

TOWN HALL MEETING- STRATEGIC THREATS TO LOCAL FIRE PROTECTION



BURNET EMERGENCY
SERVICES DISTRICT 9 /
SPICEWOOD FIRE
RESCUE



January 29th, 2025



WELCOME

INTRODUCTIONS:

BCESD 9 BOARD OF COMMISSIONERS

BURNET COUNTY PRECINCT 1 COMMISSIONER, JOE DON DOCKERY

COMMUNITY LEADERS / HOAs / POAs/ WATCER SUPPLIERS

LOGISTICS:

RESTROOMS, BREAKS, MATERIALS

ESD 9: WHO WE ARE & WHAT WE PROTECT



- A five-person Board of Commissioners, that are appointed by County Commissioner Dockery.
- We serve two-year terms.
- We manage the collection and spending of ***your*** tax revenue.
- 40% of our revenue is sales tax, 60% is property tax. **With that, we provide:**

1) ALS and BLS Emergency Medical Response.

2) Fire Response and Suppression.

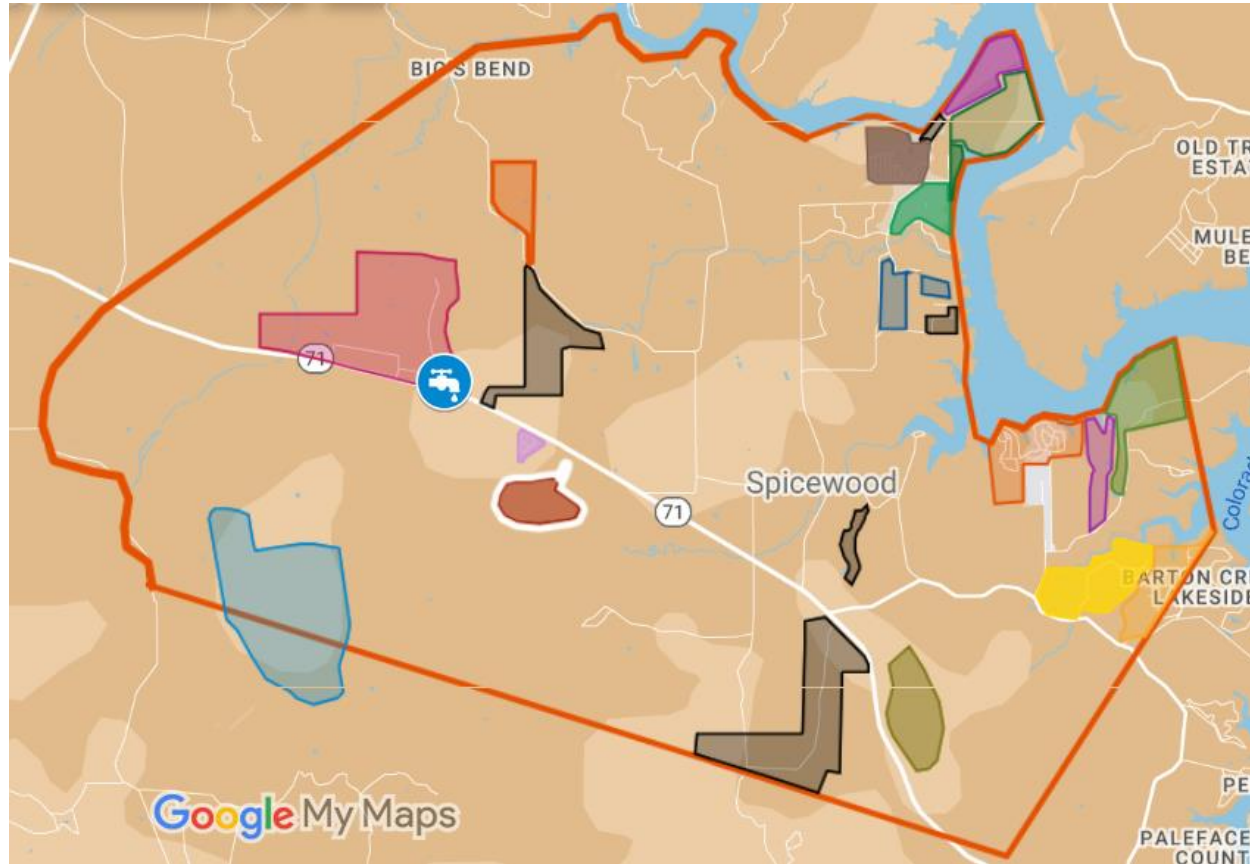
3) Rescue / Hazardous Condition Responses.

A) Facilities / stations for EMS and Fire

B) Commercial development plan review
and permitting.

C) Fire prevention and public education.

