



**Hays Trinity Groundwater Conservation District  
Strategic Water Vision 2021  
Virtual Stakeholder Working Group Round 1  
Held via Zoom  
Nov. 10, 2020, 5:30 – 7:30 p.m.**

**Attendees**

Name	Organization
*Commissioner Walt Smith	Hays County, Precinct 4
*Commissioner Lon Shell	Hays County, Precinct 3
*City Council Member Christine Byrne	City of Wimberley, Place 3
Eugenie Schieve	Office of Rep. Zwiener
Annalisa Peace	Great Edwards Aquifer Alliance
Christy Muse	Citizen
David Baker	Wimberley Valley Watershed Association
Robin Gary	Wimberley Valley Watershed Association
David Tuckfield	Representing City of Dripping Springs
Ray Don Tilley	Wimberley Valley Watershed Association
Joe C Day	Citizen
Richard Beggs	Protect Our Water
Vanessa Escobar	Barton Springs Edwards Aquifer Conservation District
Vanessa Puig-Williams	Environmental Defense Fund
Patrick Cox	Trinity Edwards Springs Protection Association
Jeanine Christianson	Secretary Friendship Alliance Texas

**\*Elected Officials Present: 3**

**Total Attendees: 16**

**Staff, Board Members and Consultant Team**

Name	Title	Organization
Charlie Flatten	General Manager	Hays Trinity Groundwater Conservation District
Philip Webster	Hydrogeologist	Hays Trinity Groundwater Conservation District
Holly Fults	Board Member	Hays Trinity Groundwater Conservation District
Linda Kaye Rogers	Board Member	Hays Trinity Groundwater Conservation District
Mitzi Ellison	Public Involvement Lead	Nancy Ledbetter & Associates, Inc.
Lauren Canales	Public Involvement Support	Nancy Ledbetter & Associates, Inc.
Dr. David Harkins, PH.D, P.E.	Engineer	Carollo, Engineers, Inc.
Tony Smith, P.E.	Engineer	Carollo, Engineers, Inc.



## **Introductions and Background:**

Holly Fults, Board Member for the Groundwater Conservation District, welcomed and thanked the group for their participation in the first stakeholder working group session. She provided a quick introduction and background of the Strategic Water Visions 2021 effort along with virtual meeting housekeeping items such as how to provide feedback through the Zoom meeting chat function, and to make sure microphones stay muted through the presentation. She offered brief introductions of the lead consultants on the call, which included Tony Smith, P.E. and David Harkins, P.E., technical experts with Carollo Engineers, and Mitzi Ellison, lead public involvement manager with Nancy Ledbetter & Associates. From there, the consultant team began their presentations.

## **Presentation**

Mr. Smith's material summarized available technical information to inform stakeholder deliberations and discussion. Starting with a characterization of the recent history of groundwater use, he provided historical data on reported non-exempt groundwater pumping in the context of monthly and annual use by category in relation to exempt and permitted (but not yet used) amounts. Noting uncertainties in the characterization of use as well as source availability, this material was also contrasted to modeled estimates developed by the State, noting the significance of the relative increases in the reporting of dry wells to the District over the 2009 – 2015 period for which there are records available. Information from regional water planning efforts was then shared, with particular attention given to the characterization of projections of future water demand and its derivation, availability of existing supplies, projections of need over the 2020 – 2070 planning horizon, and the general characterization of the various categories of water management strategies currently contemplated by various water providers in the region. Noting that it is important for decision makers to understand both the extent of knowledge and available information, as well as where knowledge/information may be lacking, Mr. Smith concluded with a summary of identified knowledge gaps and areas with a potential need for improved information.

*A copy of the technical analysis PowerPoint slides will be available on the HTGCD website: <http://haysgroundwater.com/>, and click on "Strategic Water Vision 2021" on the left hand side.*

Mitzi Ellison presented on the background and purpose of the stakeholder outreach process and additionally provided an overview of the online survey results. She disclosed that the survey was sent to stakeholders in October and was live for feedback between Oct. 14 – 26, 2020. The purpose of the survey was to start the conversation and will supplement discussions and feedback held at the two rounds of stakeholder working groups.

*A copy of the PowerPoint slides with survey analysis are available on the HTGCD website: <http://haysgroundwater.com/>, and click on "Strategic Water Vision 2021" on the left hand side.*

Mitzi concluded her presentation reiterating the purpose of the meeting and how the Q&A discussion will take place. From there, project staff began to read comments posed in the Zoom chat box for further discussion.

