

# Sealy and Frydek Area Citizens

## Jun 20, 2013



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## Invocation

We ask you Lord to bring the Holy Sprit to this meeting of your children to guide us and help us be inf0ormed in the Name of Jesus. Amen

# Agenda/Program

- Invocation
- Pledge of allegiance
- Geology by Leonard V. Moore
- Physical Aspect (Engineering) Hubert Yoist
- Technical Tom Sherman
- Where From and Where are we Headed
- ICLEI Greg Stussel
- Q & A Please involve Yourselves.

# STOP THE WATER GRAB

Presented by

Concerned Citizens for Texas Water Resources



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# Mission Statement

To protect, maintain and preserve the ground water of Texas Counties for present and future generations. CCTWR is dedicated to promoting empowerment of people, protection of the environment, and respect for individual's rights through educating and maintaining a well-informed public on issues that can adversely affect the ground water of Texas Counties. CCTWR is a grass roots organization that relies strongly on volunteer proactive efforts.



**Austin and Waller Counties are faced with the particular problem of drilling and over pumping of the Evangeline Aquifer as per Electro Purification's Application to transport groundwater to urban development areas that have crippled their own aquifers.**

## Concerned Citizens for Texas Water Resources

Concerned Citizens for Texas Water Resources LLC respectfully requests to be considered as an affected party in all future presentments while not limiting any member from taking action as an individual party at any particular time.



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Leonard V. Moore P. G.

1<sup>st</sup> Presenter for

Concerned Citizens for Texas Water Resources

Importance of the 1968 Texas Water Development study for Austin and Waller Counties.

Is over use of our ground water resources about to be repeated again by Electro Purification?

Can Austin and Waller County aquifers  
(Primarily the Evangeline) supply large  
volumes of fresh water to third parties?

N0. At least not without causing damage to  
the primary Reservoirs



Currently  
We have  
a self -  
sustaining  
reservoir  
IF it is not  
over  
pumped

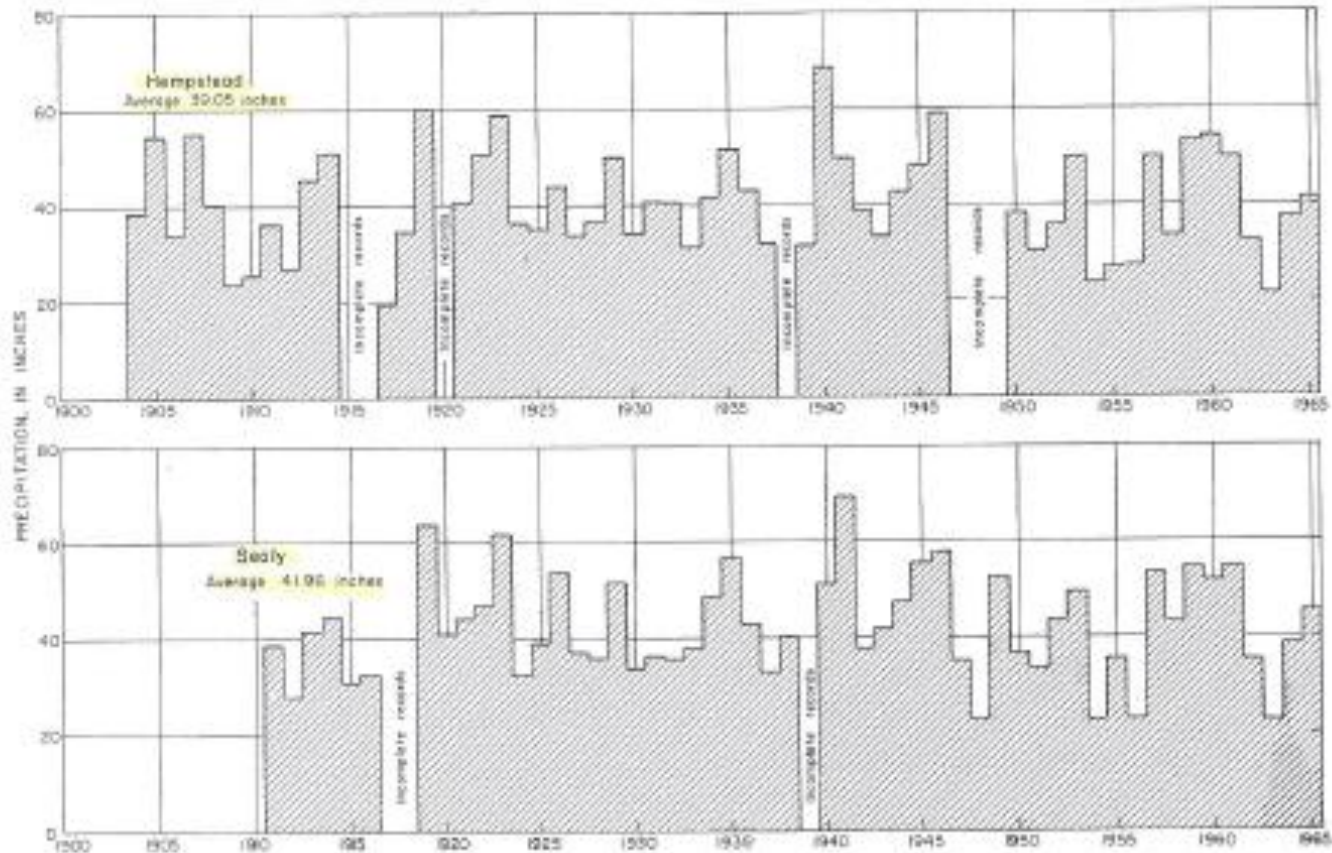


Figure 6  
Annual Precipitation at Hempstead, Waller County, and at Sealy, Austin County  
(Data from U.S. Weather Bureau)

U.S. Geological Survey in cooperation with the Texas Water Development Board and others

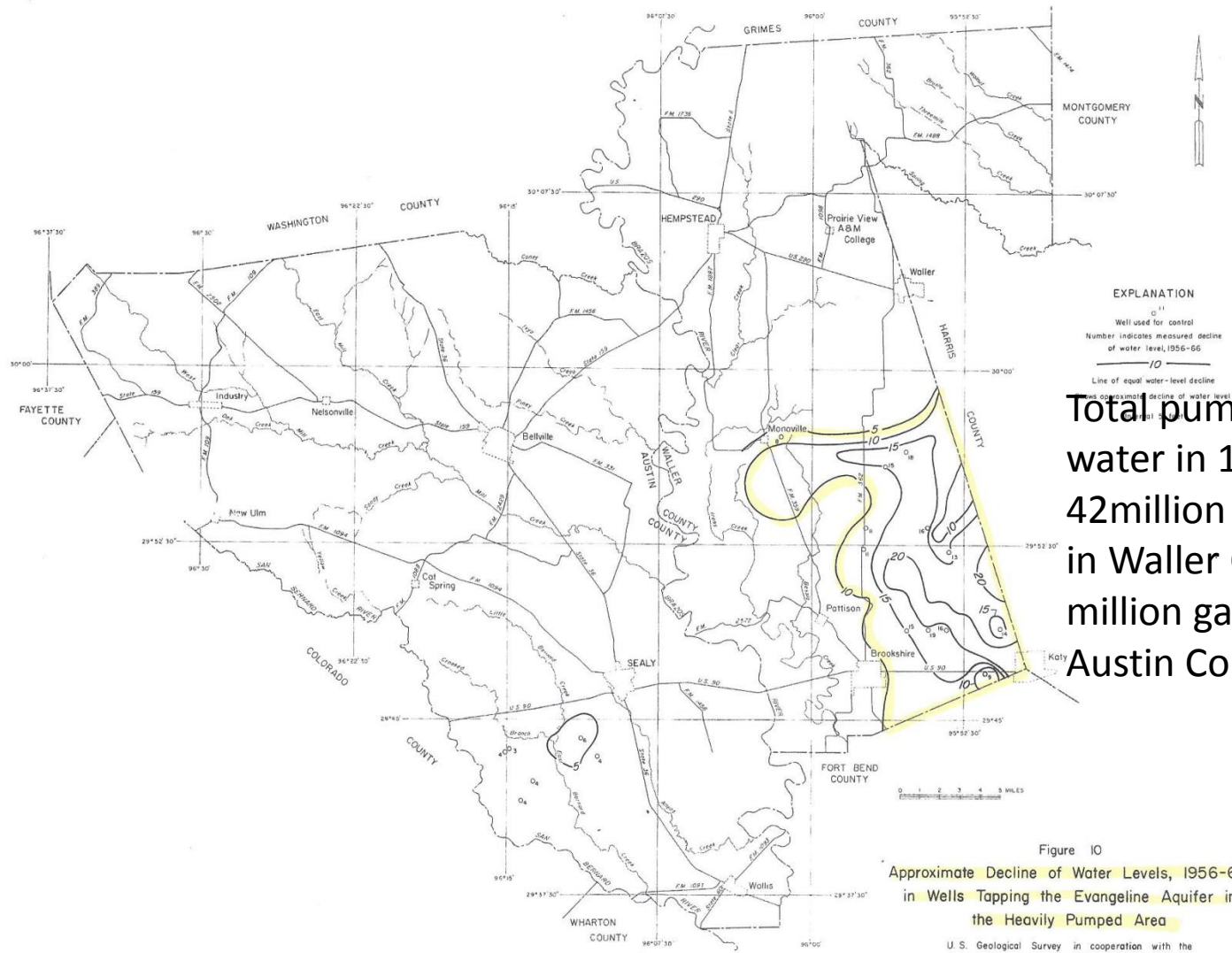
Over View of the impact of the proposed high rate extraction  
of reservoir waters from Austin and Waller Counties

USGS used 113 wells.

