

## NOTICE OF OPEN MEETING

Notice is given that a **Regular Meeting** of the Board of Directors of the Barton Springs/Edwards Aquifer Conservation District will be held at the **Manchaca Fire/Rescue Station 501, located at 665 W. FM 1626, Manchaca, TX 78652**, on **Thursday, March 14, 2019**, commencing at **6:00 p.m.** for the following purposes, which may be taken in any order at the discretion of the Board.

Note: The Board of Directors of the Barton Springs/Edwards Aquifer Conservation District reserves the right to meet in Executive Session at any time during the course of this meeting to discuss any of the matters listed on this agenda, as authorized by the Texas Government Code Sections §551.071 (Consultation with Attorney), 551.072 (Deliberations about Real Property), 551.073 (Deliberations about Gifts and Donations), 551.074 (Personnel Matters), 551.076 (Deliberations about Security Devices), 551.087 (Economic Development), 418.183 (Homeland Security). No final action or decision will be made in Executive Session.

- 1. Call to Order.**
- 2. Citizen Communications (Public Comments of a General Nature).**
- 3. Routine Business**
  - a. Consent Agenda.** *(Note: These items may be considered and approved as one motion. Directors or citizens may request any consent item be removed from the consent agenda, for consideration and possible approval as a separate item of Regular Business on this agenda.)*
    - 1. Approval of Financial Reports under the Public Funds Investment Act, Directors' Compensation Claims, and Specified Expenditures greater than \$5,000. Not for public review**
    - 2. Approval of minutes of the Board's February 21, 2019, Regular Meeting. Not for public review at this time**
  - b. General Manager's Report.** *(Note: Topics discussed in the General Manager's Report are intended for general administrative and operational information-transfer purposes. The Directors will not take any action unless the topic is specifically listed elsewhere in this agenda for consideration. A Director may request an individual topic that is presented only under this agenda item be placed on the posted agenda of some future meeting for Board discussion and possible action.)*

### Topics

1. Personnel matters.
2. Aquifer conditions and status of drought indicators.
3. Upcoming public events of possible interest.
4. Review of Status Report Update – at directors' discretion. **Pg. 17**
5. Update on projects and activities of individual teams.
6. Update on activities related to the Travis County ILA. **Pg. 25**
7. Update on development activities over aquifer recharge and contributing zones.
8. Update on activities related to area roadway projects.

9. Update on GMA and regional water planning activities.
  10. Update on activities related to the Habitat Conservation Plan.
  
  11. Update on the State Auditor's Office audit.
  12. Update on the State Office of Administrative Hearings proceedings for the Needmore Water LLC and/or the Electro Purification LLC permit applications.
  13. Update on the City of Dripping Springs wastewater permit application to the TCEQ.
- 4a. Presentation by staff on the Karst Systems of Hays County and the Edwards and Trinity Aquifers. Pg. 29**
- 4b. Presentation by Kinder Morgan on the Permian Highway Pipeline Project. Pg. 54**
- 5. Discussion and Possible Action.**
- a. Discussion and possible action related to the Permian Highway Pipeline Project. **NBU**
  - b. Discussion and possible action related to amending the BSEACD FY 2019 Annual Budget. **NBU**
- 6. Adjournment.**

**Please note:** This agenda and available related documentation, if any, have been posted on the District website, [www.bseacd.org](http://www.bseacd.org). If you have a special interest in a particular item on this agenda and would like any additional documentation that may be developed for Board consideration, please let staff know at least 24 hours in advance of the Board Meeting so that we can have those copies made for you.

The Barton Springs/Edwards Aquifer Conservation District is committed to compliance with the Americans with Disabilities Act (ADA). Reasonable accommodations and equal opportunity for effective communications will be provided upon request. Please contact the District office at 512-282-8441 at least 24 hours in advance if accommodation is needed.

**Item 1**

**Call to Order**

**Item 2**  
**Citizen Communications**

## **Item 3**

### **Routine Business**

#### **a. Consent Agenda**

*(Note: These items may be considered and approved as one motion. Directors or citizens may request any consent item be removed from the consent agenda, for consideration and possible approval as a separate item of Regular Business on this agenda.)*

- 1. Approval of Financial Reports under the Public Funds Investment Act, Directors' Compensation Claims, and Specified Expenditures greater than \$5,000.**
- 2. Approval of minutes of the Board's February 21, 2019, Regular Meeting.**

**Barton Springs Edwards Aquifer  
 Profit & Loss  
 September 2018 through February 2019**

	Sep '18 - Feb 19
<b>Ordinary Income/Expense</b>	
<b>Income</b>	
4300.0 · PROJECT INCOME	
4302. · Travis County ILA 2018	100,000.00
<b>Total 4300.0 · PROJECT INCOME</b>	<b>100,000.00</b>
4400.0 · Interest Income	12,263.29
4625.0 · MISCELLANEOUS INCOME	
4626.1 · Other Income	2,898.14
4626.2 · Camp Scholarship Program-EARDAC	8,699.66
<b>Total 4625.0 · MISCELLANEOUS INCOME</b>	<b>11,597.80</b>
4800.0 · USAGE AND PRODUCTION FEES	
4801.0 · Permittees Water Production Fee	384,464.37
4803.0 · CoA Water Use Fee Assessment	644,812.15
4805.0 · Permittees Annual Permit Fee	5,550.00
4807.0 · Permittees Water Transport Fees	124,000.00
4800.0 · USAGE AND PRODUCTION FEES - Other	-10,808.71
<b>Total 4800.0 · USAGE AND PRODUCTION FEES</b>	<b>1,148,017.81</b>
4810.0 · OTHER FEES	
4806.0 · Permittees Late Payment Fees	532.25
4815.0 · Well Develop Application Inspec	5,450.00
4816.0 · Meter Reading Fees/Pluggings	580.00
<b>Total 4810.0 · OTHER FEES</b>	<b>6,562.25</b>
<b>Total Income</b>	<b>1,278,441.15</b>
<b>Gross Profit</b>	<b>1,278,441.15</b>
<b>Expense</b>	
6000.0 · UTILITIES	
6001.0 · Electricity & Water Service	2,729.05
6002.0 · Phone, Internet, Telemetry	
6003.0 · Smartphone Reimbursements	3,150.00
6002.0 · Phone, Internet, Telemetry - Other	4,628.09
<b>Total 6002.0 · Phone, Internet, Telemetry</b>	<b>7,778.09</b>
<b>Total 6000.0 · UTILITIES</b>	<b>10,507.14</b>
6005.0 · Print/Copy/Photo Services	485.58
6007.0 · Postage Freight Shipping	1,145.90
6010.0 · Office Supplies	
6010.1 · Canteen	1,866.86
6010.0 · Office Supplies - Other	2,670.65
<b>Total 6010.0 · Office Supplies</b>	<b>4,537.51</b>
6010.2 · Office Furniture	532.98
6011.0 · Comp Hardware-Plotter Supplies	5,507.80
6014.0 · Software Acquisition & Upgrades	1,802.48
6015.0 · IT Monthly Maintenance	6,000.00
6016.0 · Meeting Expense	3,544.67
6017.0 · EXTERNAL MTGS & SPONSORSHIPS	
6017.3 · Sponsorships and Contributions	1,000.00
<b>Total 6017.0 · EXTERNAL MTGS &amp; SPONSORSHIPS</b>	<b>1,000.00</b>
6019.0 · Subscriptions/Publications	550.88
6020.0 · Advertising	
6020.12 · Public Notices	706.34
<b>Total 6020.0 · Advertising</b>	<b>706.34</b>

