NWACA Community Wildfire Protection Plan (CWPP)

Last Update: 12/7/2017



Change History

Revision	Release Date	Description [location and reason for change]		
Draft 1	3/11/14	Initial version		
Draft 2	3/27/14	Incorporated comments from Planning Team		
Draft 3	4/14/14	Incorporated comments from AFD and TFS		
Draft 4	3/19/15	Incorporated updates from 2014 activities and the Joint		
		Austin/Travis County CWPP		
Draft 5	4/27/15	Incorporated review comments from AFD		
Draft 6	12/19/16	Updated comments accumulated since last update		
Draft 7	09/11/17	Nate Casebeer, AFD GIS Analyst and Nia Henry, AFD Program		
		Coordinator Inserted maps and revised language concerning		
		boundaries		
Final	12/7/17	Minor cleanup by Joyce Statz after AFD update		

Table of Contents

1.	INTRODUCTION	3	
1.1 1.2 1.3 1.4	GOALS AND OBJECTIVES COLLABORATION BACKGROUND AND PLANNING PROCESS TXWRAP OVERVIEW OF NWACA	3 4 5 6	
2.	COMMUNITY PROFILE	6	
2.1 2.2 2.3 2.4 2.5 2.6 2.7 2.8	GENERAL LANDSCAPE CLIMATE	6 7 7 8 8 8 9 10	
3.	FIRE ENVIRONMENT	11	
4.	RISK ASSESSMENT	12	
4.1	Assets at Risk	15	
5.	MITIGATION STRATEGIES	15	
5.1 5.2 5.3 5.4 5.5 5.6 5.7 5.8	PUBLIC EDUCATION AND OUTREACH TREATMENT OF STRUCTURAL IGNITABILITY PRIORITIZED FUEL REDUCTION INGRESS/EGRESS ISSUES AND EVACUATION PLANNING PLANNING AND ZONING MITIGATION FUNDING SOURCES. IMPLEMENTING THIS PLAN THROUGH FIREWISE COMMUNITIES MAINTAINING THIS PLAN	15 17 18 21 21 21 21 22	
6.	RECOVERY STRATEGIES	22	
7.	APPENDICES	24	
7.1 7.2 7.3	NWACA FIREWISE REFERENCES TEMPLATE FOR NWACA HOA OR NEIGHBORHOOD CWPP MAPS TO SUPPORT THIS PLAN. 7.3.1 Map 1 – NWACA – Fire Type Extreme	24 24 24	25
7.4	AFD WILDFIRE DIVISION MAPS TO SUPPORT THIS PLAN	26	26

1. INTRODUCTION

This plan provides background and a description of the work to be done across all of NWACA to minimize the impact of wildfire to lives, homes, and property. It is a living plan that needs regular updates to reflect changes in stakeholder contact information, progress with education and fuel mitigation, and changes in approach to plan implementation. HOAs and small neighborhoods inside of NWACA develop their own plans, and if useful, may refer to this one, as they work toward becoming Firewise Communities.

On behalf of the Northwest Austin Civic Association (NWACA) Board and its wildfire prevention goals, this strategic plan is established for the NWACA neighborhood bordered by

Mopac (Loop 1) to the east, Loop 360 to the west, Spicewood Springs Road to the north, and RM 2222 to the south.

Our area is a heavily wooded one, which is prone to drought conditions which often lasts for many years. Although we may have fewer than 10 days of significant wildfire threat each year, most of the neighborhood is vulnerable on those days because of our extensive wildland urban interface (WUI). Homes on the WUI are likely to be affected by a wildland fire, but all homes in NWACA are ember targets.



Community Wildfire Protection Plans (CWPP) are authorized and defined in Title I of the Healthy Forest Restoration Act (HFRA), passed by the United States Congress on November 21, 2003 and signed into law on December 3, 2003. HFRA requires that the local government, the local fire authority, and a state forestry representative mutually agree to the content and actions recommended in the plan. Our CWPP is being built in consultation with the Austin Fire Department (AFD) Wildfire Division and representatives from the Texas Forest Service.

1.1 GOALS AND OBJECTIVES

Key goals to be enabled by this plan include:

- Minimizing wildfire damage to lives, homes, and private property
- Preserving the ecosystem of the wildland throughout and bordering NWACA
- Educating neighbors on how to harden their homes to mitigate the impact of wildfire
- Educating neighbors on what to do in case of wildfire, including how to evacuate from their homes
- Providing for the safety of firefighting personnel and other emergency responders as they deal with wildfire in our areas (ingress, egress, width of roadways, defensible space to shelter in place, no exploding ammunition in homes, etc.)

To accomplish the goals, we intend to

- Promote wildfire awareness among homeowners in NWACA, informing them of best practices and materials for home construction and landscaping
- Perform home ignition zone (HIZ) risk evaluations for any homeowner requesting one
- Facilitate the development of individual Firewise Communities throughout NWACA
- Identify key areas of our green spaces for wildfire fuel reduction, seek resources for performing the reduction, and hold removal events

The approach aligns with the Joint Austin/Travis County CWPP, built on these resources:

- Firewise principles
 - Topography, weather, and fuel determine a home's ignition potential; of these, individuals have the greatest influence on fuels around and on the home
 - Home Ignition Zone and structure construction materials determine the ignition risk of a property. Reduce fuels. Harden a structure.
 - Home and property owners must take primary responsibility for providing wildfire safety on their properties.
 - Communities must work together to a common goal of being a fire-adapted community within a fire-resilient landscape.
- "Ready, Set, Go" a federally funded, national program distributed by local fire departments; version has been tailored for central Texas
 - o Ready have a family disaster plan, prepared for the threat of wildfire
 - o Set cultivate situational awareness prior to and when wildfire occurs
 - o Go-evacuate when instructed to do so, to increase chances of survival

1.2 COLLABORATION

Key stakeholders who are available for consultation about his CWPP include these. Other City departments and other agencies may also be consulted for specific issues and concerns.