Evangeline Aquifer was the most heavily pumped  
reservoir

Evangeline composed of a thick sequence of sands  
and clays which interfinger and pinch out over short  
distances

Rainwater furnishes most of the recharge



Total pumpage of ground water in 1965 was 42million gallons per day in Waller County, and 8.9 million gallons per day in Austin County

82-85% of this water was used for rice irrigation

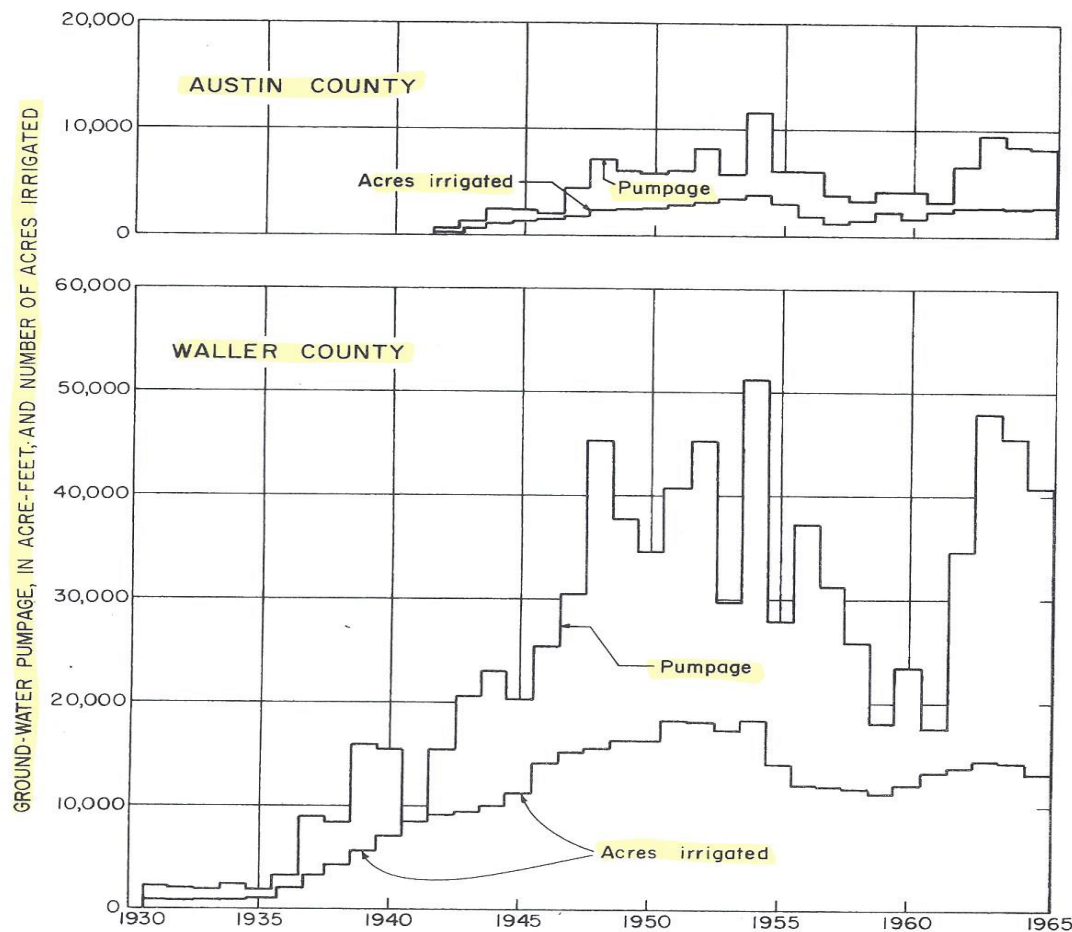


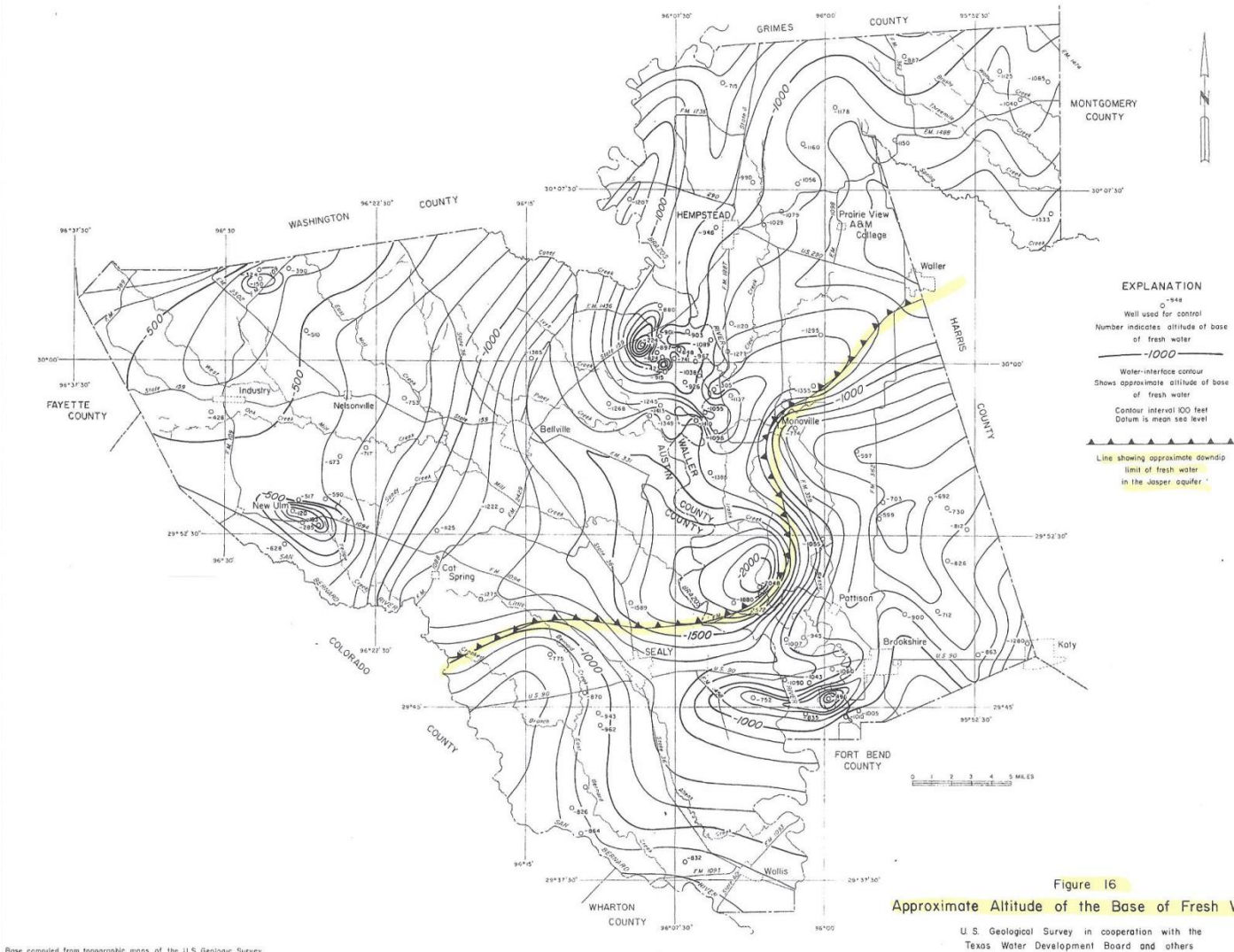
Figure 8

Approximate Acres Irrigated and Pumpage of Ground Water for Rice Irrigation

U.S. Geological Survey in cooperation with the Texas Water Development Board and others

Historically Waller County was the largest producer. Water levels had fallen by 20 feet in 10 years in southern Waller county.

USGS study was likely undertaken to evaluate long-term viability of the these counties.



The deeper lying Jasper has been identified as a potential backup source of water. However, there is a clear demarcation between fresh and saline water most likely caused by previous over pumping.