**Barton Springs Edwards Aquifer  
 Profit & Loss  
 September 2018 through February 2019**

	Sep '18 - Feb 19
<b>6021.0 · MISCELLANEOUS EXPENSES</b>	
6021.2 · General	421.67
6021.3 · Bank Charges	50.00
6021.5 · Payroll Processing Fees	178.00
<b>Total 6021.0 · MISCELLANEOUS EXPENSES</b>	<b>649.67</b>
<b>6022.0 · Accounting System Operation</b>	
6022.1 · Timekeeping Service-prepaid	1,396.50
6022.0 · Accounting System Operation - Other	40.00
<b>Total 6022.0 · Accounting System Operation</b>	<b>1,436.50</b>
<b>6023.0 · MAINTENANCE</b>	
6024.0 · Auto Maintenance	2,406.68
6025.0 · Office Complex Maintenance	
6025.3 · Security System Monitoring	295.70
6025.0 · Office Complex Maintenance - Other	5,093.97
<b>Total 6025.0 · Office Complex Maintenance</b>	<b>5,389.67</b>
<b>Total 6023.0 · MAINTENANCE</b>	<b>7,796.35</b>
<b>6040.0 · LEASES</b>	
6040.2 · Copier Lease & Maintenance	5,033.65
6040.3 · Postage Machine Lease - Pre-Pd	535.14
<b>Total 6040.0 · LEASES</b>	<b>5,568.79</b>
<b>6065.0 · DIRECTOR EXPENSES</b>	
6065.1 · Directors Travel/Meals	957.14
6065.2 · Directors Registration Fees	824.21
<b>Total 6065.0 · DIRECTOR EXPENSES</b>	<b>1,781.35</b>
6066.0 · Directors Compensation	14,750.00
<b>6075.0 · DUES &amp; MEMBERSHIPS</b>	
6076.0 · District Dues & Memberships	3,025.00
6077.0 · Staff Dues & Memberships	411.75
<b>Total 6075.0 · DUES &amp; MEMBERSHIPS</b>	<b>3,436.75</b>
<b>6080.0 · EDUCATION AND OUTREACH</b>	
<b>6080.01 · PUBLICATIONS</b>	
6080.14 · General Education	101.76
6080.01 · PUBLICATIONS - Other	273.88
<b>Total 6080.01 · PUBLICATIONS</b>	<b>375.64</b>
<b>6080.20 · OUTREACH</b>	
6080.23 · Media and PR	2,187.58
6080.33 · Neighborhoods and Schools	1,947.61
<b>Total 6080.20 · OUTREACH</b>	<b>4,135.19</b>
6080.27 · Professional Development	1,409.28
6080.29 · Equipment and Supplies	1,596.02
6080.35 · GENERAL SUPPORT	2,872.02
<b>Total 6080.0 · EDUCATION AND OUTREACH</b>	<b>10,388.15</b>
<b>6081.0 · REGULATORY COMPLIANCE</b>	
6081.2 · Well Sampling and Services	3,284.00
6081.4 · Professional Development	2,253.32
6081.5 · Contracted Support	4,765.64
6081.6 · Equipment and Supplies	209.99
<b>Total 6081.0 · REGULATORY COMPLIANCE</b>	<b>10,512.95</b>

**Barton Springs Edwards Aquifer  
 Profit & Loss  
 September 2018 through February 2019**

	Sep '18 - Feb 19
<b>6084.92 · GENERAL MANAGEMENT</b>	
6086.3 · Contracted Support	10,250.00
6088.6 · Professional Development	740.00
<b>Total 6084.92 · GENERAL MANAGEMENT</b>	10,990.00
<b>6089.0 · AQUIFER SCIENCE</b>	
6089.1 · Hydrogeologic Characterization	3,665.73
6089.2 · Water Chemistry Studies	1,770.35
6089.3 · Monitor Wells, Equipment /Suppl	7,760.78
6089.5 · Professional Development	3,919.35
<b>Total 6089.0 · AQUIFER SCIENCE</b>	17,116.21
<b>6100.0 · INSURANCE - DISTRICT</b>	
6101.0 · Liability & Property - Pre-paid	2,646.38
6102.0 · Insurance not pre-paid (bonds)	124.00
<b>Total 6100.0 · INSURANCE - DISTRICT</b>	2,770.38
<b>6150.0 · INSURANCE - GROUP</b>	
6151.1 · Health Insurance Employee	52,874.06
6151.11 · Health Insurance Dependents	6,553.76
6151.2 · Dental Insurance Family	8,850.36
6151.3 · Life Insurance Employee	6,222.68
6151.4 · Vision Insurance Employee	763.08
<b>Total 6150.0 · INSURANCE - GROUP</b>	75,263.94
<b>6160.0 · LEGAL SERVICES</b>	
6161.0 · General Matters / Personnel	14,933.60
6163.0 · Needmore	29,887.40
6168.2 · SOAH - Needmore	6,400.00
6168.3 · DSWW TPDES	906.81
6168.5 · EP	26,827.08
<b>Total 6160.0 · LEGAL SERVICES</b>	78,954.89
<b>6170.0 · PROFESSIONAL SERVICES</b>	
6173.0 · Financial Annual Audit	12,500.00
6177.0 · The Standard Ret Plan Admin	11,494.50
6178.0 · Elections	2,019.50
<b>Total 6170.0 · PROFESSIONAL SERVICES</b>	26,014.00
<b>6179.0 · LEGISLATION</b>	14,000.00
<b>6184.0 · DISCRETIONARY FUNDS</b>	
6184.10 · Senior ARM	1,500.00
<b>Total 6184.0 · DISCRETIONARY FUNDS</b>	1,500.00
<b>6199.0 · SALARIES AND WAGES</b>	
6200.0 · Salaries	486,468.70
<b>Total 6199.0 · SALARIES AND WAGES</b>	486,468.70
<b>6203.0 · TAXES &amp; BENEFITS</b>	
6203.1 · Workers Comp Insurance Pre-p	1,886.52
6203.2 · Payroll Tax Expenses-FICA-Med	36,753.71
6203.3 · Retirement-District Contributio	29,066.57
6203.4 · Texas Workforce C3 Taxes	2,117.72
6203.7 · Accrued Vacation and Comp	4,923.73
<b>Total 6203.0 · TAXES &amp; BENEFITS</b>	74,748.25
<b>6690.0 · Reconciliation Discrepancies</b>	469.77



11:24 AM  
03/05/19  
Accrual Basis

**Barton Springs Edwards Aquifer  
Profit & Loss  
September 2018 through February 2019**

	<u>Sep '18 - Feb 19</u>
6800.0 · PROJECTS	
6805.0 · 2018 Travis County ILA	3,723.74
Total 6800.0 · PROJECTS	<u>3,723.74</u>
Total Expense	<u>884,661.67</u>
Net Ordinary Income	<u>393,779.48</u>
Net Income	<u><u>393,779.48</u></u>

