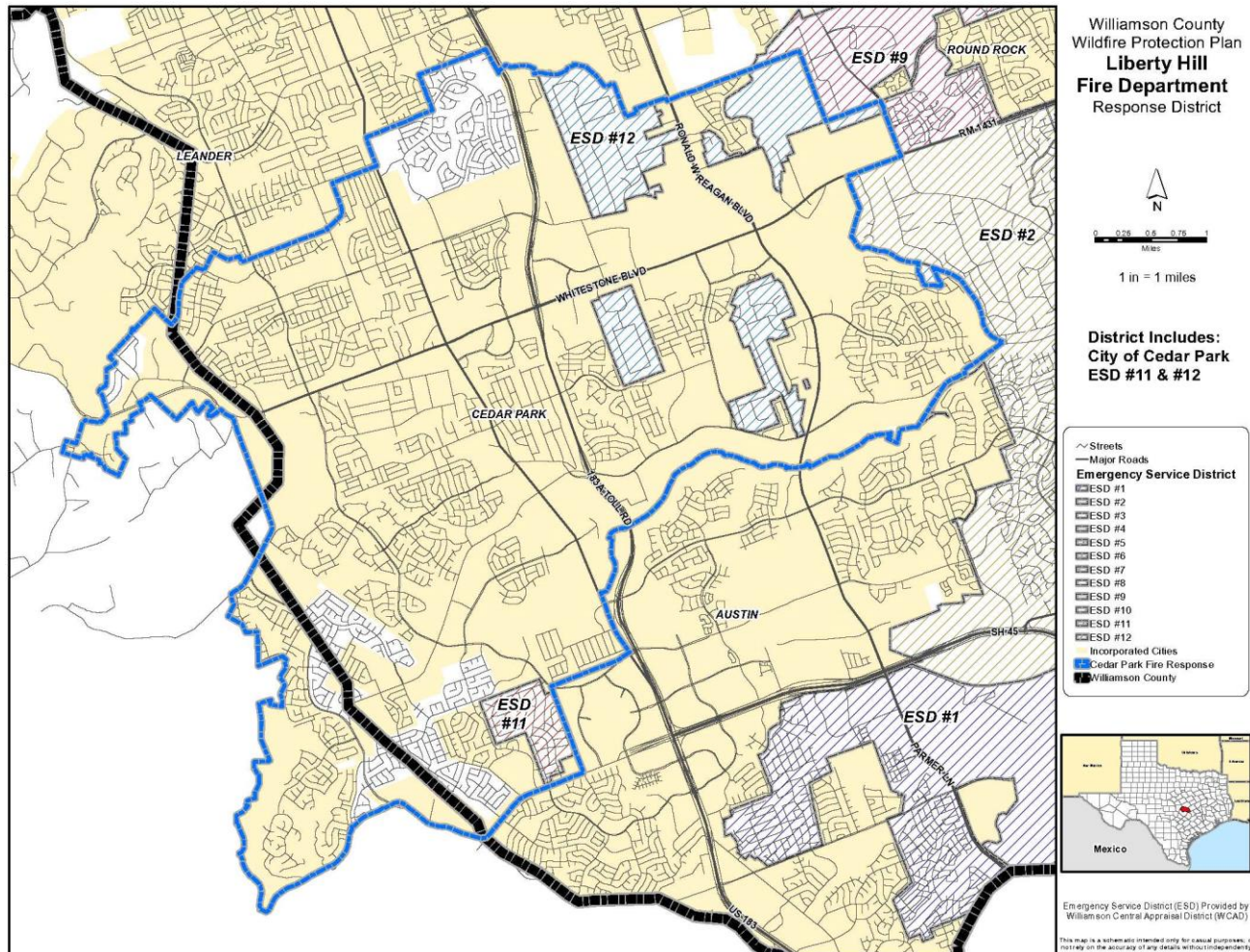

Williamson County Interjurisdictional CWPP

Annex 3: Cedar Park Fire Department

ANNEX 3: CEDAR PARK FIRE DEPARTMENT

INTRODUCTION

Organization and Jurisdiction



The Cedar Park Fire Department was established in 1972 as a volunteer department. In 1994, the first five career firefighters were hired and worked a 40-hour week in conjunction with volunteers. In 2001, the department essential become a full-time paid department under the City organization. The Fire Department responds to calls in the City of Cedar Park and five contract areas within the City's Extra Territorial Jurisdiction (ETJ), serving a population of approximately 80,000. The Department provides the following services to the city and surrounding area:

- Fire Suppression / Prevention
- Emergency Medical Services
- Hazardous Materials/WMD Response
- Dive Rescue
- Swift Water Rescue
- High Angle Rescue
- Automobile Extrication
- Enforcement of fire codes
- Fire Safety Education
- Fire Investigation

Name:	Cedar Park Fire Department
Address:	450 Cypress Creek Road Cedar Park, TX 78613
Department Type (volunteer or paid):	Paid
Number of Stations:	Station One: 503 Brushy Creek Road Station Two: 1570 Cypress Creek Road Station Three: 1311 Highland Drive Station Four: 150 Church Park Road
Municipalities covered:	Cedar Park, WC ESD 11 & 12, Blockhouse MUD, Ranch at Cypress Creek MUD, Anderson Mill West MUD
Types of Services Provided (Firefighting, EMS, emergency response, HAZMAT, dispatch, training, etc.):	Dispatching, firefighting, BLS Medical Response, HazMat, Rescue
Firefighting Personnel:	
Full-Time Paid Firefighters	78
Part-Time Paid Firefighters	0
Volunteer Firefighters	0
Non-Firefighting Support Personnel:	
Non-Firefighting Paid Staff	5
Non-Firefighting Volunteers	0
Firefighting Equipment List quantity, type, etc.):	Class A Engine – 4 Quint-2 Heavy Rescue – 1 Brush Truck – 3 Command Trucks -3 Battalion Truck - 1
Other Firefighting Resources (Mutual aid, state resources, etc.):	Auto Aid, Mutual Aid, Statewide Aid and Resources

CURRENT /HISTORICAL MITIGATION ACTIONS AND PROGRAMS

Cedar Creek Fire Department conducts the following wildfire-related mitigation actions and programs:

- 37 of 73 uniformed personnel have certifications as wildland firefighters from the Texas Commission on Fire Protection (TCFP).
- 17 of 73 uniformed personnel have Blue Card certifications for the Texas Intrastate Mutual Aid System (TIFMAS).
- Incident reports and summaries are issued monthly to all officers.
- Annual evaluations of the program cover training, activity levels, deployment models, response times, action plans, strategic plan objectives, and accreditation requirements.
- Distributes public education materials at public functions.
- The department subscribes to the Texas A&M Forest Service dispatch tracker on wildfires.
- Wildfire mitigation activities have been discussed at home owners' association meetings.

PUBLIC EDUCATION AND OUTREACH PROGRAMS

Cedar Park Fire Department recognizes public outreach and education as proven means in proactively reducing deaths/injuries, limiting property damage, and minimizing risky behavior. The Department has wildfire-specific education and outreach programs that includes the distribution of education materials at public events. In May 2016, the Department went door-to-door distributing wildfire pamphlets to identified homes in at-risk areas.

In addition to wildfire programs, Cedar Park Fire Department offers a variety of education and outreach programs to the community. This includes:

- Station tours – tours are given to provide interest in the fire service, raise fire safety awareness, and support the department's relationship with the community.
- Safety literature – the Department displays and distributes safety materials (brochures, flyers, stickers, coloring books, etc.) at its stations.
- Ride-Outs – allows those not directly involved in the fire service on a day-to-day basis the opportunity to visualize and experience what happens in the field.
- Public Exhibitions – the Department participates in civic functions (parades and festivals) and finds that by interacting with the public, Department personnel can share information on public safety and department operations.
- Fire Safety House – this serves as a teaching tool for children and their families to learn about fire safety.

The Cedar Park Fire Department's stations maintain Facebook pages to use as an effective tool to communicate with residents. The Department uses their Facebook page to post updates on fires, accidents, and rescue incidents; share public service announcements; and inform people of upcoming events. Additionally, the Cedar Park Fire Department maintains a website (<http://www.cedarparktexas.gov/departments/fire-department>) that provides information about the Department, services they provide, and public information.