## Main Points:

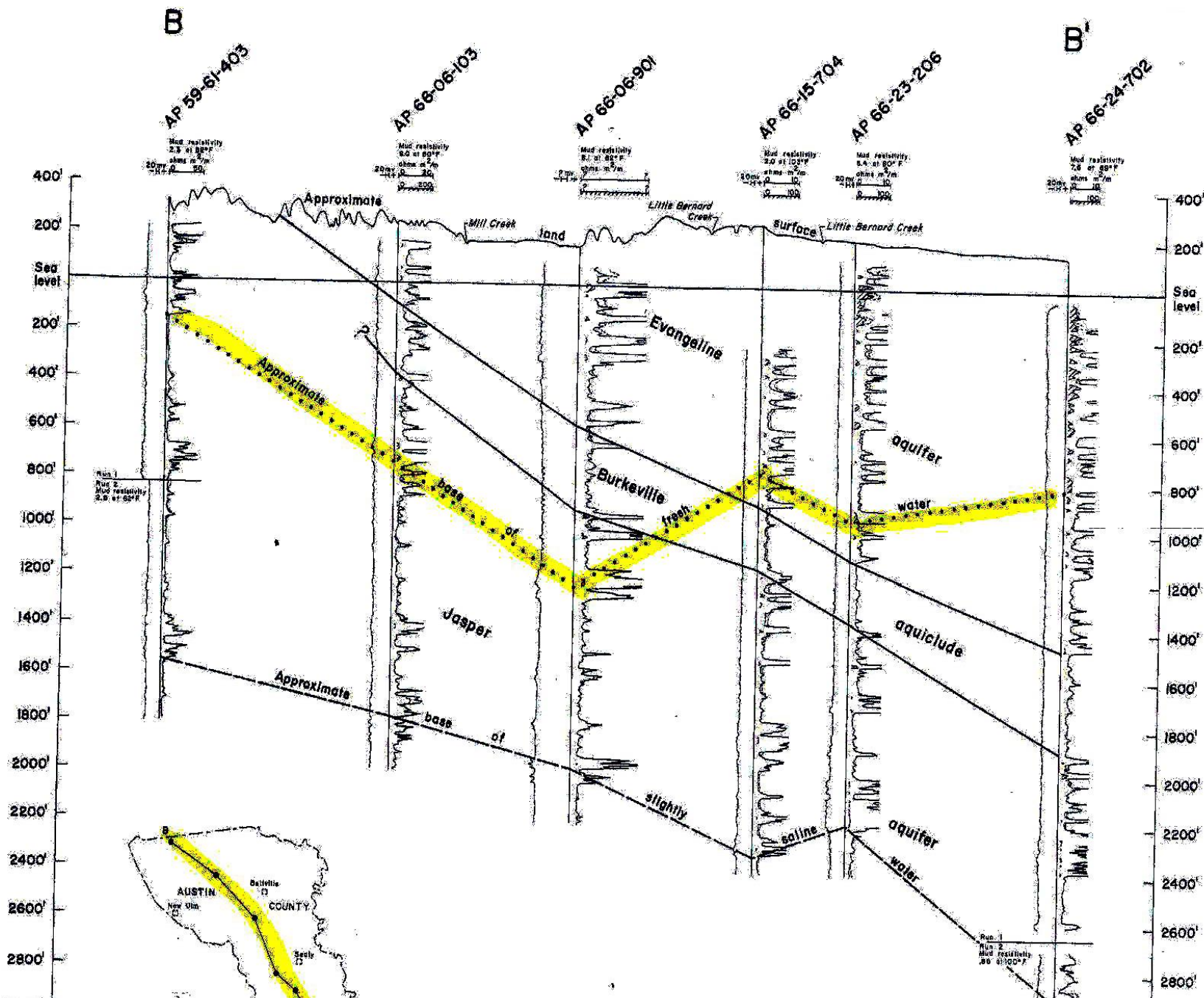
73 million acre feet are in the two counties. **HOWEVER**, only part of the water is available due to the poorer quality of lower, slightly saline aquifers.

Evangeline has had damage caused by over pumping in the past, largely as a result of rice farming.

Proposed new volumes, especially without the 'rest' periods provided by perennial water off takes, will lead to saline incursions and reservoir damage.

Figure 24 Follows





Leonard V. Moore Finishes  
Hubert Yoist Starts for

Concerned Citizens for Texas  
Water Resources

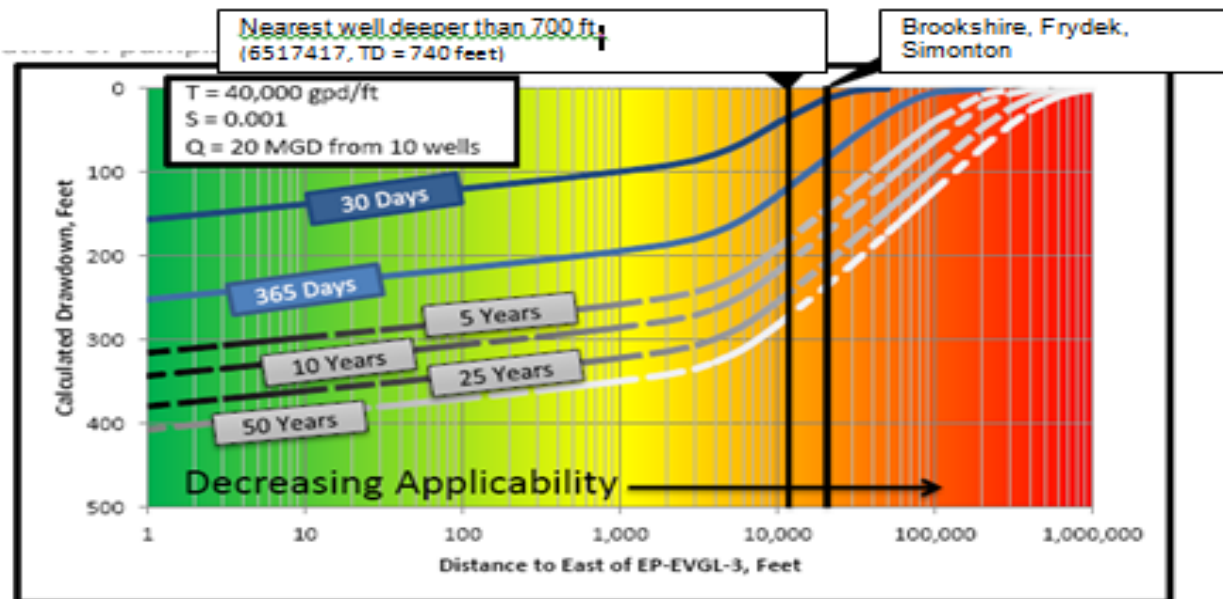


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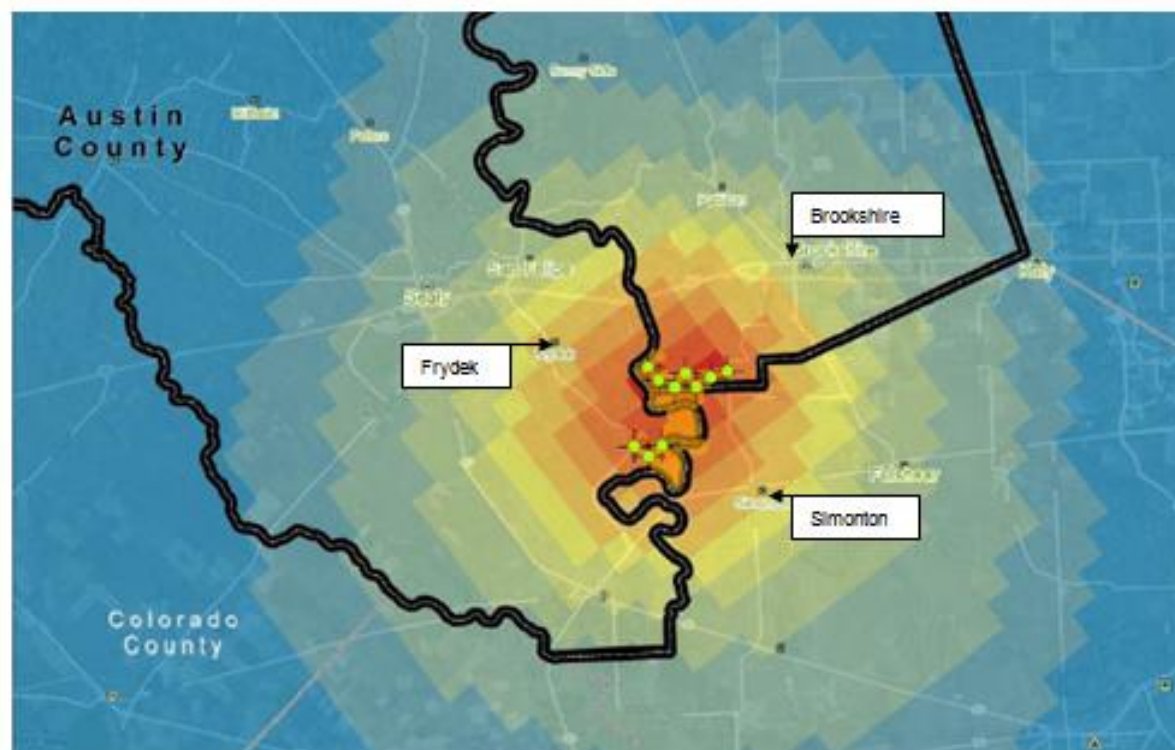


# CONCERNS

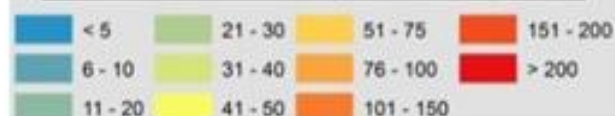
1. Electro Purification LLC filed an application for authorization for the completion of ten (10) new wells for production of groundwater with the Bluebonnet Groundwater Conservation District (BGCD). The wells will be a maximum of twenty-million gallons per day or approximately 22,500 acre-feet per annum. The produced water is to be used within the District and transported out-of-district transport to Fort Bend County, Texas. The metropolitan areas of Richmond-Rosenberg are to be the principle users of the water.
2. Total groundwater pumpage Sub-Area R/R (Richmond/Rosenberg) was 10.5mgd for 2011; a 41% increase from 2010.
3. Fort Bend County has experienced a 65% increase in population as of the 2010 census.
4. The four counties of the Bluebonnet Groundwater Conservation District (BGCD) averaged 18.75 % in population increase as of the 2010 census.
5. Electro Purification, Feb. 25, 2013: Wells will not significantly affect water levels in local wells. This Model – Used for well spacing and short-term drawdown