## **Item 3**

### **Routine Business**

- b. General Manager's Report.** *(Note: Topics discussed in the General Manager's Report are intended for general administrative and operational information-transfer purposes. The Directors will not take any action unless the topic is specifically listed elsewhere in this agenda.)*

#### **Topics**

- i. Personnel matters.**
- ii. Aquifer conditions and status of drought indicators.**
- iii. Upcoming public events of possible interest.**
- iv. Review of Status Report Update – at directors' discretion.**
- v. Update on projects and activities of individual teams.**
- vi. Update on activities related to the Travis County ILA.**
- vii. Update on development activities over aquifer recharge and contributing zones.**
- viii. Update on activities related to area roadway projects.**
- ix. Update on GMA and regional water planning activities.**
- x. Update on activities related to the Habitat Conservation Plan.**
  
- xi. Update on the State Auditor's Office audit.**
- xii. Update on the State Office of Administrative Hearings proceedings for the Needmore Water LLC and/or the Electro Purification LLC permit applications.**
- xiii. Update on the City of Dripping Springs wastewater permit application to the TCEQ.**

**STATUS REPORT UPDATE  
FOR MARCH 14, 2019 BOARD MEETING**

**Summary of Significant Activities - Prepared by District Team Leaders**

**GENERAL MANAGEMENT TEAM**

Staff: ARM  
March 8, 2019

**Meetings, Training, Presentations, and Conferences**

**Meetings:** SWTCGCD Board President and Travis County to discuss GCD startup costs \* Buda, TCEQ, and Sledge Law to discuss HB 1044 \* Mediation with Protestants and Electro Purification (EP), at the State Office of Administrative Hearings (SOAH); **Presentations:** Hays County Public meeting in Kyle on the Kinder Morgan Permian Highway Pipeline project; **Conferences:** TWCA Annual Conference. **Teleconference calls:** TAGD Legislative Committee \* Kirk Holland regarding SWTCGCD \* City of Austin regarding Sediment Plume and HCP Interlocal Agreement.

**Ongoing Special Projects, Committees, and Workgroups**

Investigation on the Kinder Morgan Permian Highway Pipeline Project – meetings with Wimberley Valley Watershed Association and conference call discussions with Kinder Morgan \* Continue internal discussions with attorney on EP contested case. \* Conversations with the COA on the Interlocal Agreement to coordinate the implementation of HCP activities \* Conference call with the State Auditor’s Office regarding their audit of BSEACD.

**Routine Activities and Day-to-Day Operations**

Provided general oversight of staff activities and oversight of day-to-day operations \* Approved administrative documents \* Prepared agendas and backup for February 21 Board meetings \* Prepared GM report and assigned tasks \* Held one Planning team meeting \* Served as liaison between Board and staff \* Consultation with Attorney on EP LLC and Needmore LLC permit application and February 21 and March 14 meeting agendas.

## REGULATORY COMPLIANCE TEAM

Staff: VE, KBE, and ES  
March 7, 2019

### **Electro Purification Production Permit**

A SOAH hearing on the merits has been set for 9/19/19 to 9/27/19. An attempted mediation took place March 4, 2019 at the SOAH offices, but the parties did not resolve any issues.

### **Needmore Water LLC Conversion to a Regular Permit**

To date the Administrative Law Judge (ALJ) has not yet provided a response on the matter. In Early February 2019, the BSEACD, TESPAA, and EP filed a joint motion with the ALJ to request the ALJ to make a decision on the matter. At the 10/11/18, Board Meeting the Board remanded the matter back to SOAH.

### **ASR Rule Making/Technical Workgroup**

A presentation of the draft rule language was made at the 2/21/19 Board meeting. The public hearing on the draft rules is scheduled for March 28, 2019. Public comment period is currently underway. A meeting of the Board Rules committee took place on 2/5/19.

### **SH 45 SW/ Mopac Intersections Roadway Projects**

No inspections are currently scheduled for the near future. TXDOT, COA and BSEACD have been consulting on appropriate mitigation measures for found features on the Mopac Intersections project.

### **Database Development Intera Contract**

Intera and staff are working through several workflow processes so that the backend framework of the database is functioning correctly. The front-end design is also being tested and refined.

### **Other Project Efforts/ Planning Discussions**

- Coordination with City of Austin on protocols for Barton Springs Risk Management Zone.
- Coordination with Texas Department of Licensing and Registration (TDLR) on updating the interagency variance agreements for well construction.
- Internal coordination on preparation and planning for Annual Reports including Management Plan Annual Report & USFWS HCP Annual Report. (General Management Team/ Regulatory Compliance Team)
- Internal coordination on preparation and planning for Official Audit of from State Auditor's Office. (General Management Team / Regulatory Compliance Team)
- Preparation and planning for pre-filed testimony.
- Review of proposed legislative bills.

### **Permits Authorized by General Manager**

Staff received the following applications that are currently under review for authorization by the General Manager:

- Hays County for a new Trinity well to produce 100,000 gpy for the purpose of fire use and roadway construction.

- TXI Operations LP for a new Trinity well 1,950,000 gpy for the purpose of commercial (office bldg. < 20 persons) and industrial use (concrete mixing plant – no quarrying).
- Exempt/ Limited Production Permits – six permit applications are currently in review.
- Plugging/ Capping – three well sites are currently in review and may require plugging applications.

**Drought Compliance** - No Drought was declared on 10/11/18.

## **AQUIFER SCIENCE TEAM**

Staff: BAS, BH, and JC  
March 8, 2019

### **Central Hays County Groundwater Evaluation - Well and hydrogeology characterization**

Aquifer Science staff are continuing to work on enhancing the monitor well network in the EP area and are continuing to collect water-level and water-quality data from wells in the area.

### **Antioch Cave - Onion Creek Recharge Enhancement Project**

The late fall and early winter were very wet, but rainfall has been less than average for January and February. There is still flow in Onion Creek onto the recharge zone, but flow into Antioch Cave is minimal.

### **Alternative Water Supplies (ASR and desalination)**

Ruby Ranch is injecting Edwards water into their Trinity well for Cycle 4 of the testing. Buda is expected to start drilling a Trinity well in the spring or summer of 2019 for their ASR project.

### **Drought and Water-Level Monitoring**

With continued flow in the major creeks providing recharge to the Edwards Aquifer, water levels continue to rise and flow from Barton Springs is stable. On 3/8/19, the Lovelady well had a level of 527.0 ft msl and is still rising. Flow at Barton Springs on March 3 was 121 cfs.

### **Presentations, conferences, reports, and publications**

Aquifer Science staff are working on three manuscripts that will be chapters in a Geological Society of America (GSA) Memoir, which will likely be published in the fall of 2019.

Brian Smith gave a presentation to Kinder Morgan staff on February 20 to explain the sensitivity of construction activities and contaminant releases on the Trinity and Edwards Aquifers. Brian Hunt and Alicia Reinmund-Martinez gave a presentation at a public meeting on March 6 hosted by Hays County regarding the Kinder Morgan pipeline.

