

LONE STAR GROUNDWATER CONSERVATION DISTRICT

May 11, 2021

MINUTES OF PUBLIC HEARING ON PERMIT APPLICATIONS

The Board of Directors of the Lone Star Groundwater Conservation District (“District”) met in regular session, open to the public held in person in the Lone Star GCD – James B. “Jim” Wesley Board Room located at 655 Conroe Park North Drive, Conroe, Texas, and remotely via the publicly accessible webinar/telephone conference call within the boundaries of the District on May 11, 2021.

CALL TO ORDER:

President Hardman called to order the Public Hearing on Permit Applications at 6:00 PM announcing the meeting open to the public.

ROLL CALL:

The roll was called of the members of the Board of Directors, to wit:

Jon Paul Bouché
Harry Hardman
Jonathan Prykryl
Larry A. Rogers
Jim Spigener
Janice Thigpen
Stuart Traylor

All members of the Board were present, thus constituting a quorum of the Board of Directors. Also, in attendance at said meeting were Samantha Reiter, General Manager; Stacey V. Reese, District Counsel; District staff; and members of the public. *Copies of the public sign-in sheets and comment cards received are attached hereto as Exhibit “A” to the Regular Board of Directors Meeting minutes.*

PRAYER AND PLEDGES OF ALLEGIANCE:

President Hardman called on Director Bouché for the opening prayer and Director Thigpen to lead the Pledge of Allegiance and the Pledge of Allegiance to the state flag.

PUBLIC COMMENTS:

No comments were received.

Ms. Reiter briefed the Board on permit applications received for the month. Applications for consideration and recommended for possible approval included the below:

1. JMAX, LLC

Applicant is requesting registration of a new well and production authorization in the amount of 2,300,000 gallons for 2021 and annually thereafter. Based on technical review of the information supplied, it is the General Manager's recommendation to approve that which is requested.

2. San Jacinto River Authority

Applicant is requesting an amendment to an Operating Permit for an increase in production authorization in the amount of 90,430,000 gallons for **2020 only**. Based on technical review of the information supplied, it is the General Manager's recommendation to approve that which is requested.

3. Gerardo Calderon

Applicant is requesting registration of a new well and production authorization in the amount of 5,040,000 gallons for 2021 and annually thereafter. Based on technical review of the information supplied, it is the General Manager's recommendation to approve that which is requested.

4. Alejandra & Jose Garcia

Applicant is requesting registration of a new well and production authorization in the amount of 600,000 gallons for 2021 and annually thereafter. Based on technical review of the information supplied, it is the General Manager's recommendation to approve that which is requested.

5. Felix Carrillo

Applicant is requesting registration of a new well and production authorization in the amount of 150,000 gallons for 2021 and annually thereafter. Based on technical review of the information supplied, it is the General Manager's recommendation to approve that which is requested.

6. Dos Aguas Water System

Applicant is requesting registration of a new well and production authorization in the amount of 32,000,000 gallons for 2021 and annually thereafter. Based on technical review of the information supplied, it is the General Manager's recommendation to approve that which is requested.

7. Mekonnen Sisay

Applicant is requesting registration of a new well and production authorization in the amount of 400,000 gallons for 2021 and annually thereafter. Based on technical review of the information supplied, it is the General Manager's recommendation to approve that which is requested.

8. Antonio Renilla

Applicant is requesting registration of a new well and production authorization in the amount of 300,000 gallons for 2021 and annually thereafter. Based on technical review of the information supplied, it is the General Manager's recommendation to approve that which is requested.

9. Destin Drywall and Paint Inc.

Applicant is requesting registration of a new well and production authorization in the amount of 100,000 gallons for 2021 and annually thereafter. Based on technical review of the information supplied, it is the General Manager's recommendation to approve that which is requested.

10. HMW Special Utility District (Hunters Retreat)

Applicant is requesting an amendment to an Operating Permit for an increase in production authorization in the amount of 33,000,000 gallons for 2021 and annually thereafter. Based on technical review of the information supplied, it is the General Manager's recommendation to approve that which is requested.

11. HMW Special Utility District (Pleasant Forest)

Applicant is requesting an amendment to an Operating Permit for an increase in production authorization in the amount of 10,000,000 gallons for 2021 and annually thereafter. Based on technical review of the information supplied, it is the General Manager's recommendation to approve that which is requested.

12. HMW Special Utility District (Allenwood)

Applicant is requesting an amendment to an Operating Permit for an increase in production authorization in the amount of 6,000,000 gallons for 2021 and annually thereafter. Based on technical review of the information supplied, it is the General Manager's recommendation to approve that which is requested.

13. HMW Special Utility District (Kipling Oaks #2)

Applicant is requesting an amendment to an Operating Permit for an increase in production authorization in the amount of 13,000,000 gallons for 2021 and annually thereafter. Based on technical review of the information supplied, it is the General Manager's recommendation to approve that which is requested.

14. HMW Special Utility District (Kipling Oaks #1)

Applicant is requesting an amendment to an Operating Permit for an increase in production authorization in the amount of 33,735,000 gallons for 2021 and annually thereafter. Based on technical review of the information supplied, it is the General Manager's recommendation to approve that which is requested.


15. Butera RV Park

Applicant is requesting an amendment to an Operating Permit for drilling authorization only. No additional production authorization is being requested at this time. Based on technical review of the information supplied, it is the General Manager's recommendation to approve that which is requested.

Ms. Reiter reported that there were fifteen applications for this month. Following Ms. Reiter's report, Director Prykryl motioned to approve items #1-#15, as recommended by the General Manager. Director Spigener seconded. Motion passed.

President Hardman adjourned the public hearing on permit applications at 6:02 PM.

PASSED, APPROVED, AND ADOPTED THIS 8th DAY OF JUNE 2021.



Larry Rogers, Board Secretary

LONE STAR GROUNDWATER CONSERVATION DISTRICT

May 11, 2021

MINUTES OF REGULAR MEETING

The Board of Directors of the Lone Star Groundwater Conservation District ("District") met in regular session, open to the public, held in person in the Lone Star GCD – James B. "Jim" Wesley Board Room located at 655 Conroe Park North Drive, Conroe, Texas, and remotely via the publicly accessible webinar/telephone conference call within the boundaries of the District on May 11, 2021.

CALL TO ORDER:

President Hardman presided and called to order the regular Board of Directors meeting at 6:02 PM, announcing that it was open to the public.

ROLL CALL:

The roll was called of the members of the Board of Directors, to wit:

Jon Paul Bouché
Harry Hardman
Jonathan Prykryl
Larry A. Rogers
Jim Spigener
Janice Thigpen
Stuart Traylor

All members of the Board were present, thus constituting a quorum of the Board of Directors. In attendance at said meeting were Samantha Reiter, General Manager; Stacey V. Reese, District Counsel; District staff; and members of the public. *Copies of the public sign-in sheets and comment cards received are attached hereto as Exhibit "A".*

PUBLIC COMMENTS:

Mark Meinrath, resident of The Woodlands, who lives in a subsidence induced fault and been there since 1992. The past 20 years his house has dipped to the northwest at a rate of a half inch a year. He stated this rate of dipping is exactly the same rate as is seen in PAM #13. After GRP pipeline opened in 2015, subsidence almost stopped at the PAM #13 site and at his home. Since the beginning of the GRP pipeline the ratio of 65/30 ratio using surface to groundwater mix (almost no fault activity) to a 50/50 surface to groundwater ratio, and then to 35/65 ratio. With the increased use of groundwater there has been an increase in faulting to the area. Meinrath requested

LSGCD, San Jacinto River Authority and GMA 14 to consider placing a CORS station on the downside of the fault. *A copy of Meinrath's written comments is attached hereto as Exhibit "B".*

Laura Norton, resident of The Woodlands and web developer for www.stopoursinking.com speaks to the land surface measuring station called TXCM. This station reports a drop of .66 centimetres per year, and already has dropped 8 inches from this area in last 15 years. HAGM predicts only 3 inches of subsidence from this area through 2080. She believes the stats from this TXCM is proof that subsidence is occurring. Her complaint is that LSGCD has entered into an uncontrollable experiment with damaging results to subsidence in her area of Montgomery County and stated she favors using surface water.

One note, several additional comments were submitted via email, and copies made for each director to consider but were not read aloud. *A copy of these comments is attached hereto as Exhibits "C - I".*

EXECUTIVE SESSION:

After a proper and legally sufficient announcement to the public by President Hardman, the Board of Directors recessed into a Closed Executive Session at 6:13 PM pursuant to Texas Government Code, Sections 551.071, to consult with the District's attorney regarding pending or contemplated litigation, settlement offers, personnel matters (§551.074), or on matters in which the duty of the attorney to the governmental body under the Texas Disciplinary Rules of Professional Conduct of the State Bar of Texas clearly conflicts with the Texas Open Meetings Act, Chapter 551, Government Code.