Organization	Names		
Texas Forest Service	Laura Johnson – ljohnson@tfs.tamu.edu		
 WUI specialist 			
Austin Fire	Wildfire Division-firewildfire@austintexas.gov		
Department			
APD – District	Officer Darrel Grayson (DR for all of NWACA)		
Representatives and	Rosie Salinas, Community Relations Lead		
others (re:			
evacuation planning)			
Austin Water	Luke Ball, Fire Management Officer		
Utility/Balcones	Lucien.ball@austintexas.gov		
Canyon Lands			
Preserve			
Water Quality	Kevin Thuesen		
Protection Lands			
Austin Parks and	Laura Schuman, PARD Forester		
Recreation	Amanda Ross-Preserve Manager		
Austin Watershed	Roxanne Jackson, Watershed Operations (retention ponds,		
Protection	culverts, catchment areas)		

	John Clement, regulatory concerns			
	Daniel Davis – provided Maps of drainage easements			
Public Schools in	Mikayla Myers AISD Emergency Management Coordinator,			
our boundaries	mikayla.myers@austinisdpol	ice.org		
	AISD Urban Forester			
	Lisa Schisler AISD Arborist			
Development	Development Assistance Center provides guidance to walk-ins			
Services Department	regarding fuels reduction projects			
NWACA CWPP	Greg Bondy Dale Davis			
Team	Madelon Highsmith Walter Payne			
	Al Simmons Joyce Statz			
	John Strance AFD Wildfire Division			
	Texas A&M Forest Service			

1.3 BACKGROUND AND PLANNING PROCESS

NWACA has had a concern about fire for many years, with a Fire Prevention Committee that evolved to be part of the Crime and Safety Committee. During 2011 and 2012 members of the NWACA Board gathered with Chief Josh Portie of the Austin Fire Department to discuss how to minimize the impact of wildfire to our homes, and we learned about the Firewise Program. Chief Portie presented information about preventing wildfire to the 2013 NWACA Annual Neighborhood Meeting, and in 2013, a Wildfire Prevention Committee was established by the NWACA Board.

The Wildfire Prevention Committee described its mission in NWACA newsletters and email and recruited members through networking in the local community. With the help of Josh Portie and Josh Anderson of AFD, the Committee began to map out segments of NWACA for which each would be responsible to give out information to neighbors and encourage them to remove wildfire fuel and make their homes fire-hardened. These positions are called "fireplugs;" about 25 fireplugs were identified by the end of 2013. (See Fireplug FAQ link in the appendix for some background on the role and expectations.)

During July 2013, two day-long HIZ assessment training sessions were held for a total of 30 interested fireplugs and other NWACA neighbors, as well as members of nearby communities. After a mentored assessment day, eight NWACA assessors were certified, and they began offering evaluations to neighbors who expressed an interest. By the end of 2016, 218 evaluations had been conducted.

In its 2013 budget, NWACA allocated \$400 for printing expenses and for support of the HIZ training, of which about \$300 was used. In 2014 about \$150 was spent for HIZ evaluation materials, and educational handouts. In 2015 about \$40 was spent for handouts, and in 2016, there was about \$300 spent on yard signs to promote home risk evaluations and meals to support a weekend evaluation blitz at Meadow Mountain.

The Texas Forest Service and AFD Wildfire Division conducted a Community Assessment for the NWACA area (NWACA boundaries, plus one mile beyond on all sides) during 2013. The

draft report was delivered in January, 2014, and it was used as a basis for this CWPP. An updated risk assessment was conducted by the AFD Wildfire Division in the Spring of 2017. Support maps were generated using the AFD Wildfire Division in-house risk analysis methods (see appendix 7.4).

1.4 TXWRAP OVERVIEW OF NWACA

The Community Assessment of the NWACA area identified it as "Fire Type – Extreme" in the Texas Wildfire Risk Assessment (TXWRAP) categories. This is based on fuel conditions, extreme weather conditions, and topography data collected over the past 10 years, examining terrain at a granularity of 20 acres.

In extreme weather conditions (based on the top 3% fire weather days), more than 25% of the acreage in our area has the potential of crown fire, for which the most effective strategy is to maintain a hardened home, since such fires are unlikely to be suppressed by traditional firefighting. About 7% of NWACA is characterized by landscape that is characteristic for surface fires, which can be fought using standard firefighting techniques.

See the map of NWACA Fire Type – Extreme in the Appendix for the areas which exhibit the risk for surface and for canopy (crown) fire.

2. COMMUNITY PROFILE

The NWACA area is within the City of Austin, and it has been considered Northwest Austin for many years. As the City has grown, NWACA is now nearly in the center of Austin. It was developed in the mid-1900's, out of an area of ranches, hills, and cedar brakes. The area around Far West Boulevard was a large gravel pit (thus the library's name – Old Quarry Branch). Prior to its development, much of the hilly area was used by cedar choppers to harvest trunks for telephone poles and for other uses.

From 1950 to 1957, the initial subdivisions were created in Highland Hills and at Dry Creek Drive and Mountainclimb Drive. In the 1980's the last subdivision, Shinoak Valley, was built. Between these dates, many small neighborhoods were developed, some of them represented by HOAs. At this point, there is very little developable land in NWACA.

Fire has not been used as a means to control the local vegetation since 1950, though there is community memory about a wildfire that occurred mid-century, burning part of the area now between Mesa Drive and Loop 360. The AFD Wildfire Division Chief remembers that as being in the area now the Rob Roy subdivision.