### **Travis County ILA - Hydrogeologic Atlas of Western Travis County**

District staff have continued to collect hydrogeologic data in Western Travis County such as water levels and geophysical logging. A monthly status report was prepared in early March 2019.

## EDUCATION TEAM

Staff: RHG and JV  
March 7, 2019

### **Groundwater Awareness Week (Mar. 10-16) and Fix-A-Leak Week (Mar. 17-23)**

In honor of Groundwater Awareness Week, Fix-A-Leak Week, and our many spring programs, we've scheduled a general awareness ad to help reach residents of the District. The ads will hyperlink to our home page, and the banners and Spotlights will help residents find programs and info that apply to them.

This month, the ad should run in digital editions of the:

Community Impact – SW Austin edition & San Marcos, Kyle & Buda edition; San Marcos Corridor News; New Dispatch; Hays Free Press; and the Texas State University Star

Keep an eye out for the District ads! We'll be able to track metrics once March is complete.

### **Austin Cave Festival (Sat., Feb. 23, 2019) - Wildflower Center, City of Austin Wildlands, Watershed Protection, and Parks and Rec cosponsoring.**

Cave Festival was a fantastic success. We had about 3,500 people attend and entry that day was free. Robin, Jackie, Justin, Erin, Alicia, and Smith staffed the District booth, coordinated signups for the Sinkhole Hike, helped with caving, and hosted the Salamander's Tail puppet show. A video of the puppet show and ASL interpreter have been loaded on the District YouTube channel. It was a fitting celebration of groundwater and cave habitat. What a great way to provide the public with the opportunity to learn more about the amazing world under Austin!

There were lots of cave-related activities all were at capacity for attendance. About 400 people toured LaCrosse or Wildflower Cave, about 700 people went through Cave Sim, about 750 entered the Children's Art Cave, 200 experienced a 3D virtual cave, and 150 attended the Salamander's Tail puppet show.

Several media outlets covered the event: Austin American Statesman, City of Austin Network (ATXN), KVUE, Spectrum News, and UT journalism students. The Facebook event was viewed over 162,000 times, over 12,000 people have responded, and the District's Austin Cave Festival webpage was visited over 3,000 times since the beginning of the year--that's double that of the home page).

### **College and Camp Scholarship Programs (Applications due Tues., Mar. 26, 2019)**

The District's Scholarship webpage has been viewed over 1,000 times since the beginning of the year. Scholarship judges for Kent Butler Memorial Groundwater Stewardship essay contest have been confirmed. They will remain anonymous until after the winner(s) are officially selected. Application packets for both college and camp scholarships have begun arriving. Staff will meet with the Scholarship subcommittee on Wednesday, March 27 to review camp scholarship entries, select merit winners and draw random lottery to fill the remaining slots (if applicable).

Committee selections will be presented to the full Board at the March 28 meeting for official selection. *This year's sponsors include the City of Austin, Texas Lehigh Cement Company, Centex, Creedmoor-Maha WSC, Goforth SUD, and Slaughter Creek Acres WSC. Application packets and information has been updated on the District website. Promotion of the scholarship program has started.*

Other meetings and activities:

- **McCallum High School Science Classes:** Staff helped with Cave Sim programming for about 480 students over 2 days. Staff provided an overview of local karst, the sensitivity of the recharge zone, and cave safety.
- **Education committee:** Mary and Blayne met with staff on 2/11/19 to discuss Strategic Edu/Outreach plan and annual goal.
- **Gay Ruby Dahlstrom Nature Preserve signage:** Staff have assisted with editing sign content and contributed the Water Resources Map as a resource. The Hays County Parks Department is planning for a soft opening mid-April.
- **Cave Sim:** Austin Water—Wildlands Division has submitted funding request for to cover the cost of an Austin-based Cave Sim. Initial thought that the mobile trailer would be based out of the Mary Gay Maxwell Management Unit & would have MOUs with multiple agencies (like the District) to utilize it. Additional funding may be necessary to boost accessibility to schools.
- **Monitor well:** Staff set up a new Well Intel site in Summer Mountain Ranch. The well owner participated in the Neighborhood Site Visit program in May 2018.
- **SBCA Hill Country Oasis:** Work on the Explorer's Guide progresses. Staff have provided content and graphics in support of the project. SBCA has secured a graphic designer and writer, and estimate mock-ups will be available for review in April.
- **Groundwater to the Gulf:** Planning has begun for the 14<sup>th</sup> annual training. The District continues to serve as one of the lead organizers of the training.
- **Well Water Checkup:** Preparations have begun for the April 17 Well Water Checkup. Pre-registration will start on March 18. Direct mail, emails to past participants, eNews highlights, website and social media advertising are planned.

**Internet Traffic Report - Page views and visits to the District Website**

The District website had 7,429 total page views by 5,782 unique sessions—another significant increase from last month. Top sites in order of number of views are the Austin Cave Festival page (2,222), Scholarships (888), home page (859), Kinder Morgan Updates (346), staff (148) and Agendas and Backup (139). The District Facebook page now has 796 likes (up 54 from last month) 'Likes' and responses to posts have been very positive. The most popular FB posts were Cave Festival reminder with activity times/locations (817 views), Kent Butler Scholarship announcement (359 views), and Camp scholarship announcement (243 views).



## ADMINISTRATION TEAM

Staff: SD, TR, and DW  
March 8, 2019

### Accounts Receivable

April monthly billings to be mailed out on March 14/15 (due on April 5<sup>th</sup> and late on April 16<sup>th</sup>).

### Banking Information Update – BB&T and SunTrust Merger

Currently, the District's operating/checking and payroll accounts are with BB&T. BB&T and SunTrust merged this February 2019, creating the sixth-largest U.S. bank holding company (based on assets and deposits). The combined companies will operate under a new name. The actual changeover to a combined company will not happen until late 2019, as it takes awhile for the transaction to successfully close. So for now we are to continue banking as we normally do.

### Financial Reporting – Website

Transparency Star-related. Most current, available financial reports are to be posted. Balance Sheet, Profit and Loss Statements, and Check Registers through January 2019 have been posted on the District website. Also, two five-year graphs (required by Texas Comptroller) showing actual income and expense, and actual income and expense per capita, have been updated and posted.

### State Auditor's Office (SAO) Audit

The document requests are mostly administrative/financial, so the bulk of this project so far has been directed towards administration.

### Tax Rate

Annual Texas Workforce Commission Rates for quarterly C-3 tax reporting: Previous rate was 1.8% (or \$162/per employee per year); now is 0.1% (or \$9/per employee per year).

The District's annual contribution rate is computed in accordance with Chapter 204, Subchapter F of the Texas Unemployment Compensation Act and is a percentage computed by dividing the adjusted amount of all unemployment benefits attributable to employers in the group by the amount of the total wages paid by those employers.

The adjusted amount of benefits paid to all claimants of taxed political subdivisions is \$ -1,478,972.07 for the year ended December 31. The amount of total wages paid to all taxed political subdivisions for the year ended December 31 is \$ 965,512,116.99.

More simply stated, we pay the TWC quarterly 0.1% of each employee's gross salary up to the first \$9,000 the employee earns.

