

Wildfire Preparedness, Risk Assessments and the Hazard Mitigation Grant

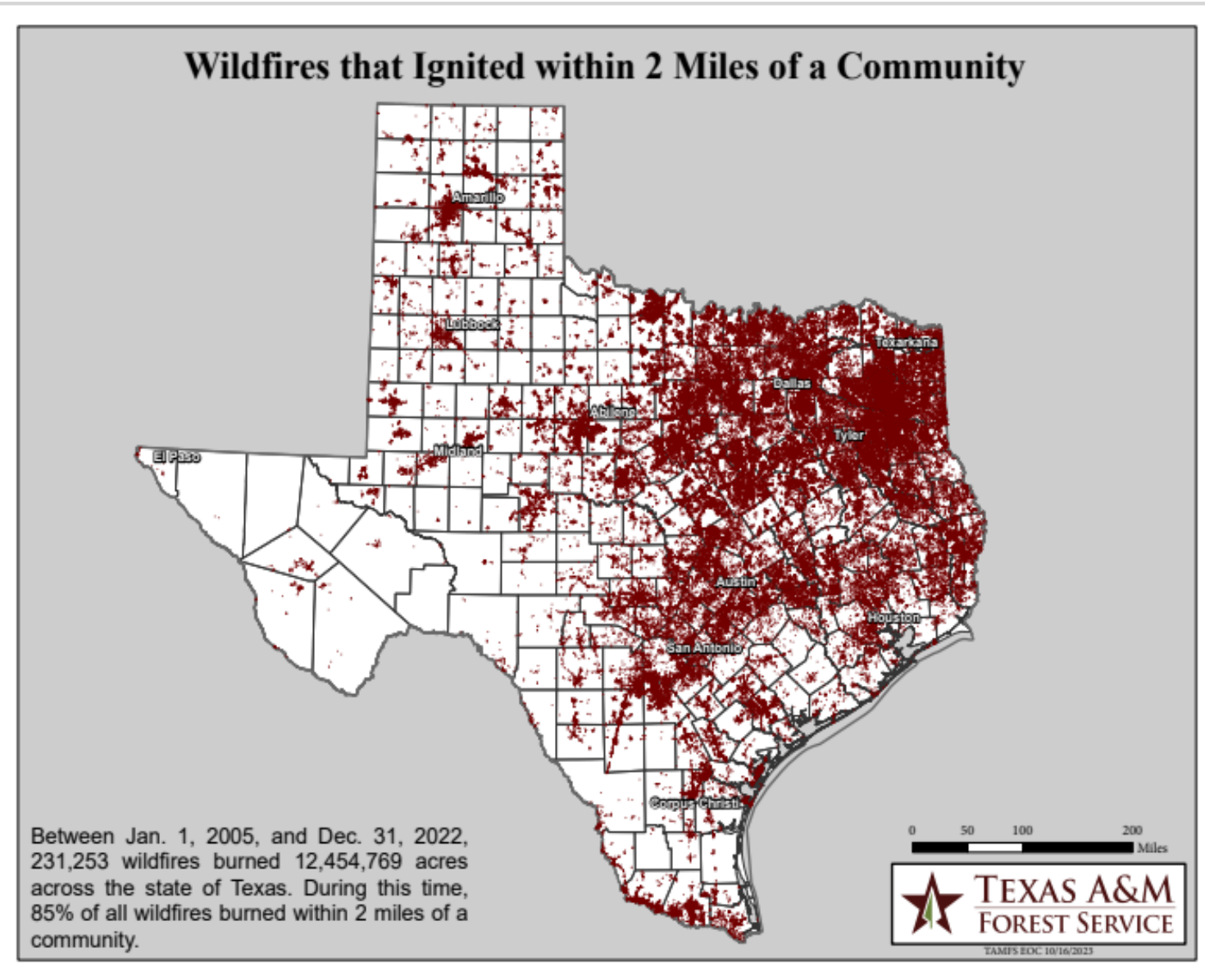
Mitigation and Prevention Department

Objectives

- Provide information on how to reduce wildfire risk to structures and property including:
 - Structure Ignition Zone
 - Defensible Space and Fuel Breaks
- Explain the requirements and application process of the Central Texas Communities at Risk (CTX-CAR) - Mechanical Fuel Reduction Grant and possible future grants

Why are Wildfires More Significant?

- Rapid WUI Growth
- Dramatic changes in land use & land management practices
- Persistence drought conditions
- Prolonged fire seasons
- Population growth



Are You in a Wildland/Urban Interface (WUI)

1. Why did you choose to live in your present location? What's so important to you about this location that you moved here or decided to stay here?
2. What natural features on your property are worth protecting to you?
3. When you look beyond your backyard, do you see a woodland or grassland, or do you see another backyard?
4. What is the first thought or emotion that comes to mind when you hear the word "wildfire?"

Fire Science

Homes and structures are lost through 3 methods:

Flame Impingement

Radiant Heat

Embers





Ignition Causes

- Humans cause over 90% of the wildfire in Texas
- Burn piles and debris burning is the #1 source of human caused wildfire
- 50% of Texas wildfires are caused by debris burning and heavy equipment use

What are some causes that may be specific to the work you do?

5 Tips for Wildfire Risk Reduction



Property accessible to first responders and house number visible



Create a Go Kit & evacuation plan with 2+ escape routes



Avoid outdoor activities that may cause a spark



Fire Resistant Landscaping



Fire Resistant Home Construction

What to Pack in Your “Go Kit”

- N95 Face Masks or Respirator
- First Aid Kit
- Copies of Important Documents
- Food (include pet food)
- Pets
- Water
- Medications
- Backup Power & Chargers
- Cash & Credit Cards
- Personal Hygiene Items
- Laptops & Cell Phones
- Family Photographs
- Flashlights & Batteries
- Extra Gasoline (properly contained)
- Battery Powered Radio
- Goggles

SAMPLE EVACUATION KITS

Now is the time to prepare your evacuation kits and plan your multiple evacuation routes.