Program	Do you have this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	1	4/15/15
Storm Ready certification	Yes	Williamson County	
Firewise Communities classification	No		
Natural Disaster/Safety Programs in/for Schools	Yes	School Safety Education Program	
Public Education Program/Outreach (through website, social media)	Yes	See above	

CAPABILITIES ASSESSMENT

Emergency Response Capabilities

Cedar Park Fire Department has the following emergency response capabilities:

- 37 of 73 uniformed personnel have certifications as wildland firefighters from the Texas Commission on Fire Protection (TCFP).
- 17 of 73 uniformed personnel have Blue Card certifications for the Texas Intrastate Mutual Aid System (TIFMAS).
- All fire department personnel have a fire suppression certification from TCFP and EMS basic certification from Texas Department of State Health Services
- Auto Aid, Mutual Aid, Statewide Aid and Resources

Policies

Cedar Park Fire Department has the following policies in effect that pertain to wildfires and other natural disasters:

- Standard Operating Guidelines (SOGs) – Ops-11 on Water Rescue and Ops-16 on Wildland Operations
- Cedar Park Emergency Operations Plan – basic plan and annexes on Shelter & Mass Car, Fire Fighting, Evacuation, Direction & Control, and Mitigation
- Center for Public Safety Excellence Standards of Cover – summarize deployment model and establishes response time goals

Regulations

Cedar Park Fire Department has the following regulations in effect that pertain to wildfires and other natural disasters:

- Texas Commission on Fire Protection requires regulated departments to conduct a risk assessment for personal protective equipment, including wildland fire suppression, based on National Fire Protection Association (NFPA) Standard 1851
- Personnel with certifications through TCFP and TIFMAS meet certification and continuing education requirements
- The Department is subject to applicable FEMA regulations

Ordinances and Codes

The City of Cedar Park has ordinances addressing emergency management, disaster management, homeland security, open burning, and fireworks. The City of Cedar Park is also subject to zoning ordinances as well as

applicable codes of the International Code Council, including the International Fire Code and International Building Code, with amendments.

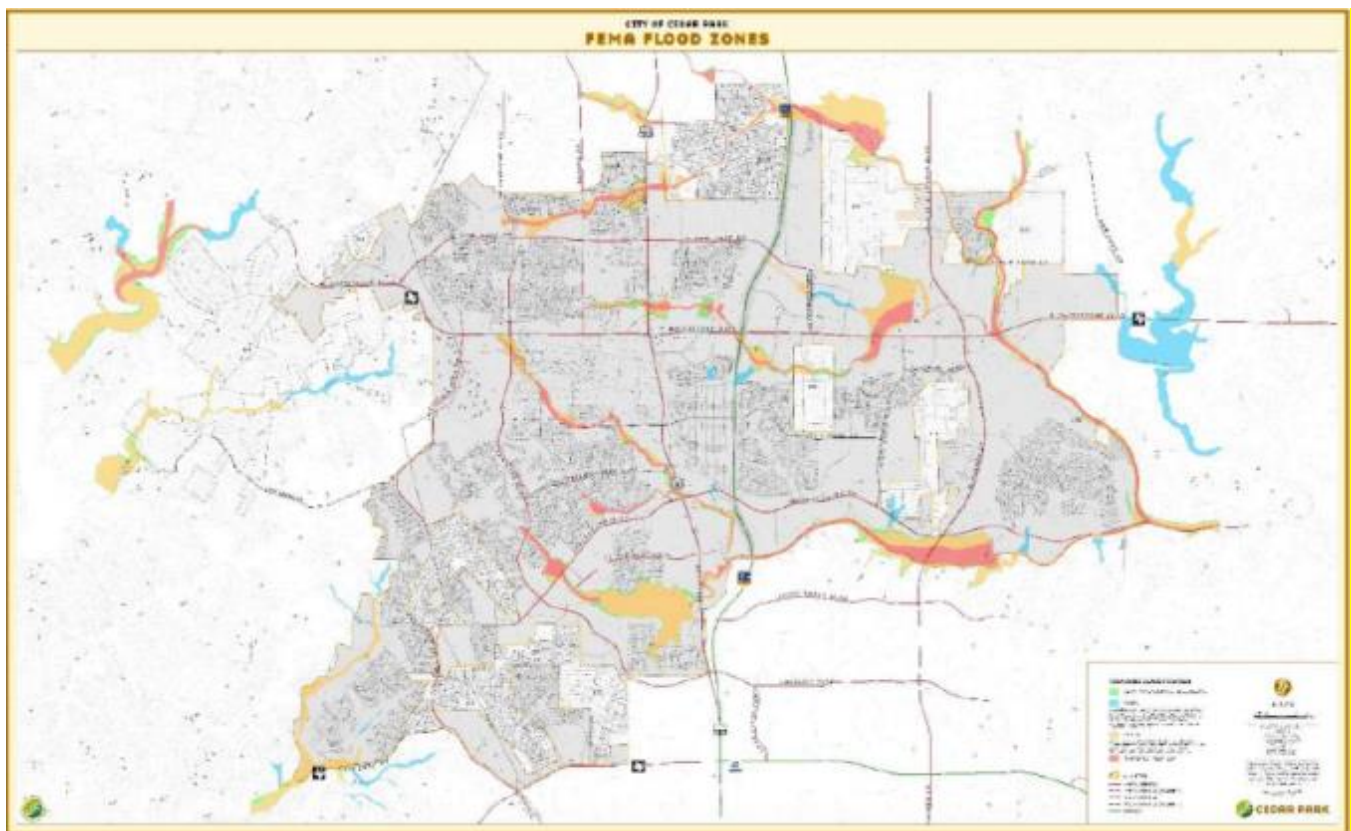
Plans, Reports and Studies

Cedar Park Fire Department has the following plans, reports, and studies:

- Cedar Park Emergency Management Plan – the department has an EOP that has been approved by the Texas Division on Emergency Management. The basic plan remains valid through November 2018.
- Annual Evaluation Reports of Operational Program
- Center for Public Safety Excellence Self-Assessment Manual
- Center for Public Safety Excellence Standards of Cover
- Texas A&M Forest Service Wildfire Risk Assessment
- Williamson County Hazard Mitigation Plan
- 2014-2018 Strategic Plan

IDENTIFY CRITICAL INFRASTRUCTURE AND COMMUNITY VALUES AT RISK

Cedar Park Fire Department has compiled maps on previous incidents to identify future risks and included them in the Center for Public Safety Excellence's Standards of Cover. Maps depicting the flood plain have also been kept up-to-date.



Cedar Park Fire Department has compiled a list of high hazard occupancies in its SOGs. These include the following: Cedar Park Regional Hospital; HEB Center at Cedar Park, during events; all commercial daycares/pre-

schools during operating hours; all schools during operating hours; all nursing homes; all elderly retirement apartments, theaters, and surgery centers. This list treats the different types of hazards in the same manner.

Site Name	Address	Zip	Site Type
1109 COLBY LN	1109 COLBY LN	78613	RES
2605 HUNT CIR	2605 HUNT CIR	78641	RES
ADVENTURE KIDS PLAYCARE	1335-D195 E WHITESTONE BLVD	78613	BUSI
ALDEA VERDE PRESCHOOL	903 ROYAL LN		SCH
AQUA TOTS SWIM SCHOOL	1335-Y100 E WHITESTONE BLVD	78613	SCH
ARIA MEMORY CARE - ALZHEIMERS FACILITY	1201 ARROW POINT DR	78613	CLC
ARTIE HENRY MIDDLE SCHOOL	100 N VISTA RIDGE BLVD	78613	ACAD
AUSTIN CHILDRENS ACADEMY	12310 N FM 620 RD	78613	ACAD
BLOCK HOUSE ELEMENTARY SCHOOL	401 CREEK RUN DR	78641	ACAD
BLUEBONNET SCHOOL	3420 EL SALIDO PKWY	78613	ACAD
BRIGHT START LEARNING CENTER	751 S BELL BLVD	78613	ACAD
BRIGHTSTAR ACADEMY	801 N VISTA RIDGE BLVD	78613	ACAD
BRUSHY CREEK MONTESSORI SCHOOL	3017 POLAR LN	78613	ACAD
CADENCE ACADEMY PRESCHOOL	2101 E PARK ST	78613	SCH
CC MASON ELEMENTARY SCHOOL	1501 N LAKELINE BLVD	78613	ACAD
CEDAR PARK CHARTER ACADEMY	201 BUTTERCUP CREEK BLVD	78613	SCH
CEDAR PARK EVENT CENTER	2100 AVENUE OF THE STARS	78613	AUDM
CEDAR PARK HIGH SCHOOL	2150 CYPRESS CREEK RD	78613	ACAD
CEDAR PARK HOSPITAL	1401 MEDICAL PKWY	78613	HOSP
CEDAR PARK MIDDLE SCHOOL	2100 SUN CHASE BLVD	78613	ACAD
CEDAR PARK MONTESSORI	400 E WHITESTONE BLVD	78613	ACAD
CEDAR PARK REGIONAL MEDICAL CENTER	1401 MEDICAL PKWY	78613	HOSP
CEDAR PARK REGIONAL WOUND CARE CENTER	801-250 E WHITESTONE BLVD	78613	HOSP
CEDAR PARK RETIREMENT	1500 N LAKELINE BLVD	78613	BUSI
CEDAR PARK SURGERY CENTER	351-103 CYPRESS CREEK RD	78613	BUSI
CEDAR RIDGE ALZHEIMERS	2100 S LAKELINE BLVD	78613	BUSI
CHILDRENS LEARNING ADVENTURE	1920 S LAKELINE BLVD	78613	BUSI
CHILDRENS LIGHTHOUSE	1801 BAGDAD RD	78613	SCH
CINEMARK	1335-T100 E WHITESTONE BLVD	78613	BUSI
COTTONWOOD ASSISTED LIVING	1500 COTTONWOOD CREEK TRL	78613	RES
COX ELEMENTARY	1001 BRUSHY CREEK RD	78613	ACAD
CRADLES TO KIDS - RENAMED	3200 HATCH RD	78613	BUSI
CYPRESS ELEMENTARY SCHOOL	2900 EL SALIDO PKWY	78613	ACAD
DEER CREEK ELEMENTARY	2420 ZEPPELIN DR	78613	ACAD
EXCELENCIA PRESCHOOL	501 DENALI PASS		ACAD
EXELENIA CREATIVE BILINGUAL PRESCHOOL	901 ROYAL LN	78613	SCH
FAUBION ELEMENTARY	1209 CYPRESS CREEK RD	78613	ACAD
FIRST FOUNDATIONS PRESCHOOL	11902 ANDERSON MILL RD	78613	ACAD
GEMINI SCHOOL OF ARTS	501 PRIZE OAKS DR	78613	ACAD
GIDDENS ELEMENTARY	1500 TIMBERWOOD DR	78613	ACAD
GODDARD SCHOOLS	1905 EL SALIDO PKWY	78613	ACAD
GYMBOREE PLAY MUSIC	1335-S120 E WHITESTONE BLVD	78613	SA
HARMONY POINT MEMORY CARE	1201 ARROW POINT DR	78613	BUSI