Above from LP presentation of Feb.25 2013



**Simulated Drawdown (2014 - 2060), Feet**



Above from LP presentation of Feb.25 2013

#### Water-Level Change Map & Table Evangeline Aquifer, 2011-2012

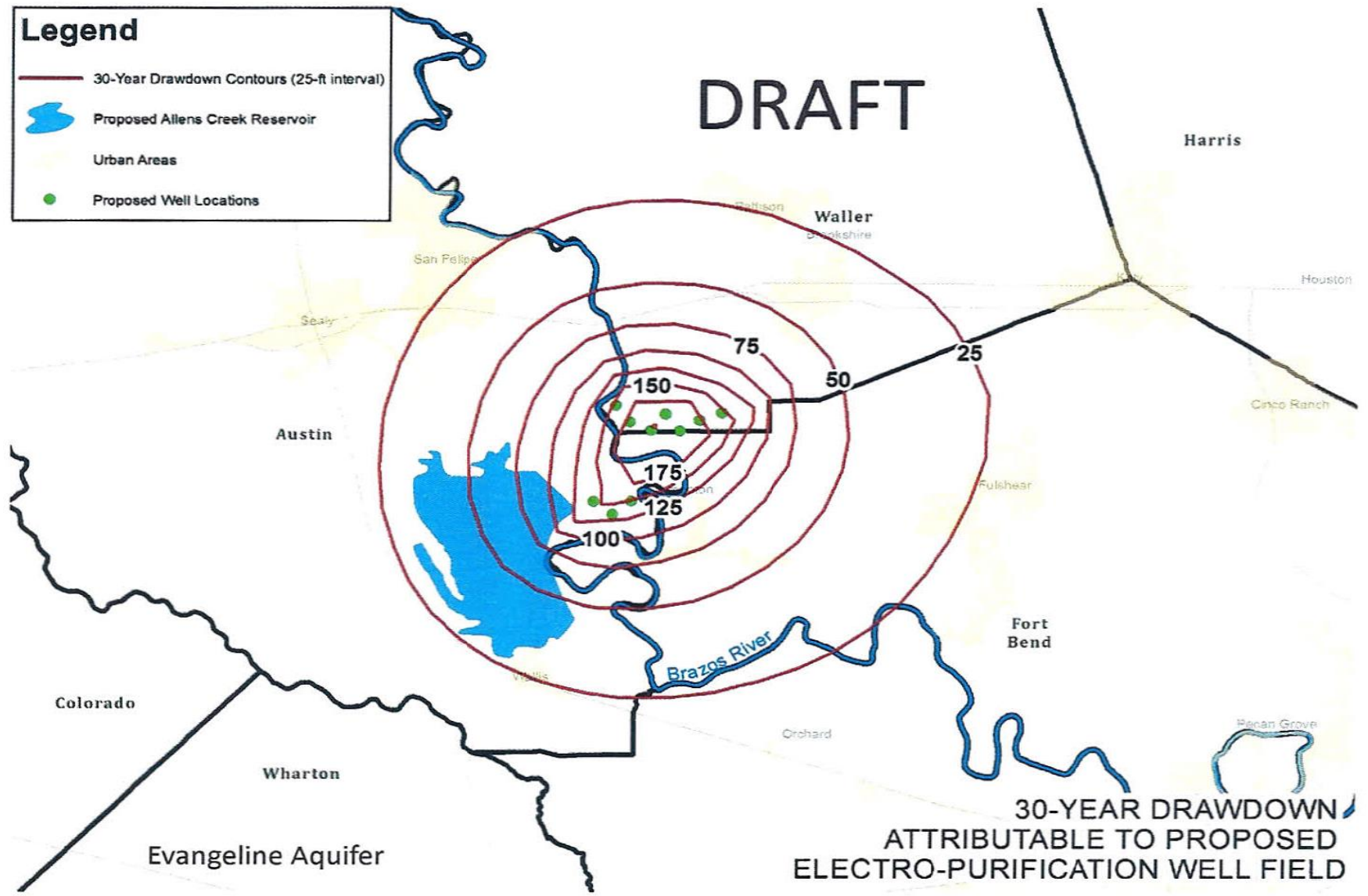
6. In the Evangeline well network, 294 wells (91.6%) showed declines while only 23 wells (7.2%) showed rises. Four wells (1.2%) showed no change.
7. 31 of the measurements were taken in Fort Bend County. All of those showed declines; three were 1' to 10' declines, eight were 11' to 20', 15 were 21' to 50', and five declines more than 50'.

8. The results are only for the pumpage included in the application to the Bluebonnet Groundwater Conservation District.
9. It does not include any additional pumpage that may be applied for in the future by the applicants or others.
10. Drawdowns of this well field could cause problems with other existing wells in the area which is a normal problem all well owners face when pump age around them increases.
11. The subsidence associated with the pumpage is shown in the following illustrations..
12. This area is in a flood prone area and will certainly increase that potential of flooding and enlarge the flood plain.
13. The subsidence could also pose some problems in developing the Allens Creek Reservoir.

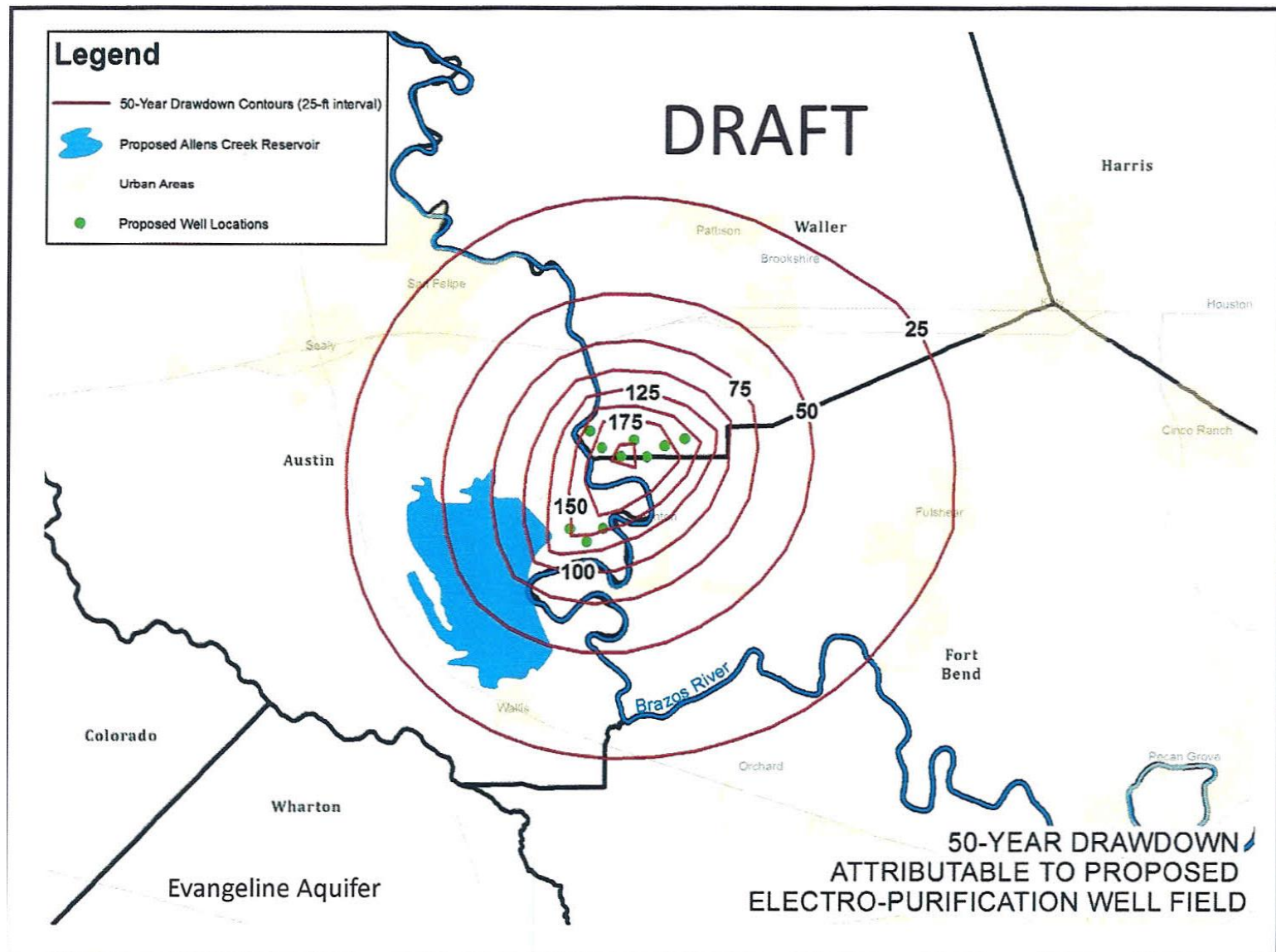
# DRAFT

**Legend**

- 30-Year Drawdown Contours (25-ft interval)
- Proposed Allens Creek Reservoir
- Urban Areas
- Proposed Well Locations