Start with the 5 P's
People & pet supplies
Prescriptions
Papers
Personal needs
Priceless items



Wildfire Risk Assessments at Three Levels of Scope

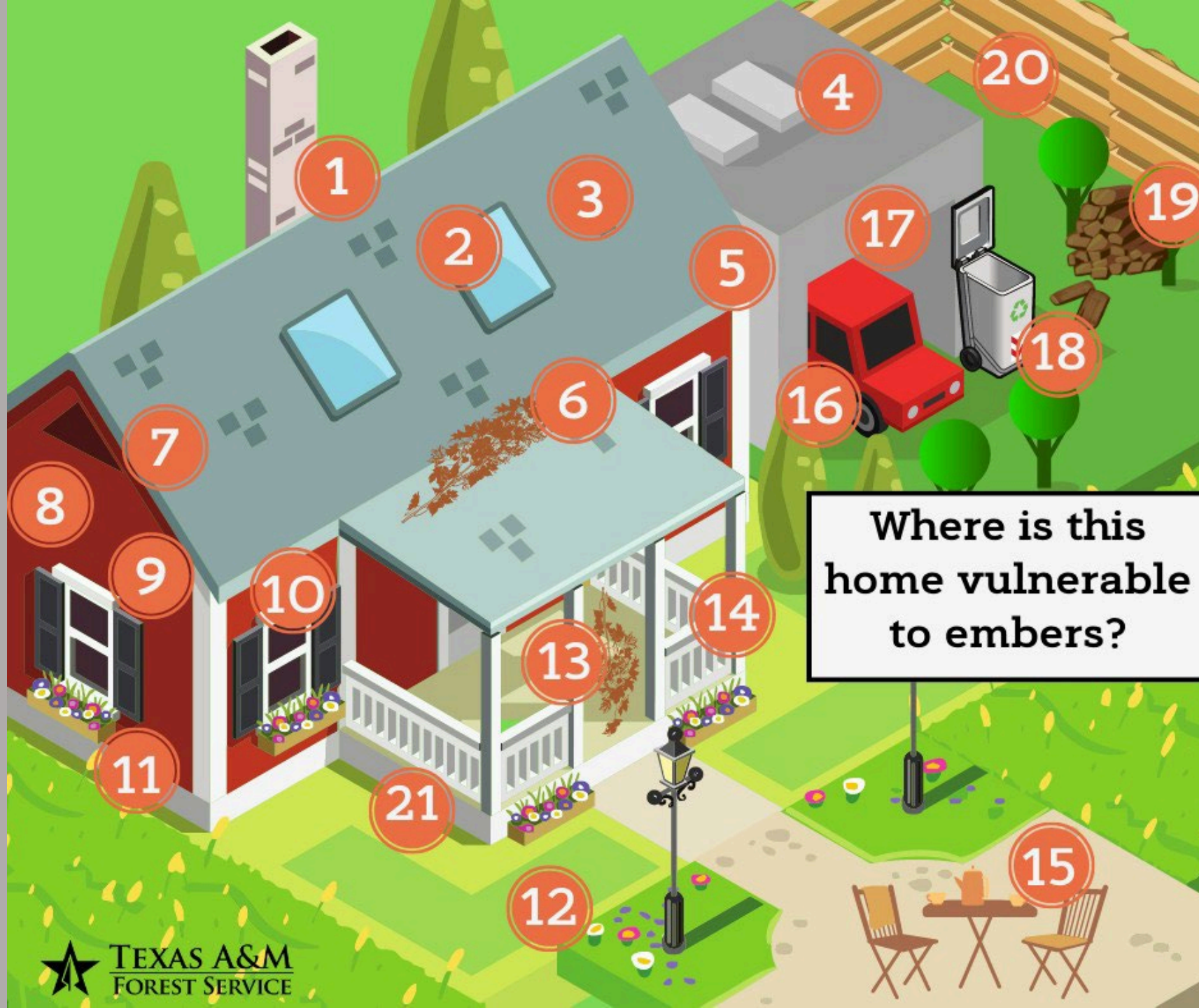
1. Structure Ignition Zone and Defensible Space of a single property
2. Community Assessment of multiple properties with shared infrastructure. This is most often a subdivision or area of concern, but can also develop into a Firewise Community USA
3. Community Wildfire Protection Plan – multiple Community Assessments under a shared jurisdiction

How Do You Prepare for Wildfire?

1. What does “wildfire preparedness” mean to you, especially in terms of landscaping and land management?
2. Who is responsible for said “preparedness?”
3. Wouldn't it be a good idea to have some sort of plan to deal with wildfire?

Home Preparedness

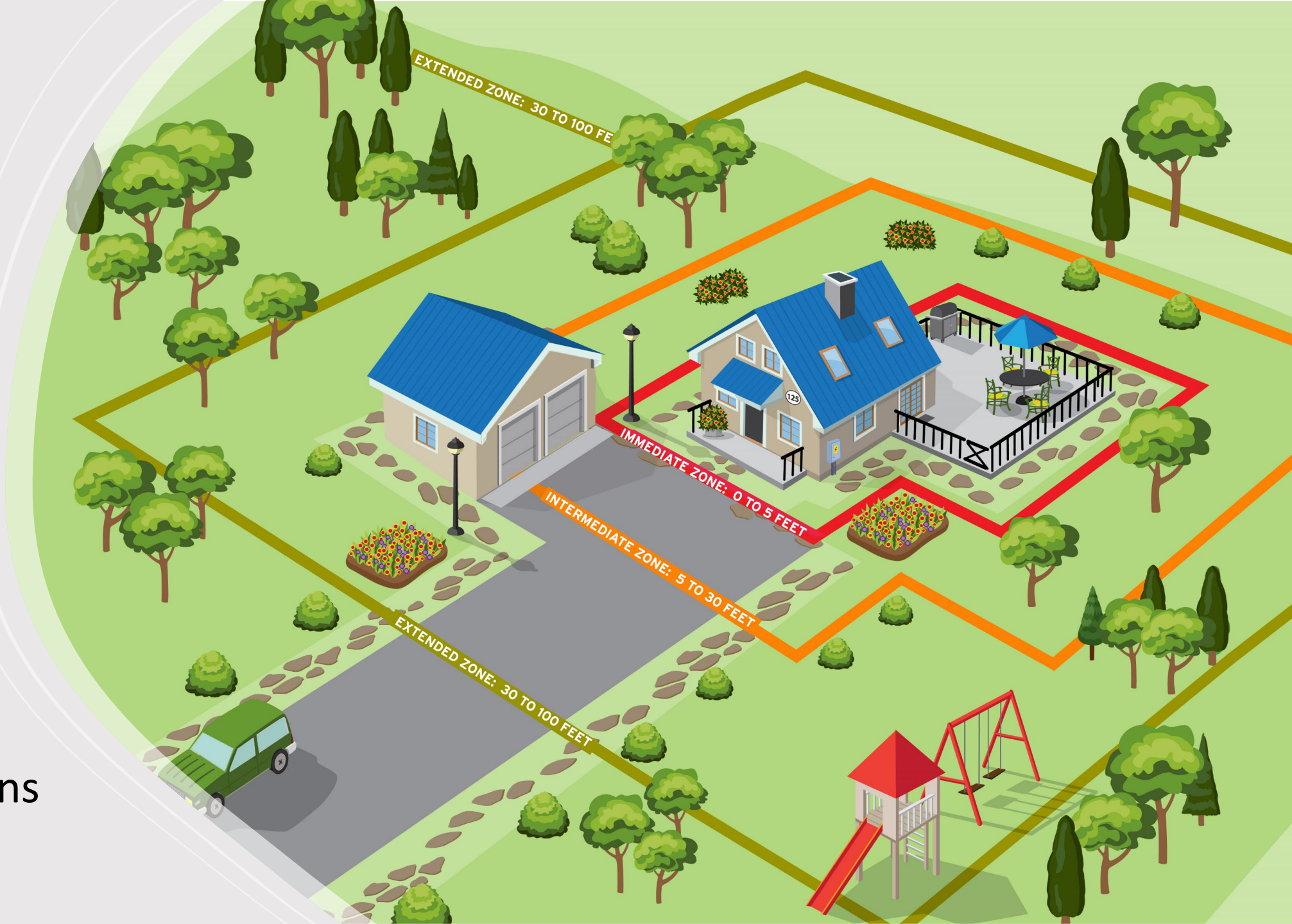
- What do you think is the main threat to homes from wildfires?
 - EMBERS!
- Main goals for fire resistant landscaping?
 - Keep the fire as slow moving and low to the ground as possible
- Main goals for fire resistant construction?
 - Reduce possibility of:
 - Ember intrusion
 - Places where flames could meet flammable material on and around the home
 - Large amounts of radiant heat could break windows to access home interior