Site Name	Address	Zip	Site Type
HATCH HOUSE CONDO	201-8 S LAKELINE BLVD		ACAD
HATCH HOUSE SCHOOL	125 S LAKELINE BLVD	78613	ACAD
HEB CENTER OLD CEDAR PARK CENTER CPC	2100 AVENUE OF THE STARS	78613	STAD
HIGHLAND ESTATES RETIREMENT	1500 N LAKELINE BLVD	78613	BUSI
HILL COUNTRY SURGERY CENTER	801-100 E WHITESTONE BLVD	78613	BUSI
HILLTOP CHRISTIAN ACADEMY	1150 S BELL BLVD	78613	SCH
HUNTINGTON LEARNING CENTER	1335-D125 E WHITESTONE BLVD	78613	BUSI
ISLE AT CEDAR RIDGE	2200 S LAKELINE BLVD	78613	BUSI
KIDDIE ACADEMY	2305 S LAKELINE BLVD	78613	BUSI
KIDDIE ACADEMY	1602 MEDICAL PKWY	78613	ACAD
KIDS R KIDS CHILDCARE	1301 N LAKELINE BLVD	78613	BUSI
KNOWLES ELEMENTARY SCHOOL	2101 COUGAR COUNTRY DR	78613	ACAD
LA PETITE ACADEMY	1609 N BELL BLVD	78613	BUSI
LA PETITE DAY CARE	805 CYPRESS CREEK RD	78613	BUSI
LAKELINE OAKS RETIREMENT	1905 S LAKELINE BLVD	78613	BUSI
LISD ELEMENTARY 24	1300 ORCHARD FALLS DR	78613	ACAD
LITTLE ACORN ACADEMY	3200 HATCH RD	78613	BUSI
NAUMANN ELEMENTARY	1201 BRIGHTON BEND LN	78613	ACAD
NEW HOPE MANOR NURSING HOME	1623 W NEW HOPE DR	78613	FCLT
NORTHWEST SPANISH SCHOOL	12101-201 W PARMER LN	78613	SCH
PARMER MOTESSORI ACADEMY	12051 W PARMER LN	78613	ACAD
POINTE OF CEDAR PARK	450 DISCOVERY BLVD	78613	BUSI
PRIMROSE SCHOOL LAKELINE CENTER	2021-4 LITTLE ELM TRL	78613	ACAD
PRIMROSE SCHOOL VISTA RIDGE	910 N VISTA RIDGE BLVD	78613	ACAD
RAINBOW STATION PRESCHOOL	11651 W PARMER LN	78613	ACAD
RANCH AT CEDAR PARK APTS	1301 W WHITESTONE BLVD	78613	BUSI
REED ELEMENTARY SCHOOL	1515 LITTLE ELM TRL	78613	SCH
RISING STARS SCHOOL	3307 EL SALIDO PKWY	78613	ACAD
RONALD REAGAN ELEMENTARY SCHOOL	1700 E PARK ST	78613	ACAD
RUNNING BRUSHY MIDDLE SCHOOL	2303 N LAKELINE BLVD	78613	ACAD
SAGEBROOK HEALTH CENTER	901 DISCOVERY BLVD	78613	BUSI
SAPIENTIA MONTESSORI SCHOOL	1220 COTTONWOOD CREEK TRL	78613	ACAD
SERENDIPITY CHILD CARE	900 NELSON RANCH RD	78613	BUSI
SILVERADO CARE	800 C-BAR RANCH TRL	78613	HOSP
ST MARGARET MARYS CATHOLIC CHURCH	1101 W NEW HOPE DR	78613	AUDM
STEPPING STONE SCHOOL	225 BLOCK HOUSE DR	78613	BUSI
SUMMIT CHRISTIAN ACADEMY	2121 CYPRESS CREEK RD	78613	AUDM
SUNDANCE PREMIER MEMORY CARE	3000 GLACIER PASS LN	78613	CLC
THE CHILDRENS COURTYARD	2001 S LAKELINE BLVD	78613	BUSI
TWIN LAKES CHILD CARE BUILDING	1150 S BELL BLVD	78613	BUSI
TWIN LAKES FELLOWSHIP CHURCH	1150 S BELL BLVD	78613	AUDM
US MEMORY CARE	800 C-BAR RANCH TRL	78613	HOSP
VISTA RIDGE HIGH SCHOOL	200 S VISTA RIDGE BLVD	78613	ACAD
WESTSIDE ELEMENTARY	300 RYAN JORDAN LN	78613	ACAD

Tier II facilities have been properly noted into the department's database.

IDENTIFY CRITICAL INFRASTRUCTURE AND COMMUNITY VALUES AT RISK

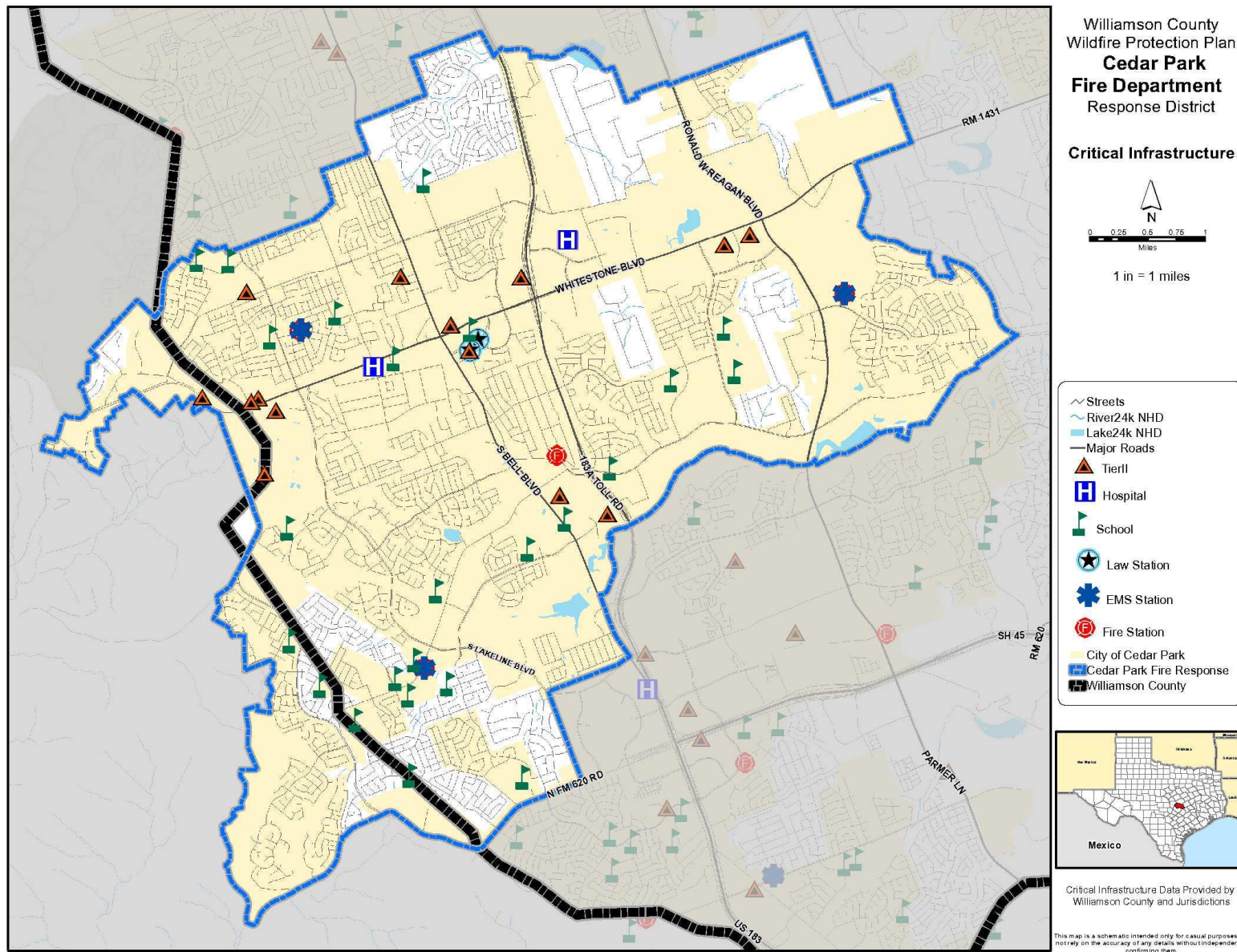
Critical Infrastructure within the Cedar Park Fire Department

One of the critical elements of the Community Wildfire Protection Plan is to analyze where the critical infrastructure within the district is located in comparison to the highest risk areas for wildfire. Critical facilities typically fall within the following categories: Hospitals, Schools, Law Enforcement, Fire, EMS and Tier II facilities. Within the Cedar Park Fire Department. The following summarizes the general types of critical facilities located within the District.