RECONVENE IN OPEN SESSION:

Following Executive Session, the Board reconvened in Open Session and President Hardman declared it open to the public at 7:02 PM. Director Bouché departs the meeting at 7:01 PM.

APPROVAL OF THE MINUTES:

President Hardman stated the Board would consider the meeting minutes as listed for approval on today's agenda. Without further discussion, upon a motion by Director Spigener to approve as amended and seconded by Director Traylor, the Board approved the meeting minutes as presented.

- a) April 7, 2021, Special Board of Directors Meeting
- b) April 13, 2021, Public Hearing on Permit Applications
- c) April 13, 2021, Regular Board of Directors Meeting

COMMITTEE REPORTS:

A. Budget & Finance Committee – Jim Spigener, Chair

- 1) Brief the Board on the Committee's activities since the last regular Board meeting– Director Spigener reported the committee met on April 28 and discussed the 2021 Budget. A second meeting is planned to review the 2021 Budget before getting board approval.
- 2) Review of unaudited Financials for the month of April 2021 -
Ms. Samantha Reiter reported that for the month of April 2021, income was \$279,440 and expenses were \$106,328 resulting in a net income of \$173,112. Year-to-date net income is \$573,069. Total cash on hand was \$2.8 million.

B. Communications Committee – Harry Hardman, Chair

- 1) Brief the Board on the Committee's activities since the last regular Board meeting- President Hardman read from the following prepared statement:

“Over the past two decades Lone Star GW Conservation Board and Montgomery County residents have seen first-hand the harm of misinformation. As a board we recognize one of the best ways to combat this information is to share our processes and goals through the power of Mo. Co. citizens to make informed decisions regarding groundwater property rights. Each member of this elected board represents and serves a region of our community. Our board assists, collects and analyses data to plan for all of our futures. We need to get better at making you, the citizens of Montgomery County part of that process, which is precisely where it should be, and the communication initiative aims to do.

Last month we voted to engage the Mach I Group to break down any remaining barriers between our board and the public. Our current agreement goes to the balance of 2021 at a rate of \$8,100 a month. Next year we will review our own requirements moving forward and make the appropriate adjustments to that.

Through our work with Mach I it is our goal to provide you with regular communications initiative or update to help explain all the different facets of our district and to all our constituents to learn all about groundwater management processes; your rights as a property owner and feel more prepared for the future. The Mach I Group is a nationally recognized public affairs communications firm. As a government entity we are subject to a lot of stipulations and regulations. Their firm is well versed in working with governmental organization which is the key reason why we chose them. They're helping us to revamp our messaging and make it more inviting to those without engineering backgrounds and finding opportunities for us to engage with the public through events and media ops opportunities.

As our partnership continues, we plan to continue to provide updates and show our processes as part of this committee work. As always, we welcome your input as to how well we're doing”.

C. DFC & Technical Committee – Stuart Traylor, Chair

- 1) Brief the Board on the Committee’s activities since the last regular Board meeting – General Manager, Samantha Reiter, reviewed the progress of the committee. She highlighted the call on May 6th to discuss the subsidence study and public comments. The committee asked if staff could follow up with a status update from the stakeholders in the first round of stakeholders’ meetings. There is also interest and discussion on hosting a second round of these meetings to include some stakeholders not in the first round of meetings.

D. Legislative Committee – Harry Hardman, Chair

- 1) Brief the Board on the Committee’s activities since the last regular Board meeting – Stacey Reese, General Counsel, gave the committee report with overview of three bills. The first is the unreasonable DFC bill which was incorporated into Senate Bill 152. The second is a stand-alone bill by Representative Metcalf. The third is a stand-alone bill by Senator Creighton. SB 152 is further along in the adoption process and has the language that LSGCD endorses.

E. Rules, Bylaws & Policies Committee – Larry A. Rogers, Chair

- 1) Brief the Board on the Committee’s activities since the last regular Board meeting – Director Rogers reported that the committee met for the first time on May 5th. They discussed committee work and announced the next meeting is scheduled for November 1st.

DISCUSSION, REVIEW, AND POSSIBLE APPROVAL OF 2020 ANNUAL REPORT FOR THE LONE STAR GROUNDWATER DISTRICT:

Jennifer Thayer, LSGCD Education & Conservation Coordinator, pointed the directors to the draft copy of the 2020 Annual Report. Director Prykryl motioned to grant conditional approval for the 2020 Annual Report. Director Spigener seconded. Motion passed. 6-for; 1 absent.

Director Rogers departed the meeting at 7:10 pm.

DISCUSS, CONSIDER, AND TAKE ACTION AS NECESSARY CONCERNING REPLACEMENT APPOINTMENT OF ASSISTANT SECRETARY:

Samantha Reiter discussed the need to replace her as assistant secretary, as her position as General Manager leave the position vacant. She stressed the need to have an assistant secretary for when the board secretary’s signature is required. She recommended Jennifer Thayer be appointed as her replacement in this role. Director Spigener motioned to appoint Jennifer Thayer as the Assistant Board Secretary. Director Prykryl seconded. Motion passed.

RECEIVE INFORMATION FROM DISTRICT'S TECHNICAL CONSULTANTS REGARDING SUBSIDENCE STUDIES AND/OR DISCUSSION REGARDING THE SAME:

- a) Discussion, consideration, and possible action to approve Subsidence Study Phase 2 Scope of Work.

Ms. Reiter discussed that the scope was reviewed at the last board meeting and approved for a 30-day public comment period. That period ended on Thursday, May 6th, however the DFC Committee's recommended to extend this comment period until the May 28th at 5:00 pm. This will allow time for more public comments and also the committee and consultants to review all comments. The committee will present a full report to the board for its approval at the June board meeting.

Director Prykryl motioned to extend the comment period until May 28th. Director Thigpen seconded. Motion passed with 5 for and 2 absences.

GROUNDWATER MANAGEMENT AREA 14 - UPDATE THE BOARD ON THE ISSUES RELATED TO JOINT PLANNING ACTIVITIES AND DEVELOPMENT OF DESIRED FUTURE CONDITIONS IN GMA 14:

Samantha Reiter reported that the GMA 14 had not met since the April meeting, and explained that she reached out to the GMA 14 GCD members about scheduling the next meeting. She had a scheduling conflict arise and also preferred the meeting take place earlier than originally set and indicated she has not received many responses to her request.

She also recounted correspondence with the groundwater districts that voted against Lone Star's proposed DFC statement, asking reason for their opposition. Their response was that they needed to get with their board to document their reasoning to Lone Star. In addition to her own letters, President Hardman wrote the same GCD board presidents requesting a meeting to discuss District Rules. Currently, District is awaiting responses.

President Hardman directed GM Reiter to follow up with the other GCDs if responses are not received in a timely manner.

- a) Discussion, consideration, and possible action on any items related to Lone Star GCD's proposal(s) to and/or participation in GMA 14.

Ms. Reiter discussed the 90-day public comment period of the GMA 14 proposed DFC statement which began April 20th. She requested that if public comments were sent that the subject line use the phrase "GMA Comments" or "DFC Comments".

Samantha Reiter apprised the group of the need for a hearing on the public DFC comments. Ms. Reese added that the 90-day hearing needs to be held during the same 90-day period. Ms. Reese suggested the hearing be held around the June board meeting since the public comment period closes July 19th which would allow for a second hearing if necessary. Further, that she anticipated a lengthy public comment discussion

so that the hearing could be the same day as the June board meeting or perhaps the following day. The hearing date is to be determined.

DISCUSSION OF POSSIBLE ACTION TO ISSUE A SHOW CAUSE ORDER DIRECTING THE FOLLOWING PERMITTEES, OR THEIR DESIGNATED REPRESENTATIVE, TO APPEAR AT A SHOW CAUSE HEARING FOR THAT PURPOSE AND SHOW CAUSE WHY APPROPRIATE ENFORCEMENT ACTION SHOULD NOT BE TAKEN, INCLUDING WITHOUT LIMITATION INITIATING A LAWSUIT AGAINST IT FOR FAILURE TO REMIT 2021 WATER USE FEES AND/OR FINES ASSOCIATED WITH UNTIMELY SUBMISSIONS:

- 1) Jim (Wanda) Fox – OP-07120501
- 2) Magnolia Technology Park – OP-17061401
- 3) Maverick Tube – HUP131/OP-08081201
- 4) Richard Gysler & Cailean McAlister – HUP

Ms. Reiter discussed the four permittees under this enforcement Show Cause Order for Failure to Remit 2021 Water Use Fees. It is the General Manager's recommendation to direct all four permittees to the Show Cause Hearing on June 8th and show cause why action not be taken. Director Spigener motioned to take action for the Show Cause Hearing. Director Prykryl seconded. Motion passed 5 for and 2 absences.