WHO WE ARE & WHAT WE PROTECT

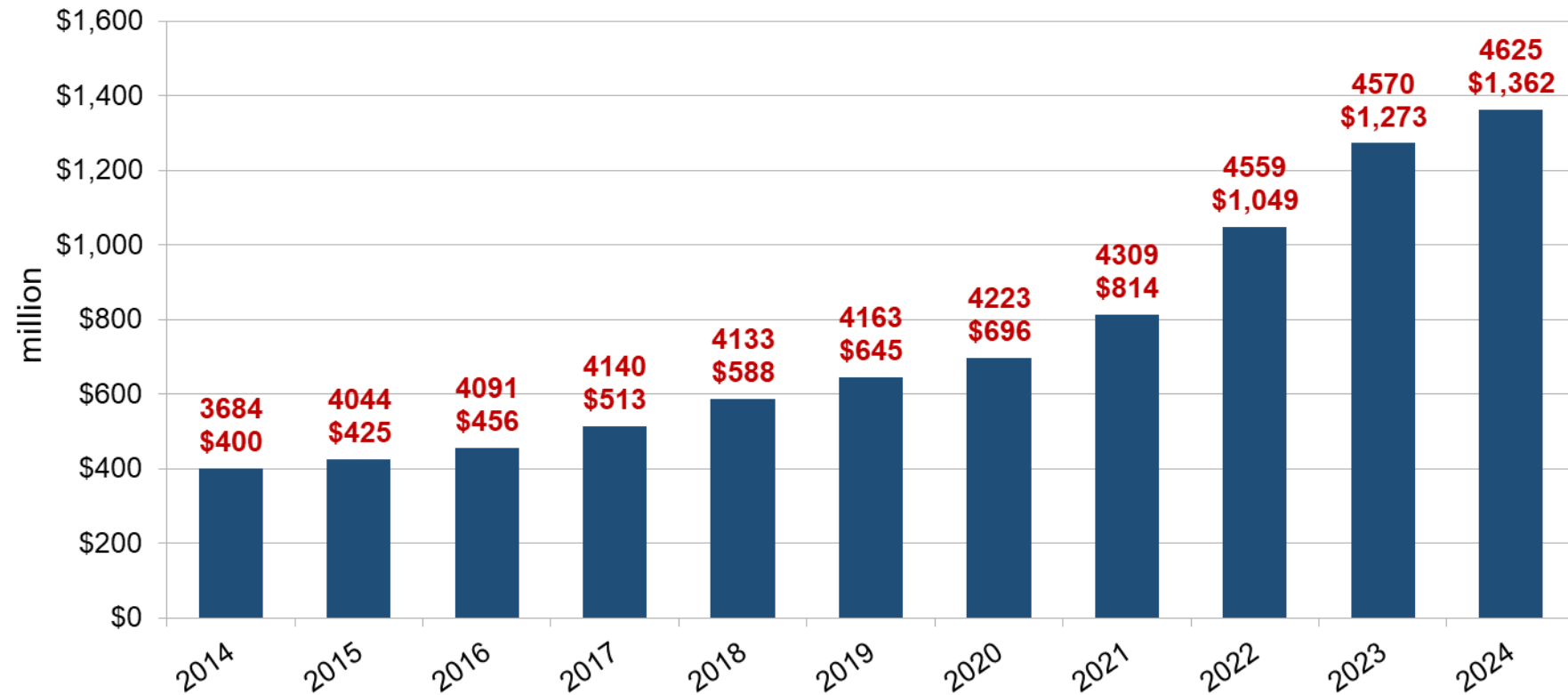


- ~ 50 square miles.
- 5000-6000 population.
- ~ 20 identified neighborhoods
- With 1620 single-family parcels.