Cedar Park Fire Department Critical Facilities Summary	
Facility Type	Number of Facilities
Hospitals	2
Schools	25
Law Enforcement	2
Fire	4
Emergency Medical Services (EMS)	3
Tier II Facilities	14

As mentioned above, once the critical facilities are identified, the next step is to assess where and which facilities may be located in high risk areas and to then determine whether these facilities are candidates for special actions / measures like hardening, increased fire proofing, wildfire mitigation or relocation, etc. This plan analyzed impacts based in five wildfire factors: Wildland Urban Interface, Flame Length, Surface Fuels, Vegetation and Wildfire Threat as mapped and defined by the Texas State Forest Service and Texas A&M. More detail is provided later in this annex as to the level and possible impacts of these five characteristics.

Figure 1. Cedar Park Critical Infrastructure



Wildland Urban Interface Fire Hazard and Environment

As mentioned previously in the Williamson County Community Wildfire Protection Plan (CWPP) on the national level, following the establishment of the National Fire Plan via Executive Order due to the 2000 national wildfire season, work throughout the country was undertaken to identify areas at high risk from wildfire; this work would be used to identify the location of hazardous fuel reduction projects designed to reduce this risk. Communities across the nation that are considered to have a WUI have been identified; this list was subsequently published in the Federal Register.

Loss of structures due to wildland fires has been attributed to many factors, one of which is the proximity of hazardous fuels to homes and communities. During periods of hot, dry weather, the buildup of vegetation that has occurred on some Federal, State, and private lands in the vicinity of communities poses a potentially high risk of damage to homes and other structures, disruption to the local economy, or loss of life.

Other factors—including weather conditions and patterns, and the hazardous fuels conditions in the immediate vicinity of homes, businesses, and other structures—play important roles in the spread of wildland fire. Reducing hazardous fuel near communities may reduce, but not eliminate, wildfire risks to these communities. Some risk is inherent to communities that exist in fire-dependent ecosystems. Private landowners may help reduce this risk by creating defensible space around their homes and businesses, and by using fire-resistant materials in building those structures. Without such precautionary measures, fuel reduction on Federal land in the vicinity may be ineffective in significantly reducing community risk.

Per the Texas A&M Forest Service “The WUI is described as the area where structures and other human improvements meet and intermingle with undeveloped wildland or vegetative fuels. Population growth within the WUI substantially increases the risk from wildfire. In Texas nearly 85% of wildfires occur within two miles of a community.” 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 that are located within the Wildland Urban Interface (WUI).

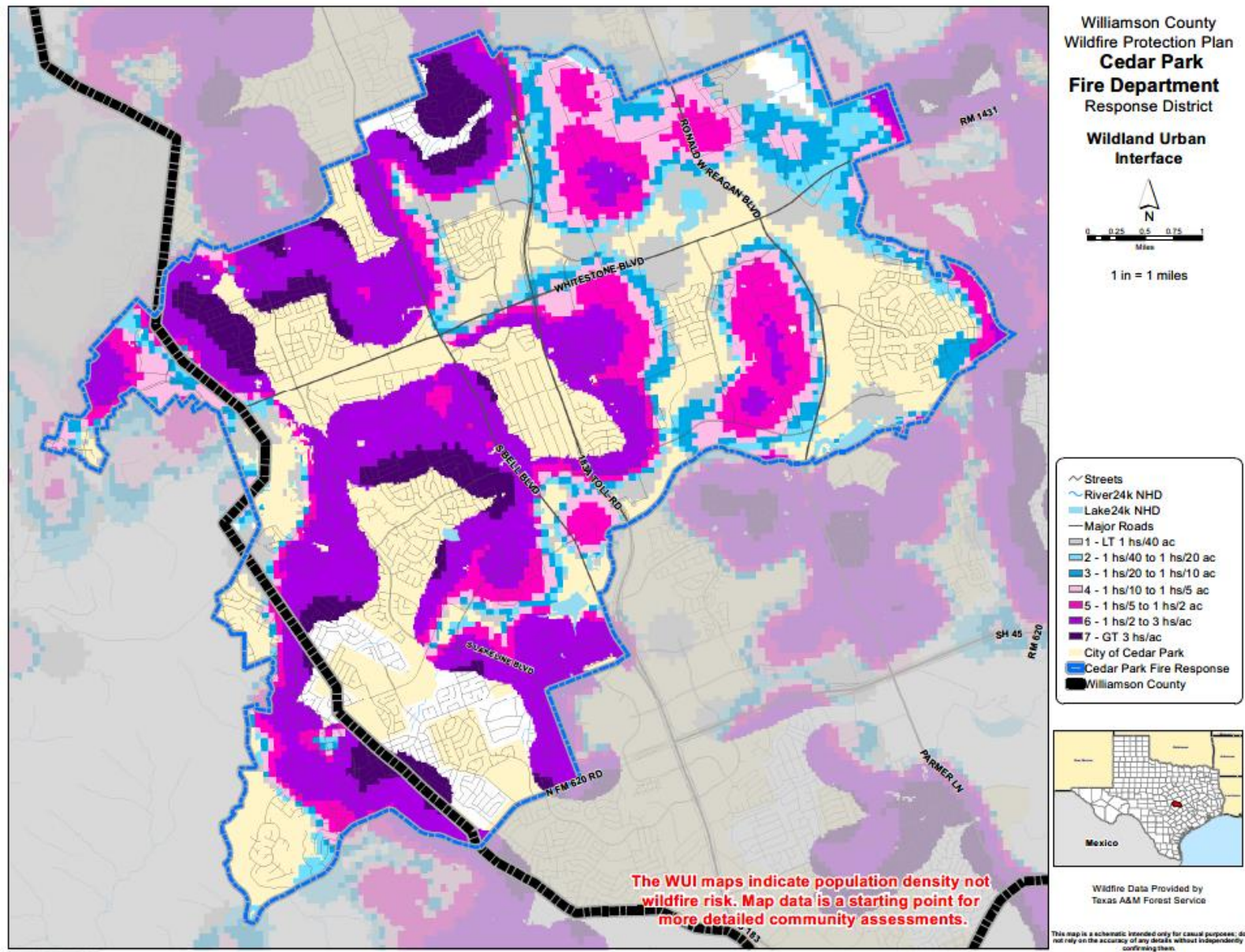
For the Cedar Park FPD project area, it is estimated that 31,990 people or 53% of the total project area population (30,749) live within the WUI.

The Texas A&M Forest Service WUI dataset is derived using advanced modeling techniques based on the Where People Live dataset and LandScan USA population count data available from the Department of Homeland Security, HSIP Freedom Data Set. WUI is simply a subset of the Where People Live dataset. The primary difference is populated areas surrounded by sufficient non-burnable areas (i.e. interior urban areas) are removed from the Where People Live data set, as these areas are not expected to be directly impacted by a wildfire.