EMBER AWARENESS CHECKLIST

- | | | |
|---------------------|----------------------------|----------------------------|
| 1 Chimney | 8 Exterior Siding | 15 Outdoor Furniture |
| 2 Skylights | 9 Rain Gutters | 16 Vehicles |
| 3 Roof Construction | 10 Windows | 17 Garage Door |
| 4 Roof Openings | 11 Flowerboxes | 18 Trash Bins or Recycling |
| 5 Eaves | 12 Landscaping | 19 Wood or Debris Piles |
| 6 Roof Debris | 13 Porch/deck Debris | 20 Wooden Fences |
| 7 Vents | 14 Porch/deck Construction | 21 Nooks and crannies |

Starts with the structure itself and works out, decreasing in intensity of recommendations



ROOF HOME HARDENING

Features :

- Class A fire-rated materials such as metal, composite shingles, concrete, or clay tiles.
- Roof valleys and open spaces clear of any debris
- Inspect roof and replace or repair those that are loose or missing to prevent ember penetration
- Roof and attic vents should be screened to prevent ember entry



EAVES, VENTS AND GUTTERS HOME HARDENING

Features :

- Vents to attics and other concealed spaces should be covered with mesh screen to keep embers from entering
- Mesh screens should be no larger than 1/8"
- Close or box in eaves to prevent embers from gathering and igniting a fire
- Clean gutters of any debris. Embers will easily collect in gutters.



SIDING AND GAPS

HOME HARDENING

Features :

- Use fire-resistant siding such as brick, fiber-cement, or stucco.
- Also use dual-pane tempered glass windows. Radiant heat from flames can crack windows
- Combustible siding or other combustible, overlapping materials, can allow embers to gather and ignite.
- Embers can enter gaps around doors, garage doors, and windows. Check during the daylight and seal any gaps.



ATTACHMENTS

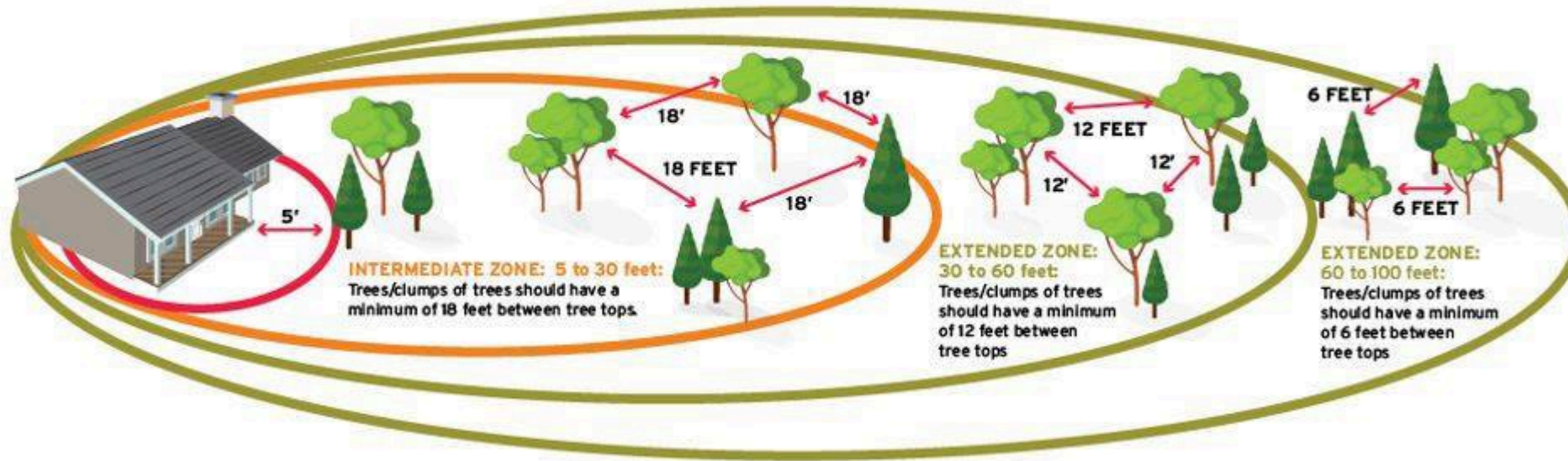
HOME HARDENING

Features :

- If it's attached to the house, it's part of the house!
- Decks and patios should be kept clear of combustible materials.
- Clean under decks and patios or enclose so embers cannot collect underneath.
- Use metal fencing or at metal gate to provide a buffer between the wooden fence and the house.



TREE SPACING



Do you have broadleaf or evergreen species near your home?

Without ladder fuels, most Texas hardwoods, or just healthy trees with crowns not touching the ground, are more resilient to fire and provide important shade to the house.

Fire Resistant Landscaping

Why do you think the placement and maintenance of plants would be more important than just the “right species?”



Fire Resilient
Landscaping

CHOOSE THE RIGHT PLANT FOR THE RIGHT PLACE

When planning your landscape, choose plants with high fire resistance closer to your home. Plants that do not readily ignite, are low growing, and lack resins, oils and volatiles are best.