Growth



Number of Parcels and Net Tax Value in BC ESD 9 a 10-yr. trend

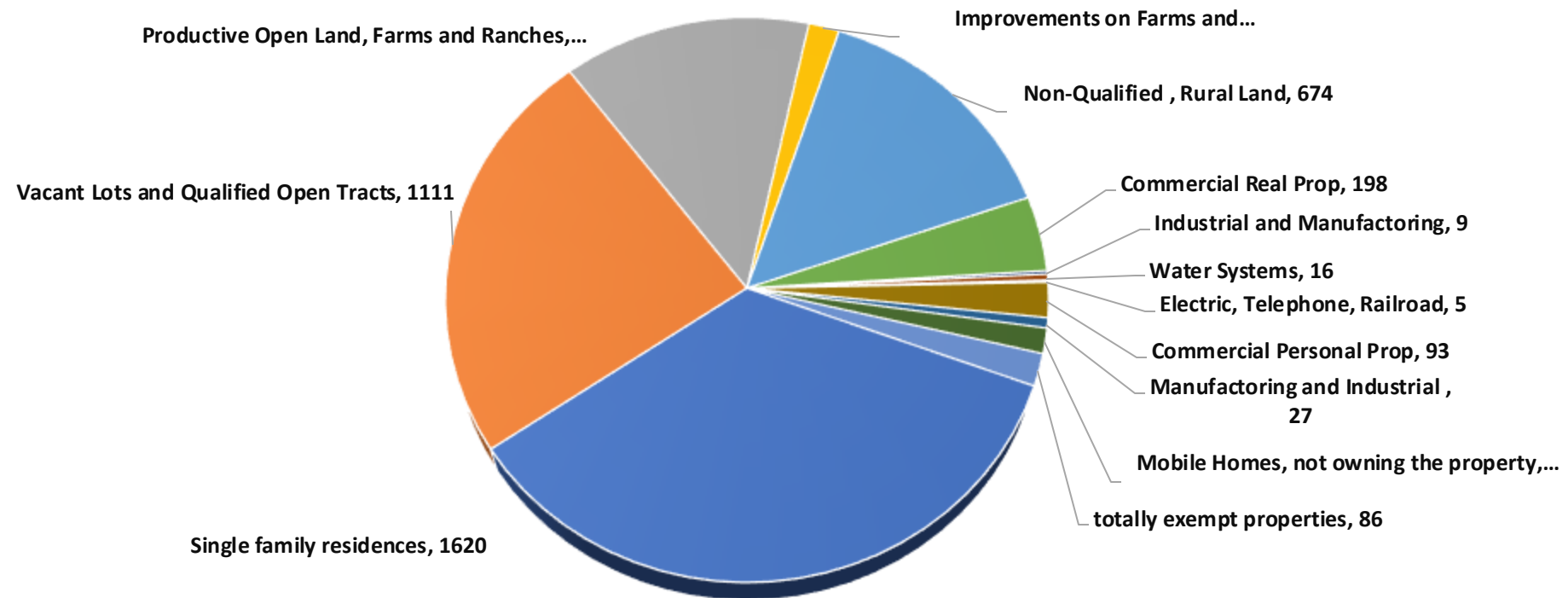


Data Source: BC Central Appraisal District Annual Review Board reports.

Growth



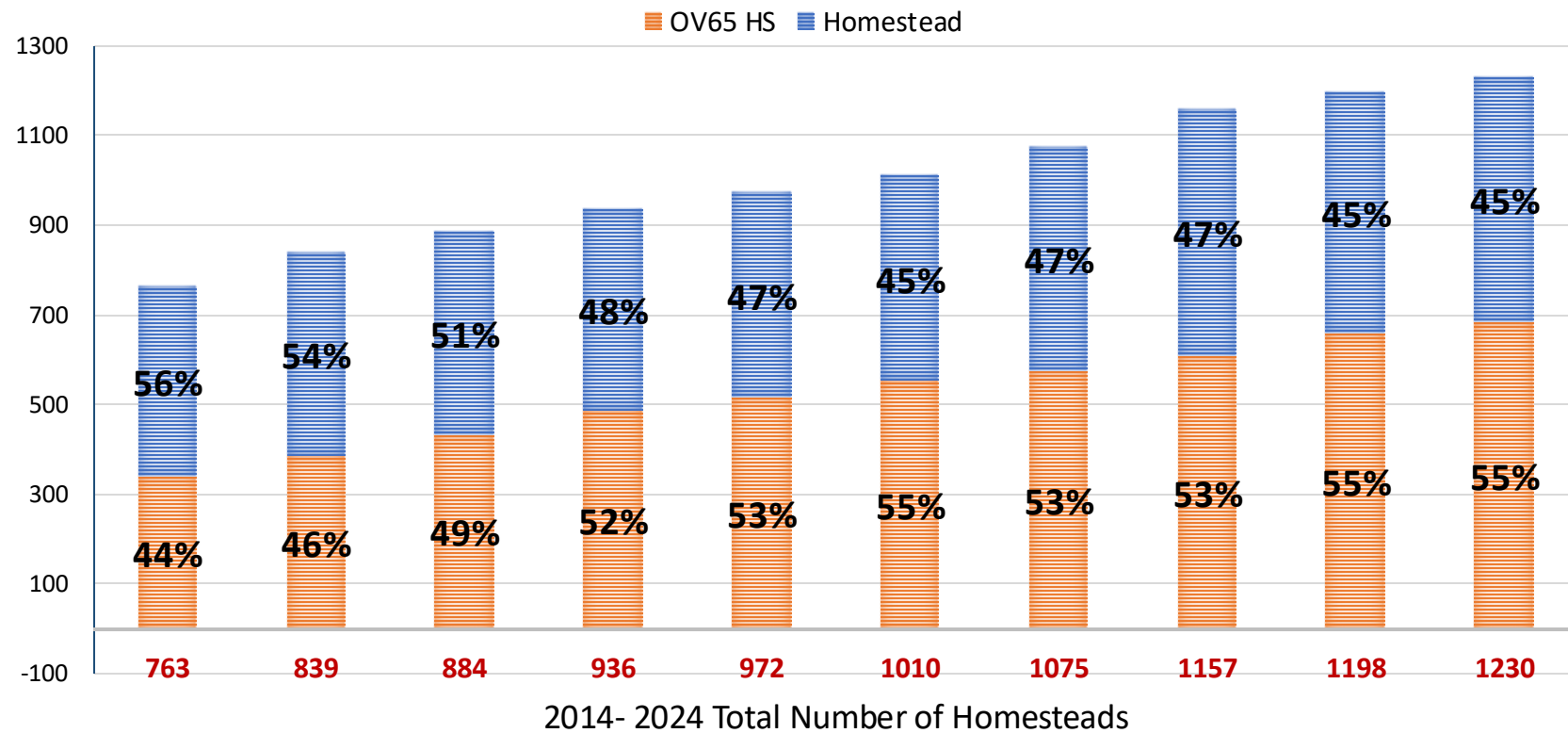
In 2025, we protect 4625 parcels of property.