Wildland Urban Interface

	Housing Density	WUI Population	Percent of WUI Population	WUI Acres	Percent of WUI Acres
	LT 1hs/40ac	39	0.1 %	1,373	10.6 %
	1hs/40ac to 1hs/20ac	12	0.0 %	852	6.6 %
	1hs/20ac to 1hs/10ac	116	0.4 %	1,188	9.2 %
	1hs/10ac to 1hs/5ac	399	1.2 %	1,588	12.3 %
	1hs/5ac to 1hs/2ac	1,377	4.3 %	2,089	16.2 %
	1hs/2ac to 3hs/1ac	16,184	50.6 %	4,669	36.2 %
	GT 3hs/1ac	13,863	43.3 %	1,137	8.8 %
	Total:	31,990	100.0 %	12,895	100.0 %

Figure 2. Wildland Urban Interface



Surface Fuels

Surface fuels are important to categorize for they account for the surface fire potential. Canopy fire potential is computed through a separate but linked process. The Texas Wildfire Risk Assessment (TWRA) Summary Report for Williamson County 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:

- Grass
- Shrub/brush
- Timber litter
- Slash

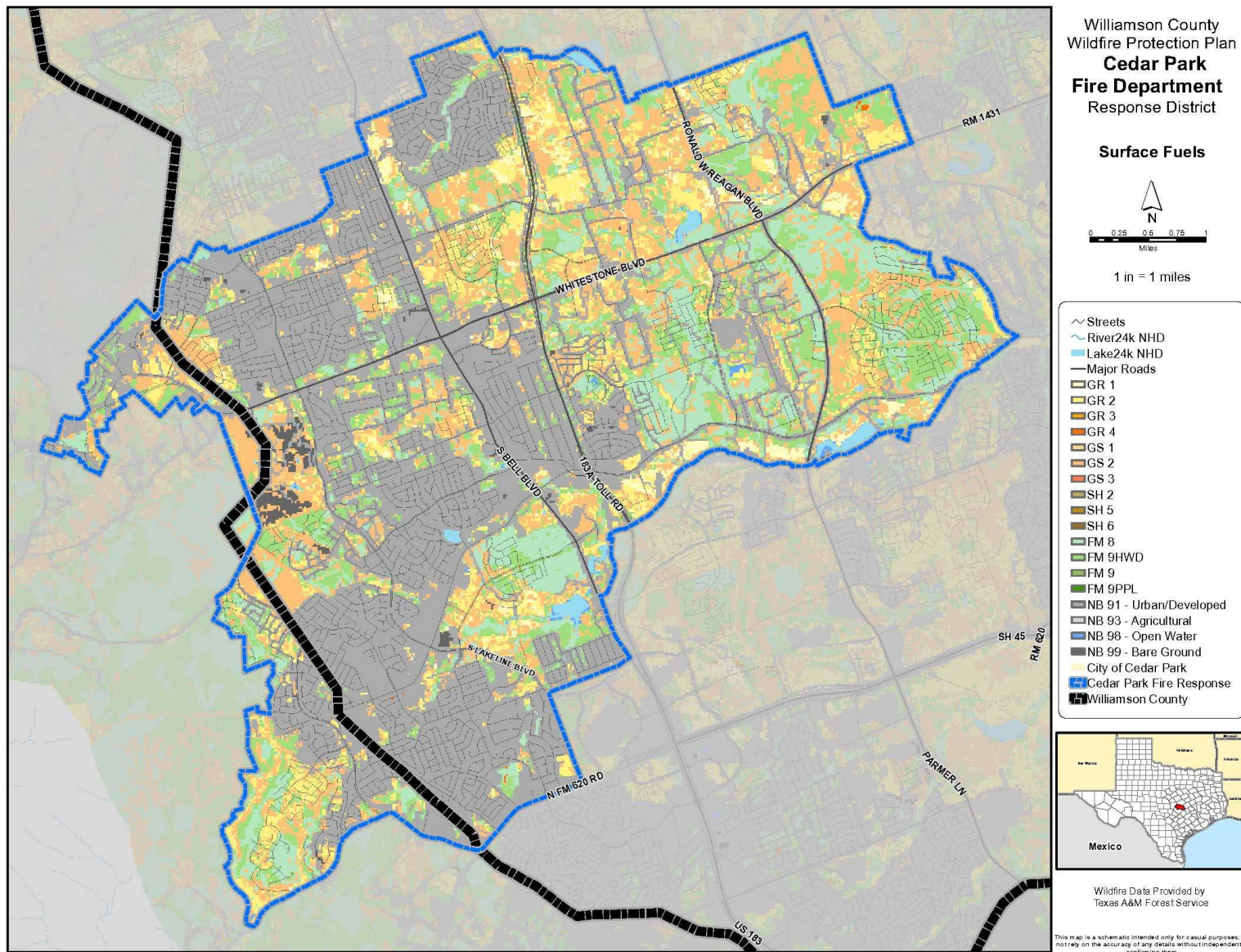
There are two standard fire behavior fuel model sets published for use. The Fire Behavior Prediction System 1982 Fuel Model Set (Anderson 1982) contains 13 fuel models and the Fire Behavior Prediction System 2005 Fuel Model Set (Scott and Burgan 2005) contains 40 fuel models. The TWRA uses fuel models from both sets, as well as two additional custom fuel models devised by Texas A&M Forest Service. For a complete list of the fuel models utilized in the TWRA refer to the TWRA.

The table below shows that the county primarily consists of Urban/Developed land at 45.0%, followed by Moderate Load, Dry Climate Grass-Shrub at 19.1%, Closed Timber Litter at 11.2%, and Low Load, Dry Climate Grass with 8.3%. Figure 3 is the Cedar Park area map showing all the surface fuel types.

DEFINITIONS

Surface fuels—Surface fuels, or fire behavior fuel models as they are technically referred to, contain the parameters needed by the Rothermel (1972) surface fire spread model to compute surface fire behavior characteristics, such as rate of spread, flame length, fireline intensity, and other fire behavior metrics.

Figure 3. Cedar Park - Surface Fuels by type



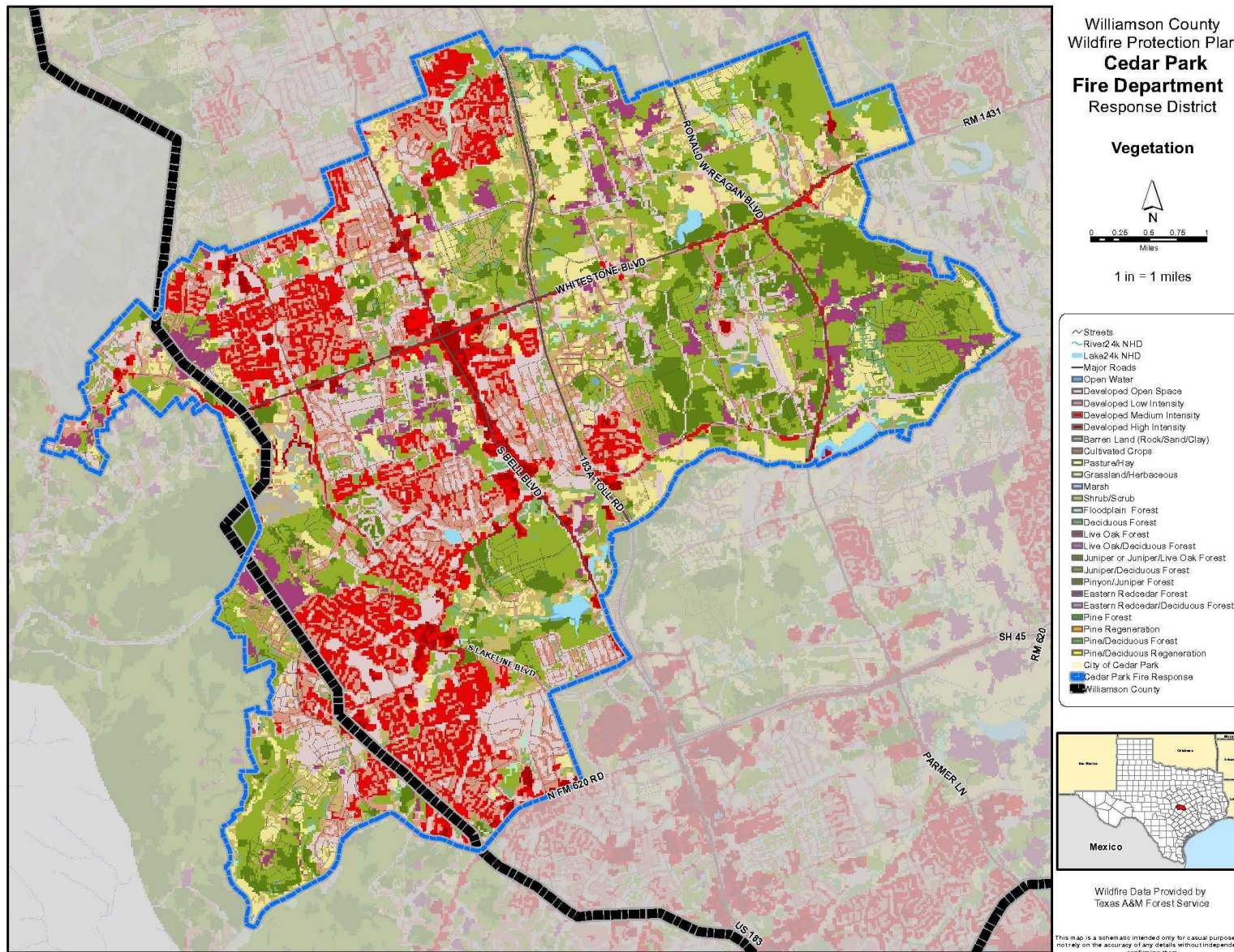
Cedar Park - Surface Fuels by type

	Surface Fuels	Description	FBPS Fuel Model Set	Acres	Percent
	GR 1	Short, Sparse Dry Climate Grass (Dynamic)	2005	396	2.0 %
	GR 2	Low Load, Dry Climate Grass (Dynamic)	2005	1,645	8.3 %
	GR 4	Moderate Load, Dry Climate Grass (Dynamic)	2005	6	0.0 %
	GS 2	Moderate Load, Dry Climate Grass-Shrub (Dynamic)	2005	3,780	19.1 %
	FM 8	Closed timber litter (compact)	1982	2,212	11.2 %
	FM 9 HWD	Hardwood litter (fluffy) - Low Load for Texas	Custom	2,583	13.0 %
	NB 91	Urban/Developed	2005	8,911	45.0 %
	NB 98	Open Water	2005	155	0.8 %
	NB 99	Bare Ground	2005	135	0.7 %
Total:				19,824	100.0%

Vegetation

The Vegetation map describes the land cover and vegetation types across the Bartlett area. In the Texas Wildfire Risk Assessment (TWRA), the Vegetation dataset is used to support the development of the 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. It should be noted that the area is dominated by Juniper/Deciduous Forest (20.8%), Low Intensity Development (16.3%), Developed Open Space (15.2%) and Medium Intensity Development (11.7%).