## **Open Discussion/Q&A**

**Question: Is 9100 Acre Feet Based on the 30ft DFC adopted by GMA -9? I think that level of pumping may cause issues with water supply, and we are concerned about that not being sustainable from the**



**Trinity. Grouping the 3 aquifers into one is problematic. Will the District reconsider the 30ft DFC and consider a more conservative amount of pumping from Trinity?**

**Response (Tony Smith):** The 9,100-acre feet is derived from the modeling performed by the state and utilized in the regional water planning process. There have been questions about the specificity of those models relating to the characteristics of the Middle Trinity. Further, that result reflects management decisions regarding desired future conditions from a joint-planning process. It is thus one characterization of availability that is out there, but may not be the final characterization of groundwater availability from the aquifer. The more detailed modeling (Bratwurst modeling) is intended to shed more light on the specific characteristics of the aquifer in more refined detail than the state modeling has yielded to date.

**Response (Charlie Flatten):** The specific drawdown for the District is 19 ft, and that is the average amount across the entire District. That is a political decision that is made every 5 years, and that would be up to the District's Board to make that decision on a new Desired Future Condition (DFC).

**Question: Curious why WTPUA has dipped so much since 2012?**

**Response (Tony Smith):** Mr. Smith brought up Slide 13 (Utilize "dry year" per capita use representing varying levels of water provider usage) for reference. This decrease is typical - particularly with larger water providers - as during droughts you will have higher per capita usage. The state specifically utilizes this per capita usage during the drought period (i.e. 2011 - 2012) as the basis for developing projections, allowing for modification when appropriate. Those per capita usage amounts are not the norm, but rather reflect usage during drought conditions. You would expect lower per capita usage when not in drought hence the decrease. Drought is the driver.

**Question: Is exempt well use factored into the aggregate in the graph on the right?**

**Response (Tony):** Not explicitly, but implicitly yes. The exempt well use is captured in that growth in demand in the state and regional planning process. The increases in growth over time that are presumed in the state planning process are based on assumed expansions of various facilities and infrastructure. This growth could capture some domestic and livestock use that is currently outside of the system being incorporated over time. The assumption is that it is captured in the growth that is incorporated in various systems as they grow in the future. A more detailed study of the county could develop a more targeted approach to capture those elements, because there is still uncertainty, so additional scrutiny is warranted in the future.

**Follow up Question:** The bar graph (Slide 14 – Water Demand) where it has different water sources (groundwater, surface water, and re-use). Is domestic well use factored into that portion of groundwater use?

**Response (Tony):** Mr. Smith displayed the referenced graph, stating the supply for domestic and livestock use is not captured within that characterization of existing supply.

**Question: Water Demand slide (Slide 14) doesn't seem to project growth in reuse. How much analysis has gone into reuse and isn't that a very important factor? Shouldn't we be seeing growth in reuse?**



**Response (Tony):** Yes. The heavy lifting is engaging the large water suppliers to ensure accurate characterization of their systems. The extent those water suppliers are involved in the regional planning process is reflected here. The Dripping Springs Water Supply Corporation specifically has strategies for increases in reuse over time that are reflected in the data. The scale of this particular graphic is not conducive to showing that specific growth, because if you compare the relative magnitude of reuse to strategies of aquifer storage and recovery (ASR) and surface water supply, it is smaller in size. It is not readily apparent in this graphic, but it is reflected in the amounts within the graphic.

**Clarification from stakeholder asking the question:** Moving forward, stakeholder encouraged the use of looking not only at water suppliers, but wastewater supplies like the City of Dripping Springs – they supply a lot of reuse. The City should be part of the regional planning process and feel that needs more attention.

**Question: Are there projections for continued reductions in per capita use? Over the last decade it seems to have dropped significantly. Have we maximized that or is there more room?**

**Response (Tony):** Embedded within the projections of future water demand are assumptions that reflect anticipated future improvements in pipe fixtures, etc., so no, it has not been maxed out yet. Yes, the demands do reflect some improvements from plumbing fixtures, etc., but that is separate from conservation, which is a feasible water management strategy developed to be consistent with water suppliers' Water Conservation plans and Drought Contingency Plans. Those are captured as water management strategies in this process. Mr. Smith continued to describe where those fell on Slide 16 (Recommended Water Management Strategy Types).

