

# House Natural Resources Committee

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EDWARDS AQUIFER AUTHORITY

SEPTEMBER 13, 2018



# Abandoned and Deteriorated Wells

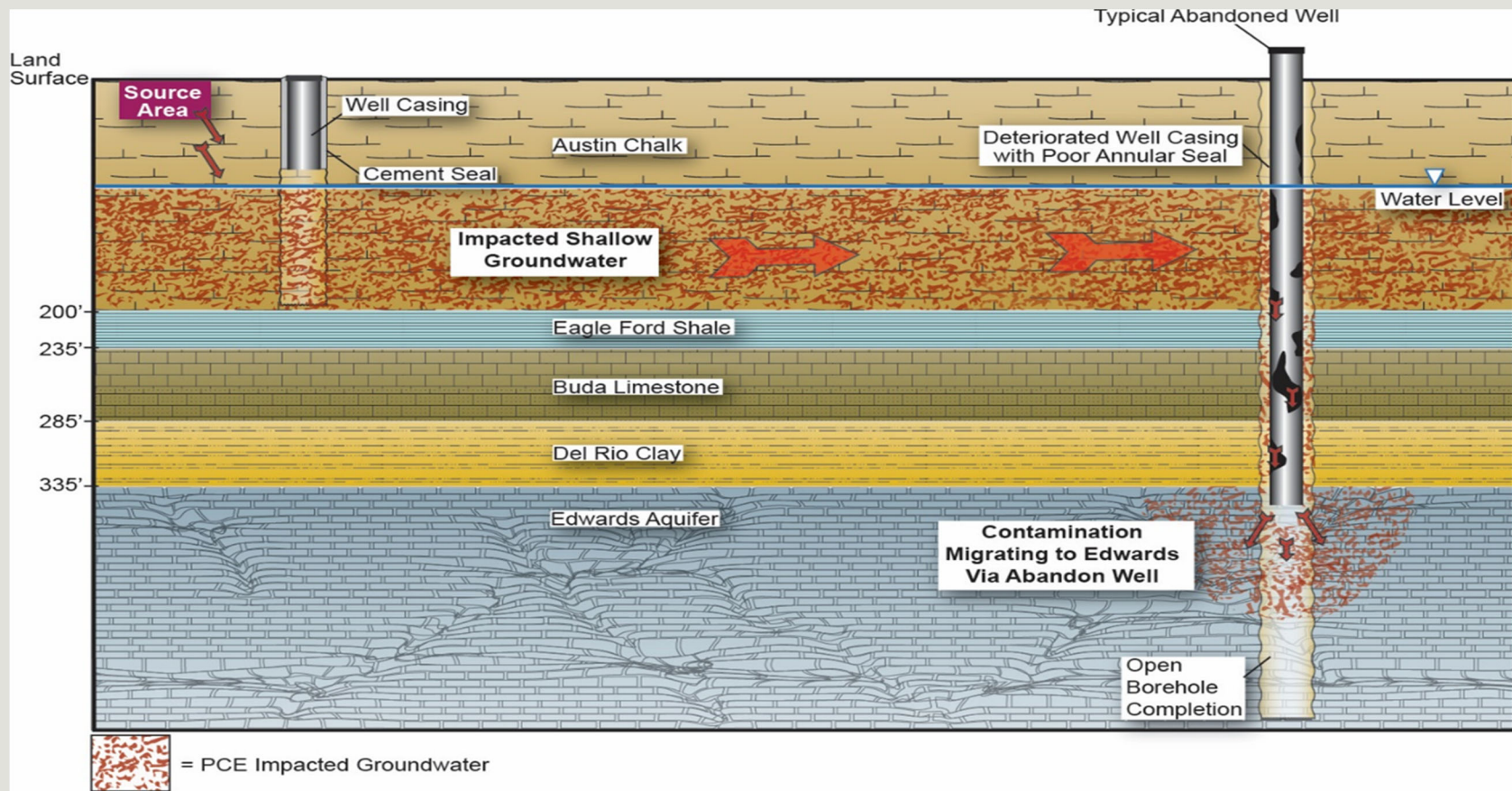
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- Pose threat to well water and public safety
- Serve as conduits or channels for contaminants to reach groundwater.
- Top of the list of potential groundwater contamination sources that can be identified and eliminated.