Fire Resistant Landscaping

What are some other ways we can keep fire as slow moving and low to the ground as possible?



Landscape Plants

Low flammability plants often have or are:

- Broad, moist leaves
- Loose branching pattern
- Deciduous plants
- Self-pruning
- Slow growth
- Healthy plants



Lantana



Turk's Cap

Landscape Plants

High flammability plants often have or are:

- Dense, dry leaves
- Needle or grass-like leaves
- Evergreen plants
- Retain dead leaves/branches
- Fast growth
- Unhealthy plants



Yaupon



Italian
cypress

Maintenance of Landscaping

- Irrigate around the house
- Keep grass and groundcovers short (especially in winter)
- Prune and rake all dead matter from flowerbeds, shrubs, groundcovers
- Rake and remove leaves, needles
- Replace dead plants

Isolate Landscaping Beds



Create Fuel Breaks



Use sidewalks, gravel paths,
driveways



Set your gardens back from the house

Gravel Spacer
(doubles as a
splash guard for
house)



Windows
unobstructed by
vegetation



Gravel walkway and raised rock planter

Groundcovers

- Use as an alternative to grass
- Choose those less than 12" tall
- Plant fire resistant varieties
- Keep the dead cut away
- Mow/trim back during dormancy

Shrubs

- Plant low-growing (2 feet tall or less) near structures
- Avoid planting volatile shrubs near windows, decks or wood fences
- Modify shrubs with rock mulch and other vegetation



Trees

- Plan for growth when planting
 - Avoid needles or leaves falling on the roof
- Limb the trees up to 5 feet



What Made The Difference Here?





◀ MARBLE FALLS CWPP 2017

La ventana

Created Date: 06/20/2017
Created By: Jake Gosschalk

Summary

Assessment

Mitigation Strategies

History

Assessment Summary

Total Hazard Rating and Score:

Surrounding Environment Hazard Rating:

Home Construction Hazard Rating:

Moderate - 37

Moderate

Slight

Assessment Date:

Assessed By:

Lat/Long:

Community Size:

Primary Residential Type:

Number of Homes:

City/County:

Fire Protection District:

02/22/2017

Jake Gosschalk

30° 33' 26.3225" N / 98° 16' 44.6064" W

134.06 acres

Fixed

107

Burnet/Burnet County

Marble Falls Fire Rescue


📄

DOWNLOAD REPORT

+

-

↺



POWERED BY
esri

Maxar | Esri, HERE, Garmin, iPC

©2025 - Community Assessor

v 2.1.0.529

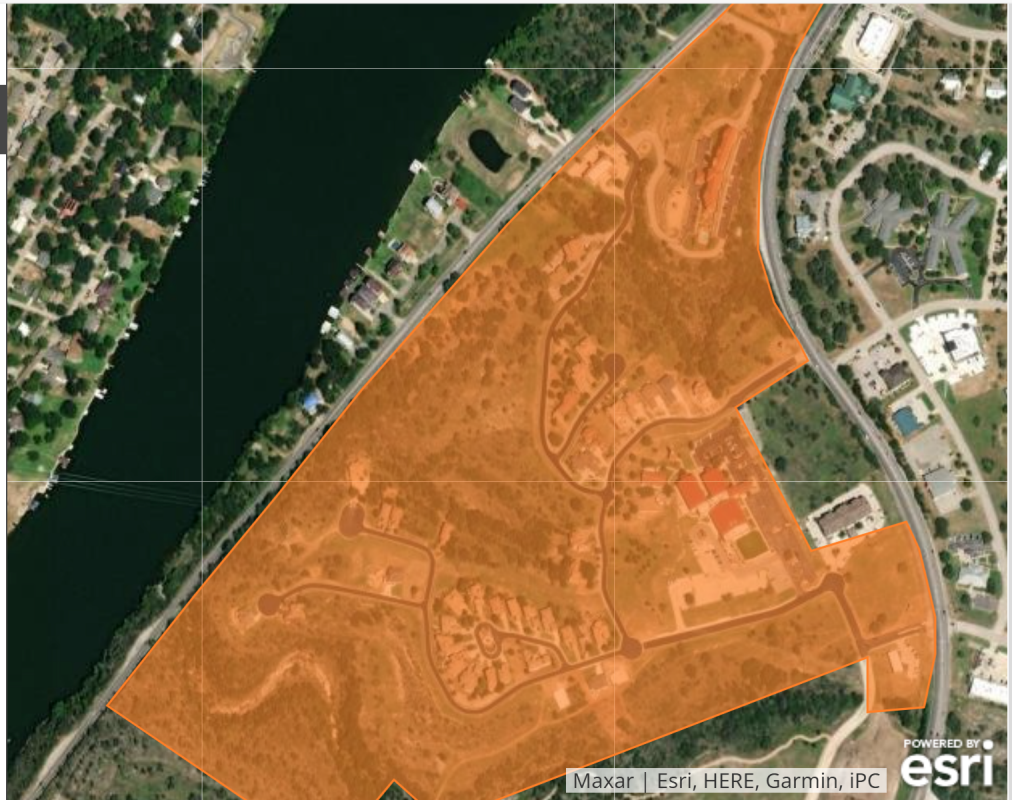
Mitigation Strategies

Surrounding Environment

- Trim tree canopies regularly to keep their branches a minimum of 10' from structures and other trees.
- Leave 30 feet between clusters of two to three trees, or 20 feet between individual trees.
- Prune trees 6–10 feet from the ground.
- Mow your lawn regularly.
- Prune trees 6–10 feet from the ground.
- Create a spacing of 30 feet between tree crowns.
- Create a 'fire-free' area within 5 feet of your home, using non-flammable landscaping materials.
- Remove dead vegetation from under the deck and within 10 feet of the house.
- Water plants, trees and mulch regularly.
- Consider xeriscaping if you are affected by water restrictions.
- Leave 30 feet between clusters of two to three trees, or 20 feet between individual trees.
- Plant a mixture of deciduous trees, such as oaks and maples, and coniferous trees, like pines.
- Create fuel breaks like driveways and gravel walkways.

Home Construction

- Clean vents to keep them free of debris, allowing them to keep embers out while allowing air flow for ventilation.
- Clean debris out of gutters regularly.
- Make sure there are no crevices or holes in the siding that could catch embers.
- Spread gravel or other non-combustible material under the deck.
- Screen in the bottom of the deck with metal 1/8-inch screening.
- Separate wooden fences from the house with a stone or metal barrier.
- Use a non-combustible material for skirting around the foundation
- Use metal framing or aluminum coverings for wood or vinyl.
- Use a fiberglass or metal screen.
- Use drapes and shutters that are fire resistant to help reduce the likelihood of fire spread.



