFFMA Fire Officer I certificate completed as of June 2008 with Pro Board or IFSAC certification is recognized
3. Note Fire Officer I:
 - Completed prior to 12-31-11- course certificate will be recognized
 - Completed 1-1-2012 or after must have a TCFP, IFSAC, or Pro Board Certificate to be recognized

Other recommended NWCG training:

1. S234 Ignition Operations
2. S270 Basic Air Operations
3. L280 Followership to Leadership

Strike Team Leader (STEN) Qualification

Pre-requisites:

1. All Hazards-structural qualification
2. Basic Wildland
3. FFI-ICT5 qualification
4. Engine Boss qualification
5. Meet NFPA 1021 Fire Officer II standards
6. Current position of Company Officer or higher at home jurisdiction
and complete

- Crosswalk G330 course for Strike Team Leader or
- NWCG S330 Strike Team Leader and S215 Fire Operations in the Urban Wildland Interface
and complete

NWCG Task Book 311-10
and receive a

Positive position task book review.

Recognized Certifications for NFPA 1021 for Fire Officer II include but are not limited to:

1. TCFP Fire Officer II certificate
2. SFFMA Fire Officer II certificate completed as of June 2008 with Pro Board or IFSAC certification is recognized
3. Note:
 - Completed prior to 12-31-11- course certificate will be recognized
 - Completed 1-1-2012 or after must have a TCFP, IFSAC, or Pro Board Certificate to be recognized

Other recommended NWCG training:
L380 Fireline Leadership

Recommended Training

The NWCG requires firefighters to complete classes alongside position-specific task books. The task books outline specific assignments required to be completed by the trainee. The trainee is evaluated by a qualified trainer on wildland incidents. Once the trainee completes the task and gains experience on wildland incidents, the task book is completed and the individual is qualified to respond in that capacity. NWCG task books can be found at: <http://www.nwcg.gov/pms/taskbook/taskbook.htm>

The following is a list of recommended training for the College Station Fire Department:

S-130/190 (includes **L-180** and **I-100**) – Basic Firefighter/Introduction to Wildland Fire Behavior

S-131 – Firefighter Type 1

S-133 – Look Up, Look Down, Look Around

L-280 – Followership to Leadership

S-215 – Fire Operations in the Wildland Urban Interface

S-290 – Intermediate Wildland Fire Behavior

S-200 – Initial Attack Commander (ICT4)

S-234 – Ignitions Operations

S-230 – Crew Boss (Single Resource)

S-330 – Task Force/Strike Team Leader

O-305 – All-Hazard Incident Management Team Training

Texas wildfire academy class schedules can be found at <http://ticc.tamu.edu/Training/TrainingMain.htm>

NWCG Engine Types

Using the Fire Equipment Working Team (FEWT) and the National Fire Protection Association (NFPA), the National Wildfire Coordinating Group (NWCG) categorizes information on fire engines into logical groups and provides common options often requested by fire managers. The Incident Command System (ICS) uses this engine type system based on the equipment. The NWFC Wildland Fire Engine Classes used throughout this guide (LP, A, B, C, and D) are based on its mission and engine capability in relation to fire behavior. Table 2 shows NWCG minimum requirements for engine and water tender resource types.

Table 2—NWCG Engine Types—Minimum Requirements.

Components	STRUCTURE ENGINES		WILDLAND ENGINES				
	1	2	3	4	5	6	7
Pump Rating							
minimum flow (gpm)	1000+	250+	150	50	50	30	10
at rated pressure (psi)	150	150	250	100	100	100	100
Tank Capacity Range (gal)	400+	400+	500+	750+	400–750	150–400	50–200
Hose (feet)							
2-1/2 inch	1200	1000	~	~	~	~	~
1-1/2 inch	400	500	500	300	300	300	~
1 inch	~	~	500	300	300	300	200
Ladders (ft)	48	48	~	~	~	~	~
Master Stream (GPM)	500	~	~	~	~	~	~
Personnel (minimum)	4	3	2	2	2	2	2

Wildland engine types are described below.

