



# 2023 JOINT REGULATORY PLAN REVIEW

## STAKEHOLDER MEETING EXECUTIVE SUMMARY

**NAME OF MEETING:** Stakeholder Meeting 2  
**DATE:** September 30, 2020  
**LOCATION:** Virtual

On Wednesday, September 30, 2020 at 10:00 am, the Harris Galveston and Fort Bend Subsidence Districts (the Districts) held their second Joint Regulatory Plan Review Stakeholder Meeting. This meeting was held as a virtual meeting to comply with best practices and directions provided by the State of Texas for the ongoing COVID-19 pandemic. Numerous board members, elected officials, regional water authorities, and representatives from local, State and Federal agencies joined the meeting, with more than 50 panelists and attendees. A full list of meeting participants is included in **Attachment A**.

The purpose of this meeting was to provide project element updates from the Joint Regulatory Plan Review.

The meeting was initiated by Michael J. Turco, who welcomed the stakeholders to the Districts' second virtual stakeholder meeting. Jason Afinowicz of Freese and Nichols then introduced the Joint Regulatory Plan Review project team, including Scott Marr of HDR and Wade Oliver of INTERA. They provided a review of the Joint Regulatory Plan Review project elements including a presentation on the following topics:

- Project status update
- Review of alternative water supply availability
- Introduction to the development of population and water demand projections
- Overview of PRESS model assessment
- Evaluation of 2013 Regulatory Plan post audit
- Schedule

The formal presentation concluded with a review of the overall project schedule and upcoming milestones. A copy of the meeting presentation is provided in **Attachment B**.

A question and answer session were held after the meeting. A summary of the questions and responses is provided in **Attachment C**.

## **ATTACHMENT A – MEETING ATTENDANCE**

<b>FIRST</b>	<b>LAST</b>	<b>AFFILIATION</b>
Jason	Afinowicz	Freese and Nichols
Wayne	Ahrens	Dannenbaum Engineering Corporation
Delilah	Arolfo	Professional Utility Services
Susan	Baird	HGSD Board Member
Gerardo	Barrera	City of West University Place
Justin	Bartlett	KIT Professionals, Inc.
Amber	Batson	San Jacinto River Authority
Steve	Berckenhoff	AECOM
Andrew	Bohac	City of Needville
Christopher	Braun	U.S. Geological Survey
Arthur	Bredehoft	MUD-47 + WWA Trustee
John	Burke	John E Burke & Associates LLC
James	Cameron	Harris County MUD 130
Chris	Canonico	HGSD Board Member
Sarah	Carlock	Undine Texas LLC
Ki	Cha	Texas Water Development Board
Jun	Chang	NHCRWA
Yun	Cho	Texas Water Development Board
Howard	Christian	City of Richmond
Sharon	Citino	City of Houston
Matthew	Corley	San Jacinto River Authority
Scott	Custer	“The Side of Reason” - Montgomery County News
Chris	Drabek	WSP
Gregory	Ellis	GM Ellis Law Firm PC
John	Ellis	U.S. Geological Survey
Mark	Evans	North Harris County Regional Water Authority
Sheila	Faxel	MUD#36
Julia	Frankovich	BGE, Inc.
Matt	Froehlich	BGE, Inc.
Yassin	Gallardo	Lower Neches Valley Authority
Francesca	Garcia	HC Mud 130
Jeff	Garner	Lake Management Services, LP
Neil	Gaynor	Montgomery County MUD 6
Mark	Gehringer	Fort Bend Subsidence District
Ashley	Greuter	Harris-Galveston Subsidence District
Samantha	Haritos	City of Friendswood

FIRST	LAST	AFFILIATION
Linda	Harnist	FBSD Board Member
Zach	Holland	Bluebonnet GCD
Jace	Houston	San Jacinto River Authority
Bill	Hutchison	Consultant
Roland	Johnson	Montgomery County MUD 67
David	Jordan	INTERA
Michael	Keester	LRE Water
Bailey	Keller	Freeze and Nichols
Ron	Kelling	San Jacinto River Authority
Marcel	Khouw	IDS/CHCRWA
Sunil	Kommineni	KIT Professionals, Inc.
Ivan	Langford	Galveston County WCID#1
Laura	Leal	TexasGo2Realtors
Jason	Long	Galveston County
Scott	Marr	HDR, Inc.
Andrea	Martin	Professional Utility services
John	Martin	Southeast Texas Groundwater Conservation District
Mac	Martin	Texas A&M Forest Service
Carol	McCutcheon	City of Sugar Land City Council Member
Temple	McKinnon	Texas water Development Board
Tom	Michel	San Jacinto River Authority
Christina	Miller	ABHR/NFBWA
Drew	Molly	Houston
Richard	Morrison	Fort Bend Subsidence District Director
George	Newman	Montgomery County MUD 46
Laura	Norton	Montgomery County MUD Director
Wade	Oliver	INTERA, Inc.
Paula	Paciorek	City of Houston
Tina	Petersen	Harris-Galveston Subsidence District
Mamie	Polk	Woodlands Water
Pam	Puckett	HGSD Board Member
Mitchell	Ramon	City of Houston
Bob	Rehak	ReduceFlooding.com
Kathy	Rogers	HGSD Board Member
Wanda	Sebesta	Fort Bend Subsidence District
William	Seifert	Ground Water Consultants, LLC
Melinda	Silva	Dannenbaum Engineering
Colleen	Spencer	City of Sugar Land
Colleen	Spencer	City of Sugar Land