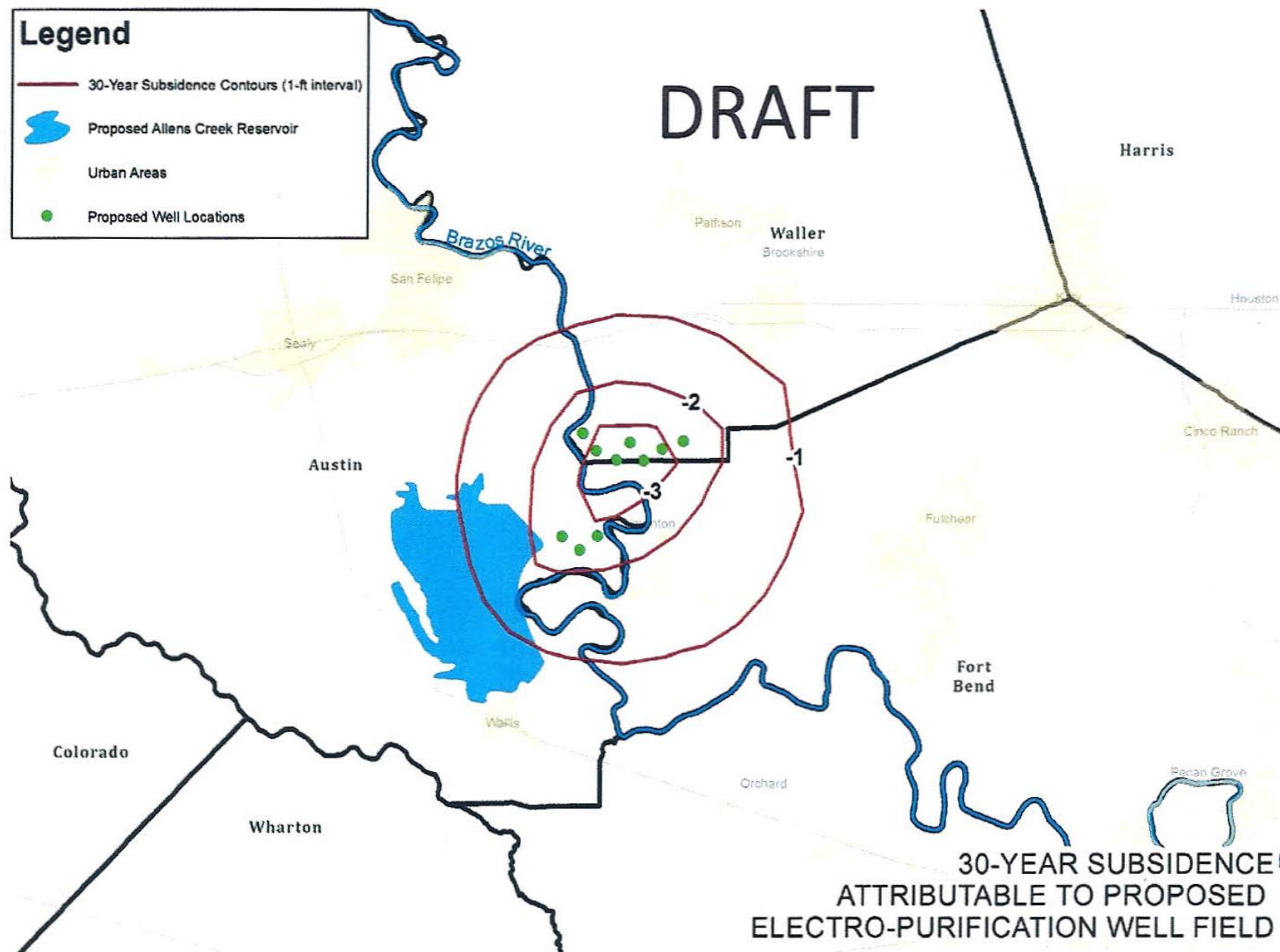




## Legend

- 30-Year Subsidence Contours (1-ft interval)
- Proposed Allens Creek Reservoir
- Urban Areas
- Proposed Well Locations

# DRAFT

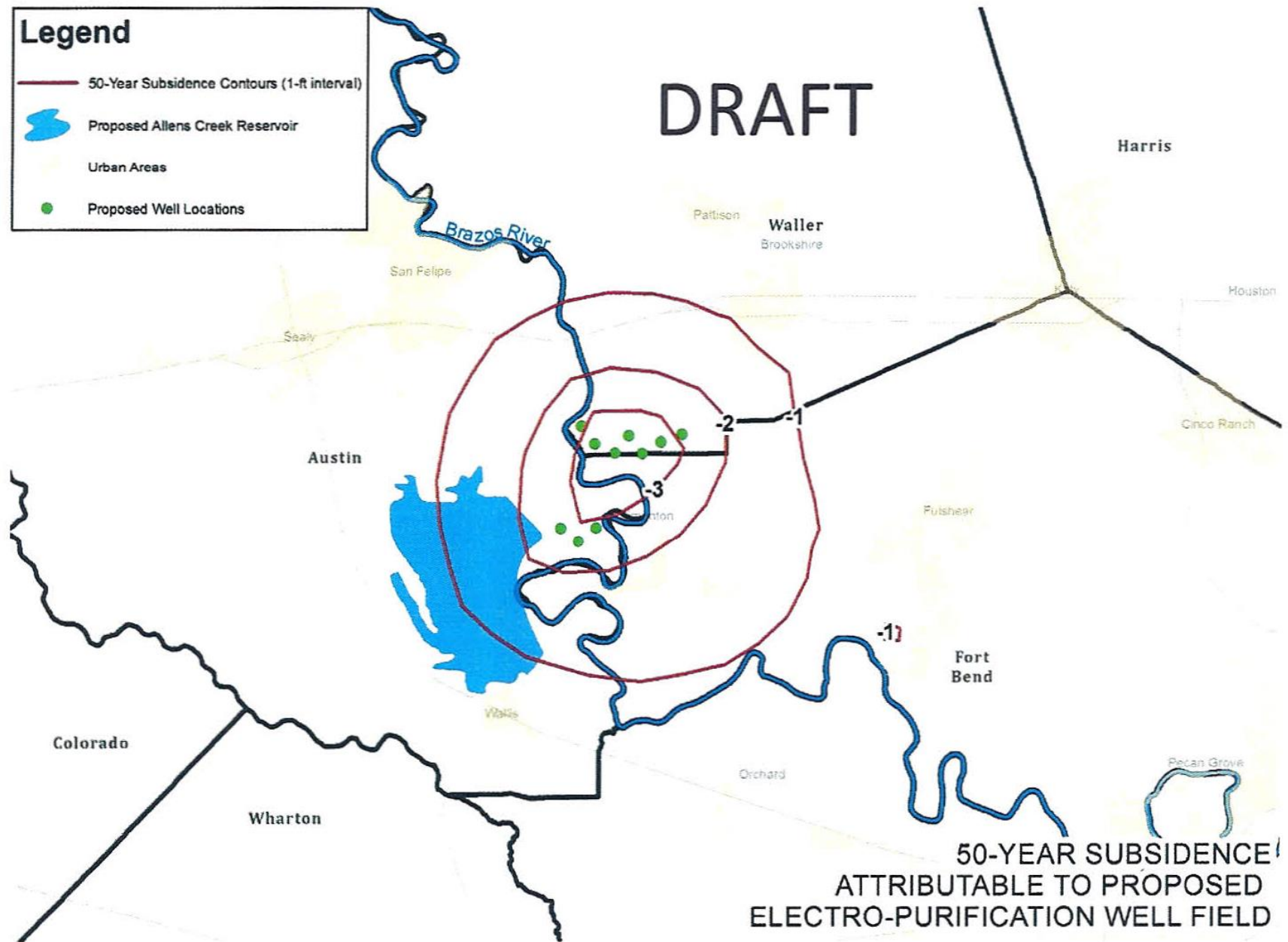


30-YEAR SUBSIDENCE  
ATTRIBUTABLE TO PROPOSED  
ELECTRO-PURIFICATION WELL FIELD

## Legend

- 50-Year Subsidence Contours (1-ft interval)
- Proposed Allens Creek Reservoir
- Urban Areas
- Proposed Well Locations