2.1 GENERAL LANDSCAPE

NWACA property is quite wooded, with about half of NWACA within or bordering tree-lined rims and canyons. (The NWACA area including 1 mile surrounding NWACA has about 42% of its population on a WUI.) Much of the green space has steep tree-lined slopes leading up to homes on the ridges of the canyons, making them both challenging to clear and vulnerable to

wildfire traveling up the hillsides. Some of the green space is owned and managed by these public entities, some of it for preservation of endangered species:

- City of Austin Parks and Recreation Department
- Austin Water Utility Balcones Canyonlands Preserve, a set of preserves managed under a permit issued under the Endangered Species Act by the U.S. Fish and Wildlife Service.
- Conservation and drainage easements some City of Austin, some others, depending on who holds the easement

2.2 CLIMATE

Like the rest of Texas, the City of Austin is currently in a drought, with very high average summer temperatures. Significant indicators of the current state are these:

- Lake Travis, the source of water for Austin, is now about 1/3 full, causing water restrictions in the City and to downstream users
- Average number of triple-digit days in the last 116 years: 13
- Average number of triple-digit days in the last 14 years: 33
- 90 triple-digit days in a row in 2011, the year when 6 of the 10 largest wildfires in Texas history occurred

A disastrous wildfire occurs when there is a confluence of dry vegetation, high winds, high temperature, and some source of fire (often man-made). In general this area is vulnerable to these conditions on average 6-7 days per year. While the frequency is low, the impact can be significant.

2.3 VEGETATION

The trees in NWACA are generally live oak, red oak, and ashe juniper. Homeowner properties generally have a healthy tree canopy, being built into the WUI, or with trees planted on them. They generally have other plantings around the perimeter of the houses and in garden beds on the property. Over the past several years, many landscapes have evolved to have native and adapted plants, to minimize watering needs and minimize damage from browsing by deer.

Unfortunately, some of those plants are oily and waxy ones, which are volatile during fire events: rosemary, holly, Texas mountain laurel, sago palm, and others. In some cases, these are planted very close to walls and windows, which will require homeowner action for wildfire risk mitigation.

Throughout NWACA there is vegetation on public and private property that supports some of the 23 protected or endangered species in Travis County. The most prevalent species requiring protection are the golden-cheeked warbler and the black-capped vireo. Their habitat is protected, *even on private property*. Extensive browsing by deer during the ongoing drought has also compromised their habitat.

The golden-cheeked warbler nests in only one location in the world: Central Texas. It nests in mixed oak and ashe juniper woodlands, generally building its nest in a upper fork of a mature juniper tree (15 feet tall or more), with shredding bark, at least near the base of the tree. The nesting season in Texas is usually March through August; birds spend the remainder of the year

further south in Mexico and Central America. <u>*Thus clearing brush in golden-cheeked warbler nesting areas is restricted from March through August.*</u>

The black-capped vireo prefers a rangeland with woody shrubs with foliage from ground level to about 4 feet above ground, to support building a nest and providing areas to forage. It builds a cup-shaped nest in the fork of a branch 2 to 4 feet above ground. Vireos nest in Texas between April and July, spending winter months on the western coast of Mexico.

In addition, there are numerous canyons in which the runoff feeds into Bull Creek or Shoal Creek, eventually into the drinking water system. Thus, whenever fuel mitigation is being done around critical environmental features such as canyon rim rock, personnel from the City of Austin Watershed Protection Department need to be consulted for advice on how to treat the area. Endangered species of salamanders and other animals may be present, and water quality is a great concern.

2.4 POPULATION AND LAND USE

The population of the NWACA area (including 1 mile beyond NWACA borders) is estimated by TXWRAP at 57,829. NWACA had 18,745 people in the 2010 census. These people were housed in about 10,000 housing units, of which approximately 4150 are single-family homes.

The land in the NWACA area is primarily residential, with 7 medium to large greenbelts throughout the area. There are two commercial regions within the area, one along Far West Boulevard and one at the intersection of Spicewood Springs Road and Mesa Drive. Additional businesses are found along Greystone Drive and all four NWACA border streets: Spicewood Springs Road, Mopac, Loop 360, and RM 2222.

2.5 FIRE RESPONSE CAPABILITIES

Within and near the NWACA boundaries, we have these Austin Fire Department Fire Stations:

- Fire Station 19 5211 Balcones Drive, 78731, with Quint 19 (5-function fire truck)
- Fire Station 21 4201 Spicewood Springs Rd, 78759, with Engine 21
- Fire Station 31 5507 RM 2222, 78731, with Engine 31, Ladder 31, Brush Truck 31
- Fire Station 33 9409 Bluegrass Drive, 78759, with Engine 33

When a fire occurs, the station that is closest to the fire is the first one dispatched to the fire. Volunteer home ignition zone (HIZ) assessors are working with neighbors to help ensure there is defensible space around their homes.

2.6 FACILITIES OF CONCERN AND INTEREST

A number of medical facilities, churches, and schools are located in NWACA. Some are along major roadways, while others are close to the WUI. Some could be of assistance in times of a wildfire event, as temporary refuge areas; emergency responders will direct traffic to the ones that have been qualified as such. AFD Wildfire Division provided us a list of generic criteria.