Change – Why the Demand is Greater



NUMBER OF HOMESTEAD PROPERTIES & PERCENTAGE OV65





THREATS WE ALL FACE:

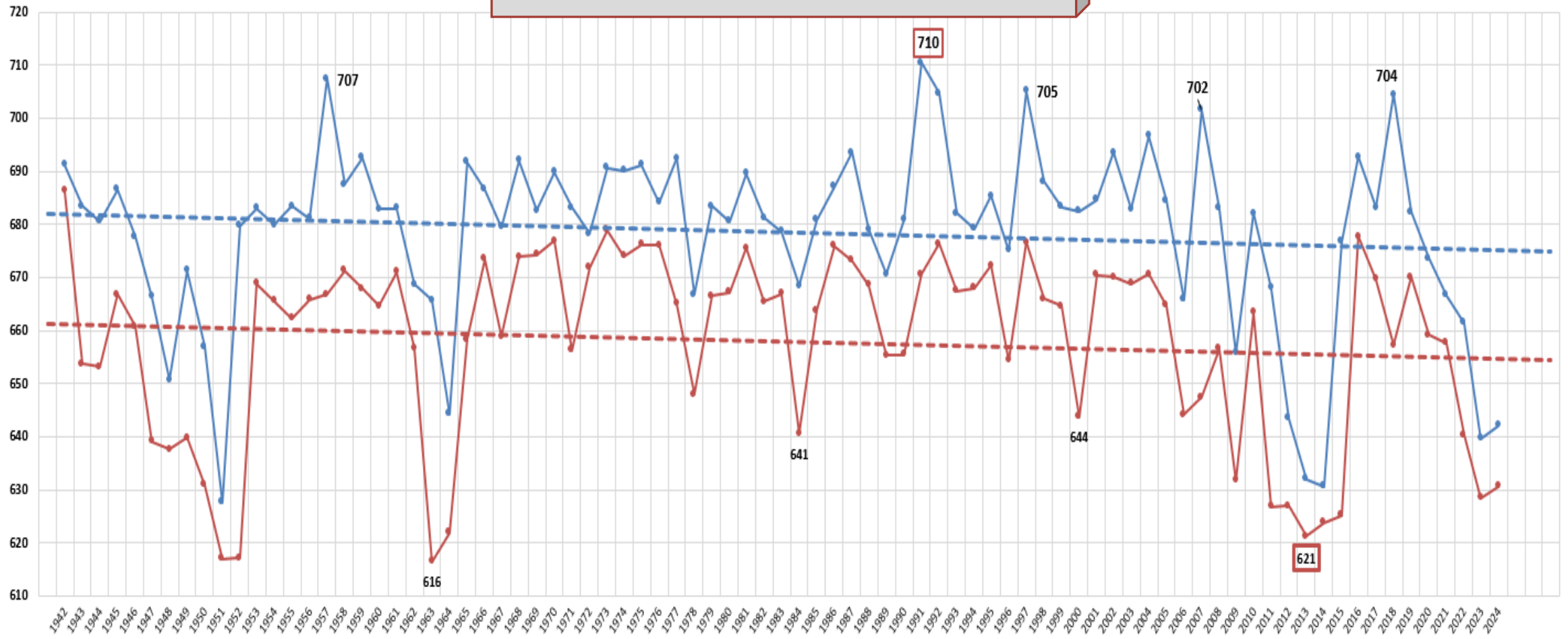
I. Medical Emergencies (#1 call type, 60% of all calls).