<b>FIRST</b>	<b>LAST</b>	<b>AFFILIATION</b>
Christopher	Steubing	City of Sugar Land
James M	Stinson	The Woodlands Water Agency
Jon	Strange	FBSD Director
Philip	Taucer	Freese and Nichols
Shaun	Theriot-Smith	LJA
Robert	Thompson	Harris-Galveston Subsidence District
Satish	Tripathi	City of Houston
Ronda	Trow	Harris-Galveston Subsidence District
Michael	Turco	Harris-Galveston Subsidence District
Andrew	Vacek	Lake Management Services, LP
Robert	Valenzuela	City of Sugar Land
Alia	Vinson	WHCRWA/ABHR
William	Wallace	Fort Bend Subsidence District
B T	Williams	Fort Bend Subsidence District
John	Yoars	YOARS CONSULTING LLC
Susan	Young	Municipal District Services
Mayor Joe	Zimmerman	City of Sugar Land

***ATTACHMENT B – MEETING PRESENTATION***

## **ATTACHMENT C – Question and Answer Session**

The following summary documents questions that were received during the stakeholder meeting as well as formal responses provided for the record.

### QUESTIONS WITH RESPONSES

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**1. *Have we seen any subsidence below the extensometers and how is that monitored?***

Compaction is measured over the depth interval of the extensometer. The GPS antenna is mounted on the inner stem of the pipe to measure the movement of the benchmark at depth. Based on the data collected by these antennas, we feel confident that the benchmarks are stable. For additional information, the District recommends an article about this topic entitled, “Is There Deep-Seated Subsidence in the Houston-Galveston Area?” (<https://doi.org/10.1155/2014/942834>).

**2. *Is the study considering potential disruption to water use patterns regarding COVID and work from home trends?***

Although we are not specifically looking at a pandemic, uncertainty is being evaluated in population projections and water demand projections.

**3. *Will the USGS fully implement the CSUB package based on the testing that Wade described? As you recall, the 2013 update used the then "updated" and "new" subsidence package, yet the input was the same as the original GAM (i.e. they defaulted to the old subsidence package via input parameters).***

Yes, CSUB will be implemented and we can follow up with more details related to the specifics should more information be requested.

**4. *When will we hear from the USGS again on their progress?***

The USGS will present their information and progress in the next stakeholder meeting in December.

**5. *Would it be beneficial to create a PRESS model for some area in Montgomery County?***

An adequately developed PRESS site is a very useful tool to predict subsidence on a local scale. One of the challenges for adding a PRESS site is having historical benchmark information, which isn't always available. Currently, there are no plans to develop PRESS sites outside the District. However, the District is willing to work with other agencies to develop PRESS sites outside the District's boundary.

**6. *Would it be beneficial to install an extensometer in Montgomery County?***

Extensometers are the only way to mechanically measure compaction on the aquifer but can be expensive depending on the depth. To understand the changes in water use on specific aquifer units, an extensometer is the only way to measure it.

**7. *Do you trust the data coming from Montgomery County?***

## QUESTIONS WITH RESPONSES

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Assuming that this is referring to the GPS data in Montgomery County, the District works closely with all neighboring Groundwater Conservation Districts to develop a GPS monitoring network and helps them adequately operate and maintain GPS data in their area. All GPS data are processed by the University of Houston and quality assured by the District prior to publication.

**8. *Can you elaborate on the ongoing discussion with USGS on subsidence rates? How will they be used? Is it a global rate or will they be applied by planning area?***

Subsidence rates determined at each of the GPS stations will be utilized as part of the calibration targets for the USGS model. The USGS calibrates the model by the magnitude of subsidence and trend of subsidence over time. The approach to using subsidence rates as a calibration target is still under development and will be local scale in nature. The District will provide more information about this process at the next meeting in December.