



The **Dillard**

Firewise Protection Plan

AN ACTION PLAN FOR WILDFIRE MITIGATION

DATE: 6/6/11

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The following report is a cooperative effort between various entities. The representatives listed below comprise the core decision-making team responsible for this report and mutually agree on the plan's contents.

Firewise Board Members:

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 Other Contact Information _____

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Local Fire Department Representative(s):

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 Other Contact Information _____

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Local Oklahoma Division of Forestry Representative(s):

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 Other Contact Information _____

The following federal and other interested parties were consulted and involved in the preparation of this report.

Name	Organization
Tommy Sheppard	SODA
Bo McIlvoy	SODA
Dale Ott	Carter County
Richard Dilano	Dillard Fire Dept.



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1) COMMUNITY BACKGROUND AND EXISTING SITUATION

Community Description:

County: Carter Latitude/Longitude: 034.205/-097.404
 Frontage Road: Dillard Rd Nearest Intersection: Memorial & Dillard
 Nearest Fire Department (name/location): Dillard Volunteer Fire Department
 Interface Areas: 24 (+/-) Square Miles Year Established: 1985
 Map #: See Appendix

Community Size:

Number of Lots: 700 Number of Structures: 1,500
 Estimated Acres: 15,000+/- Development Status: Rural

Community Infrastructure:

Home Owners Association/Organization: Yes No *If yes, attach a copy of ordinances.*

Contacts:

Name N/A
 Address _____
 Phone Number _____
 Other Contact Information _____

Name _____
 Address _____
 Phone Number _____
 Other Contact Information _____

Resident Population:

Full Time
 Part-Time: 100-75% 75-50% 50-25% less than 25%

Wildfire Hazard Rating: (check one)

Low Moderate High Extreme

Date Evaluated: 4/5/11 *Attach Community Assessment Form.*

Community Assessment Highlights (roads, water sources, primary fuel types, utilities and topography)

The Dillard Community Assessment Highlights are lack of water capacity, property accessibility, addressing issues, and public education. The community of Dillard received a score of 148 placing it in the "Moderate Risk" hazard range.

Roads:

There is approximately 47 miles of roads in this community. The road system consists of primary roads being paved while most secondary roads are gravel and/or dirt. The majority of these secondary roads are narrow and overgrown in many places. There are several dead-end roads that are too narrow for wildfire suppression equipment and in some cases are the only escape routes.

Topography:

The topography of Dillard is basically flat with a slight slope to the South/southeast. This slope is very slight and not noticeable but still enough for the water to flow to creeks and rivers.

Primary fuel types & Topography:

Vegetation consists of a mixture of hardwoods, red cedar, and native grasses. The heaviest concentrations of fuel can be found on undeveloped lots, and along low lying drainage areas. The topography is basically flat to rolling hills with rocky protrusions.

Water Sources in the community:

There are 0 hydrants located within the town limits and 0 hydrants out in the county area. Residents inside the Dillard Fire District are either on Waurika Rural Water District, or have their own wells.

Utilities:

The electric lines are above ground and the right-of-ways are not regularly maintained. Red cedar grows in abundance and is heavily located along fence rows and under power lines.

Community Wildfire History: (include surrounding areas)

Over the past 10 years Dillard has been threatened several times by a number of large wildfires. Major fires such as the ones in the winter of 2005 posed major threats to critical infrastructures and to human life. Due to the actions of brave volunteer firefighters, Dillard has escaped several potentially catastrophic occurrences with only minor property damage.

Relative Frequency:	There are approximately 30 wildland fires annually.
Common Causes:	Common causes include Hwy 70 traffic/cigarettes; agriculture equipment failure; electrical; burning of brush, oil field fires.
Areas of Future Concern:	Control burns; cleaning sides of roads; improving accessibility to pastures and structures, and oil field accidents.
Additional Comments:	With ZERO water hydrants in this district, there is a severe lack of water hydrants in Dillard. Dillard is served by waurika County Rural Water District that is comprised of a series of wells.



2) COMMUNITY BASE MAP AND OTHER VISUALS

Community base maps with and without aerial photography are instrumental in preparing a Wildfire Protection Plan

3) OBJECTIVES / GOALS

Objectives:

The objectives of this plan/report are to set clear priorities for the implementation of wildfire mitigation in the community and fire district of Dillard, Oklahoma. This includes prioritized recommendations for the community as a whole and also for individual homeowners where appropriate.

Goals:

1. Establish safety zones around all homes.
2. Reduce vegetative fuel loads along roadways, railroads, and other ignitable areas.
3. Replace poor performing fire hydrants and place additional fire hydrants to unprotected areas.
4. Increase accessibility for emergency vehicles.
5. Public Education



4) PRIORTIZED MITIGATION RECOMMENDATIONS

The following recommendations were developed by the Dillard Community Firewise Board Members and as a result of the community wildfire risk assessment and follow-up meetings with local, state, federal and community stakeholders, a priority order was determined based on which mitigation projects would best reduce the hazard of wildfire in the assessment area.

Proposed Community Hazard Reduction Priorities:

List area and treatment recommended.

1. Seek funding for at least 15 hydrants within the Dillard Fire District.
2. Develop a greater defensible space around residential structures.
3. Clean-up of vacant lots located in the fire district to reduce vegetative fuels in the district.
4. Encourage and assist with increasing driveway widths and standardized accessibility, particularly to pasture and oilfield sites, for responding fire fighters or emergency personnel.

Proposed Structural Ignitability Reduction Priorities:

1. Community education concerning increasing defensible space around residential structures
2. Assistance to elderly for individual home assessment to include heat/air sources.
3. Encourage and assist with increasing widths of driveways and city streets, and standardized accessibility, particularly to pasture and oilfield sites, for responding fire fighters or emergency personnel.

4. Maintain oil fields for low risk ignitability.

Proposed Education and Outreach Priorities:

1. Distribute FireWise Informational packets
2. Firefighters to present FireWise information during Fire Safety week in October
3. Booth or demonstration with FireWise Informational packets distributed during the annual Dillard Fire Department Appreciation Cook-out.





5) ACTION PLAN

Funding Needs:

Outline each project (list highest priority projects first) including estimated cost and potential funding sources.

1. Seek funding for at least 15 fire hydrants. Currently there are ZERO fire hydrants in the Dillard Fire District. Water lines are large enough to produce the water pressure need to handle the fire hydrant flow, but a booster station is needed for increased water pressure and adequate water capacity. Funding sources will be OWRB, CDBG, REAP for the water improvements and Oklahoma Forestry and FEMA for fire hydrants.
2. Addressing was not installed by Carter County when the E911 program was established, but additional address signage is needed on the structures. Dillard FD goes through Carter County and if applying for REAP it must be through the County. Therefore funding will be requested from the Carter County Commissioners from REAP and the E911 funds collected.
3. Currently the community of Dillard does not have a siren for warning the citizens of impending emergency conditions. Previous requests for funding for siren systems could not be granted due to the allocated money from Oklahoma Emergency Management being dispersed for larger emergencies such as the wildfires of 2005-2006. The Dillard FD will continue to seek funding from FEMA and Oklahoma Emergency Management as the money comes available.
4. Fuel and other miscellaneous expenses are needed to assist homeowners with improving the width of driveways using chainsaws and backhoes provided by local citizens. Community members will volunteer to help with this project but they would need to be reimbursed for out-of-pocket expenses. Also standard locks would be needed for placement with locks belonging to oilfield sites and local landowners to provide a standard method of accessibility during any emergency incident. Funding for this project will depend upon fundraising efforts of the fire department and generous donations from oilfield companies and private landowners.

Timetables:

For each project (list highest priority projects first), provide an estimated duration, start date and targeted completion date.

1. Placement of hydrants will depend upon the timeframe of any received grant. FEMA is usually awarded during the summer and placement could be completed within a 60 day period. REAP is usually awarded in late fall and placement could have to be postponed for 6 months due to adverse weather conditions.
2. Money will probably not be forthcoming from Carter County and/or citizens for any type of signage as the County is already strapped trying to meet unfunded mandates for the E911 program. Also, the community of Dillard is not a high priority in the larger picture of Carter County. Should money become available for this priority, volunteers from the Dillard Volunteer Fire Department as well as from the community would place proper signage within 120 days of receiving the requested signs.
3. Sirens can be professionally installed within 60 days after funds have been received for this project.
4. This project would be on a never ending timeframe to coordinate the efforts between the homeowners and the volunteers after assistance is provided for the necessary fuel and locks.

Assessment:

Describe the strategy used to assess the plans progress and effectiveness.

1. Meetings of the Dillard Community FireWise Board will review all projects and evaluate the efforts by holding periodical Public Hearings of the community and encouraging public discussion and input.
2. Before and after pictures structure addresses throughout the fire district.
3. Sound test once the siren is installed.
4. Comparison of previous annual fire incident reports, to the State Fire Marshall's office, to post-project annual fire incident reports.



6) WILDFIRE PRE-SUPPRESSION PLAN

A. Wildfire Protection Responsibility

Structural Protection: Dillard Volunteer Fire Department

Wildland Protection: Dillard Volunteer Fire Department, 13 other Carter fire departments has formal mutual aid agreements with.