**Question: You mentioned "full build out" - what does that mean? Is there a point in time when capacity is considered reached?**

**Response (Tony):** A build out analysis provides an estimate of total number of houses, commercial/industrial square footage, and population (for example) that could result if all the unprotected buildable land is developed under various development regulations. A detailed demographic analysis (including build-out analysis) can answer questions regarding growth, density, future development – a more detailed study in our area would help better define the extent of future projections of demand.

**Clarification from stakeholder asking the question:** That would be a helpful analysis to do. In looking at different scenarios of growth and land use, policies under different scenarios could be something to do with conservation development in the works and could be helpful.

**Question: How many home rule cities are in the district?**

**Response (Mitzi Ellison):** Asked if Commissioner Walt Smith was available to answer that question, but at that time Commissioner Smith had dropped off the call. Therefore, it was mentioned that this question would be noted in the summary and find an answer to that.

**POST MEETING** – the District will post the answer once it has been identified.



**Question: I do not see mention of firefighting demands on water supply listed anywhere so far. Are there portable numbers wrt CA UWI wildfires combined with existing stats “locally” that can be used to estimate these supply demands in the District’s service area?**

**Response (Tony):** Reported use has been aggregated at the water provider/user level. If they have their own utility, for each entity firefighting use would be incorporated into the entity’s characterization of water use. Specific categories of consumption (e.g., fire control, or others), are all captured, but not broken out in the regional planning process. Individual water providers likely have data or estimates depending on the particular entity, as they may track those specific elements.

**Clarification from stakeholder asking the question:** In response, the stakeholder described the abbreviations in the question. UWI stands for “Urban Wildfire Interface”, CA stands for “California”. The question wasn’t to ask the District to separate the beneficial use of putting out wildfires using water, but interested in finding out in a scenario during a drought to use a low water table if there are big wildfires in older neighborhoods who haven’t done there share to remove fuel loads.

No further response was provided.

**Question: Will this study analyze the environmental and economic impacts of the 30ft DFC?**

**Response (Tony):** That is not in our scope to analyze those impacts, but the project team can point out those type of questions for more information.

**Clarification from stakeholder asking the question:** So, you will be making recommendations for further studies and analysis based on the feedback from this process?

**Response (Tony):** Yes, the recommendations that the stakeholders have in addition to what the engineers recommend as well will add to future studies/analysis.

**Clarification from stakeholder asking the question:** Can stakeholders send more questions after this stakeholder meeting as they come up?

**Response (Tony):** Yes. The present effort will include two rounds of meetings, including the survey (to provide a baseline to inform stakeholders’ initial discussions), with the first round of meetings intended to get a feel for key discussion topics of relevance to stakeholders The second round is intended to drill down further into those issues. This is the start of the conservation.

**Response (Mitzi):** Contact information will be displayed at the end of the meeting for further questions or comments during the process.

**Question: Does the district currently have drought restrictions? Do you have state required reports on water loss ratios from providers? Where would Aquifer Storage and Recovery (ASR) occur and what is storage capacity?**



**Response (Charlie):** The District does have drought restrictions and is currently in declared drought stage. There are District wide drought restrictions and the groundwater management zone is currently in highest restriction level.

The District does track water loss ratios as part of reporting requirements. The District encourages water supply utilities to maintain and improve lines.

To answer third question, there is a call for a large amount of Aquifer Storage Recovery (ASR) in terms of water management strategies across the region. The water from ASR could be available from anywhere, such as local ASR piloted by utilities in the district. The District does not have pilot projects or any definite information of capacity of the Trinity aquifer for ASR in this District. Aquifers east of I-35 can work for ASR projects, as well as in San Antonio in Buda, with aquifers made of sandstone. The District hopes to see some definition of ASR capacities, but the tight Trinity rock may not be best for ASR across the board.

**Clarification from stakeholder asking the question:** On your drought restrictions, I assume they are triggered by certain means. What about making certain restrictions permanent?

**Response (Charlie):** Depending on the health of the aquifer, the Board could consider making those measures permanent. With that comes the threat of complaint and/or lawsuits from major water suppliers. They are required to follow our drought restrictions; they don't have a great success rate by cutting back since their permits are higher than they need to be. But that has changed in the Jacobs Groundwater Management Zone and we are seeing cutbacks.

**Clarification from stakeholder asking the question:** In reference to water loss ratios – are there any other entities in your area able to help entities apply for Water Development Funds to fix those problems?