Firewise Community USA

Wolf Creek Ranch Firewise Community

Go online

Firewise USA®

Sponsored by the National Fire Protection Association. The Firewise USA® Recognition Program is aimed at communities, community associations and master planned communities.

NFPA's Firewise USA® program teaches people how to adapt to living with wildfire and encourages neighbors to work together and take action now to prevent losses.

The goal is to assess the wildfire risk and create a network of cooperating homeowners and organizations within a community and a community's fire department.



◀ WOLF CREEK RANCH FIREWISE 2017

Wolf Creek Ranch

Created Date: 10/06/2017

Created By: Laura Johnson

Summary

Assessment

Mitigation Strategies

History

Assessment Summary

Total Hazard Rating and Score:

Surrounding Environment Hazard Rating:

Home Construction Hazard Rating:

Moderate - 56

Significant

Slight

Assessment Date: 10/10/2017

Assessed By: Laura Johnson

Lat/Long: 30° 51' 20.3162" N / 98° 20' 51.7237" W

Community Size: 1,729.5 acres

Primary Residential Type: Fixed

Number of Homes: 35

City/County: Burnet/Burnet County

Fire Protection District: East Lake Buchanan VFD Inc

DOWNLOAD REPORT

+

−

C

POWERED BY

Esri, HERE, Garmin | Maxar

esri

©2025 - Community Assessor

v 2.1.0.529

◀ WOLF CREEK RANCH FIREWISE 2017

Wolf Creek Ranch

Created Date: 10/06/2017

Created By: Laura Johnson

Summary

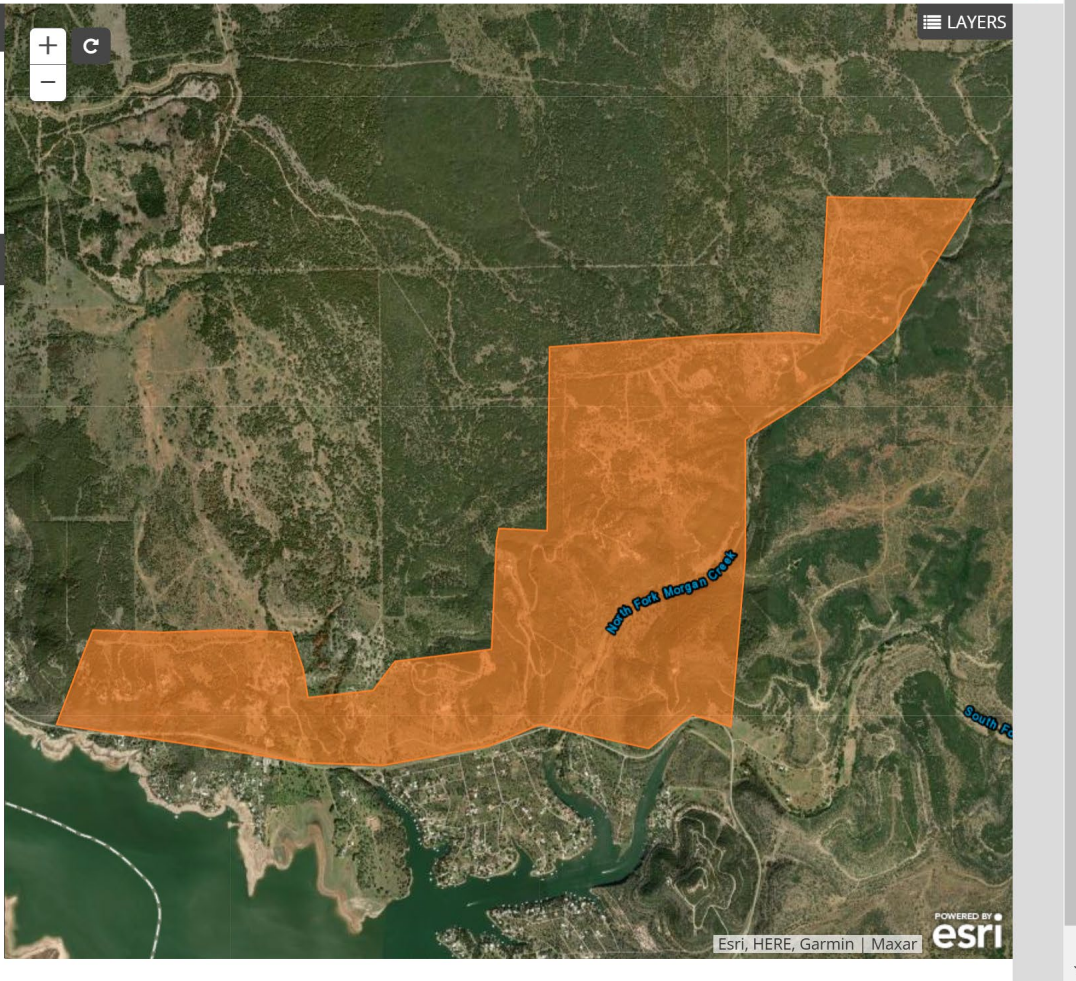
Assessment

Mitigation Strategies

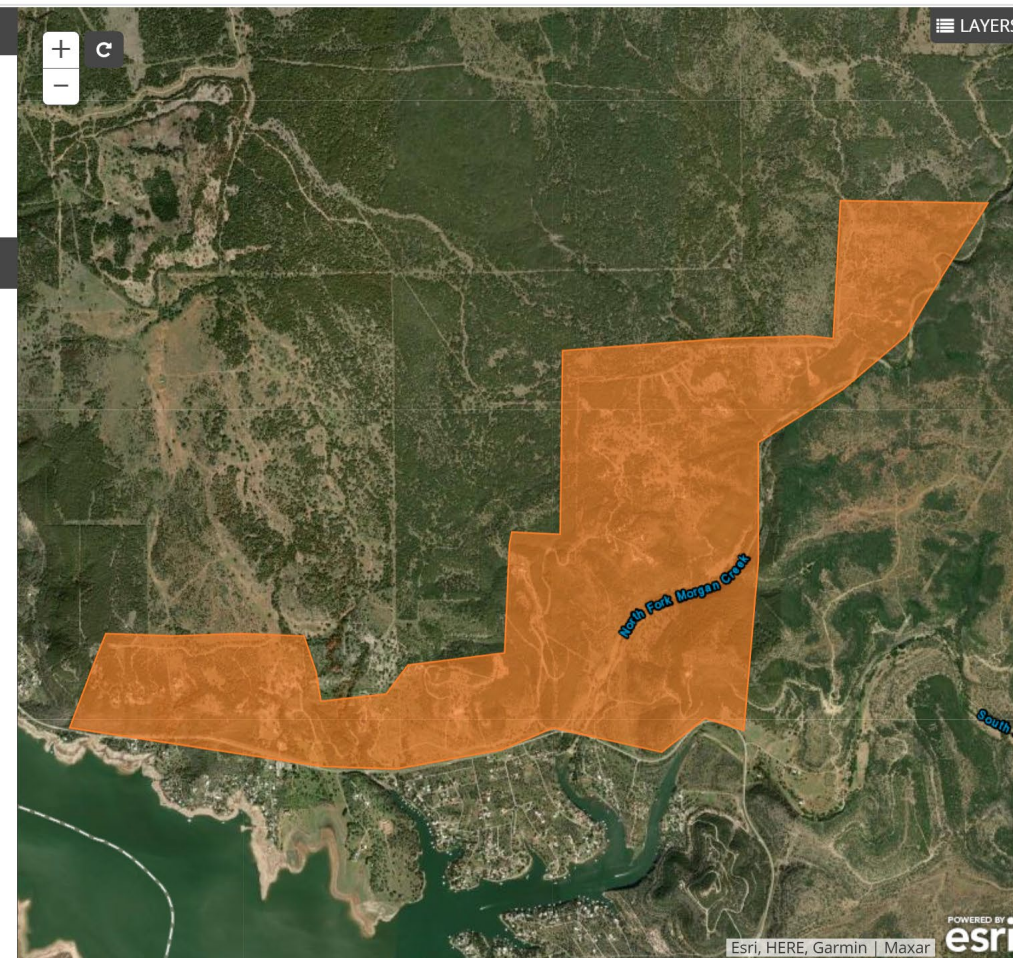
History

Assessment Details

Assessment Date:	10/10/2017
Fire Protection District:	East Lake Buchanan VFD Inc
Number Of Homes:	35
Primary Residential Type:	Fixed
Road Width Class:	< 20 ft
One Way In/Out:	No
Characteristics of Predominant Vegetation:	Heavy (e.g., dense brush, timber and hardwoods)
Defensible Space:	30 to 70 ft. of vegetation treatment from the structure(s)
Possible Structure to Structure Ignition:	Yes
Slope:	Slope 8-19%
Saddles, Box Canyons, Chimneys Present:	No
Area with History of High Fire Occurrence:	Yes