B. Alarm Response

First Alarm

Fire Department/Rescue Squad	Travel Distance	Response Time
Dillard Volunteer Fire Department	Within 50 square miles	5-7 minutes
Wilson Fire Department	5 miles	10 minutes

Second Alarm (report to designated staging area)

Fire Department/Rescue Squad	Travel Distance	Response Time
Healdton	7	15
Sneed	4	20
Fox-Graham	5	20

C. Water Availability (must be accessible to fire engines)

Location: Smoke Shop Description: 4 inch hydrant

Location: Dillard Fire Station Description: 7,500-10,000 gallons stored on trucks

Location: _____ Description: _____

Location: _____ Description: _____

D. Communications (Attach Communications Plan if available)

Name	Phone Number	Radio Frequencies
Dispatch/Fire Departments		
Dillard VFD	580-220-2644	
Wilson FD	911/580-668-2136	
Healdton	911/580-229-1212	
Local Department of Forestry Office		
Kevin Keys	580-223-3973	
Other		
Tommy Sheppard (Rural Fire Dir.)	580-920-1388	N/A

E. Evacuation (Attach Evacuation Plan)

Evacuation map was determined by focusing on bringing the outermost residents living on gravel roads to paved roads and on to State Highways and then to destinations out of harm's way. Residents living within the community will be directed to State Highways and then to pre-determined safe destinations according to type of emergency incident. Evacuation map is attached.

F. Resource List

Name	Contact Information	Payment Information
Support Agencies		
SODA	Tommy Sheppard	Paid through State grant
Tractor Operators		
Carter County	Carter County Commissioners	N/A
Local Farmers	Local numbers	N/A
		N/A
		N/A
		N/A
Crews		
Utilities		
OG&E	1-800-272-9741	N/A
ONG	1-800-722-0353	
Fuel		
Food and Supplies		
Budget Mart	580-668-2698	
Lodging		



7) ADDITIONAL COMMENTS

Legend

Critical Facilities

Id

-  Church
-  Exxon Plant
-  Fire Station

9) ATTACHMENTS



Appendix A

*Community Wildfire Hazard
&
Risk Assessment Worksheet*

**OKLAHOMA FORESTRY DIVISION
COMMUNITY WILDFIRE RISK AND HAZARD ASSESSMENT**

Forestry Office: _____
 Community: Dillard County: Carter
 Latitude: 34.205 Longitude: -97.404
 Fire Department: Dillard VFD
 Date: 4/5/11
 Acres: 15000 ± Lots: 700 ± Homes: 1500 ± Future Homes 4/yr

CALCULATING THE WILDFIRE HAZARD RATING

SUBDIVISION DESIGN HAZARD RATING	+ SITE HAZARD RATING	+ BUILDING CONSTRUCTION HAZARD RATING	+ ADDITIONAL FACTOR HAZARD RATING	= OVERALL WILDFIRE HAZARD RATING
21	57	35	35	148

SUBDIVISION DESIGN RATING	Rating	
ACCESS		
Two or more roads	0	3
One road, plus alternative	3	
One road in/out	7	
SUBDIVISION BRIDGES		
No bridges or bridges with no weight and or width restrictions	0	0
Low weight or narrow bridges restricting emergency access	5	
PRIMARY ROAD WIDTHS		
>24 ft	0	4
>20 ft and <24 ft	2	
<20 ft	4	
ACCESSIBILITY		
Surfaced road, grade < 5%	0	5
Surfaced road, grade > 5%	2	
Non-surfaced road, grade < 5%	2	
Non-surfaced road, grade > 5%	5	
Other than all-season road	7	
SECONDARY ROAD TERMINUS		
< 300 ft with turnaround	0	4
> 300 ft with turnaround	2	
< 300 ft without turnaround	4	
> 300 ft without turnaround	5	
UNSAFE ROADWAY		
No flammable vegetation threat	0	5
Highly flammable vegetation along road	5	
STREET SIGNS		
Present 4 inches in size and reflective	0	0
Not present	5	
TOTAL SUBDIVISION DESIGN		21

**OKLAHOMA FORESTRY DIVISION
COMMUNITY WILDFIRE RISK AND HAZARD ASSESSMENT**

SITE HAZARD RATING: (Within 30 feet of structure based on a majority of the properties in the community)	Rating	
DRIVEWAY CHARACTERISTICS		
Less than 150 feet long	0	5
More than 150 ft with minimum 45 foot outside radius turnaround	3	
More than 150 ft with inadequate turnaround	5	
Average driveway width more than 12 ft	0	5
Average driveway width less than 12 ft	5	
No obstructing overhead branches below 15 ft	0	0
Obstructing overhead branches below 15 ft	5	
No bridges or bridges with no weight or width restrictions	0	5
Bridges restricting emergency vehicle access	5	
Slopes level or less than 10 %	0	0
Slopes over 10%	5	
No gate/non-locking gate	0	5
Locked gate	5	
Address clearly visible from road	0	5
Address not visible from road	5	
DOMINANT TREES (within 100 ft of homes)		
Deciduous	1	5
Mixed	5	
Evergreen	10	
LADDER FUELS		
Evergreen branches close to ground	5	5
Evergreen branches pruned up at least 6 ft	0	
VEGETATION (predominant type throughout community)		
Light (e.g. grasses and forbs) NFDRS Fuel Models A, C, L, N, S and T	5	10
Medium (e.g. light brush and small trees) NFDRS Fuel Models D, E, F, H, P, Q and U	10	
Heavy (e.g. dense brush, timber and hardwoods) NFDRS Fuel Models B, G and O	20	
Slash (e.g. timber harvesting residue) NFDRS Fuel Models J, K and L	25	
SLOPE OF PROPERTY		
Flat (0-5%)	0	2
Moderate (6-20%)	2	
Steep (over 20%)	4	
DEFENSIBLE SPACE		
No trees, shrubs or tall grass within 30 ft	0	10
Well spaced trees and shrubs within 30 ft	10	
Touching crowns or tall grass within 30 ft	20	
No unthinned or unmanaged timber within 100 ft	0	0
Unthinned or unmanaged timber within 100ft	5	
TOTAL SITE HAZARD RATING		59

OKLAHOMA FORESTRY DIVISION
COMMUNITY WILDFIRE RISK AND HAZARD ASSESSMENT

BUILDING CONSTRUCTION HAZARD RATING		Rating
ROOFING MATERIALS		
Greater than 75% of homes have metal, tile or Class A shingles	0	15
50 to 75% of homes have a metal, tile or Class A shingles	10	
Less than 50% of homes have metal, tile or Class A shingles	15	
SIDING / SOFFETS		
Greater than 75% of homes have fire resistant siding and soffets	0	10
50 to 75% of homes have fire resistant siding and soffets	5	
Less than 50% of homes have fire resistant siding and soffets	10	
UNDERSKIRTING		
Greater than 75% of homes have the equivalent of fine mesh screening underneath	0	10
50 to 75% of the homes have the equivalent of fine mesh screening underneath	5	
Less than 50% of the homes have the equivalent of fine mesh screening underneath	10	
TOTAL BUILDING CONSTRUCTION HAZARD RATING		35

ADDITIONAL HAZARD FACTORS		Rating
FIRE CONTROL WATER SUPPLY		
Pressurized hydrants with minimum 500 gpm < 1,000 ft apart	0	7
Pressurized hydrants with < 500 gpm or spaced > 1,000 ft apart	2	
Dry hydrant(s) available year round within the community	2	
Other accessible sources within community	5	
Water sources located within 4 road miles of community	7	
No water sources within 4 miles of the community	15	
UTILITIES		
Both underground	0	3
One underground, one above ground	3	
Both aboveground	5	
SURROUNDING ENVIRONMENT		
Community is not surrounded by any large natural landscape	0	10
Large natural landscape adjoins one side of the community	5	
Large natural landscape adjoins two sides of the community	10	
Large natural landscape adjoins three sides of the community	15	
Community is completely surrounded by natural landscape	20	
UNDEVELOPED LOTS		
Less than 10% of lots have not been developed and pose no additional wildfire hazard due to lack of maintenance	0	5
10 to 50% of lots have not been developed	3	
51 to 75% of lots have not been developed	5	
Greater than 75% of lots have not been developed	10	
RISK LOCATION		
Community is located within the following designated Wildfire Risk Areas according to the Southern Wildfire Risk Assessment		
Low	0	10
Medium	10	
High	20	
TOTAL ADDITIONAL HAZARD FACTORS		35

OKLAHOMA FORESTRY DIVISION
COMMUNITY WILDFIRE RISK AND HAZARD ASSESSMENT

What does the Wildfire Hazard Rating mean?

Using the Wildfire Hazard Assessment, the highest possible rating is 247 points.

Communities can be divided into the following four risk categories:

- Low Risk:** **Total Wildfire Hazard Rating is 0 – 90 points**
The chances of a majority of homes in the community surviving a wildfire are **GOOD**. Little is needed to improve the community. Keep up the good work.
- Moderate Risk:** **Total Wildfire Hazard Rating is 91 – 155 points**
The chances of a majority of homes in the community surviving a wildfire are **FAIR**. Some minor improvements will make the community more fire resistant. Check the areas on the form in which you scored poorly.
- High Risk:** **Total Wildfire Hazard Rating is Over 155 points**
The chances of a majority of homes in the community surviving a wildfire are **NOT GOOD**. Some improvements in structure and site are necessary.
- Extreme Risk:** **Total Wildfire Hazard Rating is Over 170 points**
The community **MAY NOT SURVIVE** if a wildfire passes through the area. Take a serious look at your community and make improvements. If you don't, you may be facing disaster. You will find that even small changes could make the difference.