DISCUSSION AND POSSIBLE ACTION TO ISSUE A SHOW CAUSE ORDER DIRECTING THE FOLLOWING PERMITTEES, OR THEIR DESIGNATED REPRESENTATIVE, TO APPEAR AT A SHOW CAUSE HEARING FOR THAT PURPOSE AND SHOW CAUSE WHY APPROPRIATE ENFORCEMENT ACTION SHOULD NOT BE TAKEN INCLUDING WITHOUT LIMITATION INITIATING A LAWSUIT AGAINST IT FOR OVERPRODUCTION OF 2020 PERMITTED ALLOCATION AND/OR FINES ASSOCIATED WITH UNTIMELY SUBMISSIONS:

- 1) JJ Business Park – OP-13032001
- 2) Magnolia Technology Park – OP-17061401
- ~~3) Ricky Bates – OP-19042902~~
- 4) The Church at Woodforest – OP-19022203

Ms. Reiter discussed the three permittees under this enforcement Show Cause Order for 2020 Overproduction. It is the General Manager's recommendation to direct all three permittees to the Show Cause Hearing on June 8th and show cause why action not be taken. Director Prykryl motioned to take action for the Show Cause Hearing. Director Thigpen seconded. Motion passed 5 for and 2 absences.

DISCUSSION OF POSSIBLE ACTION TO ISSUE A SHOW CAUSE ORDER DIRECTING THE FOLLOWING PERMITTEES, OR THEIR DESIGNATED REPRESENTATIVE, TO APPEAR AT A SHOW CAUSE HEARING FOR THAT PURPOSE AND SHOW CAUSE WHY APPROPRIATE ENFORCEMENT ACTION SHOULD NOT BE TAKEN, INCLUDING WITHOUT LIMITATION INITIATING A

LAWSUIT AGAINST IT FOR FAILURE TO SUBMIT PERMIT RENEWAL(S), OPERATING WITHOUT A VALID PERMIT, FAILURE TO SUBMIT ANNUAL PRODUCTION REPORT(S), FAILURE TO REMIT PAST DUE WATER USE FEES AND/OR FINES ASSOCIATED WITH UNTIMELY SUBMISSIONS:

- 1) CWE Utilities &/or owner, operator or manager including without limitation Brent Davis and temporary manager, Harrison Williams, associated with permits HUP057A / OP03-0015C
- 2) CWE Utilities (Garden West) &/or owner, operator or manager including without limitation Brent Davis and temporary manager, Harrison Williams, associated with permit OP-14081801
- 3) Drew T. Spencer d/b/a Cypresswood Estates Water System, Davis Irrigation Services, & or holder of CCN No. 12978 which serves Cypresswood Estates Subdivision associated with permits HUP057A / OP03-0015C.
- 4) Drew T. Spencer d/b/a Cypresswood Estates Water System, Davis Irrigation Services, & or holder of CCN No. 12978 which serves Garden West associated with permit OP-14081801.

Ms. Reiter discussed the permittee under this enforcement Show Cause Order for failure to submit permit renewals, operating without a valid permit, failure to submit annual production reports, failure to remit past due water use fee and/or fines associated with untimely submissions. Ms. Reiter cited receipt of 2021 permit renewals and water use fees but lacking water use fees for 2018 through 2020. It is the General Manager's recommendation to direct permittee to the Show Cause Hearing on June 8th and show cause why action not be taken. Director Prykryl motioned to take action for the Show Cause Hearing. Director Traylor seconded. Motion passed 5 for and 2 absences.

GENERAL MANAGER'S REPORT:

Ms. Samantha Reiter predicted that next month's June meeting will be lengthy and will include presentations from both LSGCD's auditor and USGS; also Show Cause Hearing, Budget discussion and the 90-day DFC Public Comment Hearing.

She also announced four upcoming water related meetings: TWCA Summer Conference in Horseshoe Bay -June 9-11; TGWA Annual Convention, San Marcos, August 1-4; TAGD Groundwater Summit in San Antonio August 31-September 2 and TWDB's Annual Summit, "2021 Water for Texas" in Austin, September 27-29.

GENERAL COUNSEL'S REPORT:

Ms. Reese apprised the Board of the protest for Denbury's application for an injection well which is still pending. In the meantime, Denbury has applied for another injections well. She has reached out to the Denbury Council to request additional information.

NEW BUSINESS:

No new business.

ADJOURN:

There being no further business, Director Traylor motioned to adjourn the meeting and Director Prykryl seconded. The meeting was adjourned at 7:25 PM.

PASSED, APPROVED, AND ADOPTED THIS 8th DAY OF JUNE 2021.



Larry Rogers, Board Secretary

May 11, 2021 Board Meeting ZOOM Online Attendees

Attendees

Tina Felkai

John Yoars

Simon Sequeira

Matt Corley

William Dwyer

Laura Norton

George Newman

Mark Meinrath

Carson Thayer

Ed Shackelford

Penny Bradshaw

Mike Joners

Judy Servidio

From: Samantha Reiter
Sent: Tuesday, May 11, 2021 4:16 PM
To: Judy Servidio
Cc: Jennifer Thayer
Subject: FW: Results of 1st year extension of the Panther Branch Fault elevation survey

Public comments.

Samantha Stried Reiter
General Manager

LONE STAR GROUNDWATER
CONSERVATION DISTRICT
Phone 936.494.3436



Please note that the Lone Star GCD's Board of Directors approved new rules on September 8, 2020. Please visit the ["Management & Rules" page](#) of our website for information on the new rules and how they may affect you.

From: mark meinrath <mmeinrath@comcast.net>
Sent: Monday, May 10, 2021 3:04 PM
To: Amber Batson <abatson@sjra.net>; Wade Oliver <woliver@intera.com>
Cc: Jace Houston <jhouston@sjra.net>; Ron Kelling <rkelling@sjra.net>; Jim Stinson <jstinson@woodlandswater.org>; John Martin <jmartin@setgcd.org>; mturco@subsidence.org; Laura Norton, Cpa <lauranortoncpa@gmail.com>; Stephanie Glenn <sglenn@HARCresearch.org>; Samantha Reiter <sreiter@lonestargcd.org>; John Yoars <jyoars@comcast.net>; Gordy Bunch <gbunch@thewoodlandstowship-tx.gov>; Bruce Rieser <brieser@thewoodlandstowship-tx.gov>; Ann Snyder <ASnyder@thewoodlandstowship-tx.gov>; Neil Gaynor <gaynorformud6@gmail.com>; Irogers220@aol.com
Subject: Results of 1st year extension of the Panther Branch Fault elevation survey

The following series of 5 slides provides both the most recent results fault activity measurements at the W2A Fault Monitoring Survey (Panther Branch Fault) and my analysis of these results along with context for understanding why this activity is important in any discussion of subsidence in The Woodlands.

The Houston Galveston Subsidence District's PAM-13 data and the fault history of my house suggest that if The Woodlands returns to pre-GRP ground water pumping rates, which produced approximately 0.5 inches of subsidence per year, until a foot of subsidence triggers a throttling back of ground water pumping, my house will become unstable and possibly uninhabitable. However, I doubt that the GRP pipeline, which crosses the Panther Branch Fault underneath the entrance to The Woodlands High School, would be safe from over the same foot of vertical sheer that my foundation has incurred between its construction in 1992, and the present ([SJRA officials eyeing fault line effect](#)).

If increased ground water pumping is allowed to continue unregulated this will cause economic damage to Montgomery County, starting at the Montgomery County Appraisal Board. The value of my house on the tax rolls is about a fourth of what it would be if it were not on an active fault. There are at least a dozen other homes located on the three major faults that run through some of the more expensive neighborhoods in The Woodlands, resulting in properties that are valued far below fair market because they represent a demonstrable investment risk. There are also 4 or 5 houses and lots near the The Woodlands High School, which sit on the down thrown side of the Panther Branch Fault, that despite their relatively high elevation in The Woodlands, unexpectedly flooded in hurricane Harvey. With more subsidence, more houses with some on even higher elevations—will suffer this same fate. My neighborhood is much higher in

elevation than Creekside or Spring Creek, yet the same forces that are splitting my house in two, are creating low spots on my street. There is a pool of water on my street on the low side of a fault line that has not dried up since I sent a picture of it to Commissioner Noack in 2014, complaining about this ever-present standing water being a health hazard. It is still there today and I can't remember it ever having dried up completely.

I would be honored to accompany any of the addressees of this message on a tour of the Hockley-Conroe faults in the Village of Cochran's Crossing so you can witness for yourself the impact of aseismic faults. Or, you could take a self-guided tour by simply walking across the west parking lot of The Woodlands High School. There you can see that aseismic faults can do as much damage to man made structure as seismic faults, they just do their damage in slow motion.