# DRAFT





## Legend

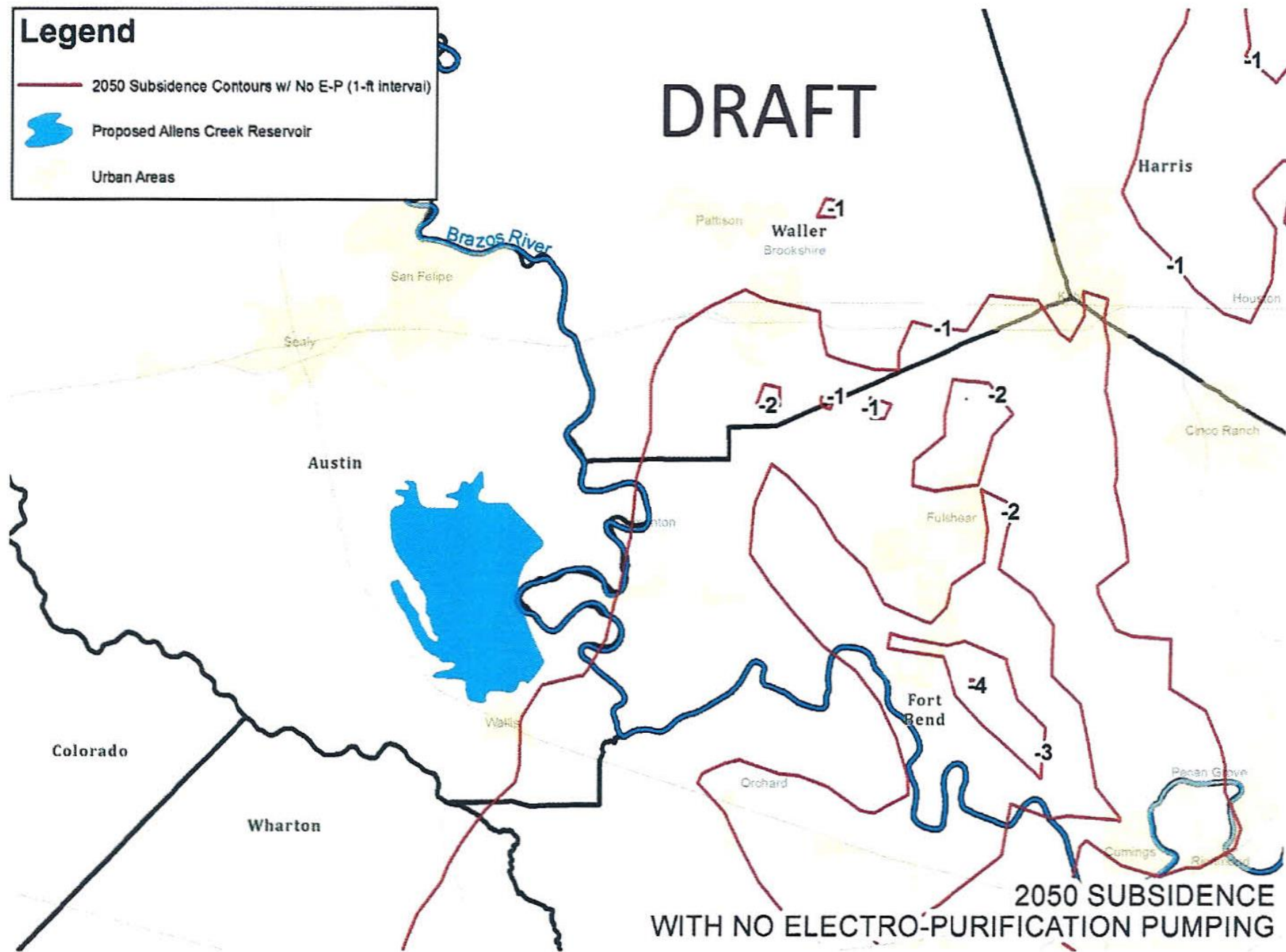
— 2050 Subsidence Contours w/ No E-P (1-ft interval)



Proposed Allens Creek Reservoir

Urban Areas

# DRAFT





## Legend

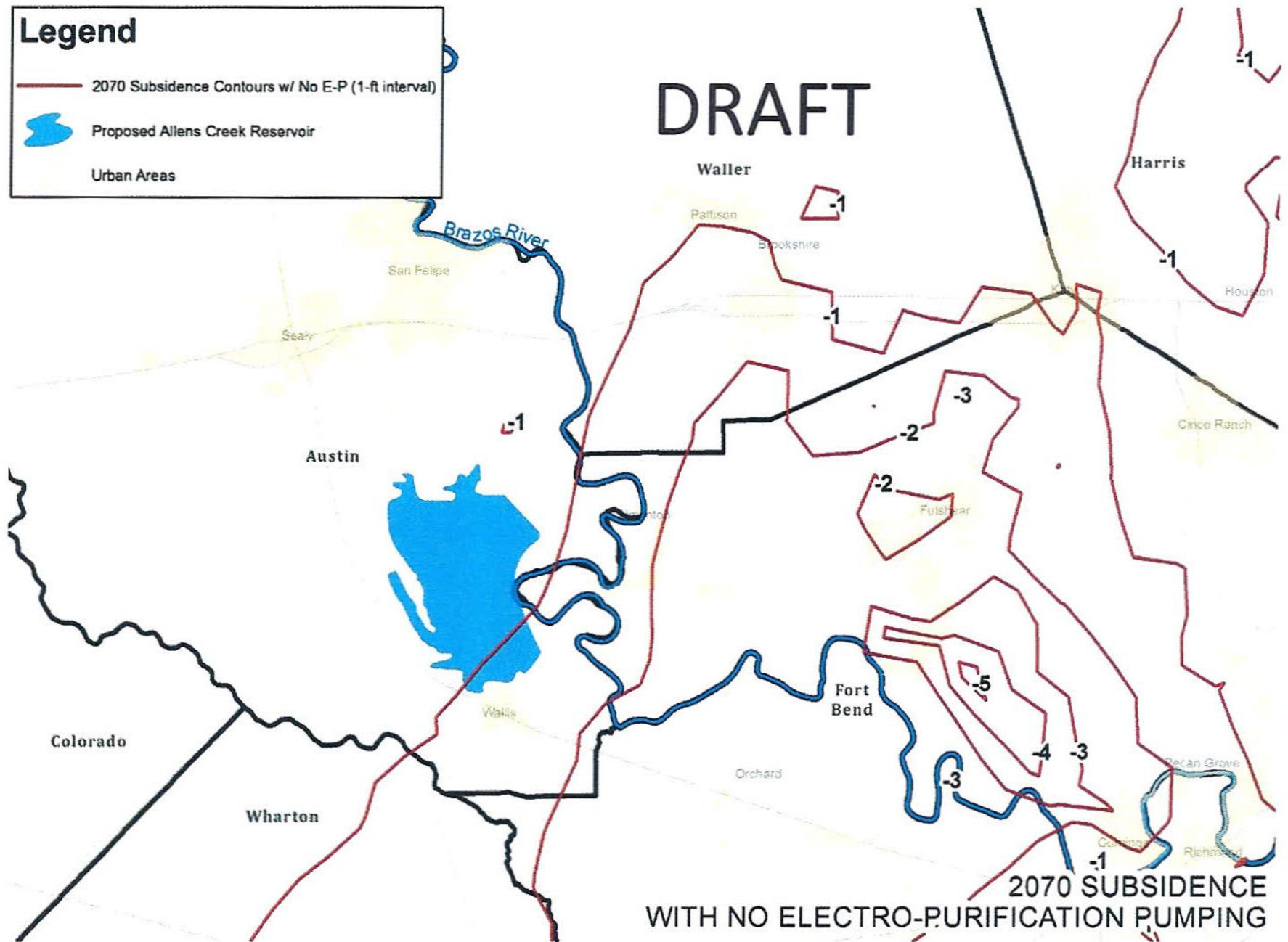
— 2070 Subsidence Contours w/ No E-P (1-ft interval)