HAZARD is defined as the potential fire behavior based on physical fuel characteristics.

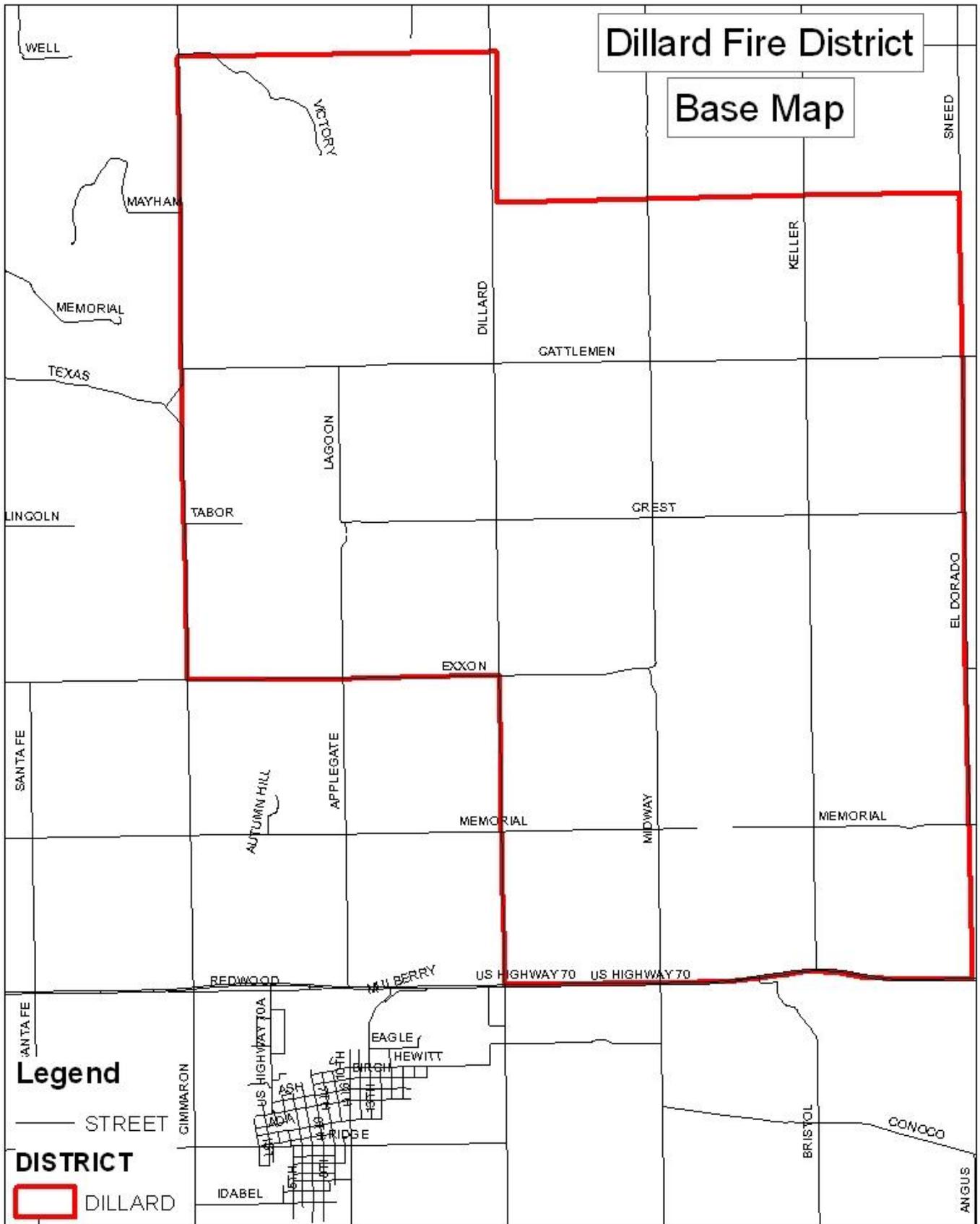
Risk is defined as the probability of fire occurrence determined by the number, presence and activity of potential ignition sources.

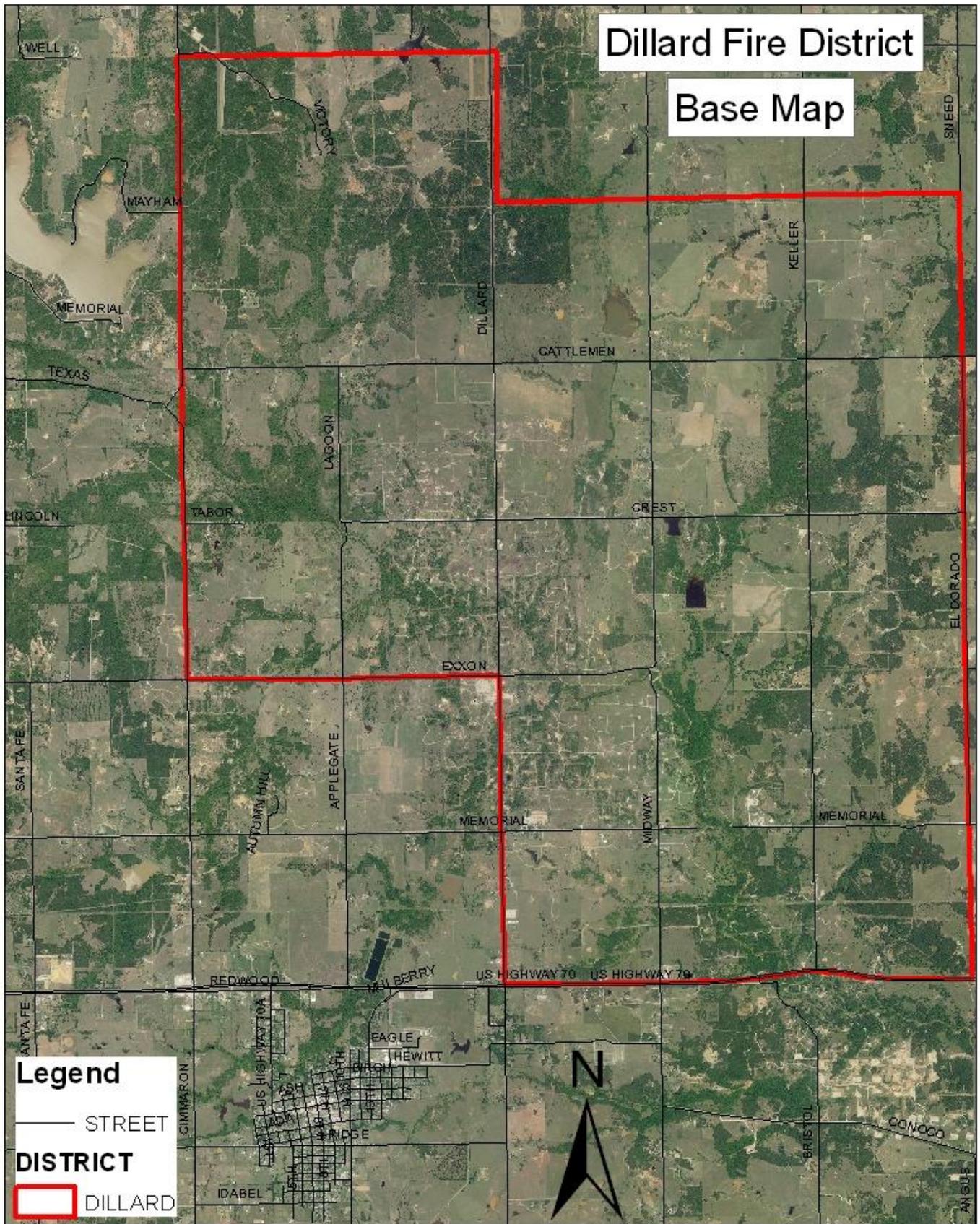
This form may be used to evaluate your community to determine the level of wildfire risk. It covers roughly one-half of the hazards normally taken into account in calculating fire risk, but does provide an approximate indication of true risk. For more information on your home's fire risk, or for more complete evaluation of your property, contact your local Oklahoma Department of Agriculture, Food and Forestry, Forestry Services office.



Appendix B

Community Base Maps





A photograph of a green fire hydrant standing in a grassy field. The hydrant is the central focus, with its top cap and side valves visible. The background is a soft-focus field of tall grass. The image is overlaid with a semi-transparent white circle.

Appendix C

Educational Handouts

SURVIVABLE SPACE

Do you have at least 30 ft of space surrounding your home that is Lean, Clean and Green?

The objective of Survivable Space is to reduce the wildfire threat to your home by changing the characteristics of the flammable vegetation.

Lean – Prune shrubs and cut back tree branches, especially within 15 feet of your chimney.

Clean – Remove all dead plant material from around your home; this includes dead leaves, dry vegetation and even stacked firewood.

Green – Plant fire-resistant vegetation that is healthy and green throughout the year.

Survivable space provides a safety zone around your home.

FIRE-RESISTANT ATTACHMENTS

Attachments include any structure connected to your home, such as decks, porches or fences. If an attachment to a home is not fire-resistant, then the home as a whole is not firewise.

A DISASTER PLAN

The time to plan for any emergency is prior to the event. Take a few minutes to discuss with your family what actions you will take.