# Mechanism for How Abandoned Wells can contribute to Groundwater Contamination





Abandoned well on  
Perrin Beitel Rd  
(NE San Antonio)







1985

## Case Study: Well Destroyed During Development

- Property in Leon Valley
- Concerned citizen reports well
- Phase I Environmental Site Assessment – no well mentioned
- Neighbors provided signed affidavit of their knowledge of a well at site



2008



2010

PHASE I ENVIRONMENTAL SITE ASSESSMENT  
5.03-ACRE TRACT OF LAND  
WATERCRESS AT BLACKBERRY DRIVE  
LEON VALLEY, TEXAS





- Well reported June 2010
- Geophysics May 2011
- Excavated June 2011
- Plugged 2015





# Case study: Multiple unknown wells

## MEMORANDUM FOR THE RECORD

6 March 1974

I met with Mr. Charles McGee, City Public Service Board, and Mr. Hugh Whorton, Halliburton Company, to discuss means of determining which of the four wells at 202 Mission Road could be leaking and causing their seepage problem.

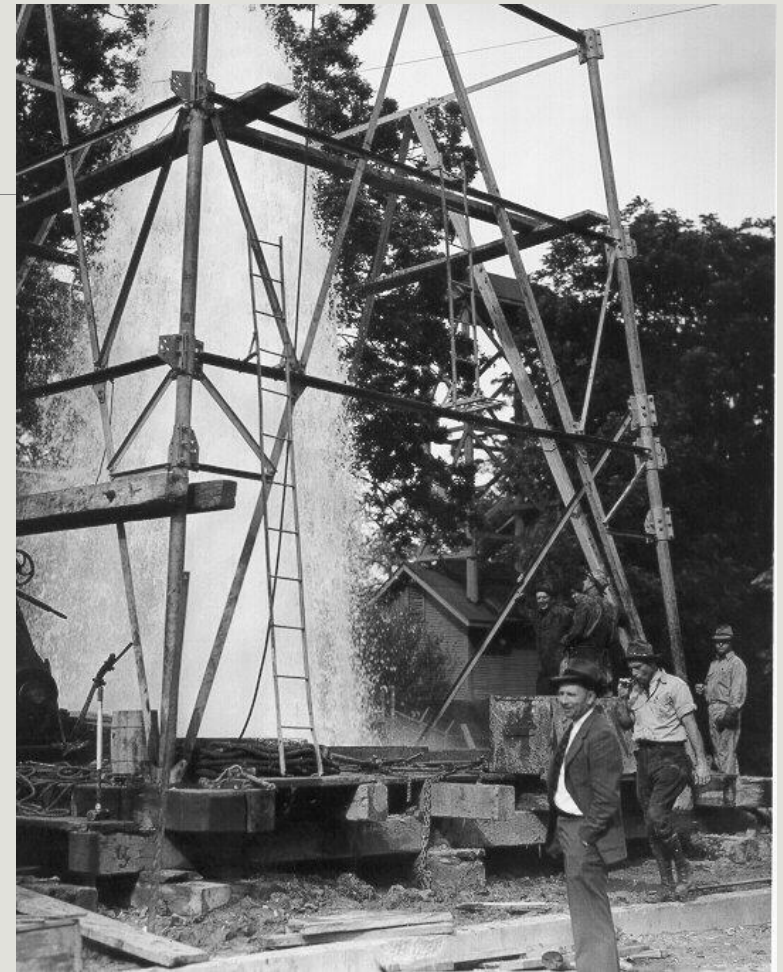
Methods discussed which could be used to determine the source of the water were:

1. Run complete chemical analysis from all wells and from seepage.
2. Pump fluorescent dye, as recommended by USGS, into one well at a time and check seepage for trace of dye.
3. Use an air compressor to pump down water to determine possible hole in casing. This should be done with great caution.

Some mention was made that the CPSB plans to plug Well No. 1 which produces very little water and Well No. 2 which produces a strong sulphur odor. I informed both Mr. McGee and Mr. Whorton that a permit was required for any repair or plugging with a waiver on the fees. They were requested to notify us any time work is done.