Emergency Facility Name	Туре	Address		Primary Phone
Seton Northwest *	Hospital/ ER	11113 Research Boulevard		512-324-
	-	(ou	tside of NWACA)	6000
Austin Regional Clinic	Medical/ Clinic	683	35 Austin Center Boulevard	512-346-
				6611
Austin Diagnostic Clinic **	ER/ Clinic	122	221 MoPac Expressway	512-901-
		No	rth	1111
Austin ER	ER/ Clinic	356	63 Far West Boulevard	512-481-
		#11	10	2321
Community Resources	Address		Primary Phone	e
First Presbyterian Church ***	8001 Mesa Drive 512-345-8866			
Jewish Community Center (JCAA) with several synagogues on campus ***	7300 Hart Lane 512-735-8000			
Northwest Hills United Methodist Church ***	7050 Village Center Drive	512-345-1743		
St. Matthew's Episcopal Church (sanctuary and Huffman Hall and Youth Building) ***	8134 Mesa Drive 512-345-8314			
St. Theresa's Catholic Church ***	4311 Small Drive 512-451-5121			
Old Quarry Library – perhaps as a command post, but not a shelter	7051 Village Center Dr	Dr (512) 974-8860		

* 5 miles outside NWACA boundaries, and not likely to be impacted by a NWACA wildfire ** 3 miles outside NWACA boundaries

*** Each of these is in a wooded setting and is vulnerable to wildfire ember impact

2.7 SCHOOLS

In case of evacuation, it's important to know where the schools are located, how many students and teachers are resident, and when their school day ends. In addition, schools can be a Wildfire Safety Zone, a location to shelter in place for the students, faculty, and staff.

AISD is working with the Austin Fire Department, trying to get a Firewise designation through a set of checklists and working with parents. This office is responsible for emergency preparedness, so AISD schools are not addressed in this plan.

School	Release	# Students	Address	Primary Phone
	Time			
First Presbyterian	1:00pm	Pre-school	8001 Mesa Drive	512-345-8961
Church Day School		Ages 2-4		
Austin Jewish	3:45 pm	130	7300 Hart Lane	512-735-8350
Academy (K-8 th grade)				

My Friend's House	Some at	Licensed for	7050 Village	512-346-4151
(Child Dev't Center) -	2pm, some	170, ages	Center Drive	
Northwest Hills United	at 6pm	8wks. To pre-		
Methodist Church		Κ		
St. Matthew's	2:30 pm	190	8134 Mesa Drive	512-345-3040
Episcopal Day School		Ages 2 -		
		Kinder		
St. Theresa's Catholic	3:10; after	400	4311 Small	512-451-7105
School	care 5:45	Pre-K to 8	Drive	

2.8 TRANSPORTATION AND UTILITIES

These major roads and railroad are on our borders:

- The Mopac railroad runs along our eastern border, separated from the neighborhood by the Mopac (Loop 1) highway. Maintenance of the grass and brush around the railroad is important to wildfire mitigation in our area. Responsibility for the rights of way along the railroad is handled by Union Pacific.
- Maintenance of the Mopac highway right of way is handled by TXDOT
- Spicewood Springs runs along our northern border, has a lot of wildfire fuel very near to the road. Its right of way is handled by the City of Austin
- RM 2222 is our southern border, and its right of way is handled by the City of Austin
- Loop 360 runs along our western border, and its right of way is handled by TXDOT

Since action on these roads, railroad, and any underground pipelines is out of our control, this plan doesn't deal with them.

3. FIRE ENVIRONMENT

The Wildland Urban Interface (WUI) is where development such as homes or other structures meet or intermix with wildlands. Homes that are within the potential ember zone of wildland fires are within the Wildland Urban interface. Research conducted in collaboration with the Austin-Travis County Community Wildfire Protection Plan defines an ember zone as the area within one and a half mile of wildland fuel loads. With the high proportion of wildlands within the NWACA community, one hundred percent of homes are within the WUI.

Since the risk of structure to structure conflagration increases with the density of homes, AFD Wildfire Division has provided a map (below) of NWACA displaying the structure density of homes within the WUI (see Map 4 - NWACA Wildland Urban Interface Structure Density Map). A conflagration map (Map 5) is also provided in the Appendix (Appendix 7.4) that displays the distance in feet between homes.



Since 1950, there are no known instances of wildfire in NWACA. House fires and brush fires have occurred in recent years, however, which were direct threats to the wildland and could easily have led to a wildfire.

The expected wildfire behavior for our area is shown in a map of which types of fire we might expect – crown fires and surface fires. See *Map 1 – NWACA Fire Type Extreme* in the Appendix for the relevant areas.

4. RISK ASSESSMENT

A Community Wildfire Risk Assessment for NWACA was conducted at the end of 2013, with a draft report distributed and discussed in February and March, 2014. The assessment included GIS analysis and field observations throughout NWACA, examining home construction materials and siting, pathways of ingress and egress, and wildland fuel hazards. An updated GIS risk analysis was conducted in the spring of 2017 by the AFD Wildfire Division (Appendix 7.4).

With 100% percent of NWACA homes being in the WUI, there is a considerable threat to homes and green space from a wildfire. The NWACA area is classified as TXWRAP Fire Type – Extreme. Under extreme weather conditions (the 3% most likely fire weather days), over 25% of the acres in the area have the potential to experience crown fire, which is very difficult to suppress with traditional firefighting apparatus. The most effective strategy for reducing the impact of Extreme fire behavior is maintaining an effective home ignition zone, establishing a defensible zone.

The AFD Wildfire Division's WUI Response Index was used to assess overall landscape risk as well as risk to individual homes within NWACA. The wildland-urban interface (WUI) response index is a weighted index with scores between negative twelve and one (with negative twelve representing the greatest risk). The WUI Response Index is a synthesis of three critical components of fire behavior in the wildland-urban interface: Vegetation hazard, which was developed from Lidar data and is a derivative of vegetation density, slope, and structure density. The WUI response index is meant to display potential hazard to an area under worst case scenario environmental conditions. The NWACA WUI Response Index Map displays the overall risk with an acreage per risk assessment included (Map 3).



NWACA Wildland Urban Interface Response Index Map

A risk assessment of the 150 foot CPZ surrounding each of the 5,698 structures within NWACA was conducted using the WUI Response Index. Of these 3,457 (60.6%) structures had an overall rating at high risk (-6.25 response index score) or greater.