Type 3 — An engine that features a high-volume and high-pressure pump. The Gross Vehicle Weight Rating (GVWR) is generally greater than 20,000 pounds.

Type 4 — A heavy engine with large water capacity. Chassis GVWR is in excess of 26,000 pounds.

Type 5 — Normally an initial attack engine on a medium duty chassis. GVWR of the chassis is in the 16,000 to 26,000 pound range.

Type 6 — Normally an initial attack engine on a medium duty chassis. GVWR of the chassis is in the 9,000 to 16,000 pound range.

Type 7 — A light duty vehicle usually on a 6,500 to 10,000 pound GVWR chassis. The vehicle has a small pump and is a multipurpose unit used for patrol, mop up or initial attack.

Source: U.S. Forest Service Wildland Fire Engine Guide



Type 3 engine



Type 6 engine

Recommended Equipment

College Station Fire Department works closely with Brazos County resources to suppress wildfires. College Station Fire Department currently has one Type 6 engine that has been and will continue to be effective. However, it would be beneficial for CSFD to invest in a Type 3 or an additional Type 6 engine. This would give the department an additional asset in case county resources are not available.

Recommended Protective Equipment

- Nomex coveralls
- Nomex pants (should be made of flame-resistant Aramid cloth)
- Nomex shirt (should be made of flame-resistant Aramid cloth)
- Nomex jacket (should be made of flame-resistant Aramid cloth)
- Wildland gloves
- Wildland hardhat
- Eye protection
- Ear/neck/face protectors
- Fire shelter
- Wildland fire pack
- Chainsaw chaps



Wildland Firefighting Tools

Pulaski Tool



This ax-and-hoe combination tool is designed for fire-line digging and chopping. Cutting edges: 3-3/8" (hoe); 4-1/2" (ax); handle 36" long. Forest Service Spec 5100-355. (NFES #0146)

Collapsible Firefighting Rake



Collapsible metal rake is designed for fire-line construction. Features stainless steel tines that extend to 16" in width. Features a foam-grip handle. Lengths: 59-1/2" (extended) and 49-2/5" (collapsed). Weight: 3.3 lbs. REC Drawing No. 90-5700C. (NFES #0659)

McLeod Tool



Fire-line digging tool is a rake-and-hoe combination. Handle is 48" long. Forest Service Spec 5100-353. (NFES #0296)

• Drip Torch



Swatter



Source: U.S. General Services Administration

Engines

Smaller than a typical municipal fire engine, wildland fire engines are specially-designed to handle remote, off-road areas and difficult terrain. The trucks carry 50 to 800 gallons of water, as well as a complement of hand tools and hoses. Generally, they're staffed by a crew of two to five wildland firefighters.

Heavy Equipment

Bulldozers fitted with safety cages are critical tools for containing wildfires. Large, commercial bulldozers often are used on the open plains in South and West Texas, while smaller tractor-plow units are more common in forested areas in Central and East Texas. Both dozers and tractor plows are used to put a control line — often called a fire line or fire break — around the flames. Doing so removes all the vegetation, or fuel, that would spread the fire.



Water Tenders

Because wildland firefighters don't have access to fire hydrants, they must bring the water they need with them.

Tenders are capable of ferrying large quantities of water — up to 5,000 gallons — to fire engines working on the fireline, allowing crews to fight the fire without stopping. When empty, these water-shuttling trucks can return to a nearby city or town where hydrants are available or they can draft from a lake, pond or stream in the area.

Hand Crews

A hand crew consists of highly-skilled wildland firefighters who use hand tools and chainsaws to clear the vegetation in front of an advancing fire. These crews are used in areas where heavy equipment can't go, such as remote areas with rugged terrain. Generally, there are about 20 people on the crew, though that number can vary slightly.