*Oliver Grobe, Jr.*  
Oliver Grobe, Jr.  
Water Quality Inspector

Station B artesian well with Braunig ca 1947



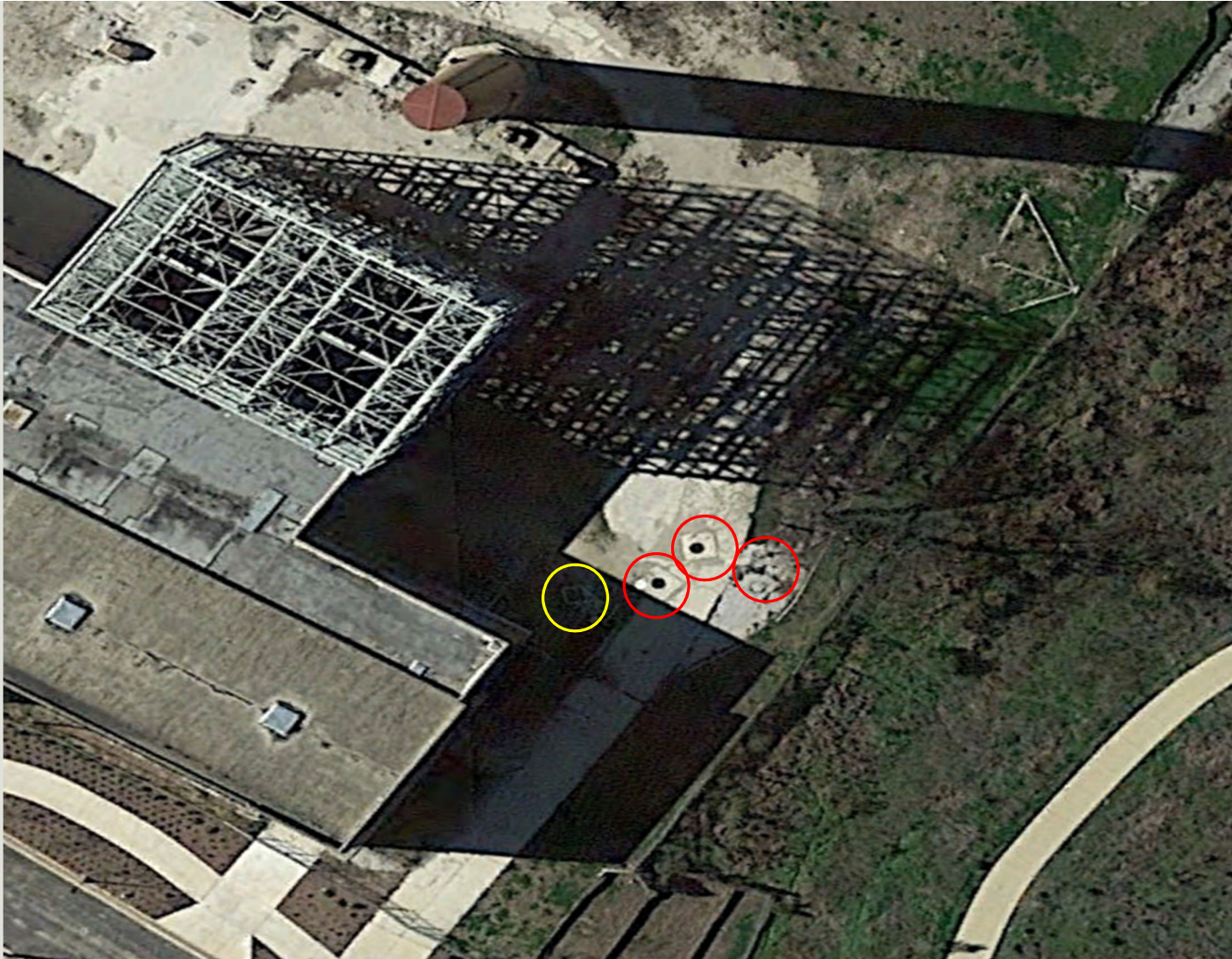


Only one well  
visible at ground  
surface.