**Response (Charlie):** The District is seeing good work from several of the utilities to bring their transmission systems back in line.

**Question: What confidence level is there in the viability of ASR use in recommended water management strategies?**

**Response (Tony):** The state does not apply confidence level, rather the regional planners involve the various water providers and discuss plans on what the planned strategies or projects the water providers are contemplating, developing cost estimations, characterizing water availability, considering potential impacts). Depending on the water provider those answers will vary by location, or viability of ASR in a given area. Each of those come into play, and are vetted through the state and their review. They are all ultimately considered as part of the regional planning process.

**Response (Charlie):** Locally, within the hill country, there are several viable ASR projects. But they are dependent on local geology. For example, in Kerrville and San Antonio, they are doing projects, but their aquifers are in different rock. The District needs to figure out where in the District there is suitable geology to make ASR effective. The District needs to consider all options including ASR.



**Question: Will we be able to submit questions after you send out these presentations? It seems like identifying what the motivating factor for residents/groundwater users is important. The timeframe of how worried you are about the water supply begins to get there (great question). Did the survey ask what is the largest concern that motivates behavior change in this area?**

**Response (Mitzi):** The presentations will be posted to the website this week, as well as summaries of the meeting. The question about what the largest concern that motivates behavior in our survey was not asked but that would be a great question for follow up stakeholder outreach further in the process.

**Response (Charlie):** The presentations will be posted tomorrow, 11/11/20. He described where to locate the presentations on the website and asked to submit additional feedback and questions.

**Clarification from stakeholder asking the question:** that it is important to know what will change behavior and if it is a residential or business hurdle. Asking people what worries them the most will get buy in.

**Question: Does Dripping Springs Water Supply Corp mix groundwater with surface water? If yes, what is the ratio of groundwater to surface water of Dripping Springs Water Supply Corp? What is the volume of the surface water permit for Dripping Springs WSC? What is the volume of the groundwater permit for Dripping Springs WSC?**

**Response (Tony):** Mr. Smith noted he does not speak for the Dripping Springs WSC, but what available information he has seen suggests they have a surface water supply of 1,120 acre-feet per year via contract with West Travis County Public Utility Agency (WTCPUA). In 2019, they were about 500 acre-feet per year groundwater, 715 acre-feet per year of surface water. Therefore, the answer is about somewhere about 54%, which represents data from 2019.

**Clarification from stakeholder asking the question:** Was wondering if when the LCRA line came in, if that impacted their amount of use during that period. How much room do they have with both of those permits, and the projected growth of that area? If there was a way to get those numbers, it would be helpful.

**Response (Tony):** There may be more detail in characteristics in terms of demand, past use and reasons why things have changed over time. The Dripping Springs WSC would have that information.

**Clarification from stakeholder asking the question:** Expanding the surface water permit could be a good solution to not have to dig into the dwindling groundwater supply.

**Question: Survey responses came from 41 or 42 respondents—did this meet expectations or provide adequate statistical value?**

**Response (Mitzi):** The survey was sent to approximately 150 stakeholders, and the total response was about 30%, which is decent for a survey response, especially with a two-week turnaround. In terms of weighing anything based off those answers, the intent of the survey was



to gauge the feel of those stakeholders who were willing to take the survey versus support decisions.

**Question: Is there an interest among the HTGCD PWS permittees to pursue or cost share in and ASR feasibility study?**

**Response (Linda Kay Rogers):** ASR does not look hopeful due to karst geology. Dripping Springs did a study that was not successful for an ASR conceptual model.

**Question: Is there any info regarding currently undeveloped land that would be suitable for flood mitigation by preserving in natural state for water infiltration?**

**Response (Tony):** There is a flood planning process like water supply planning process that is just getting underway and is aggregating information for that process.

**Clarification from stakeholder asking the question:** mentioned they were on the regional planning group for the Guadalupe and would get that information for the District. Possible opportunities to mitigate growth with state funding.

**Response (Charlie):** The District plans to vigorously pursue whatever recharge capacity they can to help with flooding situation.

**Question: Does the district submit comments on wastewater permit applications?**

**Response (Charlie):** Noted the District did not have an answer but would look into it.

**Response (Linda Kay):** The District was active with City of Dripping Springs wastewater plan to go into discharge into Onion Creek but was active with City of Wimberley wastewater plan downtown Wimberly. The District does keep an eye on those permits, especially if it is going to discharge into a creek.