Area Exposed to Southern Plains Wildfire Outbreak:	No
Roofing Materials:	Rated/Noncombustible
Debris on Roof:	No
Ventilation and Soffits:	Without metal mesh or screening
Gutters:	Noncombustible
Building Construction:	Noncombustible siding
Wooden Attachments:	No
Windows:	Multi-paned
Utilities:	One underground, one aboveground
Comments:	



- Enclose or box-in eaves with non-combustible materials such as metal, cement board or stucco.
- Install a 1/8 inch metal screen behind roof vents.
- Clean vents to keep them free of debris, allowing them to keep embers out while allowing air flow for ventilation.
- Clean debris out of gutters regularly.
- Make sure there are no crevices or holes in the siding that could catch embers.
- Use metal framing or aluminum coverings for wood or vinyl.
- Use a fiberglass or metal screen.
- Use drapes and shutters that are fire resistant to help reduce the likelihood of fire spread.
- Keep propane tanks away from your home and other structures
- Keep vegetation pruned around overhead powerlines



Firewise USA® Communities

Designation Criteria

Wildfire Risk Assessment – Written risk assessment is the first step in becoming a national recognized Firewise USA® site

Board/Committee – Form a board/committee of residents and applicable stakeholders that will collaborate on developing risk reduction priorities and develop an action plan

Action Plan – Prioritized risk reduction projects developed by the board/committee. Plan will include recommended HIZ projects, educational activities, and other outreach efforts to be completed annually or over multiple years

Educational Outreach – Each site is required to have a minimum of one wildfire risk reduction educational outreach event annually

Wildfire Risk Reduction Investment – Each site is required to invest the equivalent value of one volunteer hour per dwelling unit in risk reduction actions annually.

Application – Create a site profile at portal.firewise.org. The application is eligible for submission when the overall criteria is completed.