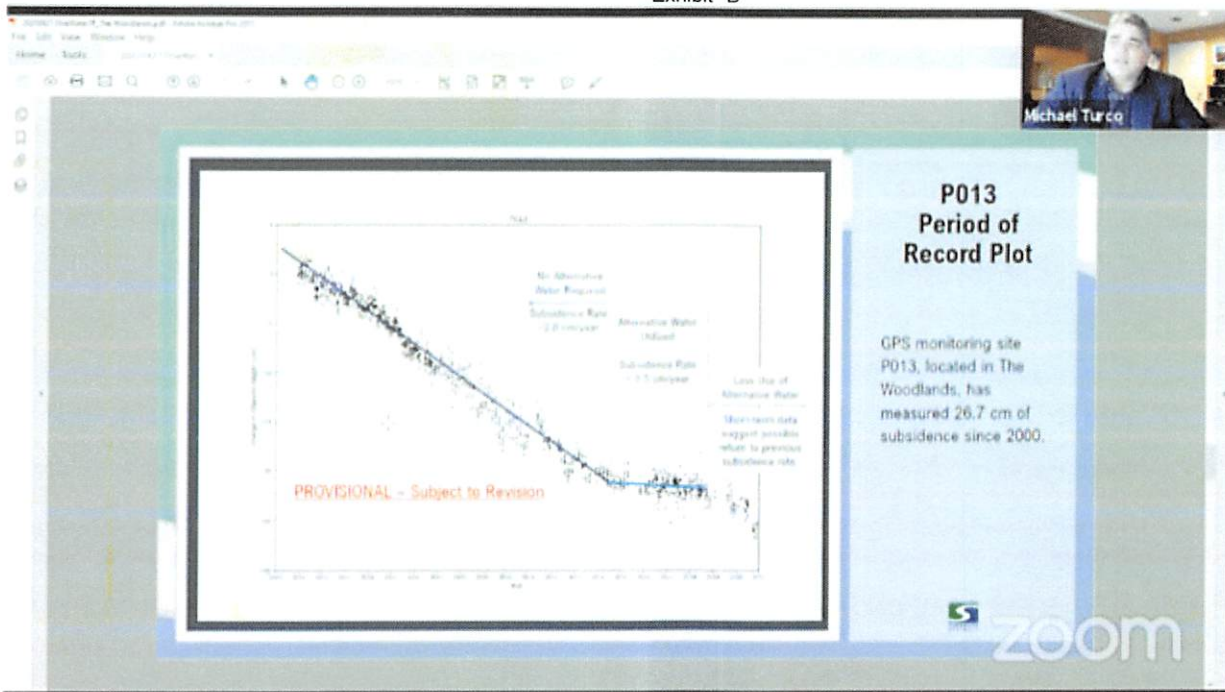
The argument that a property owner has rights ranging from heaven (above his property) to hell (below her property) which small utility companies in north county use to justify their unlimited rights to water under their property, should not allow them to extract water from under my house causing my house to sink and my neighborhood to flood, any more than it gives them the right to taint my air or pollute my surface drinking water supply.

I am imploring the addressees of this message to please take subsidence seriously. For the last four or five years I have watched the GRP pipeline actually slow fault activity at my house to a manageable degree, but now with a return to pumping toward pre-GRP rates, reality is "sinking" back in.

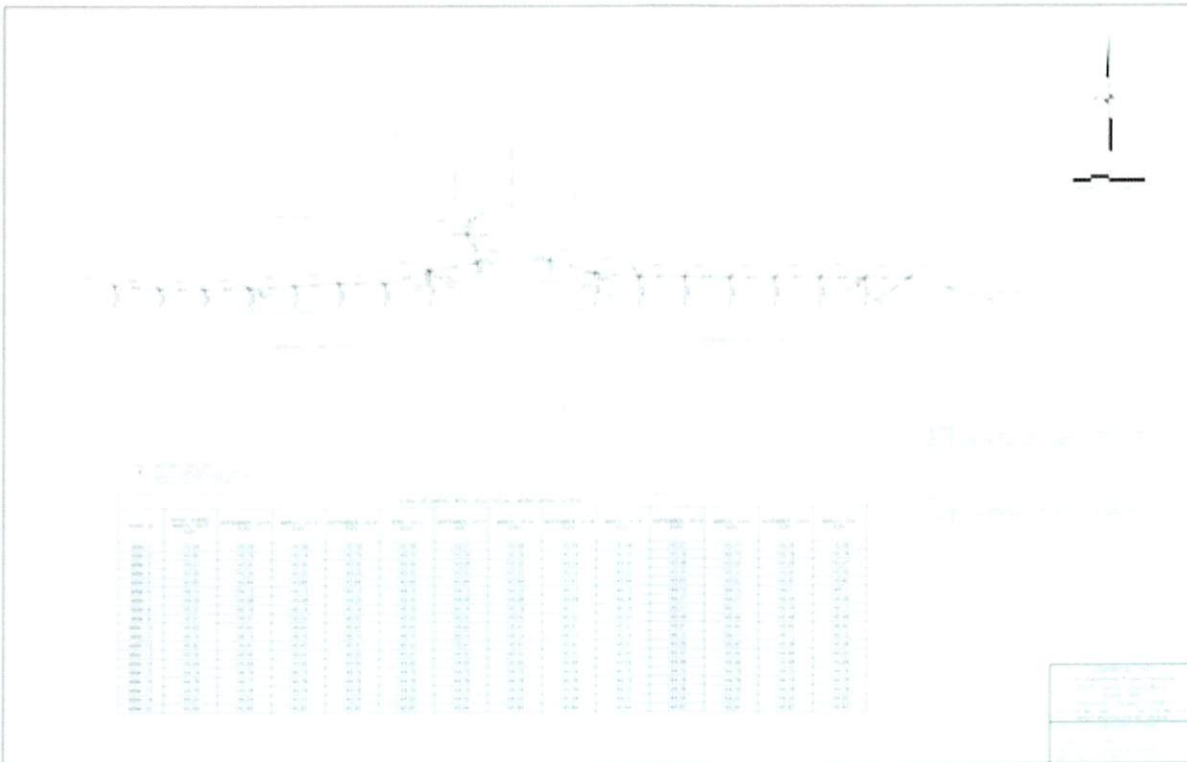
Mark Meinrath
Resident of the Panther Branch Fault since 1992

Please Note I have screen captured data from SJRA and HGSD without permission and the opinions expressed in this message do not imply endorsement from either of these sources. The original data, however, is real and obtained and publicly presented by professional engineers and scientists. The interpretation and extrapolation of the meaning and import of this data are my own.

Slide 1. A slide captured from a presentation by HGSD to The Woodlands Township One Water Committee showing historical elevation measures at nearby PAM-13 which correspond very closely to foundation changes at my residence along the Panther Branch Fault between 1992 and the present.



Slide 2. SJRA’s W2A elevation survey for April, 2021. The table shows the elevation of 19 elevation monuments every six months from 2015, when the GRP pipeline went into operation, until the present. The measures are in feet above sea level, to the nearest 100th of a foot, based on SJRA’s elevation standard at the Lake Conroe Dam.