- Post local emergency/telephone numbers in a visible place.
 - Leave before it's too late. Decide where you will go and how you will get there. With fire, you may only have a moments' notice. Two escape routes out of your home and out of your neighborhood are preferable.
 - Have tools available, such as a shovel, rake, axe, hand saw or chainsaw.
 - Maintain an emergency water source.
 - Have a plan for your pets.
 - Practice family fire drills.
- EMERGENCY** Evacuations for a wildfire can occur without notice. When wildfire conditions exist, be ready to take action.

A FIREWISE HOME HAS . . .

LEAN, CLEAN AND GREEN LANDSCAPING

With firewise landscaping, you can create survivable space around your home that reduces your wildfire threat. Large trees should be pruned so that the lowest branches are at least 6 to 10 ft high to prevent a fire on the ground from spreading to the tree tops. Within the survivable space, remove flammable plants that contain resins, oils and waxes that burn readily; ornamental junipers, yuccapoin holly, red cedar, and young pine. A list of less-flammable plants can be obtained from your local state forester, forestry office, county extension office or landscape specialist.

Although mulch helps retain soil moisture, when dry, it can become flammable. Mulch as well as all landscaping should be kept well watered to prevent it from becoming the fuel.

FIRE-RESISTANT ROOF CONSTRUCTION

Firewise construction materials include Class-1 asphalt shingles, metal, tile and concrete products. Additionally, the inclusion of a fire-resistant sub-roof adds protection.

Something as simple as making sure that your gutters, eaves and roof are clear of debris will reduce your fire threat.

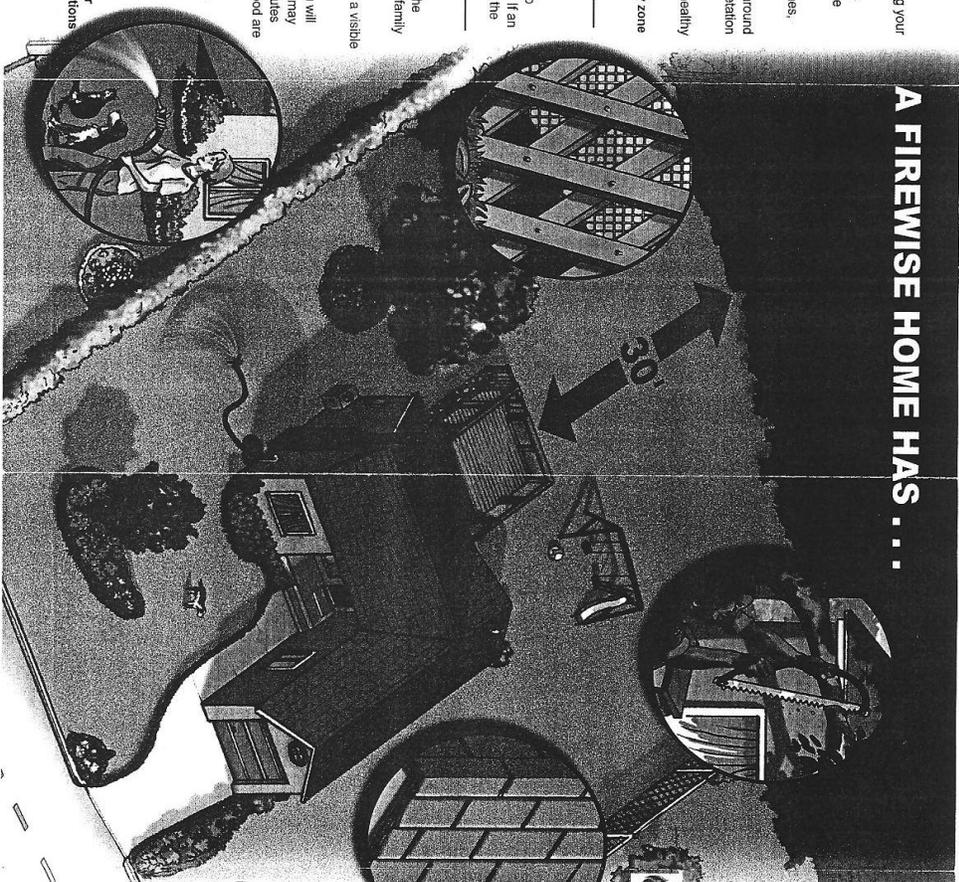
FIRE-RESISTANT EXTERIOR CONSTRUCTION

Wall materials that resist heat and flames include brick, cement, plaster, stucco and concrete masonry. Tempered and double pane glass windows can make a home more resistant to wildfire heat and flames.

Although some vinyl will not burn, some vinyl soffits can melt, allowing embers into the attic space.

EMERGENCY ACCESS

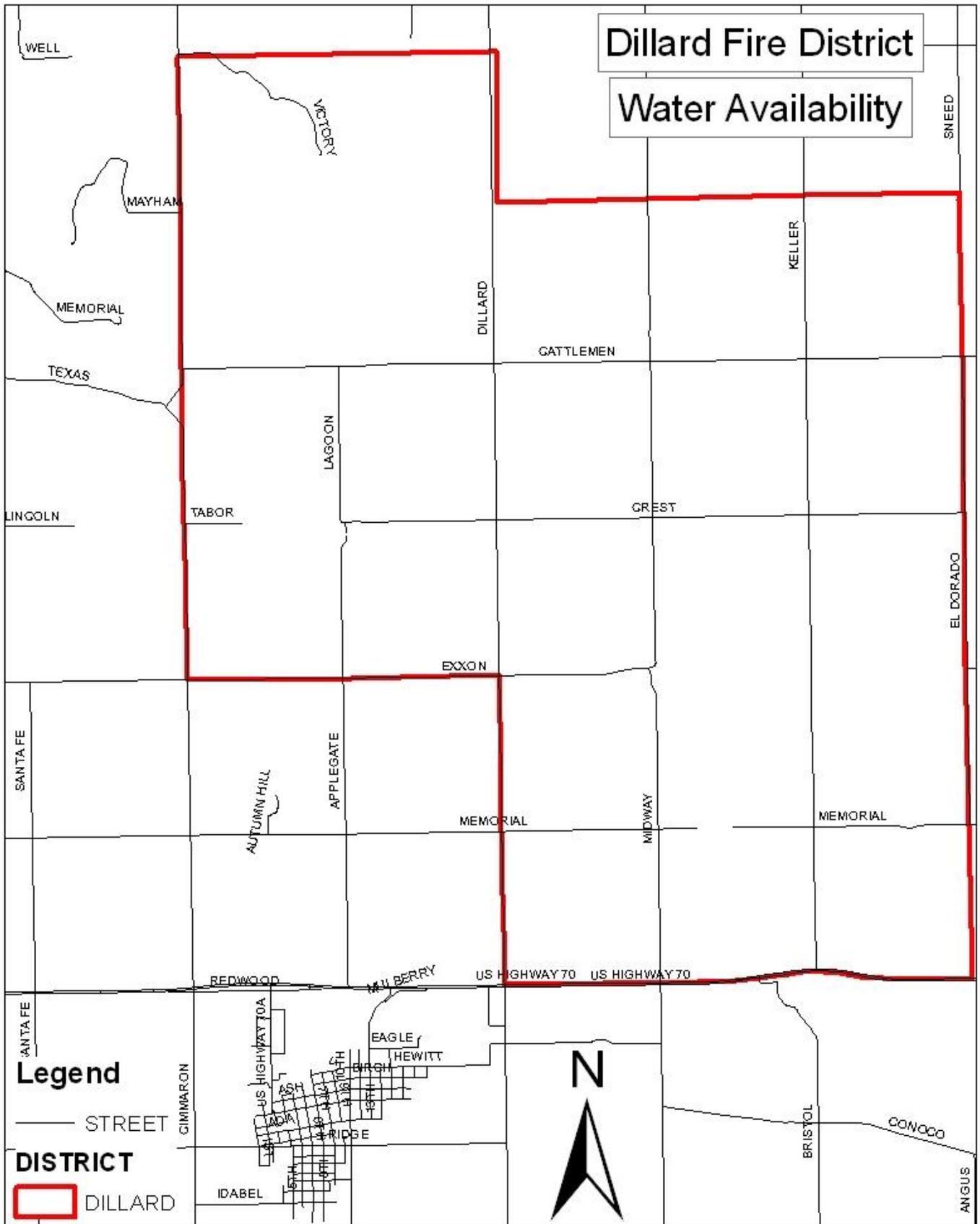
Identify your home and neighborhood with legible and clearly marked street names and numbers so response vehicles can rapidly find the location of the emergency. Include a driveway that is at least 12 feet wide with a vertical clearance of 15 feet – to provide access to emergency apparatus.