Proposed Allens Creek Reservoir

Urban Areas

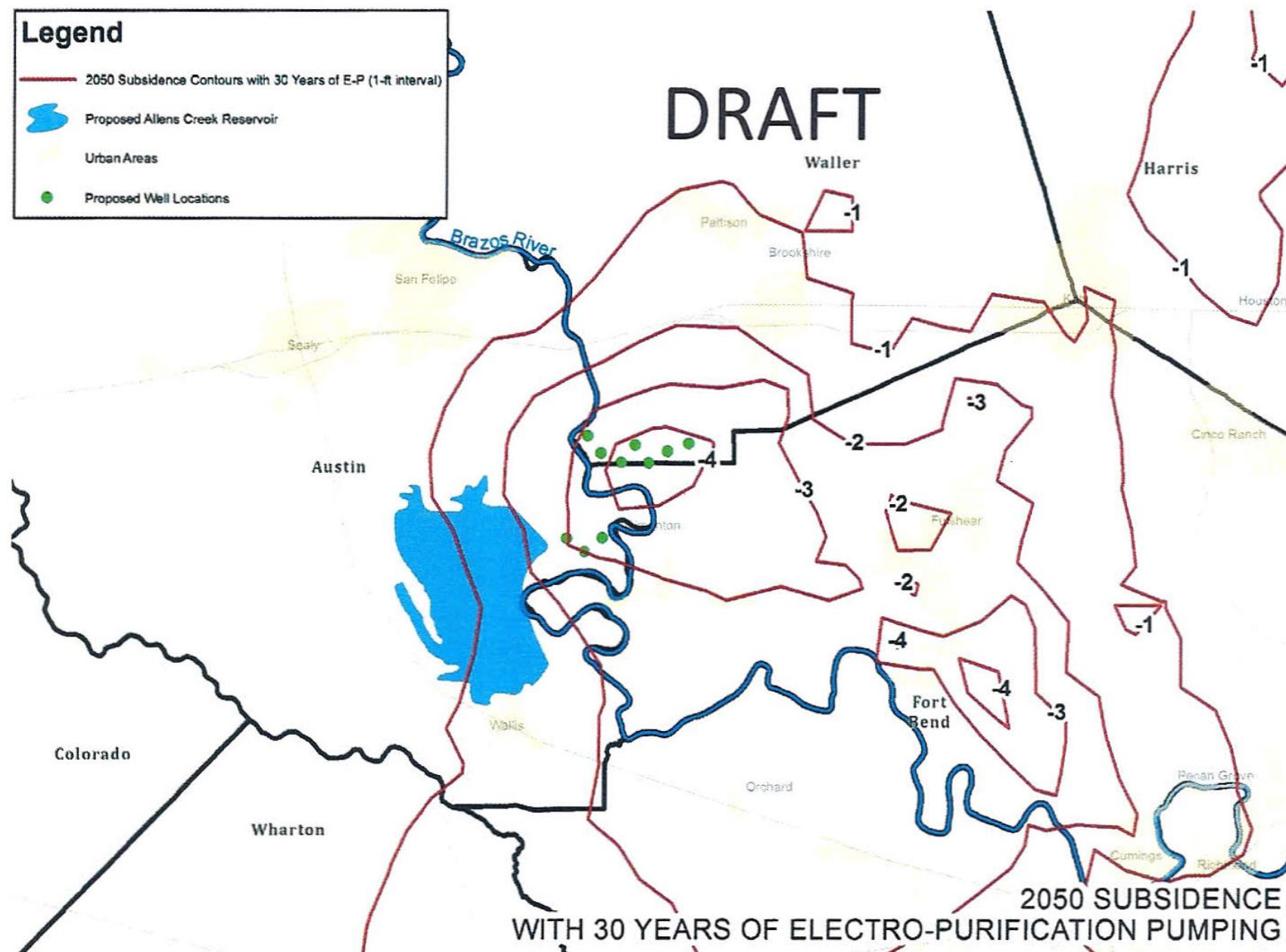
# DRAFT



## Legend

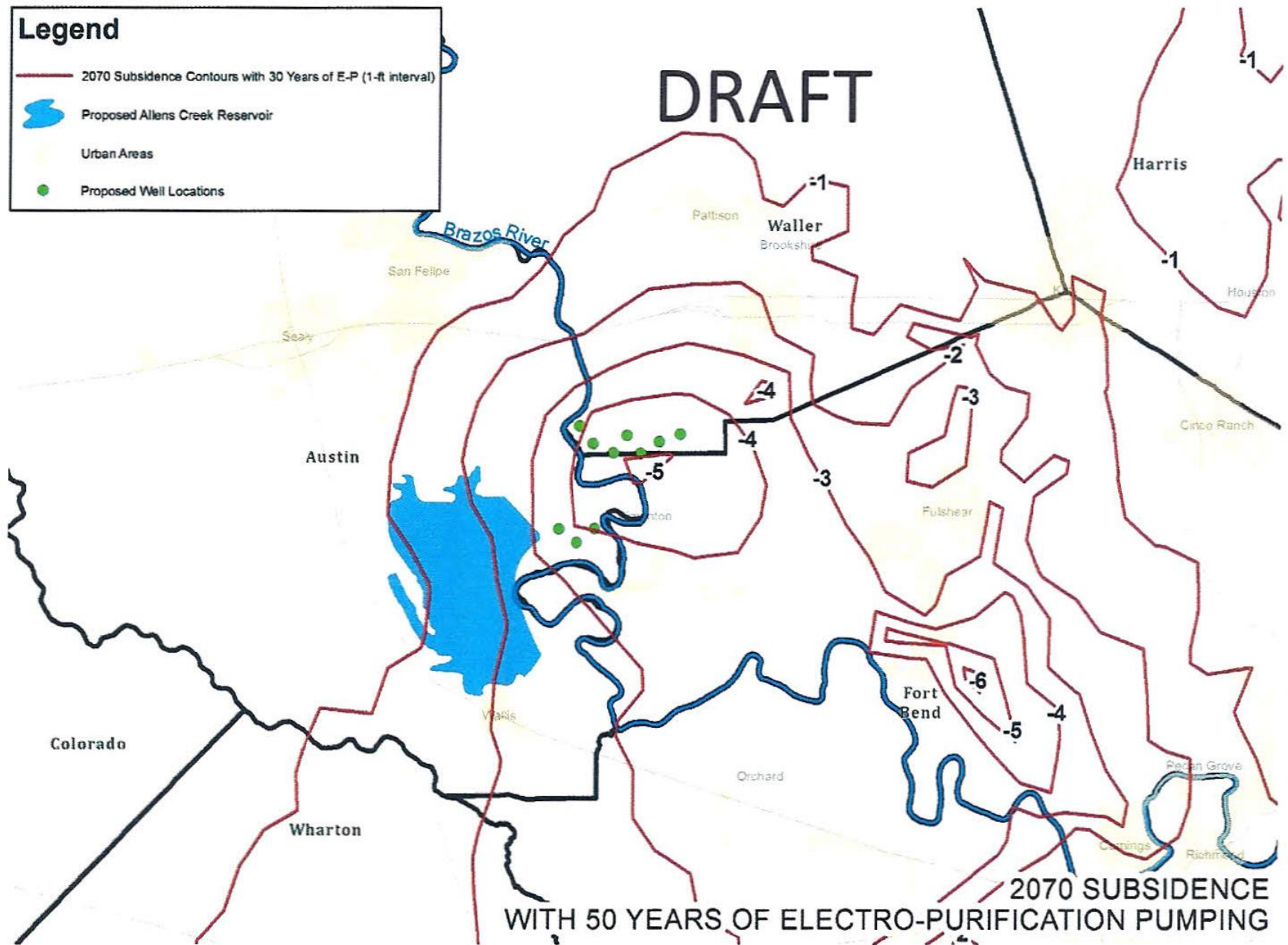
- 2050 Subsidence Contours with 30 Years of E-P (1-ft interval)
- Proposed Allens Creek Reservoir
- Urban Areas
- Proposed Well Locations

# DRAFT



## Legend

- 2070 Subsidence Contours with 30 Years of E-P (1-ft interval)
- Proposed Allens Creek Reservoir
- Urban Areas
- Proposed Well Locations



14. The Fort Bend Subsidence District (FBSD) was created by the state legislature in 1989 to combat subsidence in Fort Bend County as a counterpart to the Houston-Galveston Subsidence District (HGSD).
15. Their regulatory plan passed in 2003, which forms the basis of their water conversion mandate.
16. The regulatory plan calls for non-agricultural water users demanding more than 10 million gallons per year to reduce their groundwater pumpage 30 percent by 2013 and 60 percent by 2025.
17. Richmond and Rosenberg have requested an extension that would push their initial conversion requirement to 2017.
18. Sugar Land and other governmental entities, homeowner's association and companies have adequately prepared for the mandate over the past ten years and have incurred significant expenditures to ensure compliance. Sugar Land alone, the financing from Groundwater Reduction Plan (GRP) fees, has committed more than \$100 million for the construction of a surface water treatment plant.
19. Due to the high cost of meeting the unfunded mandate, other Fort Bend County water well owners including **golf courses, HOAs** and **Richmond/Rosenberg** have recently requested to be exempted or given a waiver from implementation of the Regulatory Plan.
20. The FBSD is considering all of these exemption requests and has called a public hearing regarding the amendment of the existing Regulatory Plan without the benefit of analysis of the new data.
21. This premature movement by the FBSD indicates that the Board may be willing to create an economic disadvantage to those entities who have incurred significant expense to comply with their requirements.



Hubert Yoist Finishes  
Tom Sherman Starts for

# Concerned Citizens for Texas Water Resources



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Tom Sherman  
3<sup>rd</sup> Presenter  
Geophysicist and Spokesperson  
for  
Concerned Citizens for Texas Water  
Resources

# 1. WHY IS EP APPLICATION WRONG

Study R68 Published in 1967 by USGS

Missing in Austin County

Missing in Waller County

Missing at Brazos River Authority

Missing at UT BEG

Found at TWDB (Certified & internet D/L)

Ongoing study because differences found

Present Studies of R68 give every indication we.....

We are most likely to be worse off today than in 67/68.

## 2, WHY IS EP APPLICATION WRONG

Drilling of water wells in hazardous location

Known Salt Dome San Felipe/Brookshire)

Hydrogen Sulfide in other water wells.

Oil and/or Gas Operations in area

Subsurface character of dome not mapped

Base of salt and top of salt not mapped

2D and 3D geophysical data exist in area

7 of 10 wells are posted in WRONG locations



# 3 WHY IS EP APPLICATION WRONG

Notice of Demand (NOD) to BGCD re Rule 8.7B

Demand due to drought conditions

Conditions acclaimed and proclaimed

Drought not likely to subside experts say

Drought will increase production...

In Chico and Evangeline

Ergo drought does have an affect on....