Aircraft

Firefighting aircraft are a valuable tool for wildland firefighters. The specially-equipped helicopters and airplanes can be used to drop water or fire retardant, but they don't always extinguish the fire. Helicopters often drop water, which can help put out a blaze. Air tankers, however, often drop retardant, a move that slows down the spread of flames and cools off the surrounding area, allowing ground crews to get closer and make more progress in containing the fire.



Mitigation Funding Sources

FEMA Hazard Mitigation Grant Program

The Hazard Mitigation Grant Program (HMGP) provides grants to states and local governments to implement long-term hazard mitigation measures after a major disaster declaration. The purpose of the HMGP is to reduce the loss of life and property due to natural disasters and to enable mitigation measures to be implemented during the immediate recovery from a disaster. The HMGP is authorized under Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act.

<http://www.fema.gov/hazard-mitigation-grant-program>

Texas A&M Forest Service – Integrated Hazardous Fuels Program (Mitigation and Prevention Department)

One of the tools in hazard reduction efforts is the removal of heavy vegetation growth under controlled conditions to reduce the fuels available for future wildfires. Vegetation is generally removed using mechanical methods – such as mulching or chipping – or prescribed (controlled) fires under manageable conditions. The local TFS office can provide assistance in determining the best treatment methods for the area.

<http://texasforestservicetamu.edu/main/article.aspx?id=8510>

Texas A&M Forest Service Capacity Building

Texas A&M Forest Service provides eligible fire departments with programs designed to enhance their ability to protect the public and fire service personnel from fire and related hazards. Ten highly successful programs are currently administered to help fire departments discover and achieve their potential. Citizens are better served by well-trained and equipped fire department personnel.

<http://texasfd.com>

Texas Intrastate Fire Mutual Aid System

Texas Intrastate Fire Mutual Aid System (TIFMAS) is maintained by Texas A&M Forest Service. The program includes training, qualification and mobilization systems to make statewide use of local resources. The program was first used during Hurricane Ike, and has since been used in response to the Presidio flooding, the April 9, 2009, wildfire outbreak in North Texas, Hurricane Alex and the 2011 wildfire season. The system was successful in all incidents.

TIFMAS, a product of Senate Bill 11 enacted in 2007, does not require departments to send resources to incidents. It is a voluntary process. During the 2011 wildfire season, TIFMAS mobilized 13 times with a total of 207 departments, 1,274 firefighters and 329 engines.

<http://texasforestservicetamu.edu/main/article.aspx?id=9216>



Appendix

This section can be used for supplemental materials and resources that will be useful to emergency responders and members of the working group.

* CWPP Leader's Guide	81
* Glossary	82
* Contact List	83-84
* Implementation Progress Checklist	85
* City of College Station Proclamation	86
* References	87