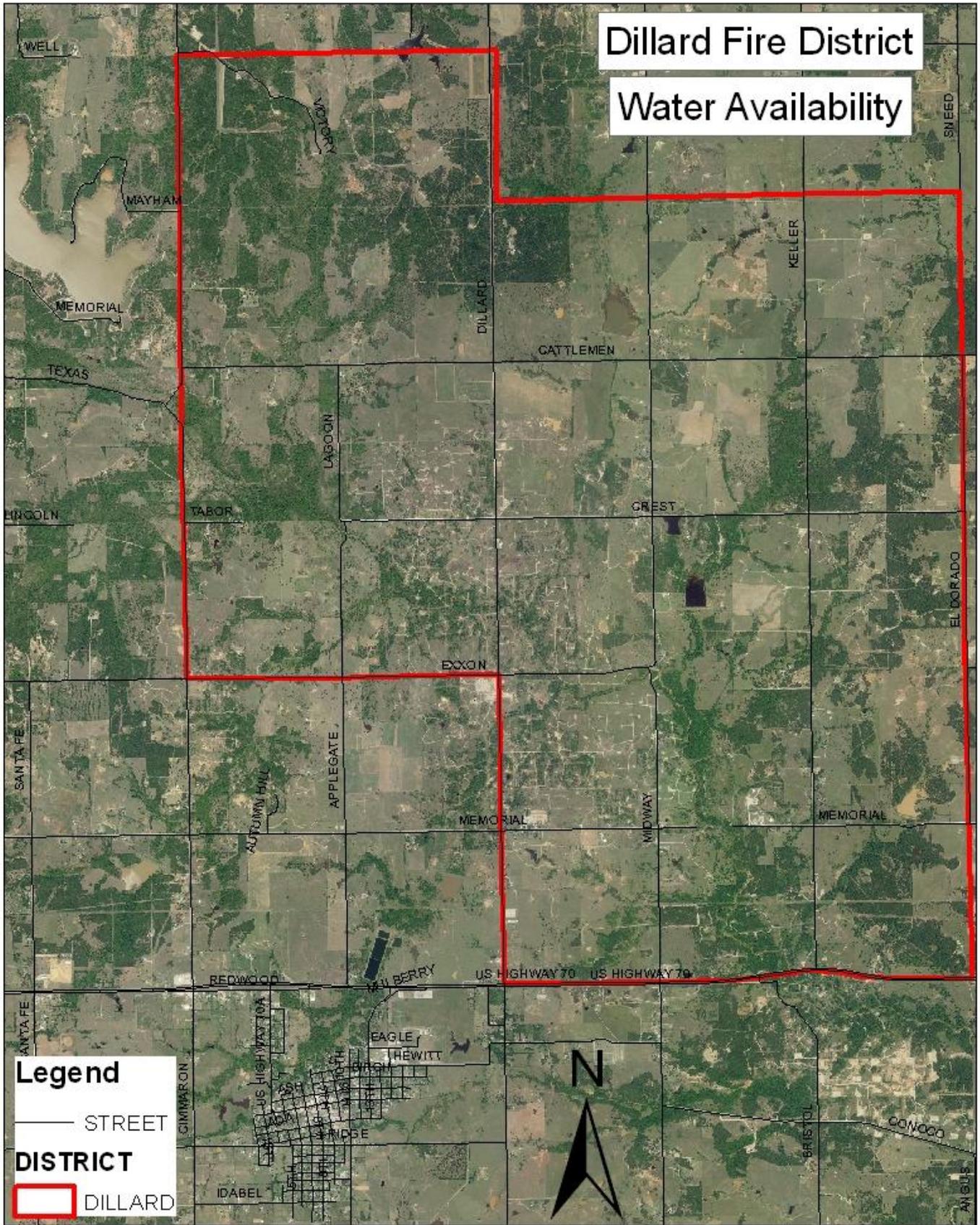




Appendix D

Water Availability

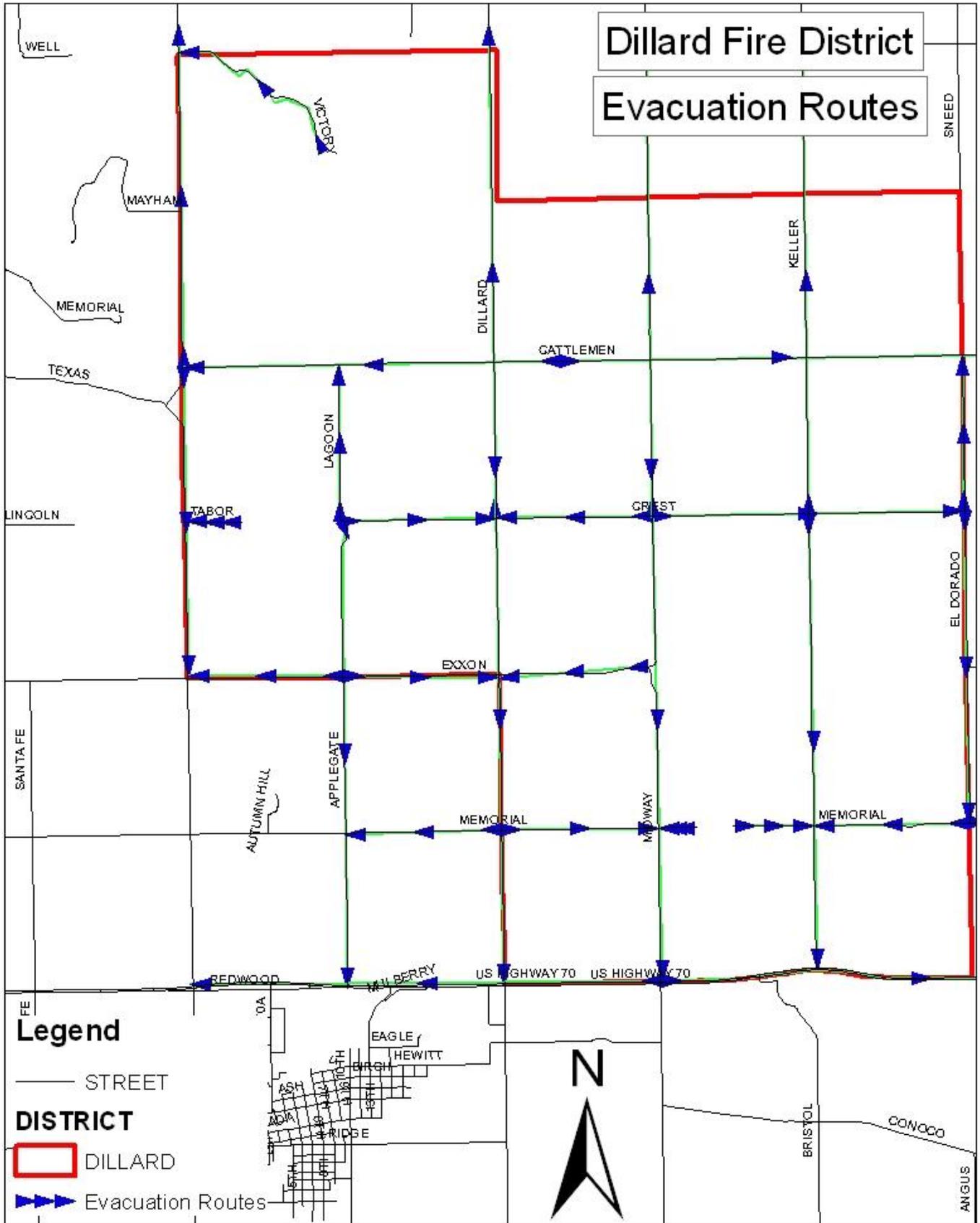


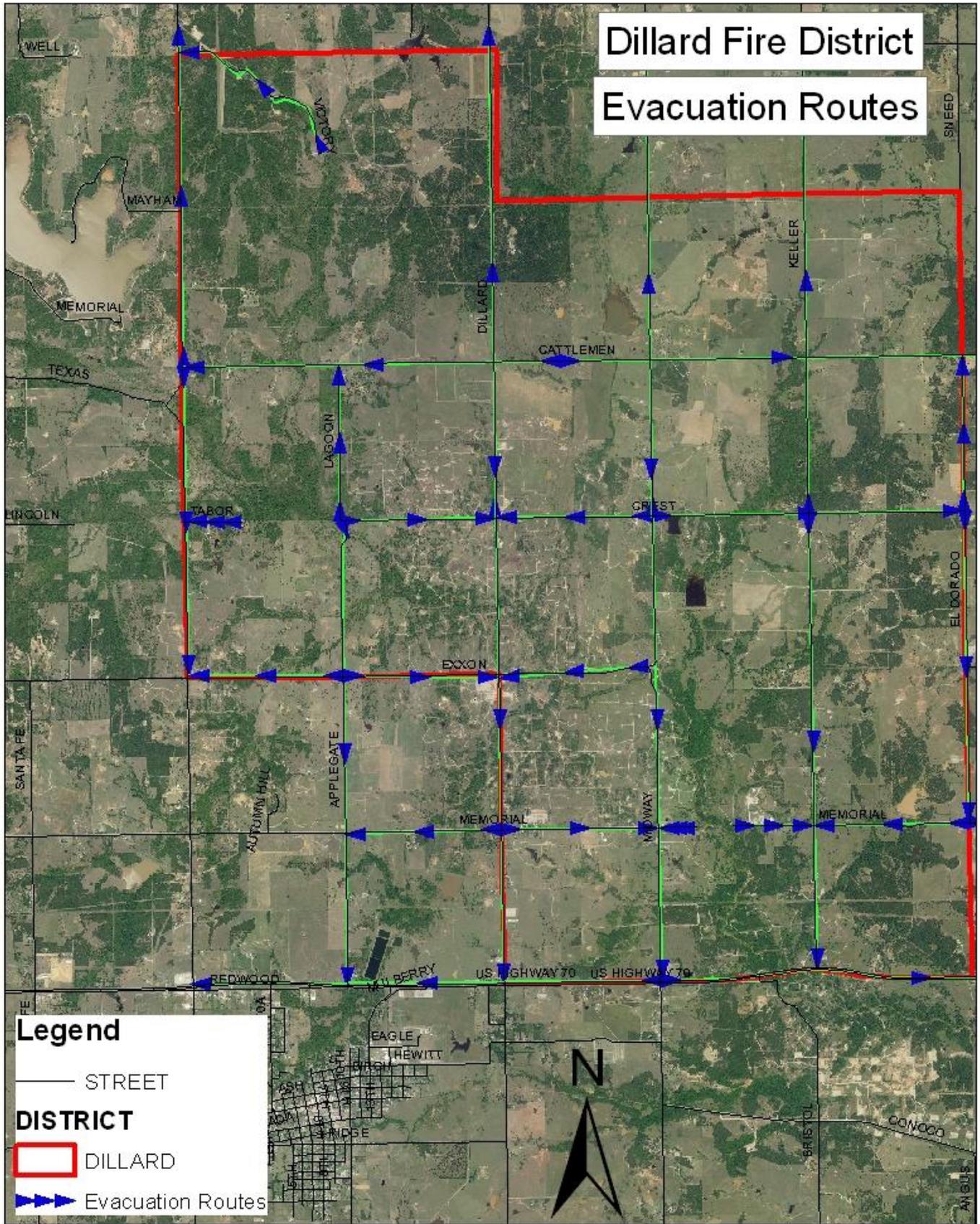