All aquifers that are being used for production

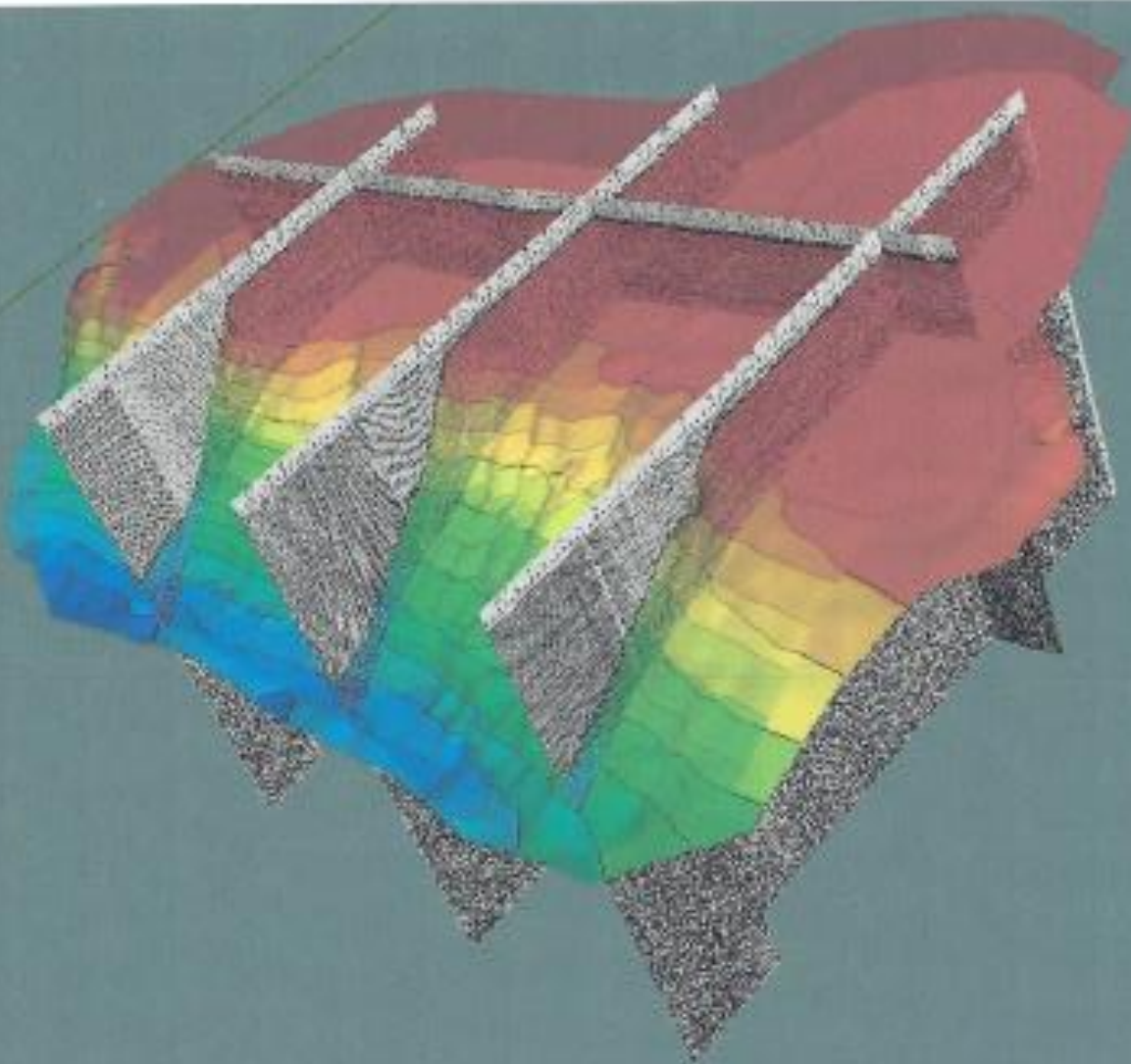
The people must demand that Rule 8.7B be enforced.

## 4. WHY IS EP APPLICATION WRONG

- Evangeline and deeper aquifers:  
Not qualified or quantified.  
Quality and inventory must be assessed
- Science largely absent from info meetings.  
Paper study not sufficient  
Modeling subject to question.  
Algorithm and input data.....  
Needs to be audited and identified  
Water inventory based on measurements?

# 5. WHY IS EP APPLICATION WRONG

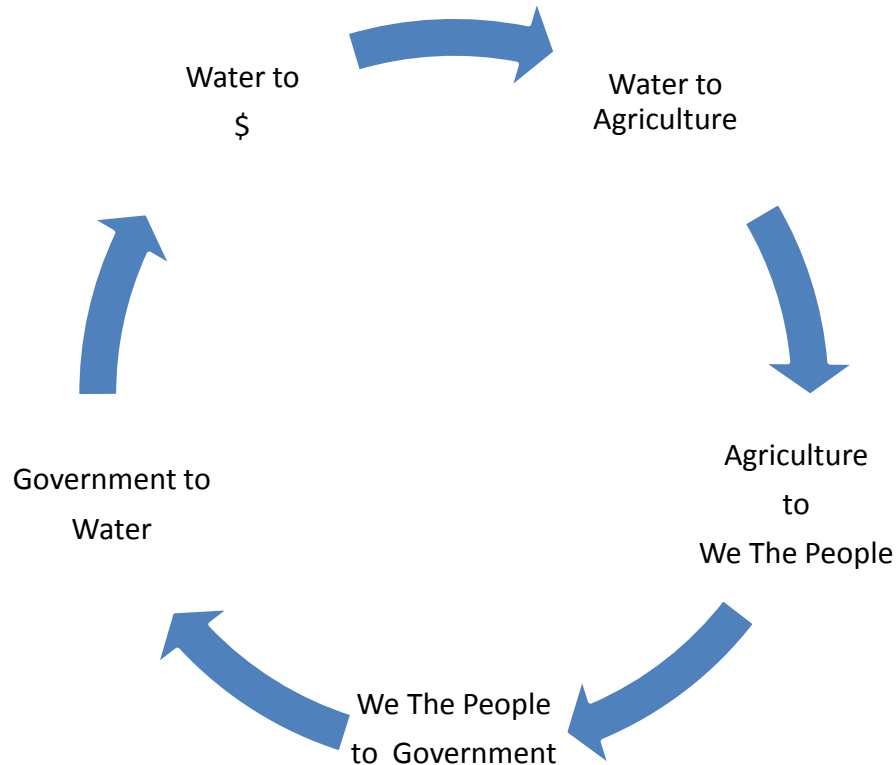
- Recent study of Computer modeling yielded:
  1. When it comes to GAM's and DFC's...  
It is what is available and is developing
  2. Consider the distinct possibility that.....  
Computer models produce:
    - GIGO (garbage in garbage out)
    - SWAG (Scientific Wild ... Guess)
- TBV (Trust But Verify) must be the minimum standard.  
This slide produced by the same person that.....  
produced the following slide.



# Issues To Be covered At Next Opportunity

- Subsidence
- Austin and Waller County Water Inventory
- Austin and Waller County Production
- Water Marketers
- Developers
- Other Stakeholders
- Funding from State and/or Federal Govt.

# Water Circle of Relationships



Graphic published by CCTWR to assist in explaining critical relationships  
Please use this complete publication and our web site to help get the  
word out to We The People. Your info web site for your use: [cctwr.org](http://cctwr.org)

# Water to Agriculture

- Body needs water to function
- You can live 7 days w/o food and.....
- 3 days w/o water
- Blue Gold video – Pablo lived 7 day w/o water
- And quite simply we need food
- Alter or lose water source > food goes away
- Simple and related to present situation

# Agriculture to We The People

- How rudimentary can we get?
- What better way to organize people.....
- Than to disturb their most basic needs
- Government has heavily influenced.....
- If not taken over our Agriculture.
- Texas A&M Agrilife Extension (ICLEI ?)
- Seminar in Cat Spring by TAMU/Agrilife
- Is “Accelerated Sustainability” the Answer?



# We the People to Government

- Our relationship to government is wrong
- WTP have let our government be wrong
- We are paying now and will.....
- Pay more later.
- *International Council for Local Environmental Initiatives*

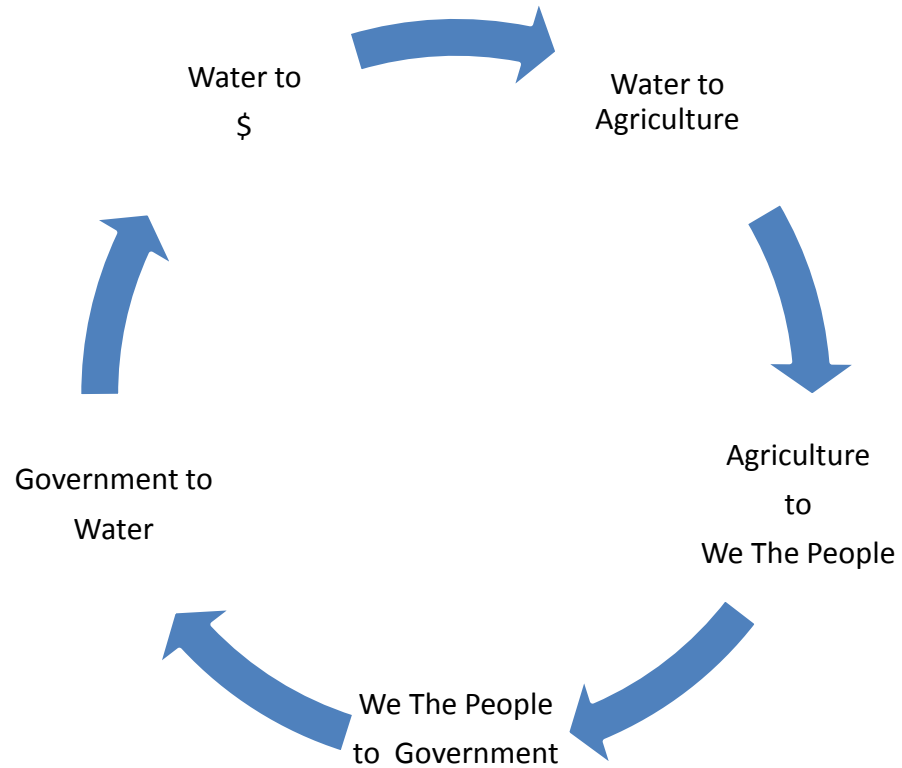
# Local Government to Water

- Will local Government try to control water?
- Is control being pushed by TAMU Agrilife?
- Is TAMU over populated with ICLEI?
- ..... Yes to All Above
- Google ICLEI
- Urge no votes on HB4, SRJ1, HB1025 abd nore
- Agenda 21, Law of Sea on National Level.

# Water to Dollars

- Water Marketers
- Stakeholders
  - Land Owner/s: Chambers
  - Water Marketers: Electro Purification (EP)
  - Developers: TBD
  - Government: Local, State, etc.
- ATW Being sold “Accelerated Sustainability”

# Water Circle of Relationships



Follow The Money

# Sealy and Frydek Area Citizens

## Jun 19, 2013



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CCTWR wishes to Thank St. Mary's Catholic community for the opportunity to present to you!