*The Administration Team typically has repetitive monthly tasks e.g. monthly bank reconciliations, daily phone answering, monthly adjusting journal entries, contract/grant/and project tracking; etc. These types of tasks are not listed here because they are so repetitive. Administration status reports are generally much smaller than the other teams as we list only the extra-ordinary tasks.*

## UPCOMING DATES OF INTEREST

- Board Meeting: March 14, 2019
- Presentation on the Southwestern Travis County Hydrogeologic Study to Travis County Commissioners Court: March 26, 2019
- Camp and College Scholarship Applications Due: March 26, 2019
- Board Meeting: March 28, 2019
- Presentation to the Hays County Historical Committee: March 28, 2019
- GMA 10 Meeting: April 8 in San Antonio
- GMA 9 Meeting: April 22, 2019 in Bee Caves
- Region K Meeting: April 24, 2019 in Austin



**Barton Springs  
Edwards Aquifer**  
CONSERVATION DISTRICT

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MEMORANDUM

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**TO:** VICKY KENNEDY, TRAVIS COUNTY  
**FROM:** AQUIFER SCIENCE & PUBLIC INFO/EDUCATION, BSEACD  
**SUBJECT:** MONTHLY PROGRESS REPORT FOR ILA: SOUTHWESTERN TRAVIS COUNTY  
HYDROGEOLOGY PROJECT  
**DATE:** 3/6/2019

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This memo is a monthly progress report related to the Interlocal Agreement (ILA) between the Barton Springs/Edwards Aquifer Conservation District and Travis County for a hydrogeologic study of southwestern Travis County. Key activities since last month's progress report include:

- Water level and chemistry data were collected at 13 new well sites (see Figure 1 for locations).
- Ongoing addition of geophysical logs, driller logs, and geologic contacts to the BSEACD Regional Geologic Geodatabase; this growing dataset will be used to constrain geology and hydrogeology in the ILA study area (see Figure 2 for locations of geologic control points within the study area).
- In response to a request from SWTCGCD board members, the following data was prepared and shared with the SWTCGCD:
  - Data from the Neighborhood Site Visits Program, including participant information and water level and chemistry data, and
  - Data from the TWDB Submitted Drillers Reports (SDR) Database for wells located in the SWTCGCD area.
- Areas of geologic and hydrogeologic interest were investigated at Eugene Reimers Ranch and Milton Reimers Ranch Park on February 15. Additionally, water level and chemistry data were collected from wells on both properties.
- Driftwood Multiport Well profile was completed on February 20, and slug tests were completed for each of the well's 14 zones to estimate the hydraulic conductivity of hydrostratigraphic units (February 20 to February 25). Though this well is located outside of the ILA study area, the data collected will help develop a better understanding of Trinity Aquifer units in the study area.

Please let us know if you have any questions regarding the progress and tasks described above, or anything else related to the project.

On behalf of the project team,

Lane Cockrell  
Hydrogeologist

Southwestern Travis County Hydrogeologic Study Site Visits, February 2019

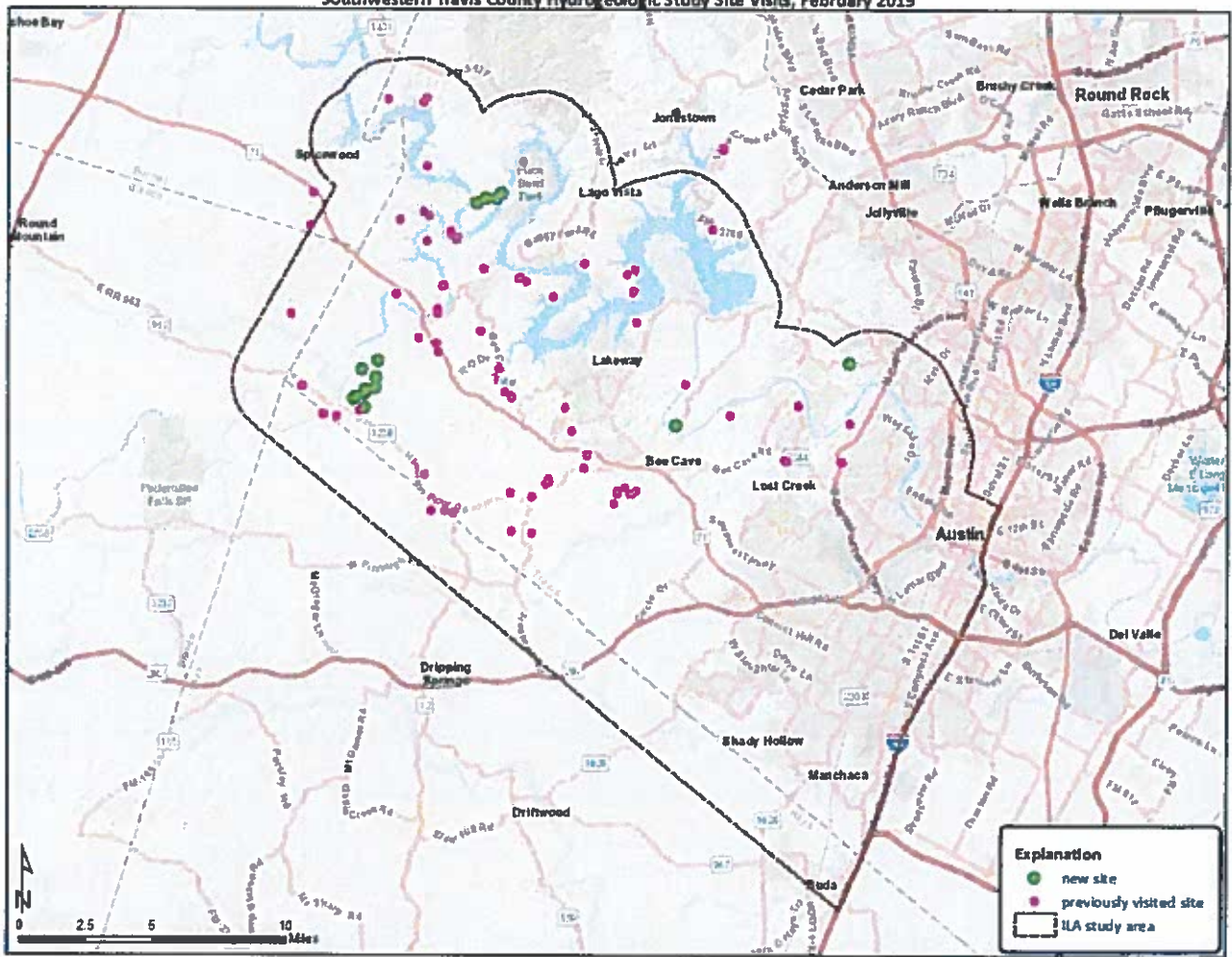


Figure 1. Water level and/or chemistry data have been collected from wells across southwestern Travis County for this study. Green dots show the locations of sites visited during the month of February 2019, and pink dots represent sites where data was collected prior to February 2019.