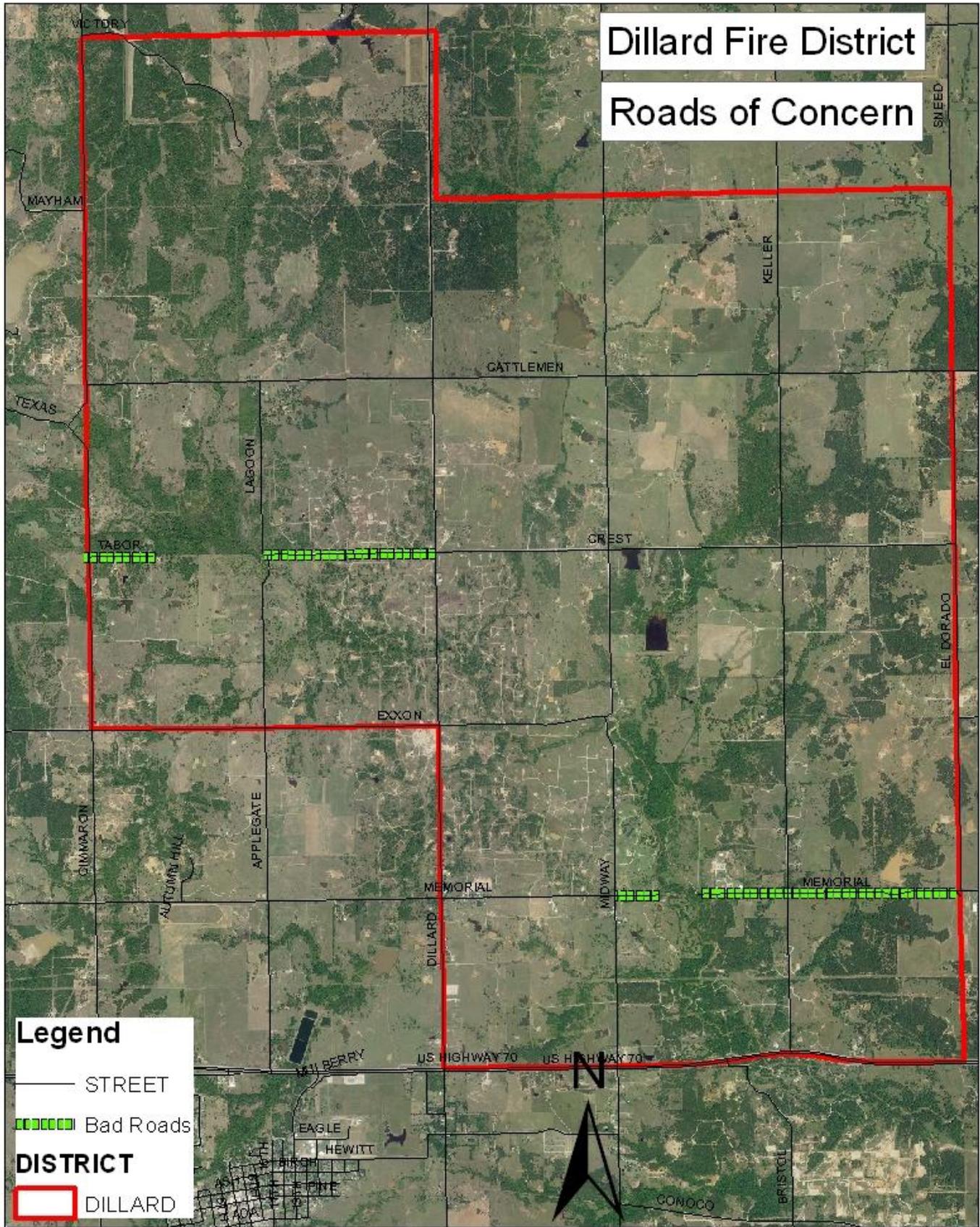
Appendix E

Evacuation





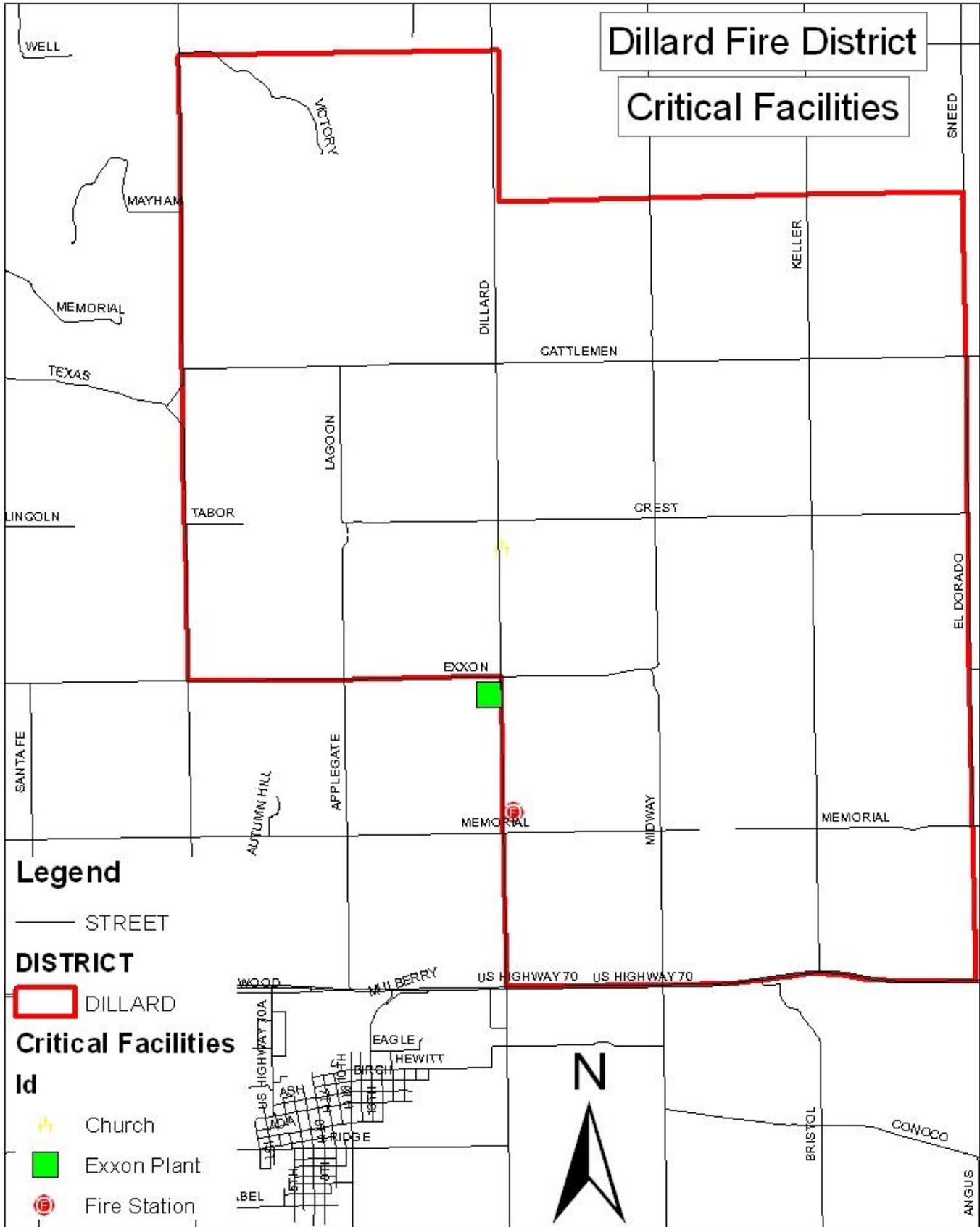


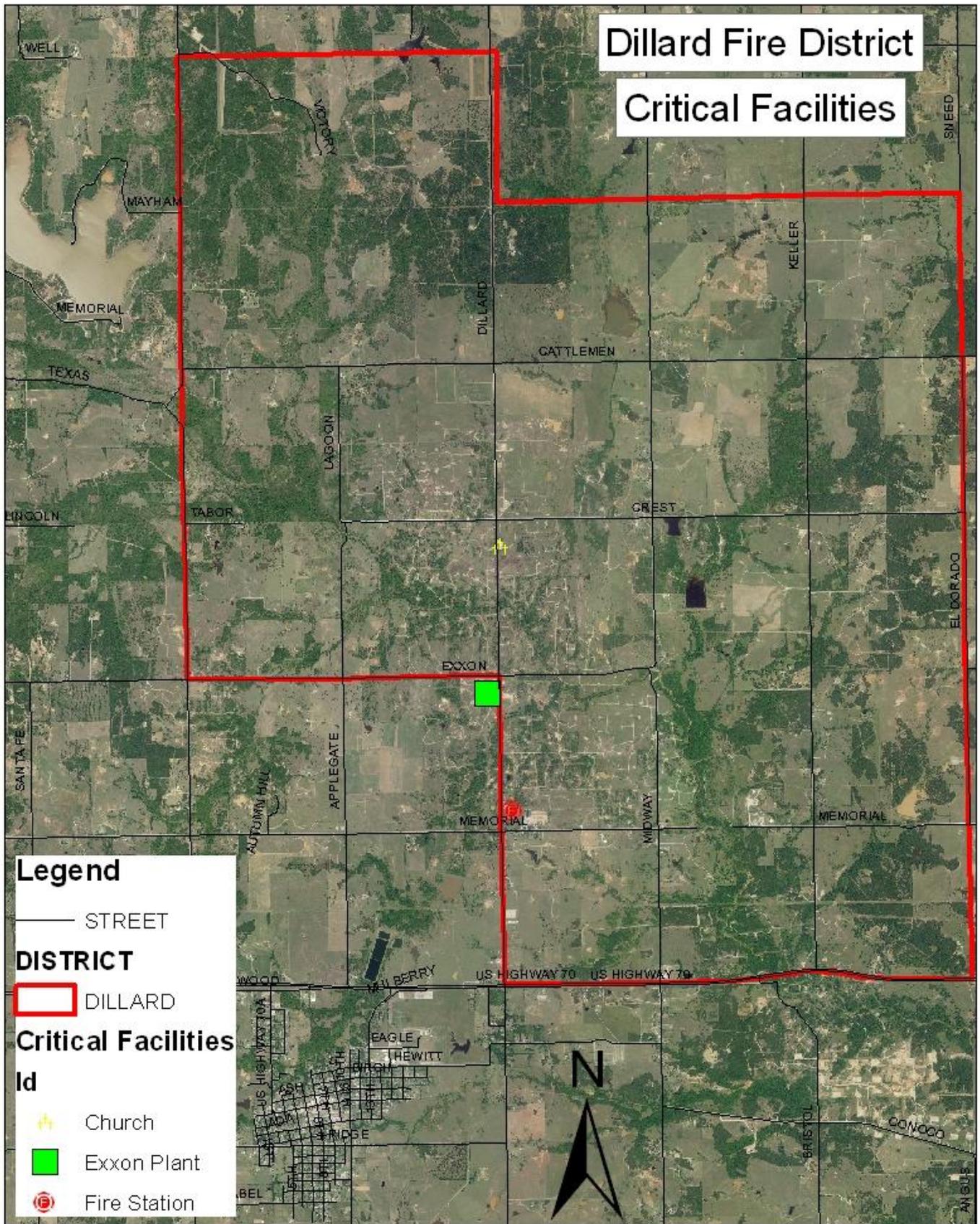