**Clarification from stakeholder asking the question:** When you look at permits for individual treatment plants that you have the requirements to hook up to a future reuse system.

**Question: I was surprised to see how many respondents indicated that they felt the district should stop issuing permits when the MAG is hit--I'm curious what the breakdown is on this. I can't imagine that any of the water supply entities said yes to that, I was curious if the results of who participated in this question.**

**Response (Mitzi):** The project team has not done that yet, but can look into that information. We can only look at those that identified themselves as a permitted, but that was not a requirement.

**Clarification from stakeholder asking the question:** Found that response interesting because it is addressing elephant in the room. Currently under the current management goal of 30 ft DFC and current MAG, there is concern that that is not a sustainable long-term volume. Even under that are still not going to have enough water. It seems like based on the questions and data there is multiple paths forward that need to be considered in a larger plan, and part of that is how the District is going to handle future permit requests. The challenges the District faces when having to enact permits – not sure when the larger stakeholder group will have those



discussions but at some point, stakeholders will have to have that discussion. At some point, a discussion will be needed with permittees about future rules and regulations.

**Response (Tony):** Great feedback. What can the District do/do better to support such processes and play a more active role in that regard.

**Response (Charlie):** Encouraged the group to look at Mr. Smith's presentation again to learn more information because it's so information dense. How the District handles the regulatory future is a very important question. – If the District stops issuing permits today and folks continue to produce the same amount that they produce today, in 25-30 years a different source of water will need to be found for new users in this District. There is no way groundwater can be the sole source of water.

**POST MEETING FINDING** - Of the 13 total permittees that identified themselves on the survey, 9 answered yes, the District should continue to issue permits and 4 answered no, they should not continue to issue permits. Note that identifying oneself as a permittee on the survey was optional, so the data may not reflect the full view of permittees participating.

**Question: Is the current projected combination of exempt pumping and permitted wells approximately 7500-acre feet district wide? How many acre feet is permitted district wide? Will the district right size over permitted systems to allow room for the growth of exempt users in order to stay beneath the 9100-acre feet MAG and achieve the Desired Future Condition (DFC). Is the 30ft DFC considered mining the Trinity Aquifer? Is total pumping currently more water than annually recharges the Trinity Aquifer or is that projected in the future?**

**Response (Tony):** Mr. Smith pulled up Slide 7 (Annual Non-Exempt and Exempt Historical Pumping along with Annual Permitted Amounts) about exempt use to display the change over time. The 7500-acre feet represents a characterization with the District – estimated exempt use, reported use, and what's been permitted through 2019.

**Clarification from stakeholder asking the question:** The red part of the bar graph is what has been permitted but not used yet? It seems that the exempt and irrigation is difficult to calculate because it is not measured exactly it right?

**Response (Tony):** Yes, correct. And not only not measuring it, but it is part of the fundamental primacy of Texas Water Law that domestic and livestock use are exempt from permitting. Data on them is more vague than on permittees, so there is some level of uncertainty in the data.

**Clarification from stakeholder asking the question:** It would be interesting to see what segments of the aquifer that the water is coming from, and would estimate most of it comes from the middle Trinity, but would like to see the breakout of that. How do users determine when they meet the DFC that many feel is unsustainable? Currently are shooting for a target that is too large a number. It also depends on where the pumping is, and the aquifer has different characteristics in different areas.

**Response (Charlie):** The questions about the DFC are important. The DFC for the entire aquifer is 30 ft DFC and in this specific District the DFC is 19 ft. The slide that Mr. Smith presented on the



dry well incidents should be motivating for what the future is going to look like. The District would like to get ahead of dry well incidents with this effort.

**Clarification from stakeholder asking the question:** Our entire economy is tied to that spring flow and management of groundwater. Getting this right is a huge step towards that. There is still have the dilemma of growth continuing to come. The aquifer is still limited if there are multiple benefits. Need to be innovative with alternative water supplies. This is a great first step and initiating this conversation.

Mitzi Ellison concluded the conversation by reading a few questions to consider for future feedback:

- What can the District do to better serve the stakeholders of Hays Trinity?

Then, she shared her screen for contact information for comments and/or questions. No other comments were received at this time. Mitzi described next steps in the process and upcoming stakeholder group meeting on December 2, 2020 and how to reach out for more feedback.

Meeting was adjourned.