## Case Study: Downtown San Antonio Well Site

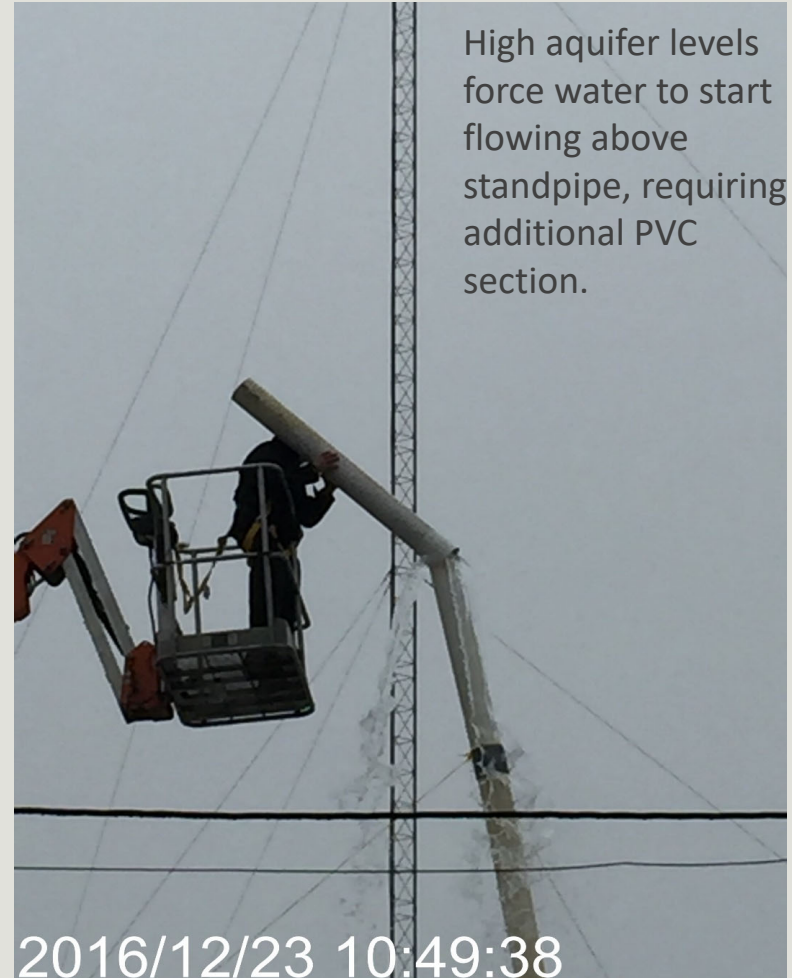


Abandoned well  
flowing inside  
building

Water flowing over  
top of building –  
through makeshift  
standpipe



2016/12/23 09:54:40



High aquifer levels  
force water to start  
flowing above  
standpipe, requiring  
additional PVC  
section.

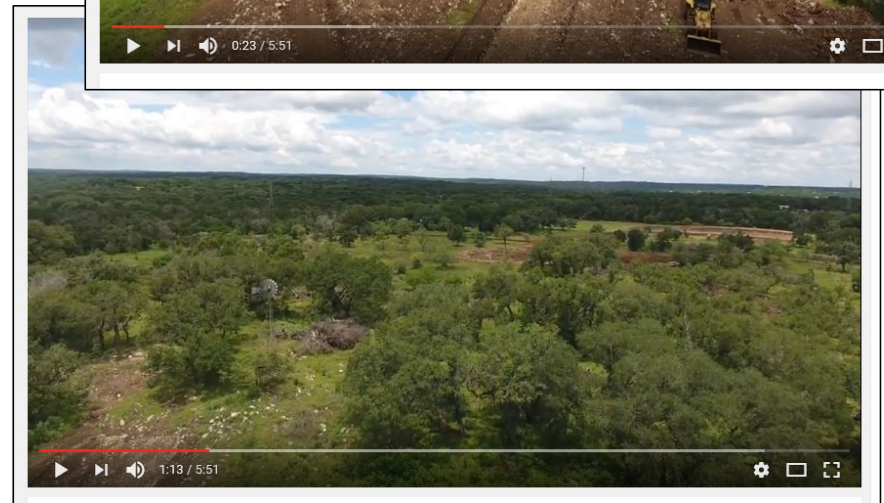
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Abandoned well  
in basement of  
Downtown SA  
hospital  
flowing into  
San Antonio  
River