Appendix F

Critical Facilities

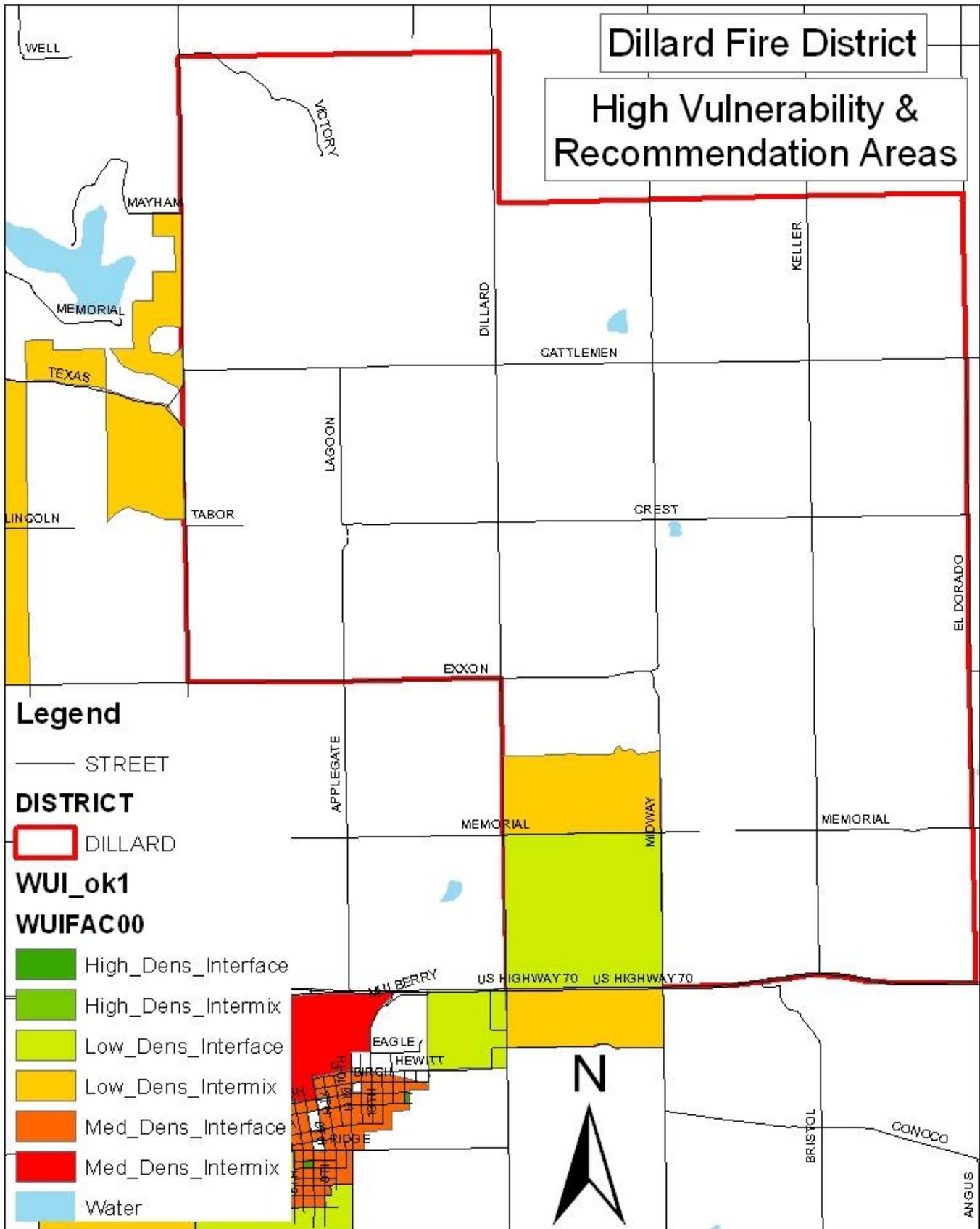


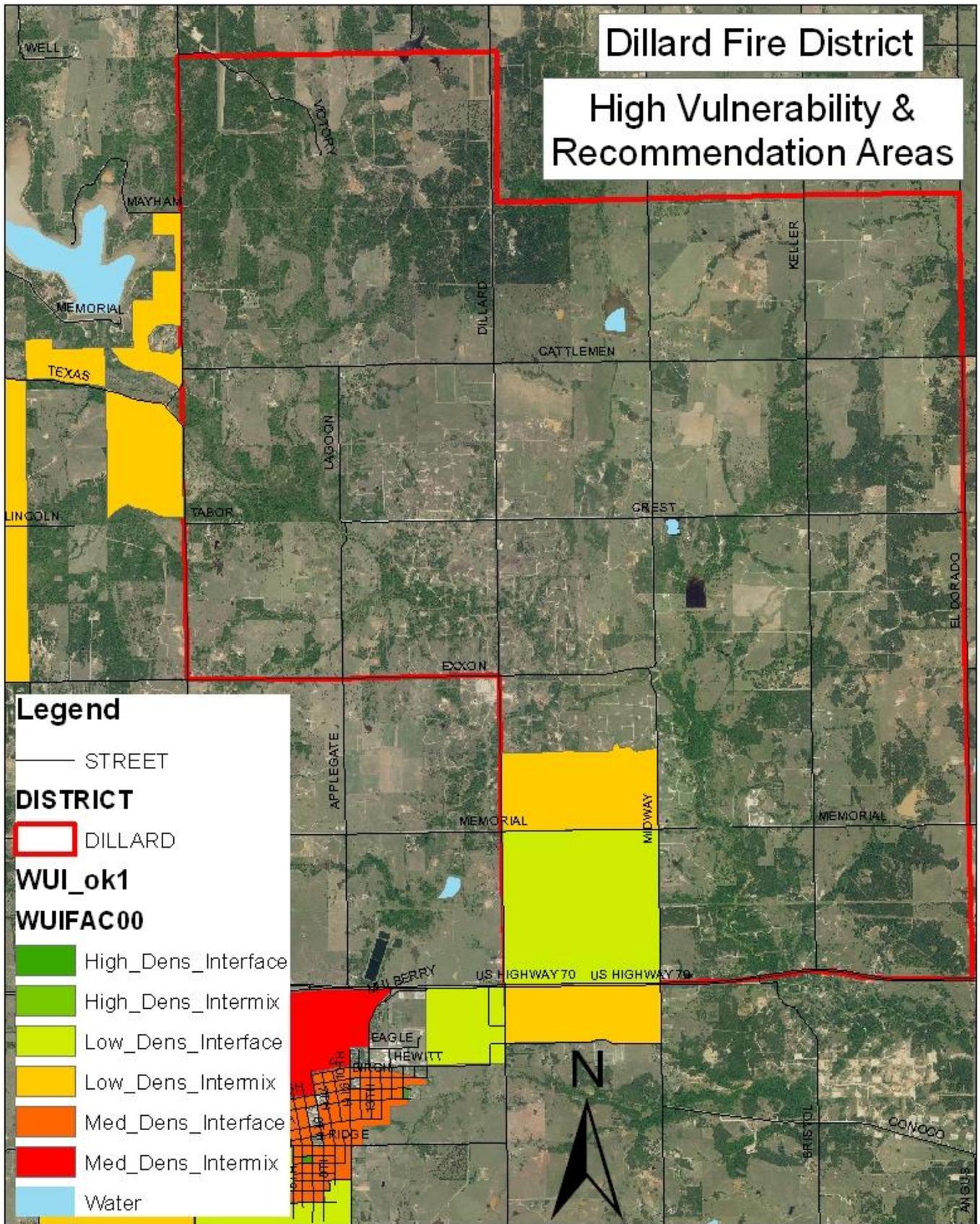