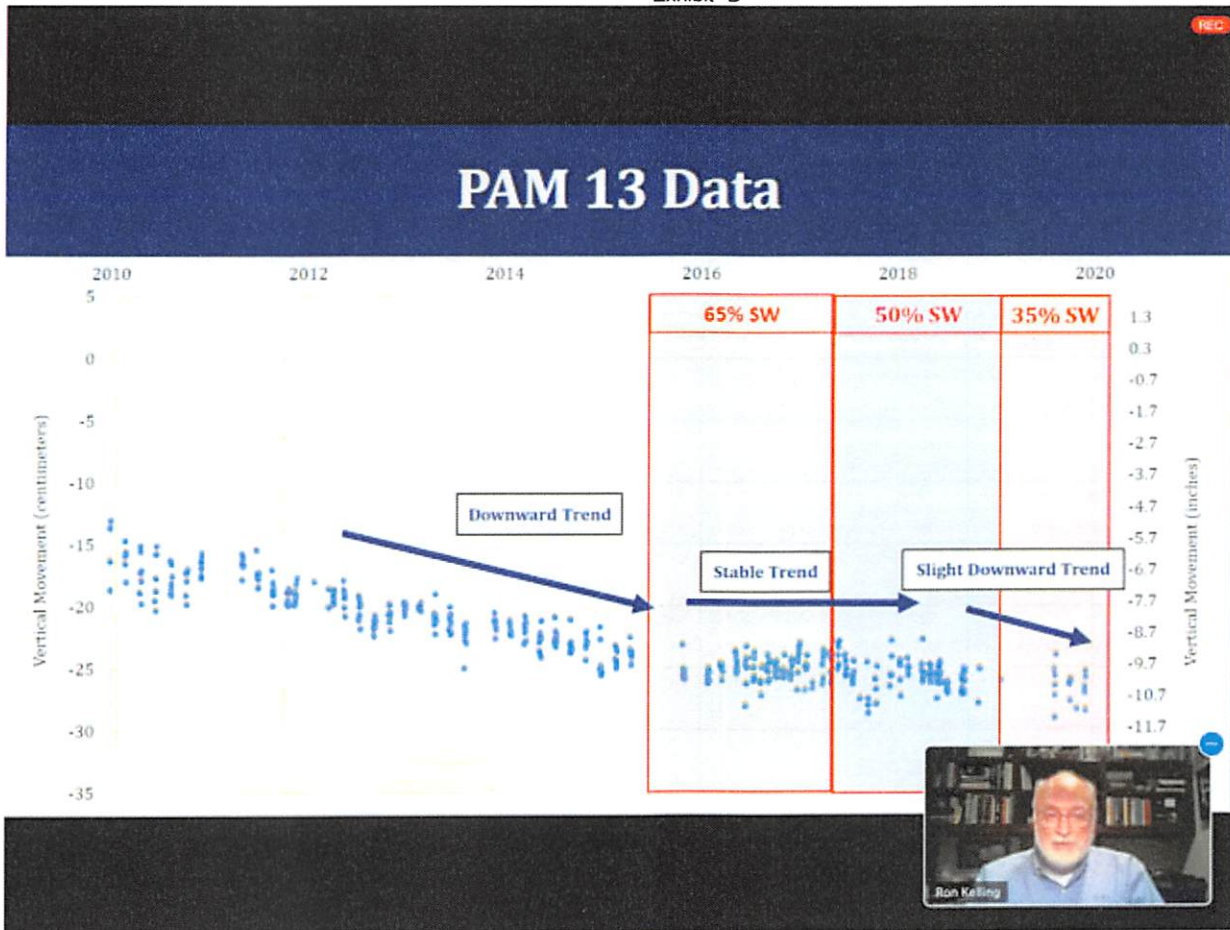
Slide 3. The table below shows elevation change scores (with the location of a fault line projected in 2013, before the GRP pipeline was placed in the ground) to the nearest 100th of a foot. Only the fractional part of the change scores

Exhibit "B"

are relevant. Red numbers represent negative changes in elevation (subsidence) and black numbers represent no change in elevation (or a non-negative number).

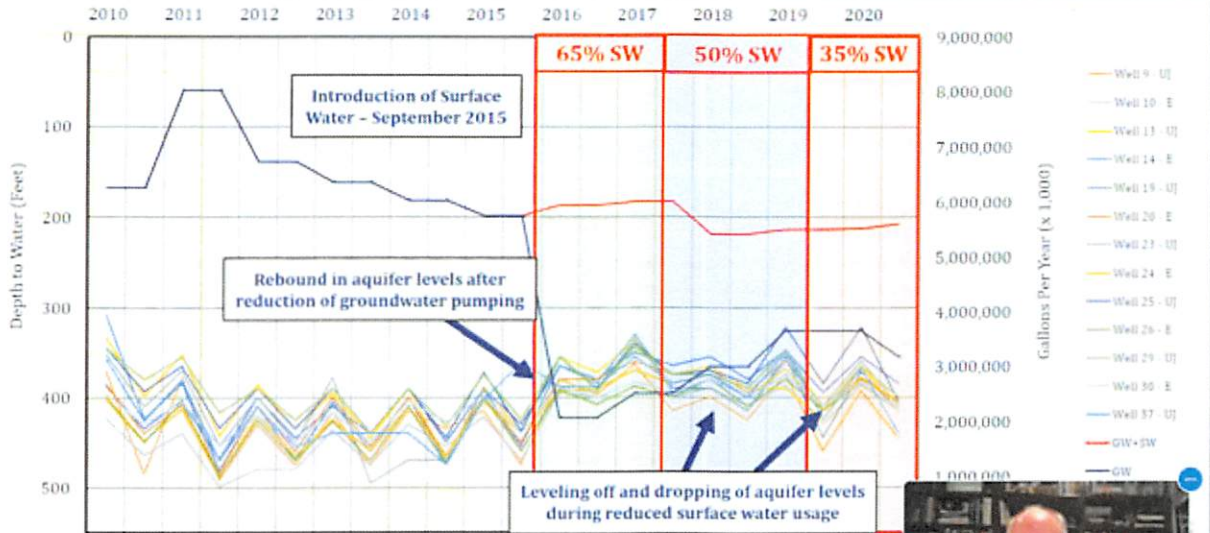
Point ID	8/13	8/15	8/18	8/19	8/17	8/17	8/18	8/18	8/18	8/19	8/20	11/20	8/21
M2M1	142.13	142.13	142.13	142.13	142.13	142.13	142.13	142.13	142.13	142.13	142.13	142.13	142.13
M2M2	142.14	142.14	142.14	142.14	142.14	142.14	142.14	142.14	142.14	142.14	142.14	142.14	142.14
M2M3	142.15	142.15	142.15	142.15	142.15	142.15	142.15	142.15	142.15	142.15	142.15	142.15	142.15
M2M4	142.16	142.16	142.16	142.16	142.16	142.16	142.16	142.16	142.16	142.16	142.16	142.16	142.16
M2M5	142.17	142.17	142.17	142.17	142.17	142.17	142.17	142.17	142.17	142.17	142.17	142.17	142.17
M2M6	142.18	142.18	142.18	142.18	142.18	142.18	142.18	142.18	142.18	142.18	142.18	142.18	142.18
M2M7	142.19	142.19	142.19	142.19	142.19	142.19	142.19	142.19	142.19	142.19	142.19	142.19	142.19
M2M8	142.20	142.20	142.20	142.20	142.20	142.20	142.20	142.20	142.20	142.20	142.20	142.20	142.20
M2M9	142.21	142.21	142.21	142.21	142.21	142.21	142.21	142.21	142.21	142.21	142.21	142.21	142.21
M2M10	142.22	142.22	142.22	142.22	142.22	142.22	142.22	142.22	142.22	142.22	142.22	142.22	142.22
M2M11	142.23	142.23	142.23	142.23	142.23	142.23	142.23	142.23	142.23	142.23	142.23	142.23	142.23
M2M12	142.24	142.24	142.24	142.24	142.24	142.24	142.24	142.24	142.24	142.24	142.24	142.24	142.24
FAULT LINE													
M2M13	142.25	142.25	142.25	142.25	142.25	142.25	142.25	142.25	142.25	142.25	142.25	142.25	142.25
M2M14	142.26	142.26	142.26	142.26	142.26	142.26	142.26	142.26	142.26	142.26	142.26	142.26	142.26
M2M15	142.27	142.27	142.27	142.27	142.27	142.27	142.27	142.27	142.27	142.27	142.27	142.27	142.27
M2M16	142.28	142.28	142.28	142.28	142.28	142.28	142.28	142.28	142.28	142.28	142.28	142.28	142.28
M2M17	142.29	142.29	142.29	142.29	142.29	142.29	142.29	142.29	142.29	142.29	142.29	142.29	142.29
M2M18	142.30	142.30	142.30	142.30	142.30	142.30	142.30	142.30	142.30	142.30	142.30	142.30	142.30

Slide 4. A slide captured from a presentation by SJRA to The Woodlands Township One Water Committee. This slide shows that prior to 2015 when the GRP pipeline became operational, Woodlands Water was all ground water. When the GRP pipeline opened up in 2015, it began delivering surface water to The Woodlands containing ~65% surface water and 35% ground water. This change in the mix of surface to ground water greatly reduced subsidence as seen in the first four columns of change scores above. In the next four columns the ratio of surface to ground water was 50-50. There is still a detectable presence of subsidence on the western (down thrown) side of the fault, slightly more active than the first 2 years. In the last four columns, when the ration of surface to ground water has changed 65% ground water, there is an increasing rate of decline in elevation between the previous period and within the final two years. In other words, it appears that the activity of the Panther Branch Fault closely corresponds with the rate of ground water exploitation.



Slide 5. A slide captured from a presentation by SJRA to The Woodlands Township One Water Committee. This slide verifies that while there are seasonal variations in fault activity, the important fault elevation trends are probably more dependent on compression of the confining layer rather than the seasonal level of the aquifer.