II. Traffic Accidents / Collisions / Rescues

III. Wildfires & Structure Fires ** tonight's focus

IV. Droughts and Lower Water Tables **** tonight's focus**

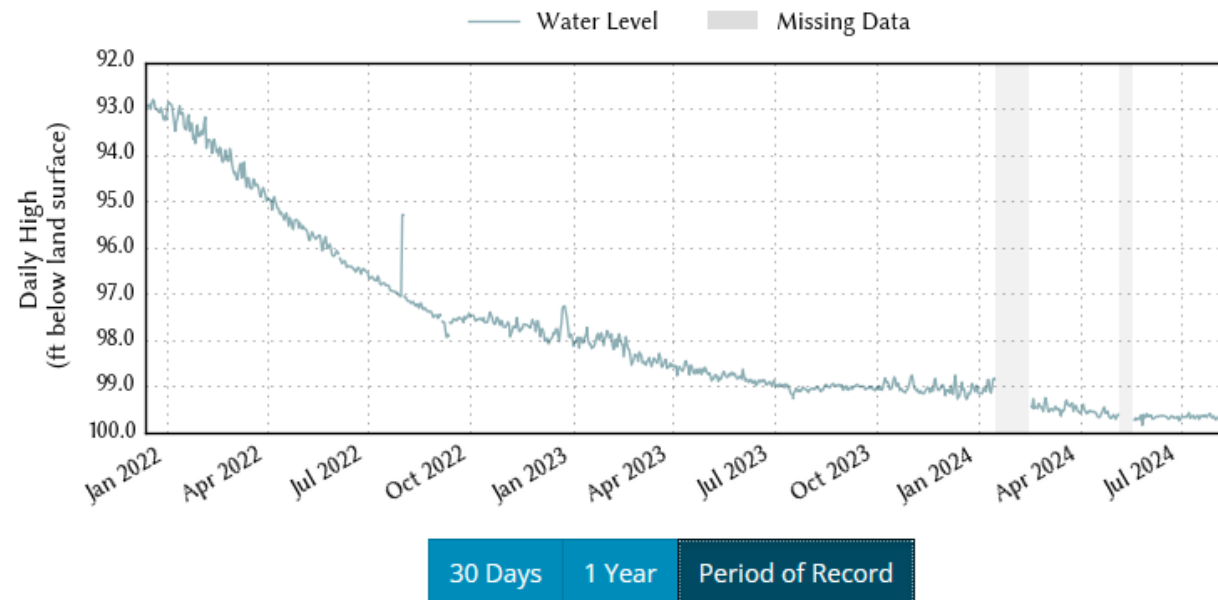
Certainly, a major point of the conversation, but...



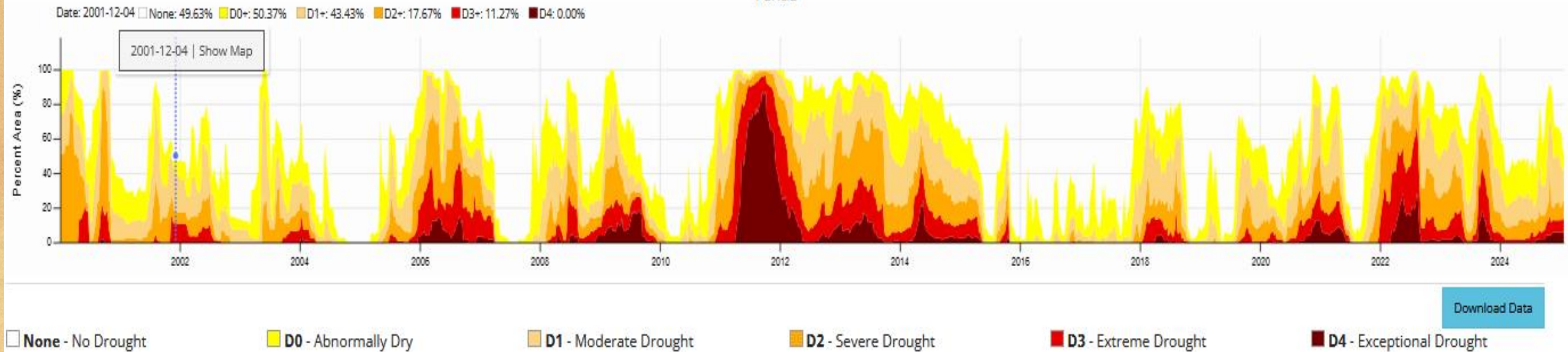
Ground water, private water wells?

A similar story.....

State Well Number 5748109 is 99.75 feet below land surface on 2024-08-18



“It’s been low before, Lake Travis will come back up....”
Yes, but....



END OF THE BACKGROUND INFO

ANY QUESTIONS BEFORE WE START THE NEXT SECTION??

Even when the lakes are full and the wells are good– we still need water to fight fires.

A few survey questions before we take a pause.....