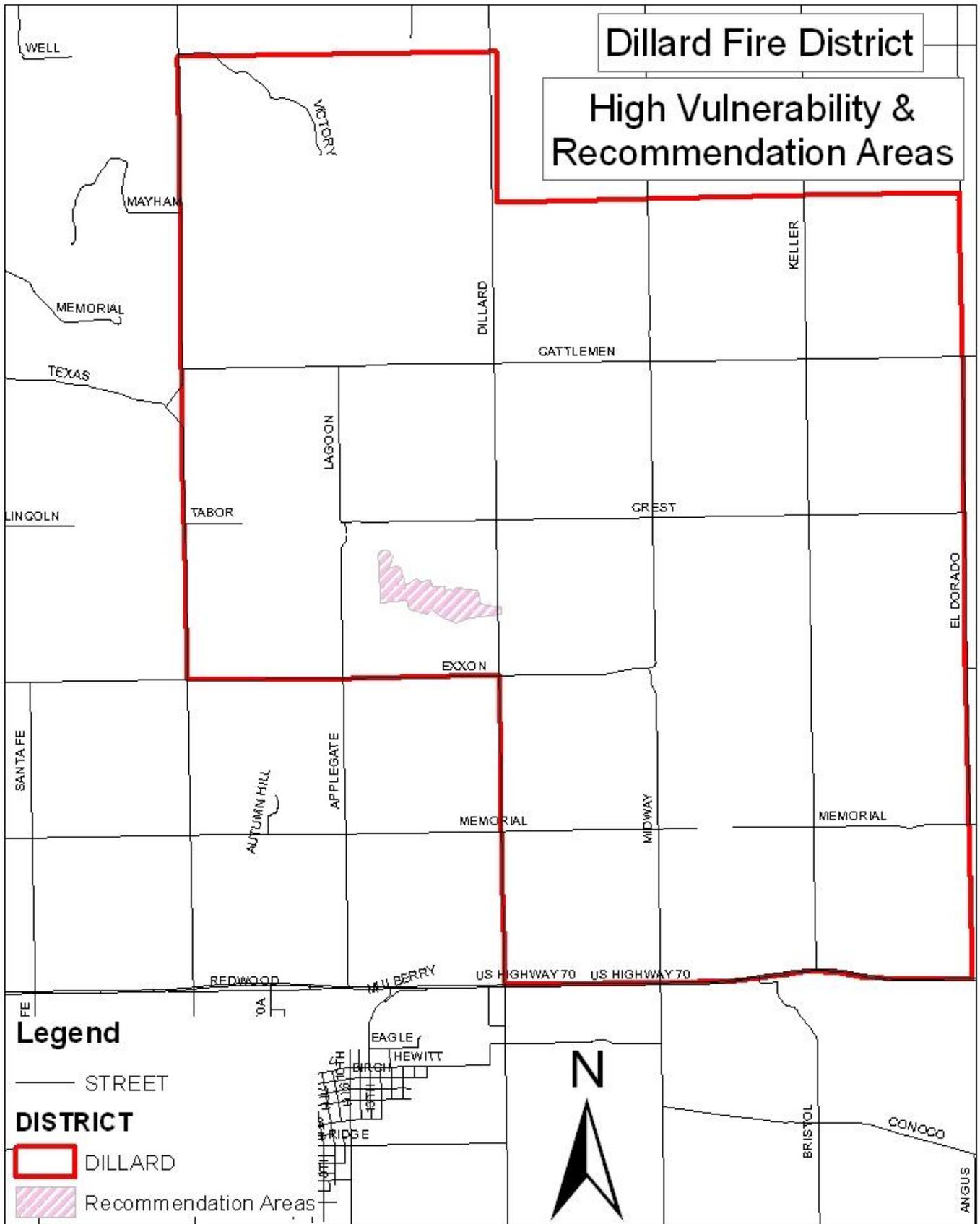


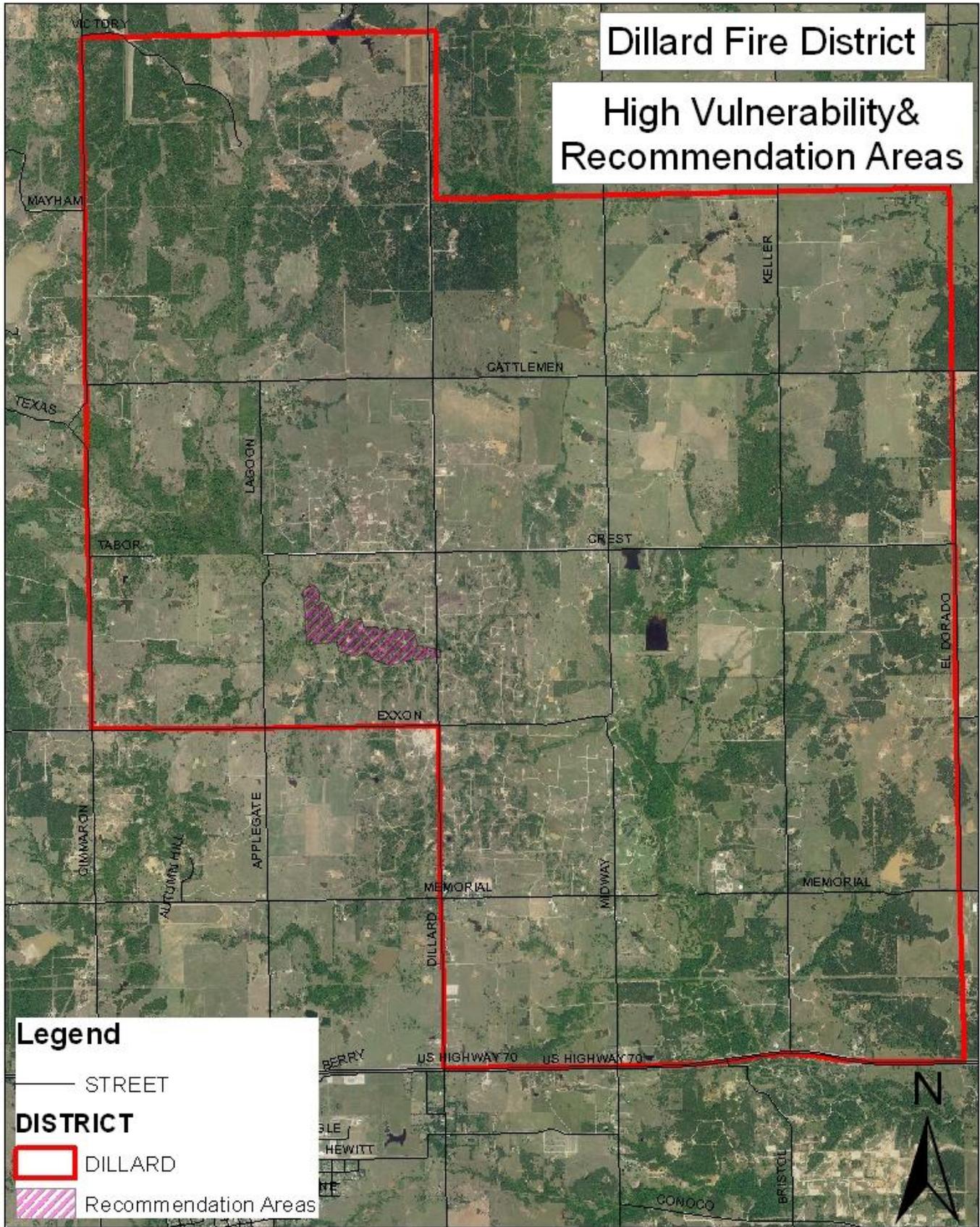
Appendix G

*High vulnerability Areas
&
Recommendations*











Appendix H

Misc.