Community Wildfire Protection Plan Leader's Guide

A LEADER'S GUIDE TO DEVELOPING A COMMUNITY WILDFIRE PROTECTION PLAN

PHASE 1: PLAN	PHASE 2: ASSESS	PHASE 3: FINALIZE	
<p><input type="checkbox"/> Engage local Texas A&M Forest Service. Contact local Wildland Urban Interface Specialist at www.texasfirewise.com</p> <p><input type="checkbox"/> Contact fire association/local law enforcement and fire services.</p> <p><input type="checkbox"/> Contact state and federal partners.</p> <p><i>If the above are supportive, then continue with:</i></p> <p><input type="checkbox"/> Adopt Community Wildfire Protection Plan. Discuss adopting CWPP into annex of emergency management plan and mitigation action plan.</p> <p><input type="checkbox"/> Declare proclamation. Present proclamation to city council.</p> <div style="border: 1px solid black; height: 100px; width: 100%; margin-top: 10px; text-align: center; padding: 5px;">NOTES</div>	<p><input type="checkbox"/> Form core working group. Possible partners:</p> <ul style="list-style-type: none"> ▶ City Officials <ul style="list-style-type: none"> • Fire chief • Emergency Management Coordinator (EMC) • Fire marshal • City planner • Local utility • Ag extension agent • GIS specialist • Disaster District Coordinator ▶ Local Texas A&M Forest Service ▶ Law Enforcement <ul style="list-style-type: none"> • Local and municipal • State police ▶ Federal partners <ul style="list-style-type: none"> • US Forest Service (USFS) • National Park Service (NPS) • US Army Corps of Engineers (USACE) • Conservation Service (NRCS) • Resource Conservation & Development (RC&D) ▶ Identify other stakeholders to invite in the CWPP process. <ul style="list-style-type: none"> • Private stakeholders • Industry stakeholders • Municipal stakeholders 	<p><input type="checkbox"/> Identify priority areas with fire service and federal agencies.</p> <ul style="list-style-type: none"> • This can be accomplished with a one-on-one meeting or a group meeting. • Develop a base map of Communities At Risk (CARs). <p><input type="checkbox"/> Assemble fire department response area maps.</p> <p><input type="checkbox"/> Assemble checklist of topics to cover during assessments.</p> <p><input type="checkbox"/> Interview fire department to identify needs, concerns and update contact information.</p> <p><input type="checkbox"/> Conduct assessments in cooperation with fire department.</p> <p><input type="checkbox"/> Identify safety issues.</p> <p><input type="checkbox"/> Identify recommendations/projects.</p> <p><input type="checkbox"/> Compile assessment results.</p> <p><input type="checkbox"/> Finalize CAR map.</p> <p><input type="checkbox"/> Prioritize recommendations/projects.</p> <p><input type="checkbox"/> Develop local CWPP draft.</p> <p><input type="checkbox"/> Deliver draft CWPP to fire department for edits.</p>	<p><input type="checkbox"/> Assemble draft city CWPP using information gathered from risk assessments and fire department CWPPs.</p> <p><input type="checkbox"/> Research and identify potential funding sources.</p> <ul style="list-style-type: none"> ▶ Reconvene core group for second meeting. ▶ Present findings from assessments. <p><input type="checkbox"/> Prioritize projects within city plan. <ul style="list-style-type: none"> • Fuels reduction • Education • Structural ignitability </p> <p><input type="checkbox"/> Finalize city CWPP with edits from core group.</p> <p><input type="checkbox"/> Present for public opinion.</p> <p><input type="checkbox"/> Deliver draft to core group participants.</p> <p><input type="checkbox"/> Present final copy to city council.</p> <p><input type="checkbox"/> Plan signing/recognition ceremony.</p>

Source: Texas A&M Forest Service

Download A Leader's Guide to Developing Community Wildfire Protection Plans at

texasfirewise.org

81

Glossary

Community Emergency Operations Center (CEOC) - A multi-jurisdictional facility that offices Brazos County, City of Bryan, City of College Station and Texas A&M University emergency management personnel.

Defensible space — The area immediately encircling a home and its attachments.

Extended attack — Suppression activity for a wildfire that has not been contained or controlled by initial attack or contingency forces and for which more firefighting resources are arriving, en route or being ordered by the initial attack incident commander. *(National Wildfire Coordinating Group definition)*

Fuel loading — The amount of fuel present expressed quantitatively in terms of weight of fuel per unit area. This may be available fuel (consumable fuel) or total fuel and is usually dry weight. *(National Wildfire Coordinating Group definition)*

Healthy Forests Restoration Act — Signed into law in 2003, this act authorizes Community Wildfire Protection Plans as a tool to reduce hazardous fuels and maintain healthy forests.

Home hardening — Retrofitting process that reduces a home's risk to wildfire. This involves using non-combustible building materials and keeping the area around your home free of debris.

Home Ignition Zone (HIZ) — An area of up to 200 feet immediately surrounding a home.