Figure 4. Cedar Park Vegetation



Vegetation

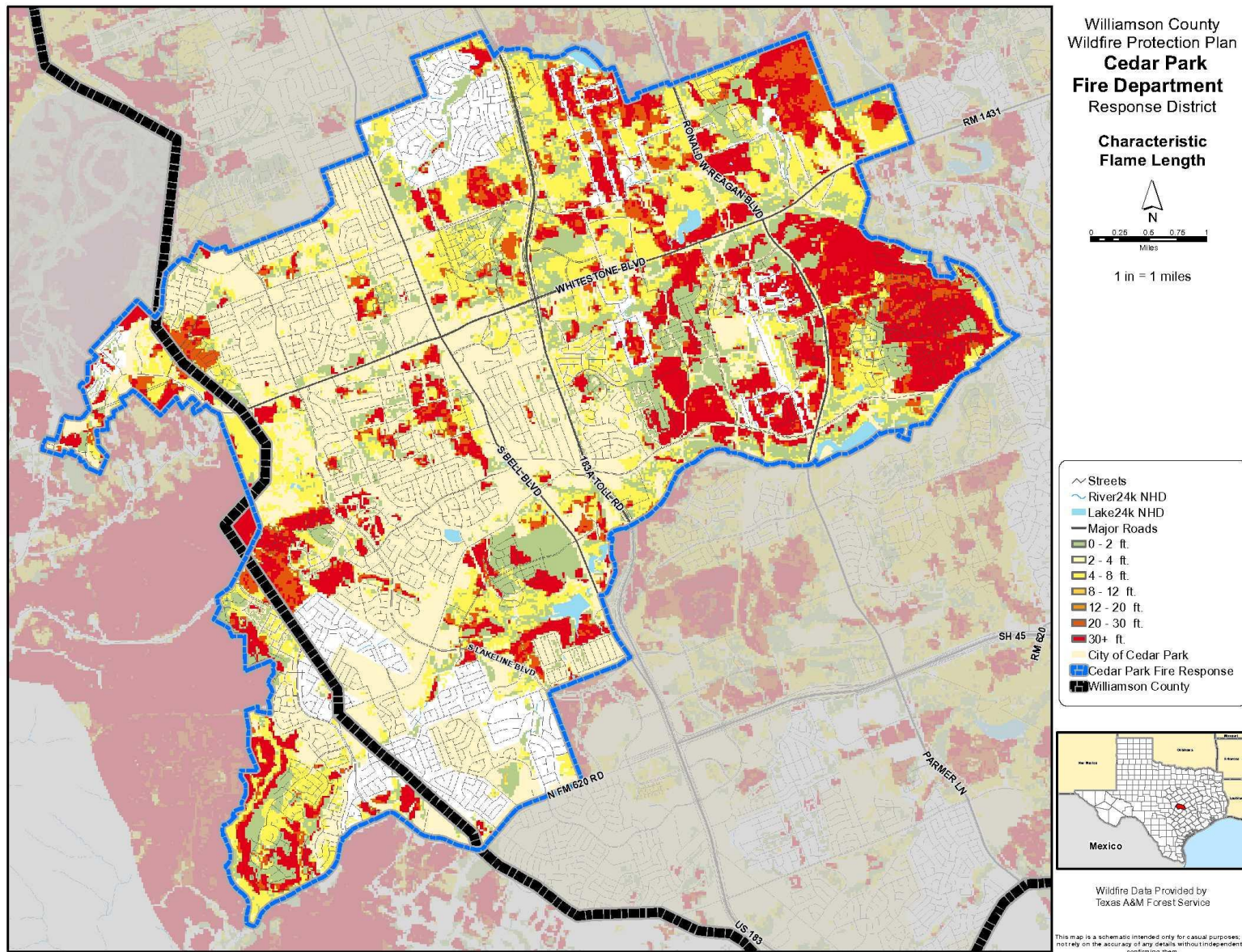
	Class	Description	Acres	Percent
	Open Water	All areas of open water, generally with < 25% cover of vegetation or soil	137	0.7 %
	Developed Open Space	Impervious surfaces account for < 20% of total cover (i.e. golf courses, parks, etc...)	3,018	15.2 %
	Developed Low Intensity	Impervious surfaces account for 20-49% of total cover	3,234	16.3 %
	Developed Medium Intensity	Impervious surfaces account for 50-79% of total cover	2,317	11.7 %
	Developed High Intensity	Impervious surfaces account for 80-100% of total cover	364	1.8 %
	Barren Land (Rock/Sand/Clay)	Vegetation generally accounts for <15% of total cover	108	0.5 %
	Grassland/Herbaceous	Areas dominated (> 80%) by graminoid or herbaceous vegetation, can be grazed	1,966	9.9 %
	Shrub/Scrub	Areas dominated by shrubs/trees < 5 meters tall, shrub canopy > than 20% of total vegetation	1,279	6.5 %
	Floodplain Forest	> 20% tree cover, the soil is periodically covered or saturated with water	107	0.5 %
	Deciduous Forest	> 20% tree cover, >75% of tree species shed leaves in response to seasonal change	906	4.6 %
	Live Oak Forest	> 20% tree cover, live oak species represent >75% of the total tree cover	745	3.8 %
	Juniper or Juniper/Live Oak Forest	> 20% tree cover, juniper or juniper/live oak species represent > 75% of the total tree cover	1,529	7.7 %
	Juniper/Deciduous Forest	> 20% tree cover, neither juniper or deciduous species represent > 75% of the total tree cover	4,115	20.8 %
Total:			19,824	100.0 %

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 the measure of fire intensity used to generate the response index outputs for the TWRA. Flame length characteristics are varied in the Cedar Park area but are predominantly non-burnable at 46.4%, followed by 4-8 feet at 16.0%, and 0-2 feet at 14.3%.

Flame length 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 the State of Texas.

Figure 5. Cedar Park Flame Length



Flame Length

	Flame Length	Acres	Percent
	Non-Burnable	9,201	46.4 %
	0 - 2 ft	2,837	14.3 %
	2 - 4 ft	324	1.6 %
	4 - 8 ft	3,163	16.0 %
	8 - 12 ft	6	0.0 %
	12 - 20 ft	5	0.0 %
	20 - 30 ft	1,237	6.2 %
	30 + ft	3,051	15.4 %
Total:		19,824	100.0 %