Extreme	177	3.1%
Very High	1145	20.0%
High	2135	37.5%
Moderate	2009	35.3%
Low	232	4.1%



Figure 1. Structures at risk during a wildfire. Risk was derived from the WUI Response index. A 150 Ft. buffer was made around each home, capturing the average risk within the buffer.

Homes in NWACA are generally built with ignition-resistant materials in their roofs, with brick and stone walls. However, there are many <u>wooden decks and wood fences</u> throughout the neighborhood, introducing wildfire risk to homes; some of these have <u>debris below the deck</u>, increasing the risk. Many homes also have <u>vegetation very close to the walls of the homes</u>, and <u>often have bushes close to windows or under eaves</u>, sometimes obscuring windows. Should this vegetation catch fire (perhaps from debris below them), homes are vulnerable to fires breaking windows and burning into the homes. Some homes also have <u>dead and down material that have been tossed over a fence</u> into the wildland, adding risk from this wildfire fuel. Such material needs to be removed.

Many of the streets in NWACA are laid out in cul-de-sacs, along curvy streets and hills, or in <u>subdivisions with only one way in and out</u>. In some cases, these streets are narrow, making it difficult to allow for resident egress at the same time as firefighters are trying to enter with firefighting equipment. For the sake of the lives of residents and firefighters, the areas at risk of evacuation need to be identified and resident egress prioritized in case of a wildfire.

More detailed examination of specific risk hazards by location throughout NWACA will be done as part of the risk mitigation effort in each Firewise Community, but these are the key risks:

- <u>Risk</u>: Potential loss of life due to lack of understanding wildfire behavior
- <u>Risk</u>: Inadequate wildfire defensible space around many homes and other structures, threatening resident lives, structures, and emergency responders in case of wildfire
- <u>Risk</u>: Inadequate ingress and egress for emergency vehicles and for evacuating residents
- <u>Risk</u>: Inadequate operational space for firefighting and emergency equipment

- <u>Risk:</u> Inadequate water pressure in parts of NWACA to be able to effectively fight homes on fire from wildfire
- <u>Risk</u>: Potential loss of lives and of structures due to inappropriate landscaping

4.1 ASSETS AT RISK

Within NWACA, there are the following assets at risk:

- About 4150 single-family homes
- About 3500 residences in multi-family dwellings
- About 100 to 150 business and commercial buildings
- 5 churches and synagogue centers
- About 10 public and private schools
- Murchison Pool
- Old Quarry Library
- Doss Park
- Allen Park
- Bull Creek District Park
- Barrow Preserve
- Stillhouse Hollow Nature Preserve
- North Cat Mountain Greenbelt
- Emeritus Retirement / Assisted Living Facility
- Summit at Northwest Hills
- Endangered species golden-cheeked warbler; black-capped vireo
- Our aesthetic "viewshed" of surrounding hill country and green space

5. MITIGATION STRATEGIES

Responding to the assessed risks in our area requires a full range of strategies, in priority order:

- Educating NWACA residents and businesses about wildfire behavior and how to minimize risk to life and property
- Hardening homes and businesses, focusing on zones 1 and 2 on a regular and ongoing basis
- Reducing wildfire fuels in zone 3 around homes and businesses
- Reducing wildfire fuels in the publicly owned green spaces
- Educating the owners of privately owned green spaces
- Reducing wildfire fuels in the privately owned green spaces

5.1 PUBLIC EDUCATION AND OUTREACH

Community education and outreach is done to help residents prepare for and stay safe in a wildland fire situation. The NWACA Community is learning what it take to be fully prepared for wildland fire. Additionally, through education and outreach residents have the knowledge, skills, tools and behaviors to prepare in advance for their community's resilience in a wildfire prone environment

Listed below are a few of the Frequently Asked Questions/Topics that have been addressed on the NWACA website:

- How wildfire notifications will be done through reverse 911 and CAPCOG's system that supports voice, email, and texts to land lines and cell phones
- How to protect pets
- How and where to safely store ammunition in a home use a gun safe; else the home is written off by insurance companies
- What is happening in the insurance industry with respect to evaluations and encouraging hardening of homes against wildfire

To view more regarding NWACA's previous addressed topics in detail refer to their website at http://nwaca.org/newsletter/

Thus far, these efforts have been made to educate NWACA residents:

- Presentation by AFD Wildfire Division at 2013 NWACA Annual meeting, with Q/A afterward
- Wildfire Prevention Tips in the monthly NWACA newsletter since May, 2013
- Identification of about 25 street-level wildfire prevention leaders (aka Fireplugs)
- Eight certified HIZ evaluators conducting HIZ evaluations
- Materials on the NWACA web site articles, web links, signup forms for evaluations or to be a Fireplug, tips from the newsletter and other blog posts
- Article in NWACA Q1 2014 postcard to all 4150 households, promoting evaluations
- Input provided to the City about wildfire concerns for CodeNEXT in January, 2014
- Information at Wildfire Prevention table at Annual Meeting and 4th of July events, 2014 and at all Annual Meetings since then (too much distraction at 4th of July events)
- Presentation on the NWACA Community Wildfire Assessment and strategies from this CWPP, as well as the Joint CWPP NWACA Annual Meeting, May 14, 2015
- Conducted two neighborhood-wide HIZ blitz events in 2016 one for Meadow Mountain and one for Valburn Circle
- Participated in an Operational Readiness Exercise on Valburn Circle on October 8, 2016 – involving about a dozen firefighters and their equipment, visiting most homes around the circle and marking Firewise items and at-risk items
- Began posting yard signs in November, 2016 at homes that have had wildfire evaluations, with both pre-evaluation and post-evaluation versions available