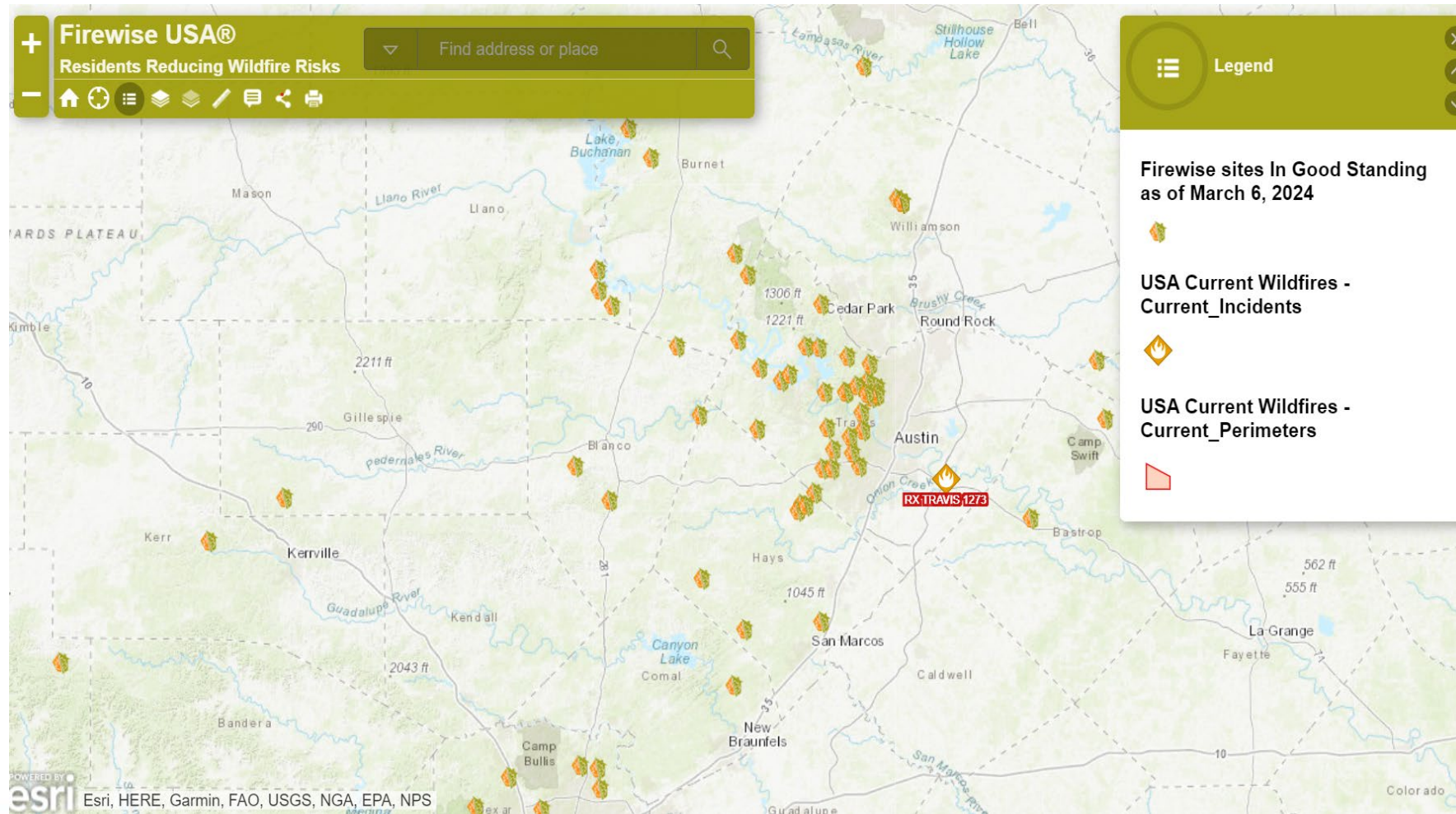
Firewise Success Story

Trails Fire, Llano County, August 2020

Officials credit Firewise program with saving homes in Trails blaze



Firewise USA Sites in Central Texas



What is a Community Wildfire Protection Plan

Community Wildfire Protection Plans (CWPPs) are a collaborative approach to wildland fire protection and mitigation. A plan can be as simple or complex as the needs of the community dictate. CWPPs are authorized by the Healthy Reforestation Act, signed into law in 2003.

A CWPP can be used to identify high-risk WUI areas – where homes and businesses meet surrounding forests and fields. The plan also can serve as an opportunity to target potential fuels reduction projects, training needs and prevention strategies. It is typically an aggregate of multiple Community Assessments within a shared jurisdiction.

CWPP Key points

- Key Stakeholders
- Planning Process
- Community Background
- Fire Environment
- Risk Assessment per subdivision
- Mitigation Strategies and Recommendations
 - Prioritized Fuel Reduction
 - Treatment of Structural Ignitability
- Action Plan

Marble Falls Community Wildfire Protection Plan

Texas Wildfire Risk Assessment Portal (TxWRAP)

Marble Falls CWPP 2017

Burnet, Burnet County

Project Owner: Jake Gosschalk

Type: CWPP

Status: Locked

Project Report:

DOWNLOAD REPORT

CWPP Link: Not Provided

Export:

EXCEL

SHAPEFILE

Update

Set Status

DELETE

Created: 06/19/2017

Created By: Jake Gosschalk

Associated Communities

Project Members

Project Communities

Current Project Communities

There are currently 24 Communities associated with this project. You may filter communities by name, assessment status, or boundary.

Name

Status

Has Boundary

* Select Status *

* Select *

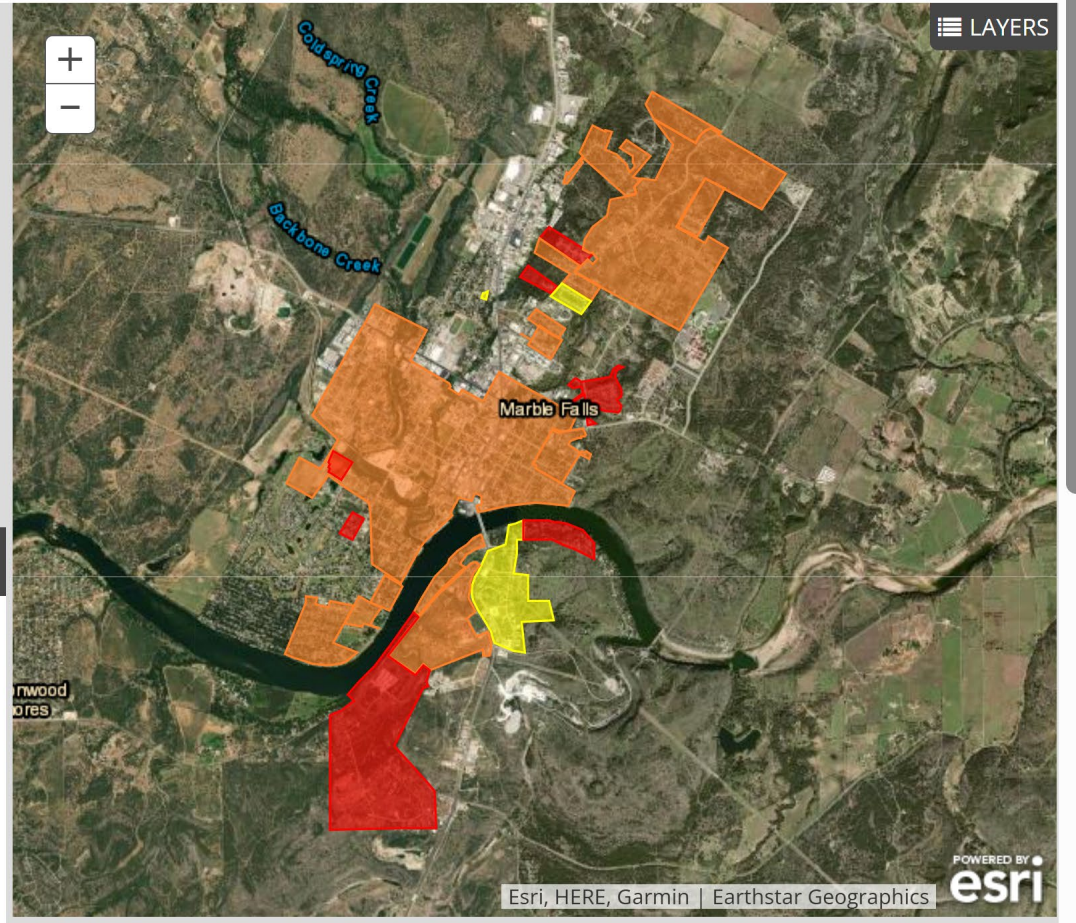
CLEAR

RESET MAP

FILTER COMMUNITY MAP

1 of 2

COMMUNITY NAME	ACRES	STATUS	BOUNDARY
<div></div> Boulder Creek	35	Assessed	Yes
<div></div> Claremont Pkwy	15.74	Assessed	Yes



Central Texas Communities at Risk (CTX-CAR)

Grant Funding

Central Texas Communities at Risk (CTX CAR) - Mechanical Fuel Reduction Grant Grant Funded Through USDA – Forest Service

Project Parameters:

- Four Central Texas counties – Burnet, Comal, Hayes, Williamson
- Grant Application Deadline – TBD
- Mechanical Fuel Reduction by Hand-cutting or Masticator
- Federal Pass-Through Grant Criteria
 - Property owners must hire a contractor with whom they have no attachment or association
 - An estimate is required as part of the grant application
 - Property owners must pay invoice and all upfront costs and will be reimbursed after passing a final inspection
 - \$750/acre reimbursement (will be \$750/acre even if it is less than one acre)

Grant Funding (*cont'd*)

- Total limit of reimbursement per grant recipient is \$10,000
- Grant will be used to mechanically reduce fuels in a defensible space or a fire break
- The grant is competitive, and selection will be based on the goal of reducing wildfire risk to homes. Homes experiencing the highest risk will be selected first.