Static Well Levels (2010-2020)



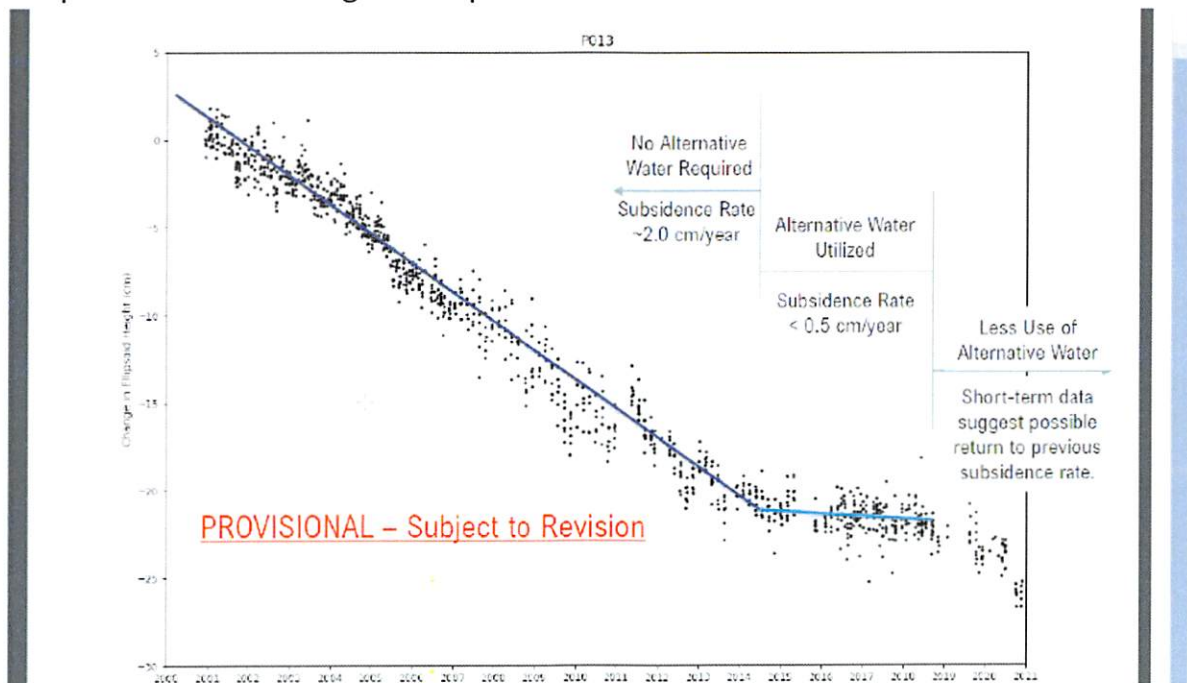
Ron Kelling

COMMENTS ON PHASE TWO LSGCD SUBSIDENCE STUDY

MAY, 7, 2021

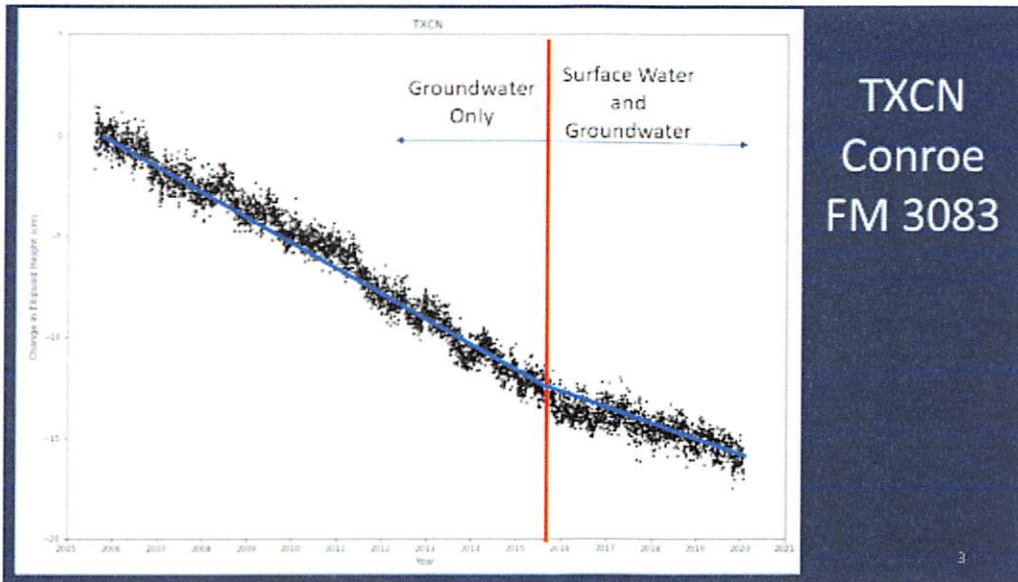
The Phase Two Subsidence Study needs to resolve the issues raised by existing PAM stations in The Woodlands and Conroe as to the data being shown by these two sites and the correlation with compaction in the two main aquifers.

In regards to PAM 13 is the subsidence being measured all due to compaction of the Evangeline Aquifer or



is some of it due to Jasper compaction. The SJRA bi annual well water table data would suggest that that the recent reappearance of subsidence is being caused by compaction as the artesian effects of the Jasper are being reduced and caused by pumping in that aquifer and not with a stable Evangeline aquifer water table.

The second issue is shown in this chart.

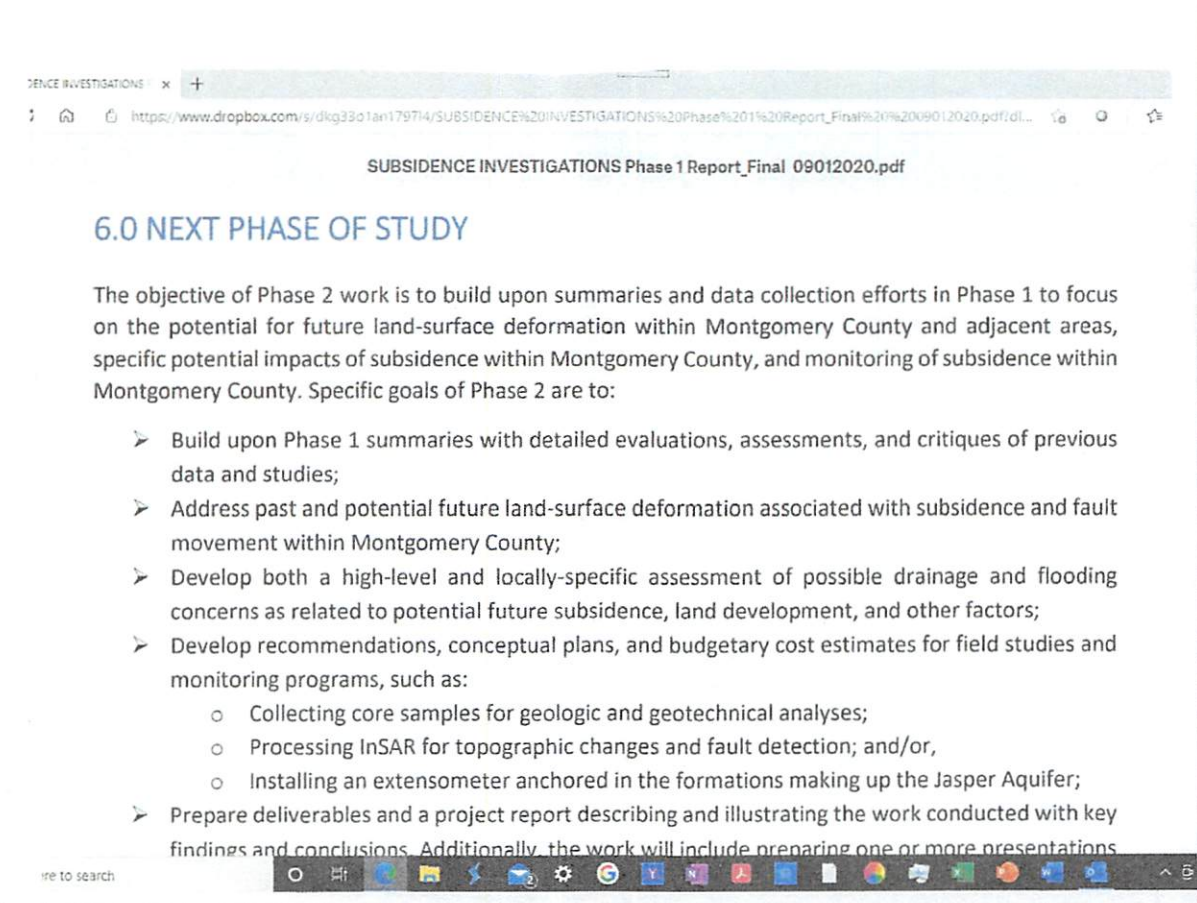


This data is taken from PAM Site TXCN and it is between two City of Conroe wells pumping only from the Jasper Aquifer.

Since data like this is readily available to the public these trends must be analyzed in Phase Two and reasons for the trends be clearly explained.