Geologic Control Points in Southwestern Travis County and Surrounding Areas, February 2019

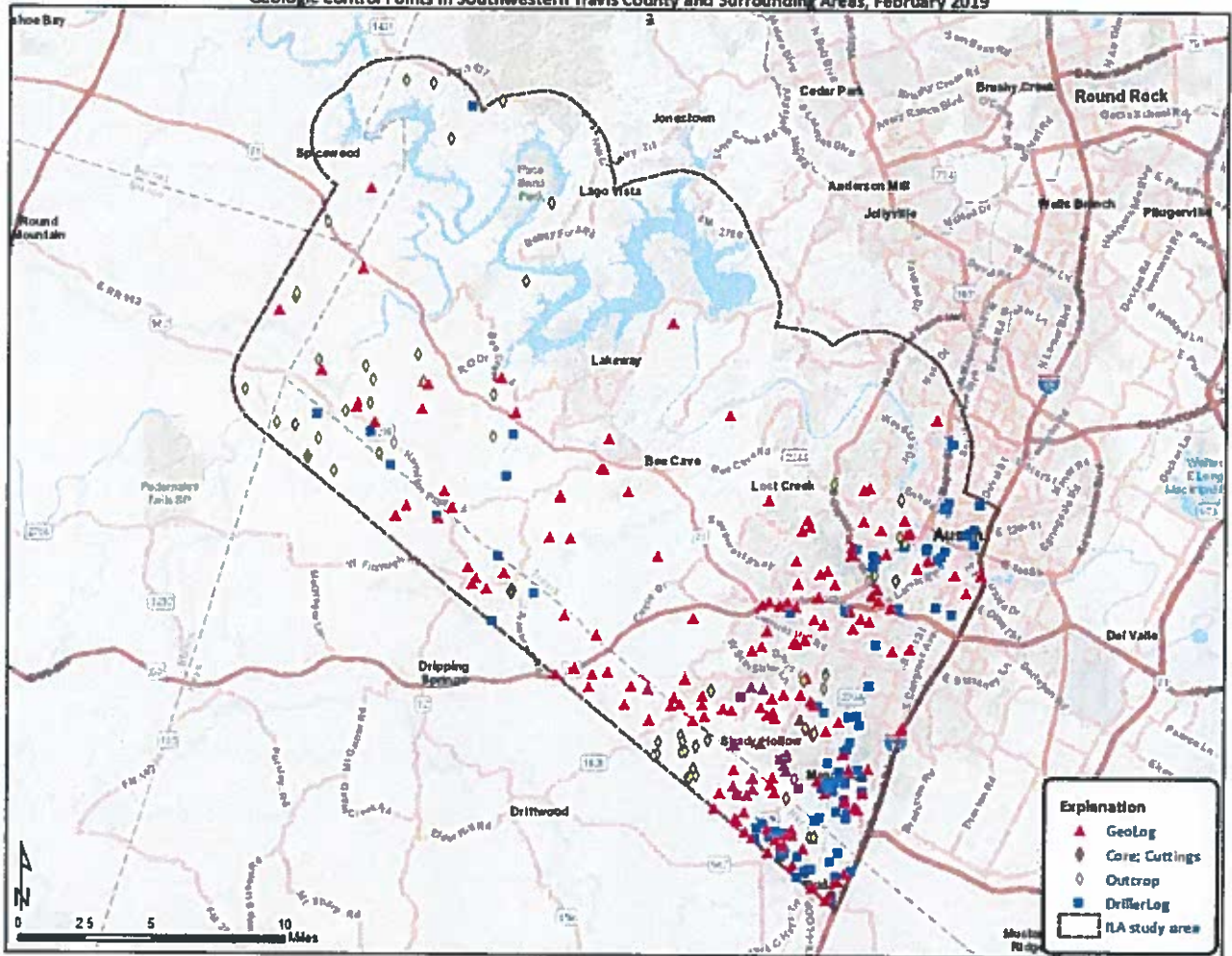


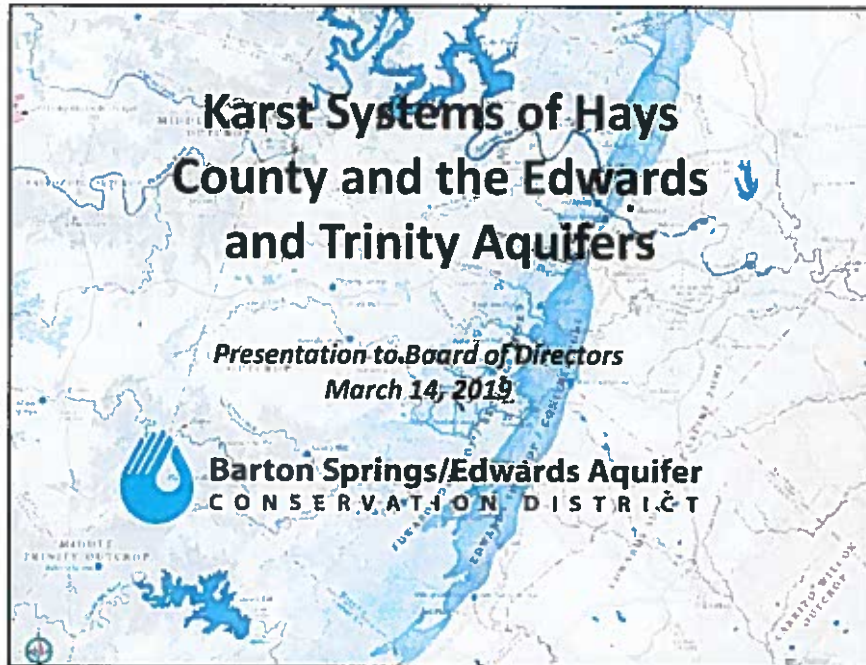
Figure 2. Locations of geologic control points in the ILA study area; these include geophysical logs (Geol logs), core and cuttings samples, geologic outcrops, and driller logs in the BST-ACD Regional Geologic Geodatabase as of February 28, 2019.