- 1) If your house caught on fire tonight – where would the fire suppression water come from?
- 2) How much water does a fire truck normally carry?
- 3) At 2 AM , the lithium battery on your mower melts down and starts a fire in your garage. By the time your smoke alarm wakes you, the fire is rolling through your kitchen. How much water do ffs need to put it out?

TWO TERMS YOU NEED TO KNOW, WHEN TALKING ABOUT FIREFIGHTING WATER SYSTEMS:

1. Needed Fire Flow

- How *much* water do we need to flow right now?

2. Adequate Water Supply:

- How *long* must we maintain that fire flow?

Fire Flow and Adequate Water Supply

1. Needed Fire Flow

- Based on the size of the fire and the structure. (for example, a garage fire might need 400 gpm.)
- Flow *capability* is based on the tools your firefighters use.
- *Good news! You usually have very good tools.*



150 gpm



500 gpm



1,000 gpm

Quick Exercise: Calculate your own Needed Fire Flow

Rule of Thumb formula: Length X Width / 3 = GPM



$60 \text{ ft} \times 20 \text{ ft} / 3 = 400 \text{ gpm}$

Very Useful to FD and
Insurance Comp. when
Pre-Planning your
neighborhood.



$70 \text{ ft} \times 45 \text{ ft} / 3 = 1,066 \text{ gpm}$

Fire Flow and Adequate Water Supply

2. Adequate Water Supply to sustain the needed Fire Flow

- Ratings are based on the ability to sustain the flow **for 2 hours**.
- A minimum to rate *a system* is 250 gpm for 2 hours. (30,000 gals)



$60 \text{ ft} \times 20 \text{ ft} / 3 = 400 \text{ gallons per minute.}$

$\text{Multiplied by 120 minutes} =$
 $48,000 \text{ gallons.}$



$70 \text{ ft} \times 45 \text{ ft} / 3 = 1,066 \text{ gpm}$

$\text{Multiplied by 120 minutes.....}$



So, remember your garage and kitchen is on fire? Eng. 91 pulls up with 2 ffs and 1000 gallons.



1,000 gals / 150 gpm = 6.5 mins

1,000 gals / 500 gpm = 2 mins



Local Fire Protection must address ***BOTH***
Needed Fire Flow and Adequate Water Supply.

The Fire Service Industry offers the following FIVE
solutions.

Solution 1: Fire Department Tankers and Engines



“We’ll bring our own water with us.”

- Design & Construction Cost: _____
- Annual Cost _____
- Other considerations:
 - * Operators?
 - * Reliability of response?

Solution 2: Dedicated Water Storage w FD Connections



Design &
Construction _____

Annual Cost _____

Other considerations:

- * Location, acceptable site?
- * Access from roadway?
- * Reliable re-fills?

Solution 3: Dedicated Water Storage w Fire Pump



“Pushing water, not just hauling water”

Design &

Construction _____

Annual Cost _____

Other considerations:

- * Location, acceptable site?
- * Access from roadway?
- * Reliable re-fills?

Solution 4: Dry Hydrant from an Open Water Source (pond, tanks, pools)



“Pushing water, not just hauling water”

Design &
Construction _____

Annual Cost _____

Other considerations:

- Location, acceptable site?
- Access from roadway?
- Doughts?
- Height of the draw?

Solution 5: Upgrade the local systems to provide fire protection water.



Design &
Construction _____

Annual Cost _____

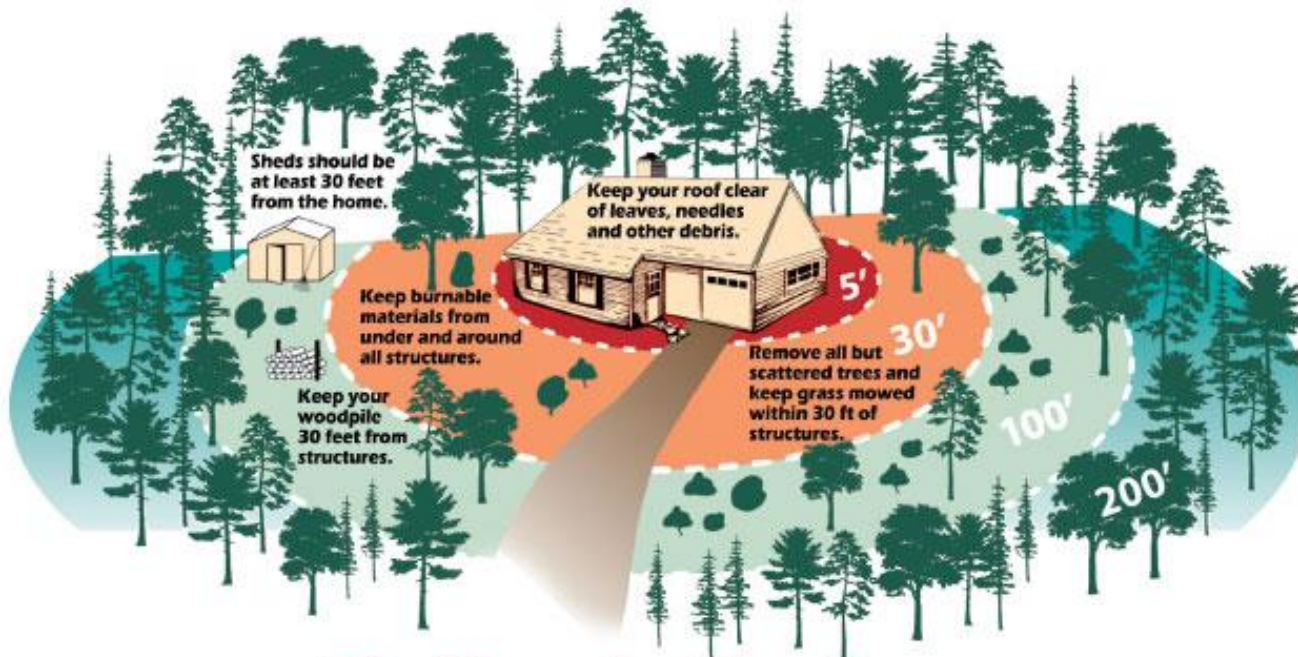
Other considerations:

- Willingness of private companies.
- Technically capable?
- TCEQ / LCRA questions.

Summarize Part One

- We wanted to share issues that are common to the ENTIRE DISTRICT.
- We wanted to make sure we shared CONSISTENT INFO and IDEAS.
 - We wanted to OFFER assistance in:
ASSESSMENT,
DESIGN and
IMPLEMENTATION.

Individual Home Assessments



The Home Ignition Zone



Neighborhood Assessments.

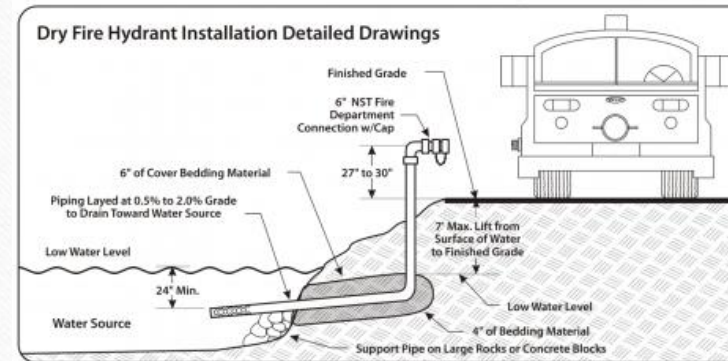
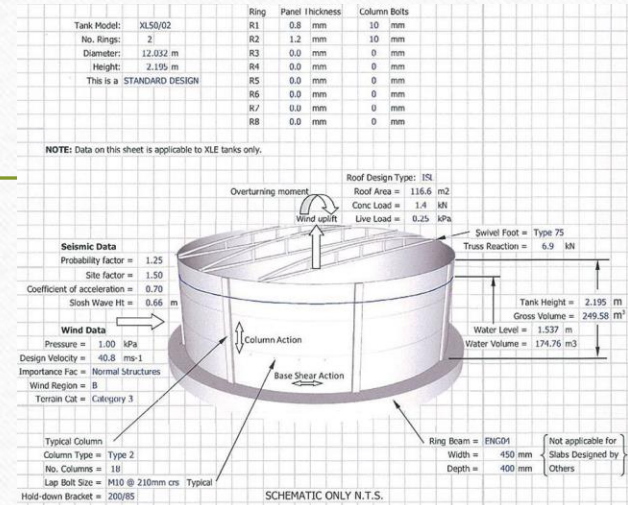
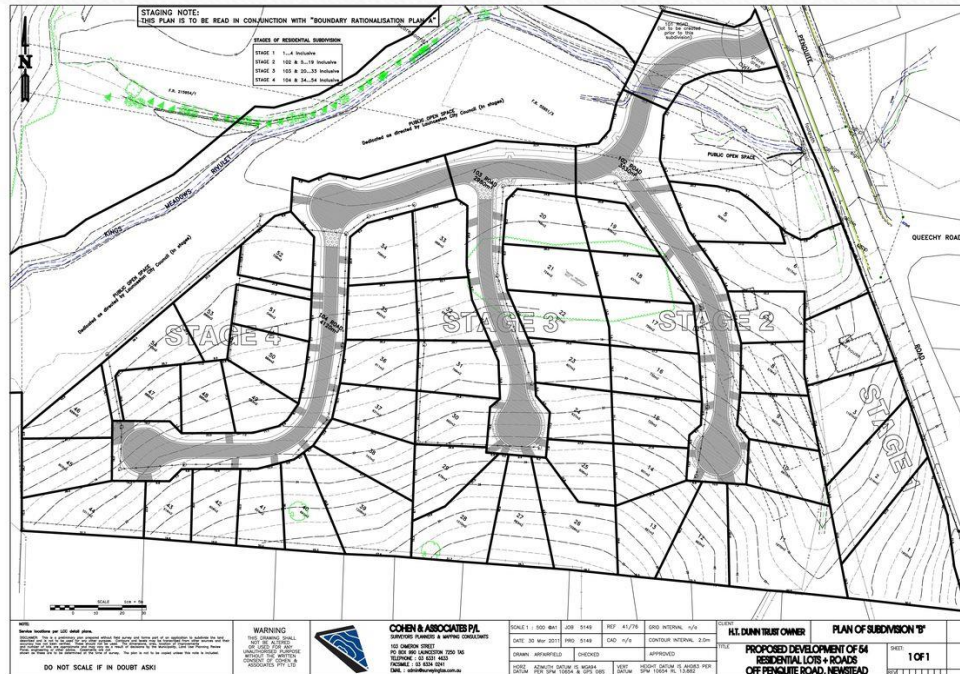
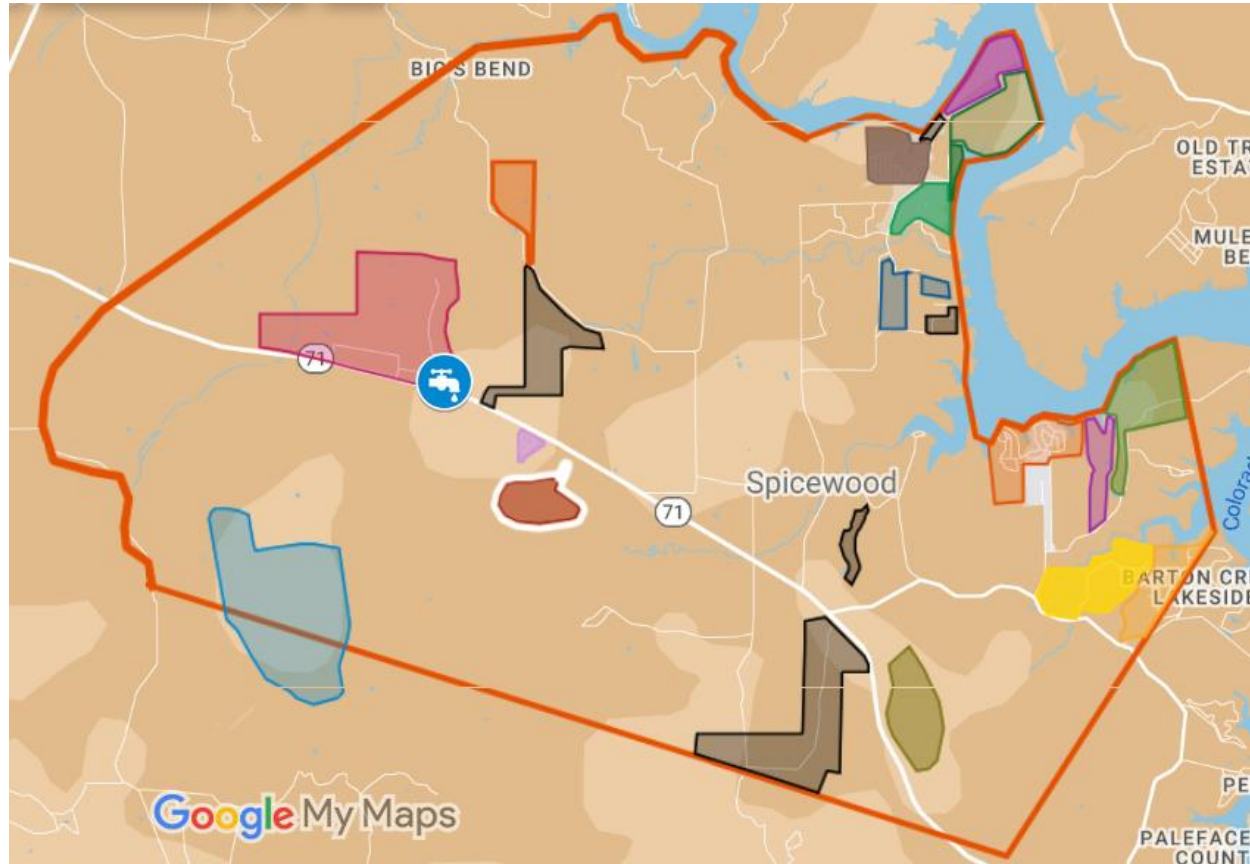


Figure 2: Dry Fire Hydrant Installation.

BC ESD 9, 830-693-7136, www.bcesd9.org



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