The Phase 1 Subsidence study included a section on Drainage and Flooding as refer to the third point in Section 6.0 for the Next Steps.

Exhibit "C"
John Yoars Comments



This issue is noticeably absent from the Phase Two scope of work. Drainage and flooding are linked to subsidence. Recent statements by LSGCD directors saying Flooding studies do not ever mention subsidence may be correct but ignores the fact that subsidence is integrated into the flood plan model via LIDAR readings which show land elevations being impacted and subsidence creating a growing flood plain in Southern Montgomery County. Subsidence is causing property owners issues with their residences and must be addressed in the Phase Two evaluation.

The HARC SAC provided a number of questions about the conclusions reached in the Phase One subsidence report that need to be addressed. LCGDC's responses need to be clearly stated in the Phase Two report.

From: Alex Bucher <a.bucher@att.net>
Sent: Thursday, May 6, 2021 9:15 AM
To: Samantha Reiter <sreiter@lonestargcd.org>
Subject: Public Comment regarding subsidence

I lack the scientific data or background to make definitive statements regarding the subsidence issue, so I will just point out some opinions that I believe are pertinent, if not the issues causing the subsidence, requiring a longer term view than focusing on a reduction of pumping. I think its more a factor of source supply than demand pumping.

1. All you need to do is to drive around the city of New Orleans to see where development and isolation of the natural flow of ground water dries up the land and sends it straight to the gulf, and witness the visual subsidence to know that development of lands, that was natural drainage, limits the chance for ground water to be absorbed and replenish levels. The soils are different, our water table is lower, but the result is similar; no new supply of water to the surface, the land being isolated dries out and subsides. Its not happening because of something 200-400' below the surface, its compacting from the top down as the lands dry out and water shed is minimized. With water tables being as low as 6' in some areas of the Woodlands, it may not be something that is going on at a depth of 200-400' deep. I'd be interested in how this conclusion was reached across the drainage basin.

2. What SJRA calls dredging of Lake Houston is hardly that. Because the lack of reservoir capacity due to minute dredging efforts. The retention time allowing the waters to permeate is less. The lake fills quicker, water is let out. Its not a reservoir any more. The watershed over the lands that feed the lake are being dammed and minimized. they never make it to an aquifer lever.

3. Continued artificial lowering of the Lake Conroe reservoirs for "flood control". Serves to do nothing but add to the amount of water that is dumped to the gulf and is not backed up into the tributaries that feed the ground water supplies.

4. Residential and Industrial development of the lands between Lake Conroe and Lake Houston must be contributing to the lack of surface area the water had to permeate.

5. Grand Parkway development and essentially damming of the waters which prior were allowed to spread over a large area is impacting.

6. What impact has the \$2 billion bond to prevent flooding, the related work or lack thereof, had on the ground water issue.

I think it is quite short-sighted to talk about limiting the pumping when the issue is as much if not more about the supply of groundwater that is available to the aquifers after everything that has been thoughtlessly maintained to supply water to Houston most especially lands which were bottom and now are dammed with highways and have new housing developments in them. Including needlessly pumping water to the gulf by emptying several feet of Lake Conroe into Lake Houston and into it.

If the desire is to replenish the groundwater, get rid of the sand in Lake Houston. Really dredge it. Not small unimpactful dredging operations
. Increase the capacity of Lake Conroe, leave the levels alone that existed, expand its containment. Stop the development of the bottom lands that were acting as surface water absorption.

Maybe I've missed it but I do not see this stuff being discussed except for flood prevention. What a powerful thing, something that prevents flooding and also provides aquifer replenishment. My recommendation is think harder, there is no one solution and a short-sighted solution isn't a solution at all.

Exhibit "E"

Finally, I don't see where the fault line geology in the Woodlands should drive this discussion other than if you are trying to minimize the pumping from water wells, now that the Woodlands is tied directly to the Lake Conroe reservoir this should be easily done. Whether it has any real effect is another question.

Alex Bucher
Lake Conroe Resident

From: Herb Hoover <gmanherb88@gmail.com>
Sent: Thursday, May 6, 2021 8:04:01 PM
To: Samantha Reiter <sreiter@lonestargcd.org>
Subject: DFC Comments

I've lived on Lake Conroe for almost 29 years. Over the years and especially the past 5 to 10 years, I've noticed my boathouse being gradually lowered (apparently) to land subsidence. The bottom boards were constructed to be 2-3 inches above the 201' level and now they are about 2 inches below the water level at 201."

I recall a couple times where you have adjusted the lake level benchmarks upward, resulting in higher levels of water while the land is subsiding. It would seem to me that if this continues, and it will, you should give consideration to adjusting the lake level. A lower sea level benchmark regarding full pool should also correspond to the overall drop in the area. Eventually, over time, without a lowering of the full pool level the structures over and around the shoreline will become ever closer to the lake level.

Just a thought to consider in the overall plan to address some of the subsidence issue.

Thanks for listening,

Herb Hoover
Rancho Escondido

May 11, 2021

Sent via email to: Samantha Reiter, General Manager Lone Star Groundwater Conservation District, sreiter@lonestargcd.org

Lone Star Groundwater Conservation District
655 Conroe Park North
Conroe, TX 77303

Subject: Public Comments on Lone Star Groundwater Conservation District on Phase II Subsidence Investigations Proposal

Dear Ms. Reiter:

Thank you for the opportunity to comment on the Phase II Subsidence Investigations Proposal. The *Groundwater Science Advisory Committee (SAC)* is composed of leading researchers from institutions around Texas who have come together to analyze and share a rich array of scientifically informed data about groundwater resources and regional subsidence to the *Regional Groundwater Science Partnership*, which was created to enable science-based review, community education, and outreach activities in support of regional data and studies relating to groundwater supply, groundwater demand, and land subsidence in Montgomery and Harris counties, Texas. The work of the Partnership is financially supported by the *Groundwater Research Consortium*, comprised of special-use districts in the greater Houston-Galveston Region interested in independent, science-based groundwater and subsidence research and data analysis.

We, the members of the SAC, submit the following Public Comments to Lone Star Groundwater Conservation District (LSGCD) on Phase II Proposal. Of note, two SAC members—Wade Oliver of INTERA Incorporated and John Seifert of Ground Water Consultants, LLC— were involved in the Kelley and others (2018) study;¹ therefore, these two members recused themselves from all discussion and comments pertaining to Task 1. (INTERA led the study and John Seifert with WSP-USA served as a contributor).

Regarding Task 1 – Technical Evaluations of Existing Data and Recent Study, the Phase II proposal states that the work “will involve detailed technical analyses of the previously identified subsidence study: Subsidence Risk Assessment and Regulatory Considerations for the Brackish Jasper Aquifer (Kelley and others, 2018).” Clarity is needed as to the key points in the Kelley et al. study that require re-assessment? What is the specific information that will be brought to LSGCD and how will it facilitate decision-making?

Much of what is discussed under Task 1 of the Phase II proposal is included in the geotechnical parameters that support the subsidence simulation in the GULF 2023 model, a model in development that has the support of the Texas Water Development Board, the US Geological Survey, the Harris-Galveston Subsidence District, and the Fort Bend Subsidence District. LSGCD’s Phase II proposed work will be published concurrently with the GULF 2023 modeling report, which will likely be published in March or April of next year. The SAC notes that the GULF model uses an ensemble-based approach whereby uncertainty in the parameter values is expressed numerically through an uncertainty range included in the model outputs. Thus, the GULF 2023 model already incorporates a reasonable range of

¹ Kelley, V. et al. (2018). Subsidence Risk Assessment and Regulatory Considerations for the Brackish Jasper Aquifer. <<https://hgsubsidence.org/wp-content/uploads/2020/09/Brackish-Groundwater-Resources.pdf>>

values for the parameters controlling compaction in the model and these values would have to change substantially to fall outside of the range currently incorporated.

The SAC would like to note that for the Kelley et al. (2018) report, an assessment of the bigger picture (i.e., how risk is assessed) could be useful to LSGCD and stakeholders. The report's discussion on linear correlation of risk would be strengthened by an examination of how hazards play out - often there is a threshold that translates into a more geometric progression of hazard and how it causes risk. A more sophisticated analysis to look at impacts of risk would add critical information to the current dialogue.

Regarding Task 2 – Geologic structure, the Phase II proposal states, that the work “will focus on assessing the distribution and thickness of the clay layers within Montgomery County”. As a part of the GULF 2023 project, INTERA assessed the Gulf Coast aquifer system geologic stratigraphy and hydrogeologic unit boundaries using a coupled chronostratigraphic and lithostratigraphic approach. The SAC strongly encourages working with the regional decision-makers using these data sets (such as INTERA, USGS, HGSD and others) so the information and knowledge can be shared and built upon in a collaborative manner.