The following activities are planned, to extend the public education:

- 1. Promote and perform more HIZ evaluations
- 2. Table at each Annual NWACA Meeting
- 3. Promote Firewise activities and information for National Night Out
- 4. Train and certify more HIZ evaluators for NWACA, as AFD provides training
- 5. Plan some "big brush" events in synch with ARR pickup days focus on neighborhood areas with fireplugs working on becoming individual Firewise Communities; encourage community-wide cleanup days around the time of Big Brush Pickup by the City through the NWACA newsletter

- 6. Identify more Fireplugs throughout NWACA to push the message forward and create Firewise Communities throughout NWACA
- 7. Get neighbors to talk about their evaluations and use Facebook to drum up interest in evaluations and home hardening
- 8. As the Austin Firewise Alliance and the Joint Austin/Travis County CWPP implementation teams do their work, contribute experience stories and product reviews on lessons learned
- 9. Identify additional ways to reach all homes flyers, door hangers, yard signs, videos
- 10. Conduct seminars at the library on a Saturday on Firewise topics
- 11. Monitor work with the new Austin Land Development Code (CodeNEXT) with respect to wildfire prevention and report to the neighborhood
- 12. Review and leverage material in the Firewise kit (CDs, handouts, online resources)
- 13. Get Boy Scouts and Girls Scouts involved with fuel mitigation, services to those who can't do it themselves, especially focus on Eagle Scouts
- 14. For each candidate Firewise Community, provide ideas for their mitigation efforts, based on lessons learned from others.

Items yet to be covered include:

- Define "Fire-adapted" a wildfire can flow through the area, staying low to the ground, with homes hardened against fire
- The fallacy of expecting insurance to cover it leverage stories of survivors we know
- How to ensure "latchkey" children and home-bound citizens know what to do in case of wildfire; describe the State of Texas Emergency Assistance Registry (STEAR)
- What an HOA or POA can do in its covenants to minimize wildfire risk (ref. Joint City/County CWPP pages 73 ff. for details)
- How to identify an area that would benefit from a shaded fuel break, and how to get one established; we need help from AFD on the process
- How to handle locks on gates in gated communities, for emergency access and for access by emergency vehicles – fire code requires certain dimensional standards and access via a KNOX key; all fire trucks carry KNOX keys to access electric gates and to open KNOX boxes on buildings that provide after-hours access; more info at http://austintexas.gov/department/emergency-fire-prevention
- Publicize the link to landscapers who've been trained in Firewise landscaping. It's being done through the Grow Green program, and searchable database is here:

http://www.austintexas.gov/watershed_protection/growgreen/landscape_professionals.cfm

• Others will be added as they are identified

5.2 TREATMENT OF STRUCTURAL IGNITABILITY

Homes, businesses, and non-profit locations must be hardened against wildfire. As part of the public education effort, we must stress the importance of using construction materials that are ignition-resistant. Articles about these areas need to be published in the NWACA newsletter and on the web site.

To help homeowners deal with their wooden decks, we need to provide guidance about hardening the base of deck supports with metal or concrete, replacing wooden supports with

metal when conversions are being done, keeping the area below a deck clear of debris and vegetation that can act as a fuel source, and using fire-resistant materials when redoing a deck (ipe, metal, ...).

To deal with the wooden fences, we need to publicize tactics such as having metal gates or sections up to the drip line of the house, especially with low wooden eaves, building the fence with stone segments or other ways to break the continuity; leaving gates open during a wildfire event, etc. Encourage fence clean-up and replacement at the time of Big Trash pickup.

We need to monitor developments in fence alternatives, and if something promising arises, scope out the cost and availability. Perhaps get a group of homeowners then to work with a fencing supply company for a large number of homes, specify a Firewise approach, and do a demo for Firewise fencing.

We may be able to get a hazard mitigation grant for home hardening or increasing defensible space – requires pre-commitment of residents; we might get 75% from a granting agency with 25% from homeowners, but result needs to be maintained forever. Justice Jones from the AFD Wildfire Division would support doing a proposal like this – he has worked with AISD on a similar idea.

For those with windows that need to be replaced, we can refer them to the City of Austin's rebate program for radiant resistant windows with metal frames. Search for the latest list of rebates at this site: <u>https://www.austintexas.gov/resident/incentives-and-rebates</u>

5.3 PRIORITIZED FUEL REDUCTION

While all of NWACA needs to be addressed, the areas of highest priority are those identified as the Community Protection Zone (CPZ). The CPZ is based on an analysis of population density and potential for fire to spread. Fuel mitigation needs to be conducted within a close distance of the CPZ. This is the area where help from public sources is more likely than in other parts of NWACA. (See *Map 2 - NWACA Community Protection Zones* in the appendix.) A map displaying landownership has been included to aid in the planning and visualization of fuels projects (Map 6 - Land Ownership Map). Map 7 displays land ownership with the CPZ so that areas of potential fuels mitigation within the CPZ can be more easily targeted

Fuel reduction plans need to operate with several constraints in mind:

- Sensitive areas for the endangered bird species must avoid disturbing their habitat from March 1 August 31; in general, to remove fuels in these areas we need permission from a wildlife biologist who understands the rules of U.S. Fish and Wildlife.
- Oak tree trimming or removal needs to avoid the February June Oak Wilt beetle season.
- Areas over a watershed may be under scrutiny of the City of Austin Watershed Protection Division, as well as TCEQ, which has high fines for disturbing areas around rim rock and other features that support the watershed.

A full guideline from the U.S. Fish and Wildlife Service has been downloaded and placed onto the NWACA web site in the set of Wildfire Prevention files.