<https://tfsweb.tamu.edu/mechgrant/>

1

WILDFIRES
& DISASTERSPREPARING
FOR WILDFIRESMANAGE
FORESTS & LANDCOMMUNITY &
URBAN FORESTRYDATA
& ANALYSISLEARN
& EXPLORE

Preparing for Wildfires

Rural fire departments respond to 80 percent of wildfires in Texas - and they do it with shoestring budgets and almost entirely with volunteers. We help fire departments pay for needed training and equipment and help Texans learn how to prevent, prepare for and protect against wildfire.

PREPARE FOR WILDFIRE

- Protect Your Community
- Protect Your Home
- Protect Your Ranch
- Protect Your Wildlands
- Evacuation Resources

FIRE DEPARTMENT PROGRAMS

- Career
- TIFMAS
- Training
- Volunteer

PREVENT WILDFIRES

- Hunting Season
- Summer Season
- Wildfire Prevention Resources
- Winter Holiday Season

PRESCRIBED BURNS

WILDLAND URBAN INTERFACE

- Communities in Action

PLANNING & PREPARATION

- Emergency Operations Center
- Texas Interagency Coordination Center

2

MITIGATION GRANTS

- Prescribed Fire Grants
- SFAM Mechanical Fuel Reduction Grants
- SFAM Vegetative Fuel Break Grant

SOUTHERN PLAINS WILDFIRE OUTBREAK

PREPARING FOR WILDFIRES

← SHARE

- Prevent Wildfires
- Prepare for Wildfires -
- Protect Your Community
- Protect Your Home
- Protect Your Ranch
- Protect Your Wildlands
- Wildland Urban Interface +
- Fire Department Programs +
- Planning & Preparation +

PREPARE FOR WILDFIRES: CENTRAL TEXAS COMMUNITIES AT RISK - MECHANICAL FUEL REDUCTION GRANT

Central Texas Communities at Risk (CTX CAR) - Mechanical Fuel Reduction Grant

Grant Funded Through USDA - Forest Service

Award # 22-DG-11083148-001 & 23-DG11083148-001 CFDA: 10.664

CFDA #10.664

GRANT APPLICATION PERIOD NOW OPEN ONLINE THROUGH APRIL 30th

To apply, click the link at the bottom of this page.

Scope of Project: Reduce the risk of home loss to wildfire through the use of accepted mechanical fuel reduction practices. Projects will be located in Burnet, Comal, Hays and Williamson Counties. These 4 counties in Central Texas were identified by Texas A&M Forest Service Mitigation and Prevention Department and Applied Technology Department as high priority (see eligible map). The goal of the grant is to protect communities at risk by completing fuel reduction on private and public lands.

Grant recipients will be reimbursed for actual costs up to the thresholds listed below for conducting mechanical fuel reduction projects on their property. Work will be conducted by a hired contractor of the landowner's choosing. The contracting service hired must not be affiliated with the landowner. Work cannot be conducted by the landowner. Previous work conducted before pre-inspections will not be accepted. Individual landowners may submit more than one application per different project location. Landowners may be approved for more than one application.

Maximum Total Reimbursement per recipient: Grant recipients will be reimbursed actual costs not to exceed \$750 per acre (see treatment descriptions below). Total limit of reimbursement per grant recipient is \$10,000. The minimum reimbursement per grant recipient is \$750, even if area treated is less than 1 acre. Reimbursable costs are limited to those expenditures listed on a contractor's invoice that are directly related to fuel reduction actions that create defensible space around a structure, the installation of the fuel breaks to protect structures, and/or the rental of equipment that is directly related to the fuel reduction activities or installation of the fuel break. The purchase of equipment is not reimbursable. Paid in full invoices are required documentation prior



Texas A&M Forest Service

FY 2020-2021 SFAM- Mechanical Fuel Reduction Grant Accepted Applications List

Grant #	Recipient Name	County	Acres
1	Madrone Ranch	Travis	26
2	Escondera Condos	Travis	7.5
3	Roseheart	Bexar	3
4	Ranches at Brushy Top	Blanco	2.2
5	Cave Springs Ranch	Kerr	3
6	Doty River Estates	Bastrop	3
Total Applied: 6		Total Acres	44.7

[+ APPLY HERE](#)

RELATED INFORMATION

Central Texas Communities at Risk
Mechanical Fuel Reduction Grant
Grant Funded Through USDA - Forest Service
Award # 22-DG-11083148-001 & 23-DG11083148-001
CFDA #10.664

Grant Eligibility ▾

Indicate the county where the project is located*

Type county name to filter. Select 'Other' if the county is not listed.

☐ Burnet ☒ Comal ☐ Hays ☐ Williamson

☐ Other

An aerial map displaying the landowner's name and property boundary, as well as the location of the proposed fuel treatment or fuel break, dimensions, and acreage is required. Indicate if you have this map prior to completing the application.*

The Texas A&M Forest Service [Map My Property Application](#) provides tools to produce this map online.

☒ YES ☐ NO

Do you have and estimate (\$) from a contractor?*

[Click here](#) if you need help finding a contractor in your area. The landowner may hire any contractor of their choosing. Contracting service hired **must not be affiliated** with the landowner. Work **cannot** be conducted by the applicant.

☒ YES ☐ NO

Required for submission:

- Contractor with quoted estimate
- Treatment area map (Map My Property)
- Treatment description with debris disposal plan
- W-9 tax form
- Pre- work site inspection

Going Forward...

- What are some of the wildfire prevention methods we've discussed that you believe you can accomplish?
- What obstacles might hinder you from working on those prevention methods?

Closing Thoughts and Questions

For more information visit:

tfsweb.tamu.edu/PrepareYourHomeforWildfire