The SAC has concerns that clay lenses and interbedding are not mentioned. The implication is that all clay layers are interconnected. It is important to determine the extent of clay lenses and how that contributes to compaction. Such an assessment should be considered as part of this work.

Additionally, it is important to better understand the purpose and goals of this task, and whether it relates to adjusting the formations and thickness of sand and clay intervals to incorporate these data sets into a groundwater model. Will the geologic structure be different from the Groundwater Availability Model (GAM)? The GULF 2023 model timeline would not allow for inclusion of these modifications prior to publication as the upcoming GAM of record for the Northern Texas Gulf Coast. The results of these adjustments, most likely, would not change the recommendations for the locations of GPS sensors and extensometers. Any proposed formation changes would likely be small compared to the depth intervals considered for the extensometers.

Regarding Potential Phase III – Site-Specific Geotechnical Investigations. The SAC thinks these data would be useful to inform and augment the current understanding of core sample data. However, the SAC has concerns about the difficulty of obtaining reliable and useful compressibility information from the stated depth. The SAC also has concerns about the vertical hydraulic conductivity and how it will be tested. Depth will be critical—most methods tend to have substantial uncertainty because they do not consider how vertical hydraulic conductivity scales. The testing might provide a minimum, which could be useful but will still have an associated uncertainty. It is likely that the vertical hydraulic conductivity has to be inferred from the numerical model calibrations and compared with core data. The SAC suggests that this task be refocused to look into geophysical boreholes to obtain data first—the drilling will be the expensive part of either effort.

On Potential Phase IV – Land-Surface and Geologic Formation Deformation Monitoring. The SAC is fully in favor of installing extensometers to monitor compaction and subsidence, as noted in the report released on 5 February 2021.² The SAC also supports the collaborative effort as outlined for Phase IV. However, the timing is concerning for Phase IV as it is unclear when this important task would be

² Groundwater Science Advisory Committee - Regional Groundwater Science Partnership. (2021). Review and Recommendations on “Subsidence Investigations – Phase 1” Report. <<https://harcresearch.org/wp-content/uploads/2021/02/RGWSP-SAC-Phase-1-Report.pdf>>

undertaken. The SAC suggests that this task should be elevated as a high priority task in the Phase II proposal, and we strongly encourage LSGCD to move this from a potential to a planned effort.

Overall, the SAC's main concerns with the Phase II proposal is that of the length of time estimated to complete the study tasks. The SAC encourages the District, if possible, to reduce the time allowed for the Phase II study to two thirds of the time proposed. LSGCD's Phase 1 report studied the existing literature and data and set up a framework for monitoring and evaluation. The SAC encourages LSGCD to begin data collection now so that the literature and data review can be informed by monitoring and observed data. The SAC suggests beginning extensometer site selection and subsequent installation of the extensometer(s), installation of a GPS sensor network in Montgomery County, and subsequent data collection. Processing InSAR for topographic changes and fault detection was initially discussed in the Phase 1 report as being proposed for Phase II, and the SAC would also like to see that be a part of this proposed Phase II. Extensometer and GPS installations will provide very useful and perhaps critical information for the specific locations chosen in the site selection process. InSAR will help fill the gaps between those sites, covering the entire county with essential subsidence monitoring.

In closing, the SAC strongly supports collaborative stakeholder and peer-review processes and notes that they are critical to scientific decision making. We greatly encourage collaboration in the decision process with local entities and districts that have expertise and experience in the area. It is very important to understand the factors driving subsidence in Montgomery County and the surrounding region through incorporation of the best available science, robust stakeholder processes, and extensive collaboration.

We appreciate the opportunity to provide public comment, thank you for your consideration.

Signed,

Groundwater Science Advisory Committee:

John Ellis, P.G. – United States Geological Survey (Member)

Robert E. Mace, Ph.D., P.G. – Texas State University, The Meadows Center for Water and the Environment (Member)

Gretchen Miller, Ph.D. - Texas A&M University (Member)

Wade Oliver, P.G. – INTERA Incorporated (Member)

John Seifert, PE - Ground Water Consultants, LLC (Member)

John "Jack" Sharp, Ph.D. – The University of Texas at Austin (Member)

John Tracy, Ph.D. – Texas A&M University, Texas Water Resources Institute (Member)

Guoquan "Bob" Wang, Ph.D. – University of Houston (Member)

Stephanie Glenn, Ph.D. – HARC (Facilitator and Contact)

Judy Servidio

From: Samantha Reiter
Sent: Tuesday, May 11, 2021 12:43 PM
To: Judy Servidio
Subject: FW: DFC comments

Follow Up Flag: Follow up
Flag Status: Flagged

DFC comments.

Samantha Stried Reiter
General Manager
LONE STAR GROUNDWATER CONSERVATION DISTRICT Phone 936.494.3436

Please note that the Lone Star GCD's Board of Directors approved new rules on September 8, 2020. Please visit the "Management & Rules" page of our website for information on the new rules and how they may affect you.

-----Original Message-----

From: Ana Cosio <scubamom1234@hotmail.com>
Sent: Tuesday, May 11, 2021 11:08 AM
To: Samantha Reiter <sreiter@lonestargcd.org>
Subject: DFC comments

I believe the DFC for groundwater are way too aggressive and can lead to misuse, and worse subsidence in The Woodlands!

Thanks
Ana Cosio
713-254-7046

Sent from my iPhone

Judy Servidio

From: Samantha Reiter
Sent: Tuesday, May 11, 2021 2:52 PM
To: Judy Servidio; Jennifer Thayer
Subject: FW: Application to speak in Public Comments at LSGCD Board Meeting May 11

Public comments for tonights meeting.

Samantha Stried Reiter
General Manager
LONE STAR GROUNDWATER CONSERVATION DISTRICT Phone 936.494.3436

Please note that the Lone Star GCD's Board of Directors approved new rules on September 8, 2020. Please visit the "Management & Rules" page of our website for information on the new rules and how they may affect you.

-----Original Message-----

From: mark meinrath <mmeinrath@comcast.net>
Sent: Tuesday, May 11, 2021 2:48 PM
To: Samantha Reiter <sreiter@lonestargcd.org>
Cc: Mark Meinrath <mmeinrath@comcast.net>
Subject: Application to speak in Public Comments at LSGCD Board Meeting May 11

I am writing to register as a presenter in the Public Comment part of the LSGCD Board Meeting, May 11.

My name is Mark Meinrath. I am a resident of The Woodlands who lives on a subsidence induced fault, locally known as the Panther Branch Fault. The SJRA has been monitoring the suspected location of the fault since the GRP pipeline became operational in 2015.

For over 20 years the fault my house was built on in 1992 has dropped in elevation on one side. The northwest corner of my house dropped in elevation at the same rate as PAM-13 which is a monitored permanent GPS system operated by the Houston Galveston Subsidence District situated less than a half mile east of my house. Both locations saw subsidence at about a half inch per year every year from CY 2000 until 2015, when the GRP pipeline opened up and began providing surface water from Lake Conroe to replace some of the ground water being consumed by south county.

When the pipeline opened up the rate of subsidence slowed to a half inch every 5 years, For all intents and purposes subsidence at the fault that runs under my house and under the GRP pipeline under the entrance to The Woodlands High School just about completely stopped. Over the five year study that SJRA planned to study this fault, the activity of this fault was small and didn't seem like much of a threat. It was certainly lower than the half inch per year I had observed at my house. However, toward the end of the five year study period, fault activity picked up. This increase in activity can be seen in the last year of data, the sixth year of the five year study.

It is now clear why the fault is becoming more active. SJRA didn't begin systematically studying the fault until the GRP pipeline went into operation. When the pipeline went into operation the surface water to ground water mix was 65% surface. after a year or two the surface/ground water mix went to 50%/50%. In the last years and the sixth year the surface to ground water mix was 35%/65% and the activity is returning to pre-GRP rates.

I and others whose homes sit astride the Faults in The Woodlands are beginning to see a return to familiar signs of fault damage.

I would like to ask Lone Star, SJRA, and GMA-14 to consider instrumenting my home by placing a CORS system on the down thrown side of the Panther Branch Fault to be used in combination with the WHCR, the CORS station at TWHS, on the up thrown side of the fault. With two linked stations it would be possible to be able to continuously monitor subsidence along the fault as the mix of surface and ground water is altered in order to better predict the threat to subsidence. Or, I would be willing to allow SJRA to instrument my house for the next 15 years – on the condition that if my house is destroyed by an active Panther Branch Fault that the house be purchased, torn down, and turned into a green zone. The back southeastern corner of my house sits on the up thrown side of the fault and the northwest corner in front sits on the down thrown side of the fault and would make an excellent addition to a subsidence laboratory, when used in conjunction with TWHS and PAM-13.

Thank you for your time and attention,

Mark Meinrath
mmeinrath@comcast.net
713-416-9323