**Item 4a**

**Presentation**

**Presentation by staff on the Karst Systems of Hays County and the Edwards and Trinity Aquifers.**

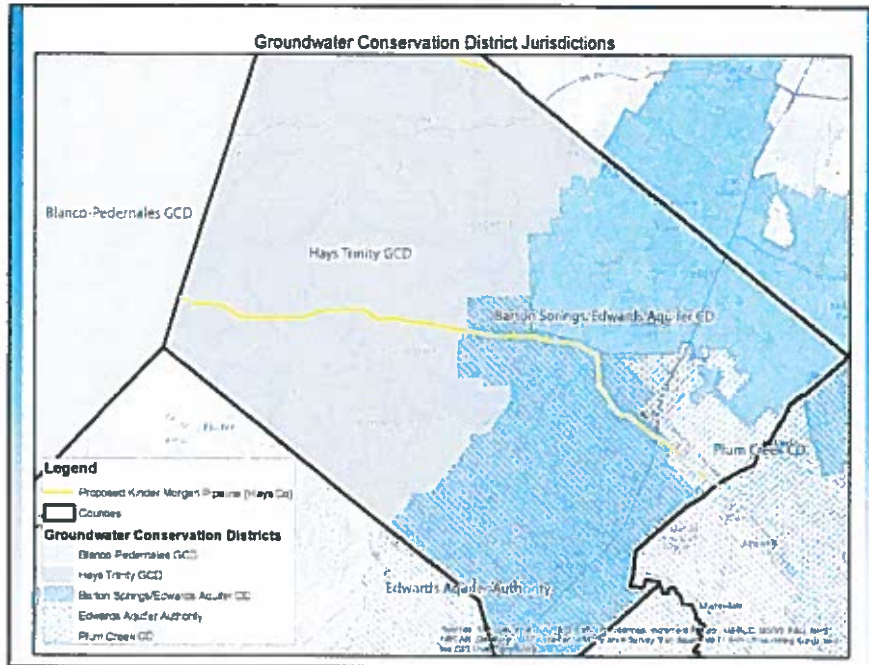




The BSEACD has authority only related to the regulation of pumping from aquifers within its jurisdiction. In order to make science-based decisions on aquifer management, numerous studies have been conducted over the years by the District and others to better understand the how the aquifers function. Accordingly, that information is critical to understanding the risks of potential contaminants to the aquifer, such as a hydrocarbon pipeline.

For more information on these studies:

[https://bseacd.org/uploads/30-years-AS-brochure\\_final\\_rev2\\_small.pdf](https://bseacd.org/uploads/30-years-AS-brochure_final_rev2_small.pdf)



Location map showing the proposed pipeline and the differing jurisdictions of agencies regulating groundwater.

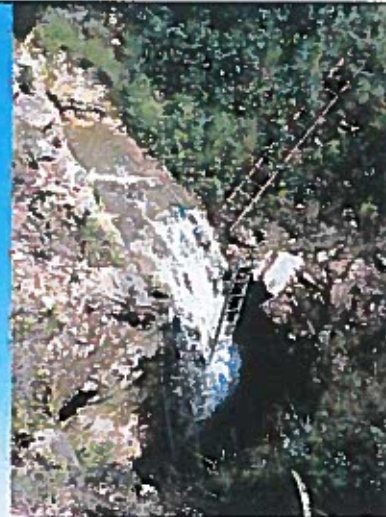


## Outline

1. What is karst?
2. Hydrogeology and karst of Hays County
3. Pathways and contaminant transport in karst
4. Highway and pipeline construction over karst
5. Concerns and Questions
6. Conclusions

## Karst

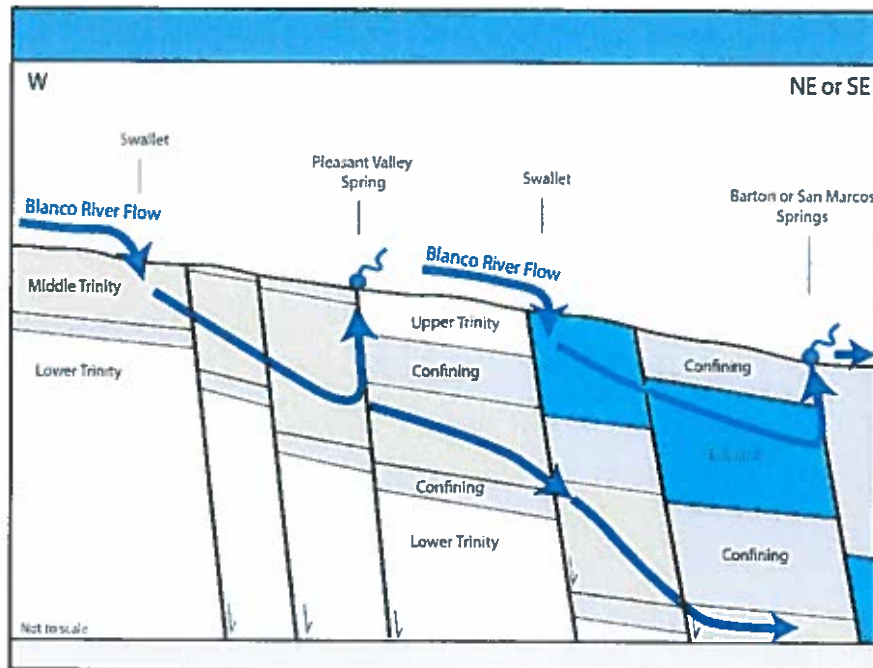
- Landforms produced through the dissolution of rock.
- Characterized by caves, sinkholes, and springs.
- Edwards and Trinity are karstic aquifers



Kiwi Sink (Upper Glen Rose limestone)

Jacob's Well, Wimberley, Photo Source:  
<http://www.smartdivers.com/photojacobwell.html>

The Trinity and Edwards Aquifers of Hays County are karst aquifers, meaning they have an extensive system of conduit (pipe-like) permeability.

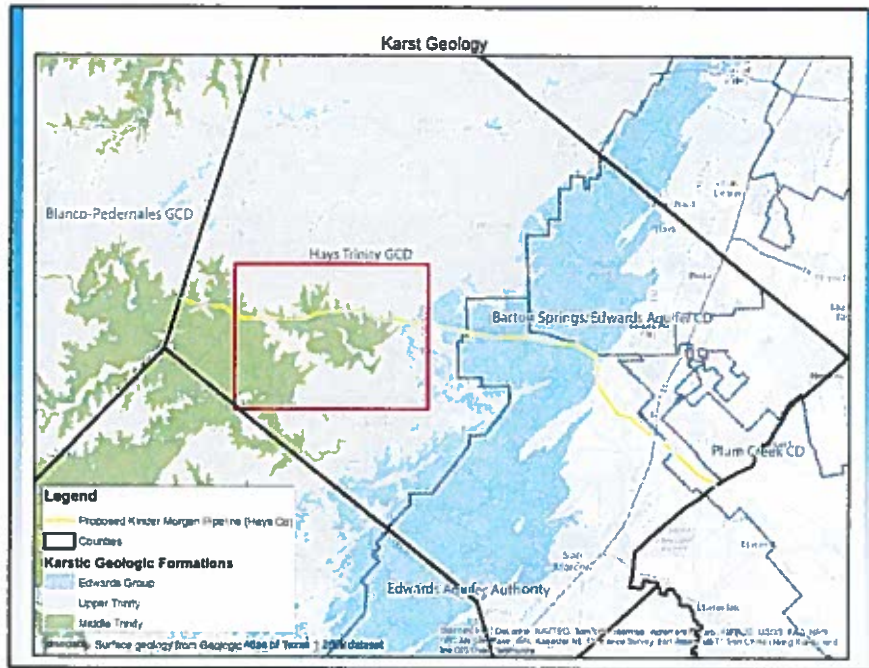


Simple schematic drawing indicating the strong connection between surface and groundwater for both the Trinity and Edwards Aquifer systems. In addition, both aquifer systems are hydrologically connected via rivers and creeks.