Incident Action Plan (IAP) — Contains objectives reflecting the overall incident strategy, specific tactical actions and supporting information for the next operational period. When written, the plan may have a number of attachments, including incident objectives, organization assignment list, division assignment, incident radio communication plan, medical plan, traffic plan, safety plan and incident map. *(National Wildfire Coordinating Group definition)*

Incident Command System (ICS) - A standardized on-scene emergency management concept specifically designed to allow its user(s) to adopt an integrated organizational structure equal to the complexity and demands of single or multiple incidents, without being hindered by jurisdictional boundaries. *(National Wildfire Coordinating Group definition)*

Initial attack — Fire that is generally contained by the attack units first dispatched, without a significant augmentation of reinforcements, and full control is expected within the first burning period. *(National Wildfire Coordinating Group definition)*

Mitigation Action Plan — A document that outlines a procedure for mitigating adverse environmental impacts.

Pre-Attack Plan — A resource for first responders that includes information specific to the community where an incident is taking place. Pre-Attack Plans may include possible Incident Command Post locations, shelter locations, radio frequencies, maps, high-risk areas and contingency plans.

Structural ignitability — A home's design, construction materials and immediate surroundings are factors that contribute to how easily a home will ignite when wildfire threatens.

Wildland Urban Interface (WUI) — Areas where human habitation and development meet or are intermixed with wildland fuels (vegetation).

Contact List

District Coordinator, Texas Department of Public Safety,
 Division of Emergency Management
 979-412-0003

Texas A&M Forest Service contacts:

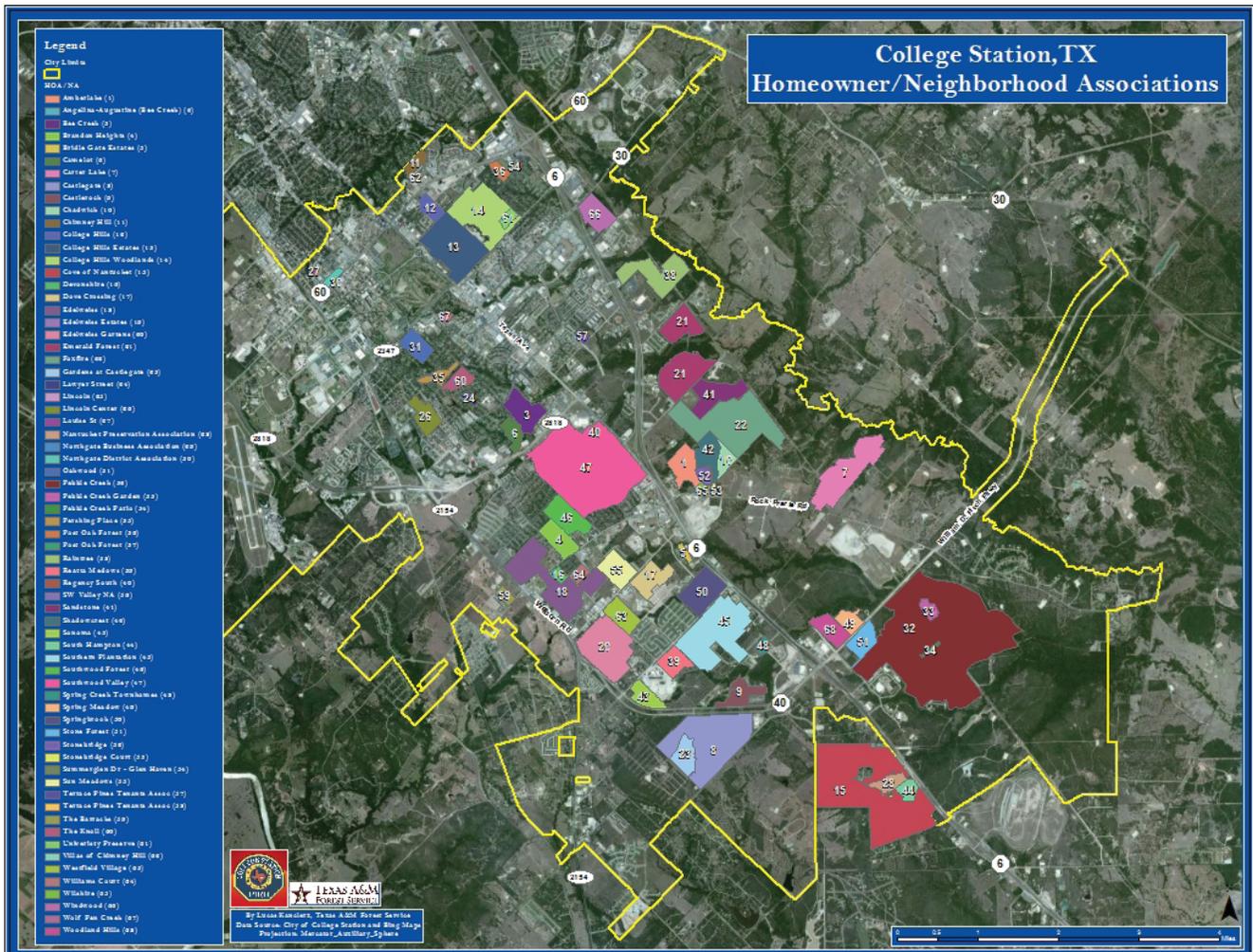
Regional Fire Coordinator
 200 Technology Way, Suite 1162
 College Station, TX 77845-3424
 979-458-6507