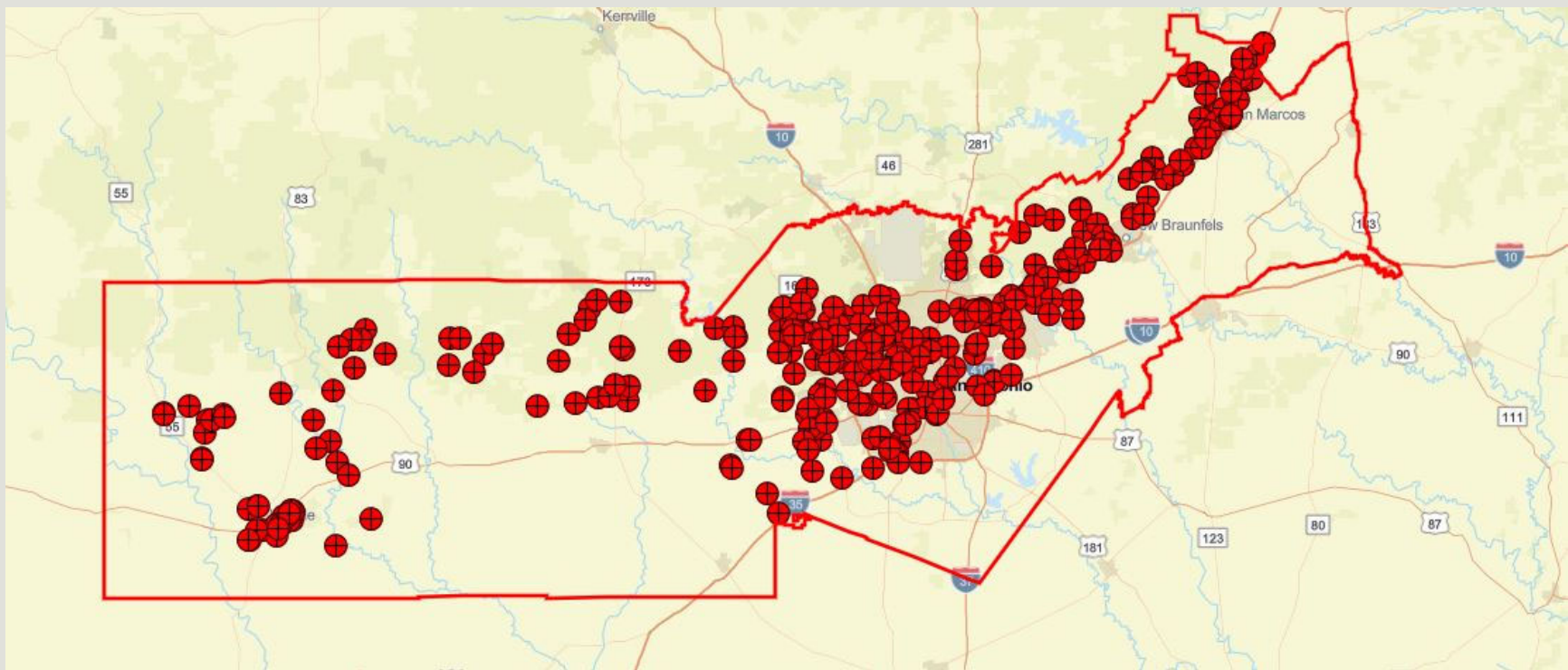




## Time Sensitivity due to Planned or Active Development



# Map of Abandoned Wells in EAA Region





# 279 Abandoned Edwards Aquifer Wells

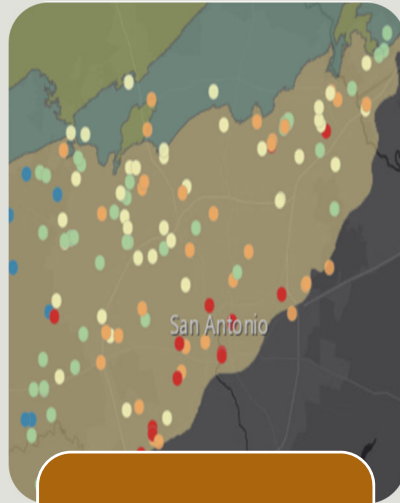


## Question 1:

Which wells pose the greatest threat to the Aquifer?

### Criteria:

- Abandoned Well Conditions
- Abandoned Well Proximity to Contaminants



Ranking of wells that pose the greatest threat to the Aquifer

(Highest-ranking 20)

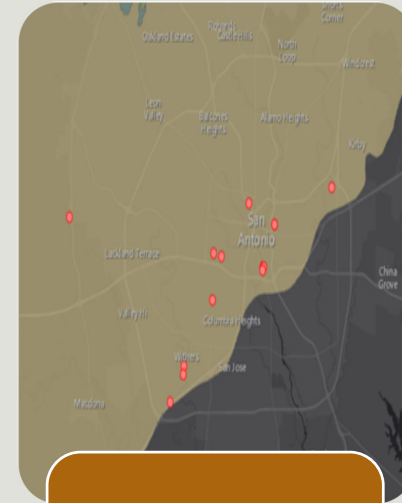


## Question 2:

Which wells can then most effectively be plugged?

### Criteria:

- Cost
- Time-Sensitivity



Prioritized list of Abandoned Wells for Plugging