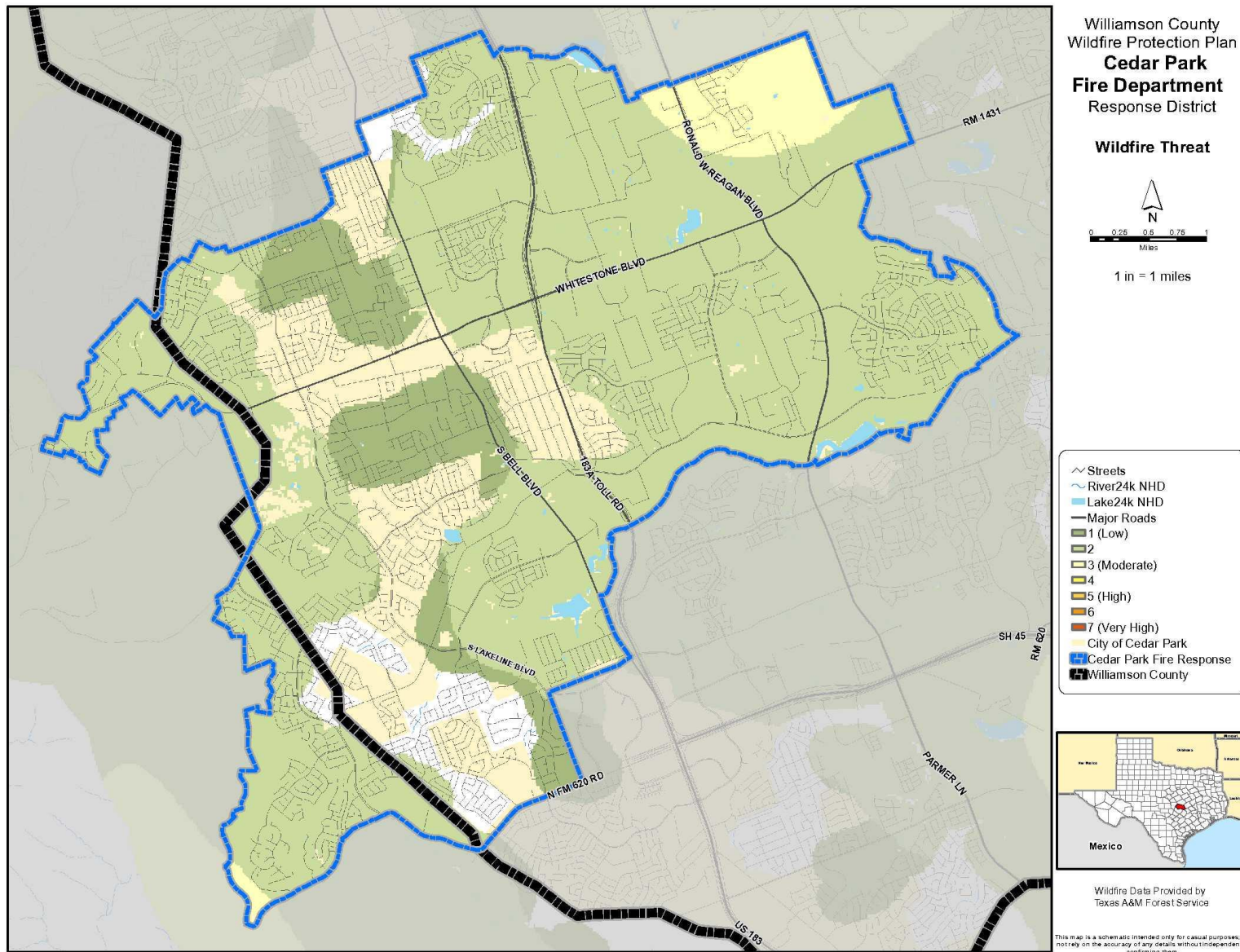
Wildfire Threat

Per the Texas A&M Forest Service Wildfire Threat is the likelihood of a wildfire occurring or burning into an area. Threat is derived by combining a number of landscape characteristics including surface fuels and canopy fuels, resultant fire behavior, historical fire occurrence, percentile weather derived from historical weather observations, and terrain conditions. These inputs are combined using analysis techniques based on established fire science.

The measure of wildfire threat used in the Texas Wildfire Risk Assessment (TWRA) is called Wildland Fire Susceptibility Index, or WFSI. WFSI combines the probability of an acre igniting (Wildfire Ignition Density) and the expected final fire size based on rate of spread in four weather percentile categories. WFSI is defined as the likelihood of an acre burning. Since all areas in Texas have WFSI calculated consistently, it allows for comparison and ordination of areas across the entire state. For example, a high threat area in East Texas is equivalent to a high threat area in West Texas.

To aid in the use of Wildfire Threat for planning activities, the output values are categorized into seven (7) classes. These are given general descriptions from Low to Very High threat. 20.2% of the area within Cedar Park is designated as non-burnable. The balance of the area or 75.9 % is designated as low (categories 1 & 2).

Figure 6. Cedar Park Wildfire Threat



Wildfire Threat

	Class	Acres	Percent
	Non-Burnable	3,996	20.2 %
	1 (Low)	1,779	9.0 %
	2	13,252	66.9 %
	3 (Moderate)	797	4.0 %
Total:		19,824	100.0 %

WILDFIRE ASSESSMENTS

Community Wildfire Risk Hazard Analysis (CWRHA) were conducted on select communities or subdivisions within this fire district. The CWRHA's are essential in identifying areas that are at risk for catastrophic wildfires leading to the destruction of private and commercial property along with environmentally sensitive areas. Assessments were performed overall of the community and not on individual home sites, which may not indicate increased totals for small or site-specific hazards.

Assessments were performed locally developed assessment criteria that addresses specific criteria and assigned a numerical value indicating the potential risk to the identified assessment area. Assessment areas include:

- Community Access / Egress
 - Access / Egress Points
 - Primary Road Width
 - Secondary Road Terminus
 - Accessibility (surface grade)
 - Subdivision Bridges
 - Roadway Fuels
 - Street Signs
- Home Site Hazards
 - Driveway Characteristics
 - Dominant Trees
 - Ladder Fuels
 - Vegetation
 - Slope of Property
 - Defensible Space
 - Lot Size
- Building Construction Hazards
 - Roofing Materials
 - Siding
 - Soffits
 - Foundation Type
 - Fencing
- Additional Factor Hazards
 - Fire Control Water Supply
 - Utilities
 - Surrounding Environment
 - Undeveloped Lots / Areas

Note: Assessments did not include local firefighting capabilities as Williamson County maintains strong auto-aid and mutual-aid agreements amongst the local fire departments which greatly enhances the capabilities of each fire district.

The CWRHA's were conducted utilizing the Crisistrack software and mobile application, which provides a comprehensive report for each selected assessment area. (available upon request)

Assessment Scoring

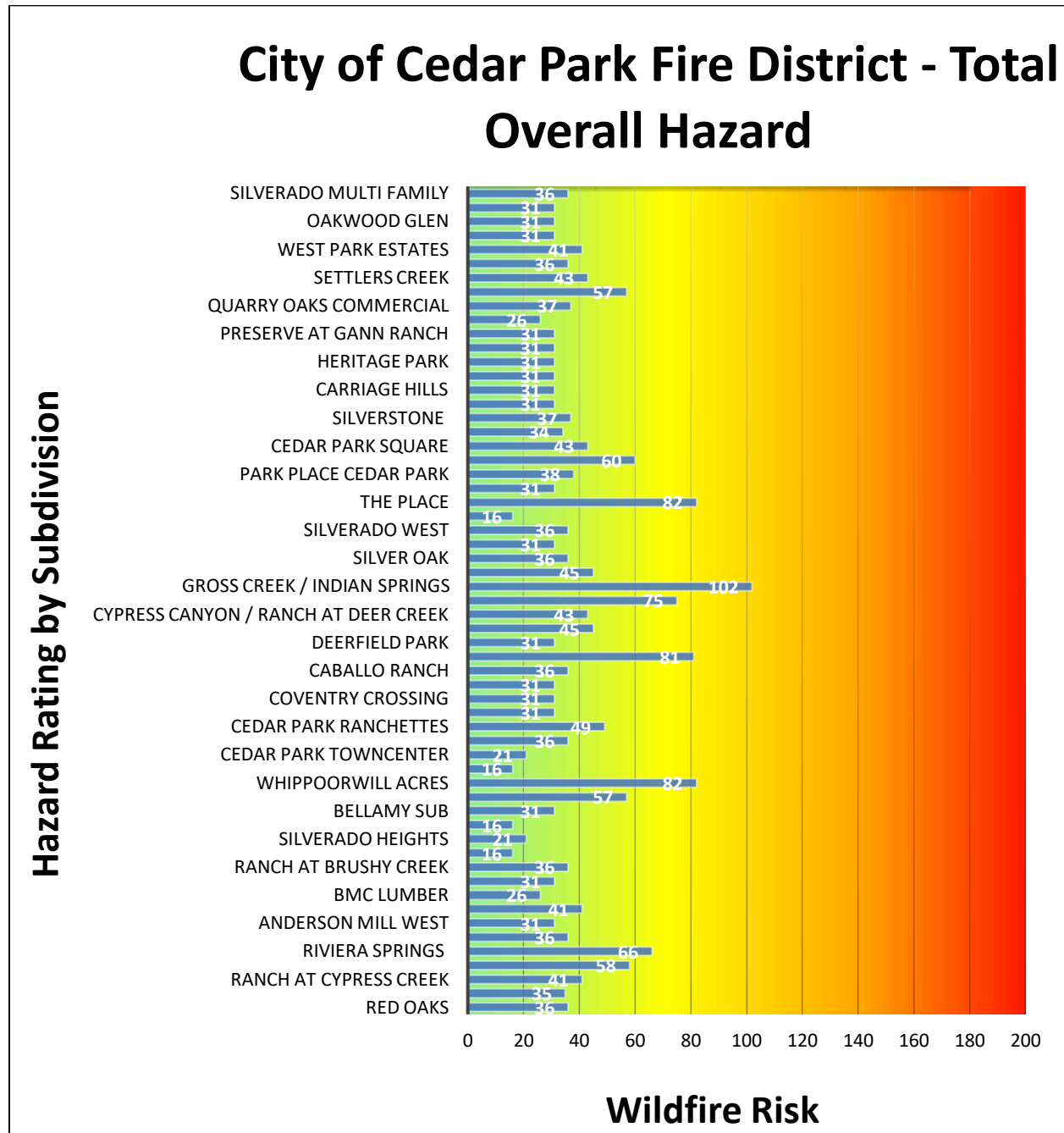
Section	Min	Mid	Max
Community Access/Egress Rating	0	19	38
Site Hazard Rating	5	62	119
Building Construction Hazard Rating	10	35	60
Additional Hazard Factors	0	25	50
Total Hazard Factors	15	141	267