Assistant Chief Regional Fire Coordinator
 700 South Reynolds Street
 La Grange, Texas 78945
 979-968-5555

LaGrange Dispatch
 979-968-5555

Homeowners' Associations:



College Station Homeowner/Neighborhood Associations

1. Amberlake
2. Angelina/Augustine (Bee Creek)
3. Bee Creek
4. Brandon Heights
5. Bridle Gate Estates
6. Camelot
7. Carter Lake
8. Castlegate
9. Castlerock
10. Chadwick
11. Chimney Hill
12. College Hills
13. College Hills Estates
14. College Hills Woodlands
15. Cove of Nantucket
16. Devonshire
17. Dove Crossing
18. Edelweiss
19. Edelweiss Estates
20. Edelweiss Gartens
21. Emerald Forest
22. Foxfire
23. Gardens at Castlegate
24. Lawyer Street
25. Lincoln
26. Lincoln Center
27. Louise Street
28. Nantucket Preservation Association
29. Northgate Business Association
30. Northgate District Association
31. Oakwood
32. Pebble Creek
33. Pebble Creek Garden
34. Pebble Creek Patio
35. Pershing Place
36. Post Oak Forest
37. Post Oak Forest
38. Raintree
39. Reatta Meadows
40. Regency South
41. Sandstone
42. Shadowcrest
43. Sonoma
44. South Hampton
45. Southern Plantation
46. Southwood Forest
47. Southwood Valley
48. Spring Creek Townhomes
49. Spring Meadow
50. Springbrook
51. Stone Forest
52. Stonebridge
53. Stonebridge Court
54. Summerglenn Drive/Glen Haven
55. Sun Meadows
56. Southwood Valley
57. Terrace Pines Tenants Assoc. (1)
58. Terrace Pines Tenants Assoc (2)
59. The Barracks
60. The Knoll
61. University Preserve
62. Villas of Chimney Hill
63. Westfield Village
64. Williams Court
65. Wilshire
66. Windwood
67. Wolf Pen Creek
68. Woodland Hills

Implementation Progress Checklist

Mitigation Strategies	Completed (√)	Date
Zone 1 Code enforcement Fuels reduction Public education		
Zone 2 Code enforcement Fuels reduction Hydrant system Ingress/egress plan Public education		
Zone 3 Code enforcement Fuels reduction Public education		
Zone 4 Fuels reduction Public education		
Zone 5 911 addressing system Code enforcement Hydrant system Ingress/egress plan Public education Structure protection plan		
Zone 6 Public education		