The table below shows locations in the CPZ that are most in need of fuels reduction

Working with reluctant private property owners of large tracts will be a challenge. AFD Wildfire Division can help us with this. Some thoughts about areas of leverage:

- Build a politically correct statement for them, as we have for homeowners what's in it for them? Maybe an insurance liability angle? Ex: If lightning strikes and fire starts on a large land owner's property they're **not** liable (acts of god aren't covered, despite the negligence). But if homeless person or hiker trespassing inadvertently starts a fire that gets out of control on their land, that's a matter for which they are responsible.]
- Today, Code Compliance can enforce a City ordinance about brush piles in the WUI, as well as weeds and grass above a certain height. *Reference City Code : 10 -5- 21*

Area to Address	Description of Property and the ThreatProperty Owner and their status WRT		Recommended Approach
Spicewood Springs Road between Mopac and 360	Sides of the road and the median between Mopac and Mesa are overgrown, full of dead and down material, and encroaching on the roadway	City of Austin – person responsible for vegetation along City streets and roads is Rob Grotty, who used to be with AFD	Contact him through 311 and ask for his guidance on next steps
Steck Valley (in BCA, just north of NWACA)	Private property adjoins Steck Valley Park, a greenbelt with limited access	Roy Dutton, 4415 Walhill Lane; <u>roy.dutton@yahoo.com;</u> 512-81-5559	Homeowner has offered access to the greenbelt through his yard.

Throughout, watch for issues in which we currently have support from City regulations and issues for which we need to have some developed. For example, Lago Vista changed their weed abatement ordinance to also cover wildfire fuel. Plano got rid of cedar shake roofs.

5.4 INGRESS/EGRESS ISSUES AND EVACUATION PLANNING

The best chance of a community surviving a wildfire is by being ready to go and evacuating early. This includes going through pre-evacuation preparation steps (only if time allows) to increase the home's defenses. When immediate evacuation is necessary, the following preparation steps are essential to an effective evacuation procedure:

- Have a personal wildfire evacuation plan
- Stay informed of wildfire danger
- Register for www.WarnCentralTexas.com
- Heed all evacuation notices promptly
- Determine multiple routes you can use to get to safety
- Identify Community Refuge Areas (CRA) along your routes that you can take shelter in
- If you are not able to evacuate, your home could serve as your last resort survival area. Ensure your home and landscape are ignition resistant.

To be alerted about the need to evacuate because of an emergency (tornado, flood, wildfire, and others), residents can register for notifications with the Capital Area Council of Governments (CAPCOG) Emergency Notification System, Warn Central Texas. Alerts are provided via voice, email, and text to landline and cell phones registered at: <u>http://www.warncentraltexas.org/</u>Note: these are evacuation notices, not warnings of possible occurrence of these things. In general, we need to encourage citizens to use 311 for issues or inquiries to AFD or other emergency services; use 911 to report a wildfire.

Much of NWACA is able to use its primary roads for emergency evacuation, *if those roads are not involved directly in the wildfire*: Spicewood Springs Road, RM 2222, and Mesa Drive; these lead to major exit routes along MoPac and Loop 360. However, there are many winding streets and cul-de-sacs along the western side of NWACA and in Highland Hills on the south. These areas also tend to be directly on WUI ridge lines; they need good Ready, Set, Go information, as they are likely to be the first residents to be evacuated, should a wildfire threaten the community.

As individual neighborhoods work on becoming Firewise Communities, they need to each review their evacuation routes and ensure that all in the neighborhood understand when to leave and how to leave. An evacuation map has been included that highlights the four NWACA neighborhood exit points that lead away from wildland areas. The location of responding fire stations and temporary community refuge areas are also displayed in the map (see Map 5 NWACA Conflagration & Evacuation Map).

The City of Austin Emergency Operations Plan (last updated in March 2016) addresses the matter of evacuation, and they are able to prioritize those with special needs from their database fed from the State of Texas Emergency Assistance Registry (STEAR). (Note that the STEAR database is flushed annually, so those who register need to do so annually.)

In addition to evacuation, residents need to understand the options for "sheltering in place" under guidance of emergency personnel. They should also understand that there may be times when their own home is the safest place to be, so it should be well-hardened.

There are residents who need special consideration in times of wildfire response:

- "latchkey" children need to know where they can go to stay with or leave the area with a trusted neighbor. Families need to make these arrangements with their children.
- Visitors to the neighborhood, such as grandchildren visiting with grandparents
- Those with special health and mobility needs should register with the State of Texas Emergency Assistance Registry <u>http://www.txdps.state.tx.us/dem/stear/public.htm</u>
 - Information registered here is routed to the appropriate county (in our case, to the database of the Emergency Operations Center for Austin/Travis County)
 - All registered information is confidential
 - EMS personnel have a layer on their EMS computers with which they can see red dots on homes that have been registered, so that these can be priority locations during evacuation for emergencies like flood or wildfire
 - Residents must still call 9-1-1 for services, if they need immediate help, and cite the fact that they have a special needs person
 - Registration must be renewed annually

5.5 PLANNING AND ZONING

As Austin goes through changes in Land Development code, the Joint City/County CWPP implementation team is involved to advocate for wildfire prevention. We need to monitor CodeNEXT evolution, to see how our Firewise efforts might be affected.

The Development Services Department (formerly part of Planning and Development Review) can help with fuels reduction projects. There is a template to complete, and once it's filled out, the Development Assistance Center can do an in-person review and approval. They look for any issues with critical environmental features in the watershed, for example.

5.6 MITIGATION FUNDING SOURCES

Much of the work that needs to be done is work of homeowners hardening their own properties. For public land, we will collaborate with the public partners – AFD, PARD, Austin Water Utility, Travis County, Texas Forest Service, and others.

AFD has some funds for fuel mitigation, so we will work with our AFD contacts to see if and when any of that can be leveraged.