Community Hazards by Category

NAME	Total Community	Total Site Hazard	Total Construction Hazard	Total Additional Hazard	Total Overall Hazard
Red Oaks	0	16	10	10	36
Cypress Creek	0	25	10	0	35
Ranch at Cypress Creek	0	21	10	10	41
Hidden Valley Estates	9	34	0	15	58
Riviera Springs	0	43	10	13	66
Shenandoah	0	26	10	0	36
Anderson Mill West	0	21	10	0	31
Buttercup Creek	0	21	10	10	41
BMC Lumber	5	16	0	5	26
Walsh Trails	0	16	10	5	31
Ranch at Brushy Creek	0	26	10	0	36
Paradise Villas Condo	0	16	0	0	16
Silverado Heights	0	21	0	0	21
Colonial Grand at Silverado	0	16	0	0	16
Bellamy Sub	0	21	10	0	31
Breakaway Park	5	30	10	12	57
Whippoorwill Acres	5	50	10	17	82
Reserve at Brushy Creek	0	16	0	0	16
Cedar Park Towncenter	0	21	0	0	21
Blockhouse Creek	0	21	10	5	36
Cedar Park Ranchettes	0	21	20	8	49
High Medows	0	21	10	0	31
Coventry Crossing	0	21	10	0	31
Cypress Bend	0	21	10	0	31
Caballo Ranch	0	16	10	10	36
Lakewood Country Estates	5	51	0	25	81
Deerfield Park	0	16	10	5	31
Twin Creeks	2	23	10	10	45
Cypress Canyon / Ranch at Deer Creek	0	23	10	10	43
North Rim / Villas of the Hills	0	35	10	30	75
Gross Creek / Indian Springs	5	50	20	27	102
Forest Oaks	0	25	10	10	45

Silver Oak	0	21	10	5	36
Creek View	0	16	10	5	31
Silverado West	0	21	10	5	36
Abrantes	0	11	0	5	16
The Place	2	43	0	37	82
Quest Village	0	21	10	0	31
Park Place Cedar Park	0	21	10	7	38
New some Mobile Home	5	30	10	15	60
Cedar Park Square	0	21	10	12	43
Chapel Hill	0	21	10	3	34
Silverstone	0	25	10	2	37
Cedar Grove	0	16	10	5	31
Carriage Hills	0	21	10	0	31
Cedar Park 1	0	21	10	0	31
Heritage Park	0	21	10	0	31
Gann Ranch	0	21	10	0	31
Preserve at Gann Ranch	0	21	10	0	31
Whitestone Oaks at Anderson Mill	0	16	10	0	26
Quarry Oaks Commercial	0	25	10	2	37
Whitestone Oaks	0	25	10	22	57
Settlers Creek	0	21	10	12	43
Oakmont Forest	0	21	10	5	36
West Park Estates	0	21	10	10	41
Lakeline Oaks	0	21	10	0	31
Oakwood Glen	0	21	10	0	31
Cypress Mill	0	21	10	0	31
Silverado Multi Family	0	16	10	10	36

Community Hazard Ratings



WILDFIRE MITIGATION ACTIONS

A. MITIGATION ACTIONS

Cedar Park Fire Department intends to develop wildfire maps detailing access points and wildland-urban interface. This would be done with support of geographic information systems (GIS) analysts.

Mitigation strategies identified in the Cedar Park Fire Department Strategic Plan 2014-2018 include:

- Increase the number of personnel that hold S-130/190 certification from the National Wildfire Coordinating Group and Basic Wildland Fire Protection certification from TCFP.
- Increase off-road vehicle training for brush trucks.
- All personnel, at minimum, will obtain S-130/190 and Basic Wildland Fire Protection certifications.

B. FUELS REDUCTION PROJECTS

Listed below

Little Elm Project

The area consists of multiple, city owned, lots between US HWY 183 and Toll HWY 183A.

Project Description:

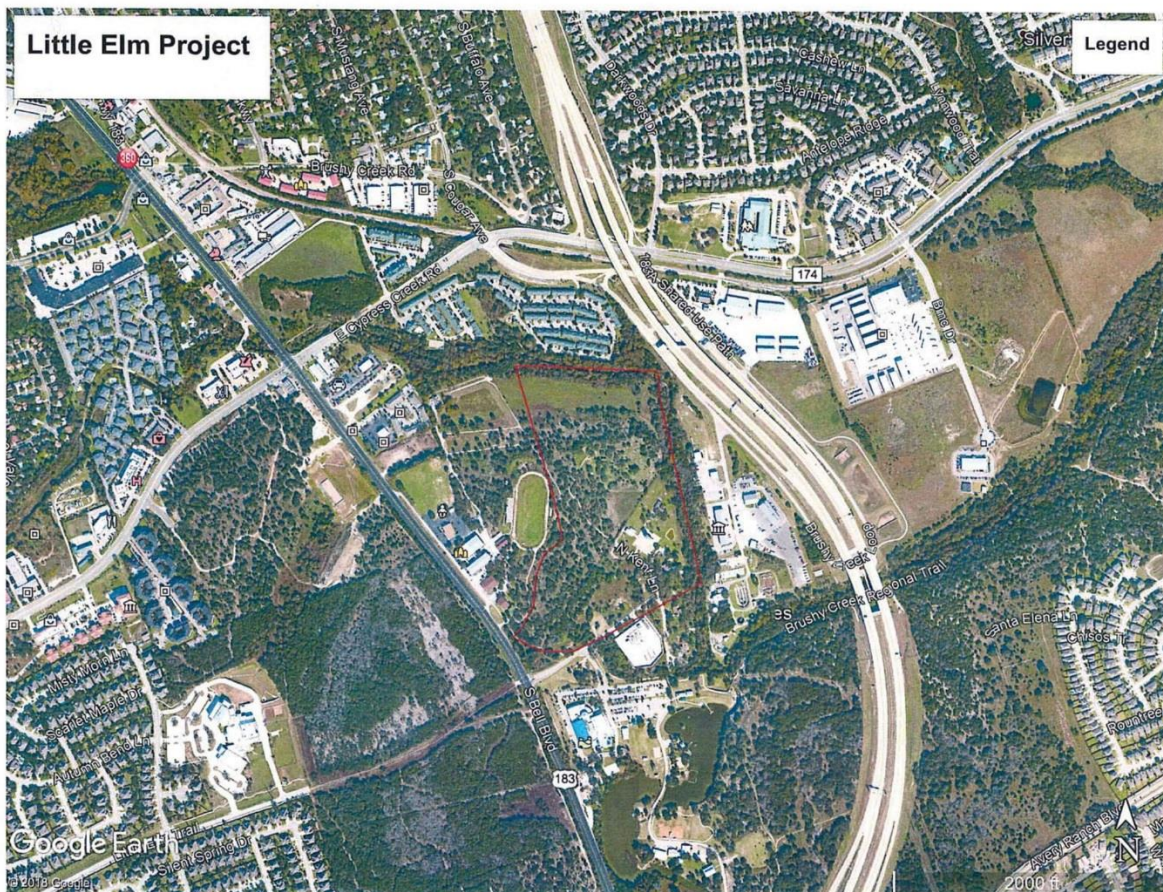
Fuels reduction and roadway (access) improvement for the area at Little Elm and Fire Lane. Plans include reconstruction of roads with expansion to Brushy Creek Loop increasing access / egress from one to two. These improvements will aid in fuels reduction along the roadway and provided greater access to hydrants.

Estimated Cost:

Undetermined

Possible Funding Sources:

FEMA Hazard Mitigation Grants, Texas A&M Forest Service Fuel Mitigation, Grant, and City of Cedar Park funding. The proceeds of the sale of these properties may be used to implement mitigation actions.



Lakeline Project

The area consists of undeveloped greenbelts, Buttercup Creek drainage, and water control reservoir between Lakeline Blvd., Little Elm Trail, and US HWY 183.

Project Description:

The project may consist of a variety of options for wildfire mitigation to include but not limited to the construction of shaded fuel breaks and removal of dead woody vegetation and slash. This project may be in conjunction with the Lakeline Park redevelopment project.

Estimated Cost:

Undetermined

Possible Funding Sources:

FEMA Hazard Mitigation Grants, Texas A&M Forest Service Fuel Mitigation, Grant, and City of Cedar Park funding. The proceeds of the sale of these properties may be used to implement mitigation actions.



Cedar Park Greenspaces Projects

Fuels reduction in all City of Cedar Park greenspaces to reduce the areas of heavy fuel density as a part of fire and flood reduction.

Project Description:

Cedar Park is in the process of hiring crews and purchasing equipment specific to these mitigation projects.

Estimated Cost:

Undetermined

Possible Funding Sources:

FEMA Hazard Mitigation Grants and a new city sales tax ordinance.