CITY OF COLLEGE STATION
*Home of Texas A&M University**

Proclamation

WHEREAS, Texas is experiencing unprecedented growth and development in areas that were once rural, coupled with an increase in the occurrence of wildfires; and

WHEREAS, it is in these areas where development meets vegetation or the wildland urban interface that the greatest risk to public safety and property from wildfire exists; and

WHEREAS, the best defense is preparedness and public education concerning the dangers that wildfire poses to the residents and natural resources of the City of College Station; and

WHEREAS, a Community Wildfire Protection Plan (CWPP) is authorized under the provisions outlined in Title I of the Healthy Forests Restoration Act of 2003; and

WHEREAS, a CWPP is a written document, mutually agreed upon by local and state representatives and stakeholders that identifies how a community will reduce its risks to wildland fire; and

WHEREAS, a CWPP addresses structural ignitability, prioritizes hazardous fuel reduction efforts on public and private lands and is developed collaboratively; and

WHEREAS, communities with a CWPP receive priority when state and federal funding is allocated for mitigation; and

WHEREAS, a CWPP offers the best solution for communities at risk from wildfire to mitigate said risks.

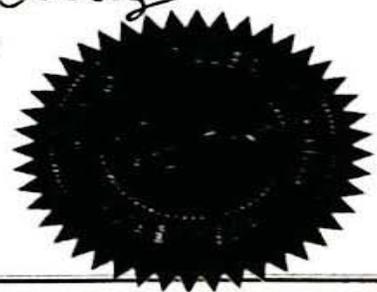
NOW, THEREFORE, IT IS RESOLVED, that the College Station City Council urges all residents of this city and this community to participate in the implementation of a Community Wildfire Protection Plan in accordance with the Healthy Forests Restoration Act.

IN TESTIMONY WHEREOF, I have hereunto set my hand and caused to be affixed the seal of the City of College Station, Texas this 27th Day of June, 2013.

Nancy Berry
Mayor

Attest:

Sherry Mashburn
City Secretary



Writers

Melanie Spradling
Texas A&M Forest Service

Luke Kanclerz
Texas A&M Forest Service

Contributors

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Captain Tim Hamff
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Emergency Management Coordinator Brian Hilton
Public Education Officer Christina Seidel
Training Coordinator Billy Bradshaw
Fire Behavior Analyst Brad Smith
Communications Specialist April Saginor

References

Brazos County Interjurisdictional Emergency Management Plan
<http://www.bcdem.org/emergencyManagementPlan.php>

City of College Station Comprehensive Plan
<http://cstx.gov/Index.aspx?page=2471>

College Station Code of Ordinances
<http://cstx.gov/Index.aspx?page=513>

College Station Independent School District
<http://www.csisd.org/>

Firescope: Wildland Urban Interface Structure Protection
<http://www.firescope.org/ics-guides-and-terms/WUI-SP.pdf>

National Wildfire Coordinating Group
<http://www.nwccg.gov/>

Texas A&M AgriLife Extension Service
<http://agrilifeextension.tamu.edu/>

Texas A&M Forest Service Capacity Building
<http://texasfd.com>

Texas A&M Forest Service Predictive Services
<http://ticc.tamu.edu/PredictiveServices/predictiveservices.htm>

Texas A&M University
<http://www.tamu.edu>

Texas Intrastate Fire Mutual Aid System business manual
http://ticc.tamu.edu/Documents/IncidentResponse/TIFMAS/TIFMAS_Business_Deployment_Manual.pdf

Texas Fire Response Handbook
<http://ticc.tamu.edu>

Texas Wildfire Risk Assessment Portal
<http://www.texaswildfirerisk.com/>

U.S. Forest Service Wildland Fire Engine Guide
<http://www.fs.fed.us/eng/pubs/pdf/00511203.pdf>

The Weather Channel
<http://www.weather.com/>