In addition, these federal sources are available, some only to government agencies:

- FEMA Assistance to Firefighter Grant open to fire departments, state and local governments and local organizations with wildfire prevention experience, and others: <u>http://www.fema.gov/welcome-assistance-firefighters-grant-program</u>
- FEMA Hazard Mitigation Grant Program for state and local governments: <u>http://www.fema.gov/hazard-mitigation-grant-program</u>
- FEMA Pre-Disaster Mitigation Grant for state and local governments: <u>http://www.fema.gov/pre-disaster-mitigation-grant-program</u>

5.7 IMPLEMENTING THIS PLAN THROUGH FIREWISE COMMUNITIES

This plan will be implemented, with incremental development of Firewise Communities throughout NWACA. Each prospective Firewise Community of about 30-75 homes will be expected to develop its own small CWPP, using the template identified in an appendix here. That small CWPP refers to this plan as a master plan for the overall area. The small CWPP covers these topics for their area:

- Community demographics location, types of homes in the community, common space, public assets at risk such as a park or historic building
- Description of the WUI public or privately owned greenspaces within and adjacent to the community boundaries
- Special concerns (brush areas that require fuels mitigation, absentee landlords, nesting areas for endangered species, etc.)
- Running an Education Day
- Conducting HIZ evaluations to identify risks
- Performing fuel mitigation projects on homeowner properties, perhaps as a group around the time of Big Brush pickup by the City
- Tracking time and expenses for wildfire mitigation

- Ingress/egress constraints and evacuation plans for the community
- Maintaining its plan and implementation team.

Some approaches to consider in the small CWPP:

- "30-foot day" like Jester did to get neighbors to clean up the area 30 feet from their house (see Joint CWPP p. 81)
- Perhaps several focus days of evaluations, where assessors go house to house
- National Night Out focus on Wildfire for the street
- Availability in the future of \$500 per recognized Firewise Community for fuels mitigation from the Texas Forest Service

Where there is a lot of debris or dead and down material on private or publicly owned wildland, be sure that's named in the list of work to be done. Removing debris that's been tossed over the fence into public or privately-owned land as an early activity can help build trust with that landowner.

NWACA has absentee landlords, with some of those homes unoccupied, some being used as rentals. When a portion of NWACA is working to become a Firewise Community, it can locate the owners of those properties from the Travis County Appraisal District database (TCAD) and notify them of the risks.

Some of the homeowners in NWACA are physically unable to do fuels mitigation on their own property, and some are unable to afford to pay for the work to be done. It may be helpful for other neighbors to assist on these properties near the time of Big Brush Pickup.

Also watch for HOA rules that are contrary to Firewise principles and see if they can be changed.

5.8 MAINTAINING THIS PLAN

This plan will undergo periodic review to see what changes are needed to reflect changes in schools, businesses, and other aspects of the neighborhood. It must be updated at least every *five* years by the NWACA committee that is focused on wildfire prevention at that time.

6. RECOVERY STRATEGIES

Should the unforeseen happen, it is imperative to have a system in place to evaluate post-fire conditions and immediate needs. In reference to the "Environmental Best Management Practices for Wildfire Risk Reduction and Recovery" guide the following are best suited practices when recovering from a wildfire:

- Identify and mitigate safety hazards, such as damaged trees and structures
- Assess and remediate pollutant releases to the environment and other adverse impacts to natural resources
- Characterize, segregate and determine proper disposal methods for debris and waste
- Clean-up and dispose of ash soot, fire-retardant and debris

- Design and implement erosion and sedimentation controls and revegetate, where needed
- Repair damaged drainage structures to reduce impacts from potential post-fire flooding
- Restore wildlife habitat

7. APPENDICES

7.1 NWACA FIREWISE REFERENCES

A set of Firewise references is kept online at <u>www.nwaca.org</u> under the **Resources** tab. Included are:

- Fireplug FAQs Details about the work of local community Firewise coordinators in NWACA
- Small CWPP template for use by communities within NWACA which want to become Firewise Communities
- Spreadsheet template for recording time and expenses on Firewise activities
- NWACA CWPP and CWPP's of the communities within NWACA, as they are developed
- NWACA Community Wildfire Assessment that was done by TFS and AFD in 2014.
- Firewise Reference files materials from the Firewise Communities collection, information about Firewise landscaping, information about the Ready, Set, Go program
- Links to online resources, including helpful videos

In addition, in the web site's **Get Involved** section, there is a form to request an HIZ evaluation or to get answers to questions about wildfire prevention.

7.2 TEMPLATE FOR NWACA HOA OR NEIGHBORHOOD CWPP

A template has been created for developing a CWPP for a community within NWACA. An HOA or other small community within NWACA can leverage this plan and the Community Wildfire Assessment that was done for NWACA in 2013-2014, so that these details don't need to be done again and again throughout the area. The template is on the web site, as described above.

7.3 MAPS TO SUPPORT THIS PLAN

The maps that follow are from the Community Wildfire Assessment that was done for NWACA and are referred to in the text of the plan.

7.3.1 Map 1 – NWACA – Fire Type Extreme

Of 11,708 acres in the NWACA Project Area (NWACA plus 1 mile buffer), the map shows

- 66.3% Non-burnable characteristics (7,765 acres)
- 26.3% Surface Fire characteristics (3,075 acres)
- 7.4% Canopy Fire characteristics (868 acres)



7.4 AFD WILDFIRE DIVISION MAPS TO SUPPORT THIS PLAN

AFD WILDFIRE SUPPORT MAPS WERE ALSO GENERATED USING THE AFD WILDFIRE DIVISION IN-HOUSE RISK ANALYSIS METHODS.

7.4.1 Map 2 – NWACA Community Protection Zones (CPZ)