For more information see:

[https://bseacd.org/uploads/Hunt-et-al\\_2017\\_STGS-Bulletin\\_FINAL.pdf](https://bseacd.org/uploads/Hunt-et-al_2017_STGS-Bulletin_FINAL.pdf)

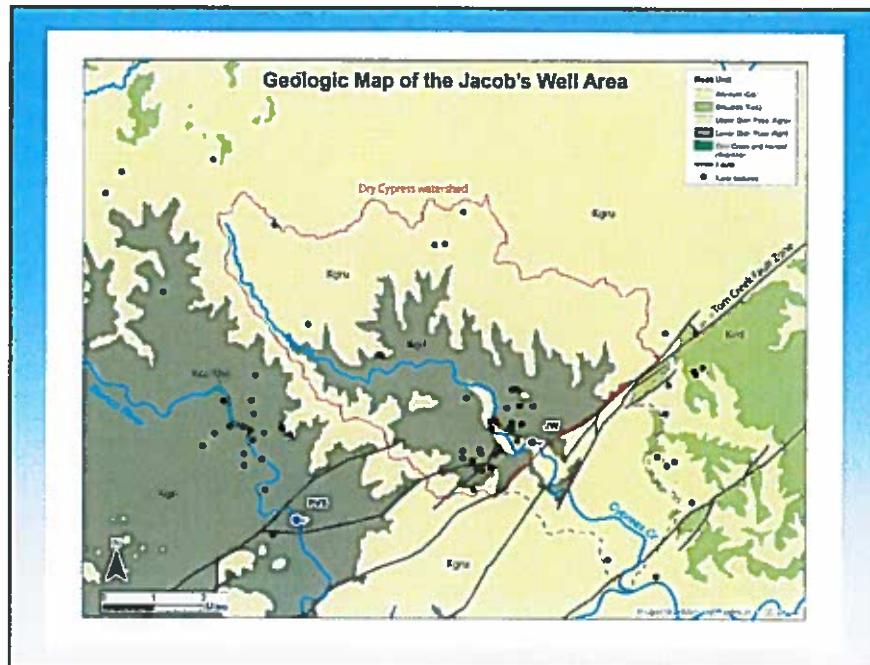




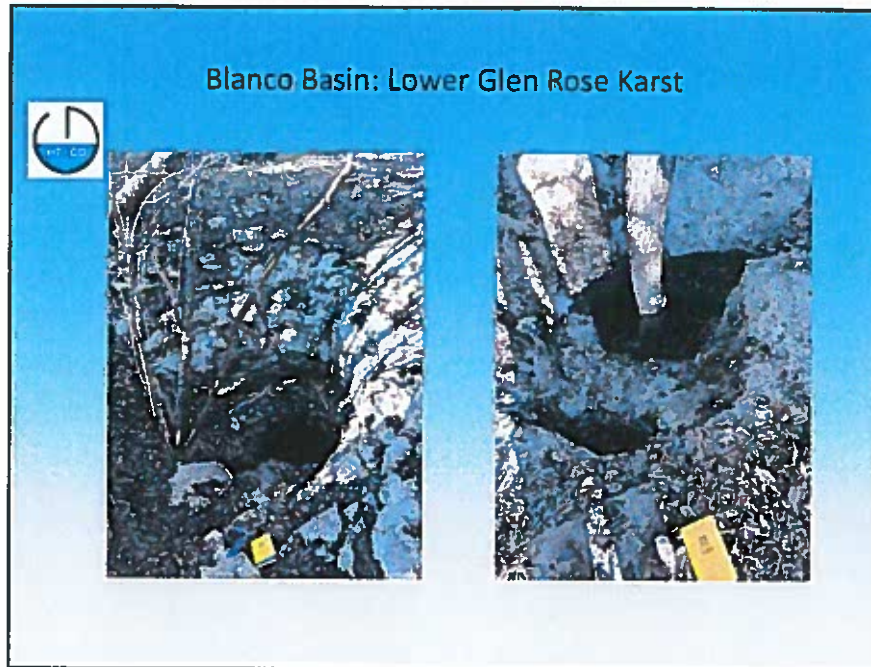
Simplified geologic map of the area in relation to the proposed pipeline. Blue colors indicate the recharge zone of the Edwards Aquifer and the dark and light green colors indicate the outcrop of the Trinity Aquifers. All of the green and blue areas are karstic and voids are common at and near the ground surface.

Box denotes next slide.





Geologic map of the area around Jacob's Well. The proposed pipeline runs from west to east across the middle of the map, within Dry Cypress Creek, and north of Jacob's Well. This map shows the geologic faults and some well-known karst features (caves and sinkholes) in the area. These features are potential pathways for conduits to travel into the aquifers. Note that these mapped karst features represent a very small fraction of the actual features present in the area.



Example of karst features within the Dry Cypress Watershed (Blanco River Basin) north of Jacob's Well.

## Lower Glen Rose—Hensel



**Lower  
Glen  
Rose**

*limestone*

*Silty  
dolomite*

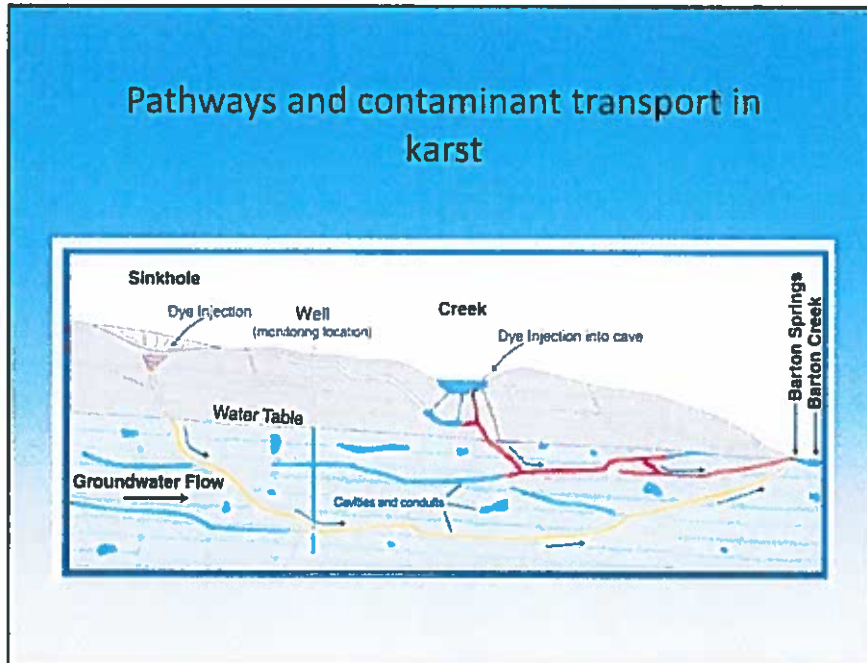
**Hensel**

*Little Blanco River, Hays County*  
Photo by Steve Musick

An example of a cave within the Lower Glen Rose near the confluence of the Little Blanco and Blanco Rivers in Hays County. The cave has no expression on the surface above the cliff and is only exposed due to the erosion of the Little Blanco River.



## Pathways and contaminant transport in karst



Dye trace studies are an important tool to understand the pathway and velocities of contaminants in a karstic aquifer. Karst aquifers are characterized by rapid groundwater flow with little attenuation (filtering) of contaminants. The proposed pipeline will cross an area that has been well-studied by dye tracing. A release of hydrocarbon has the potential to flow toward Barton and San Marcos Springs and numerous water-supply wells along the way.

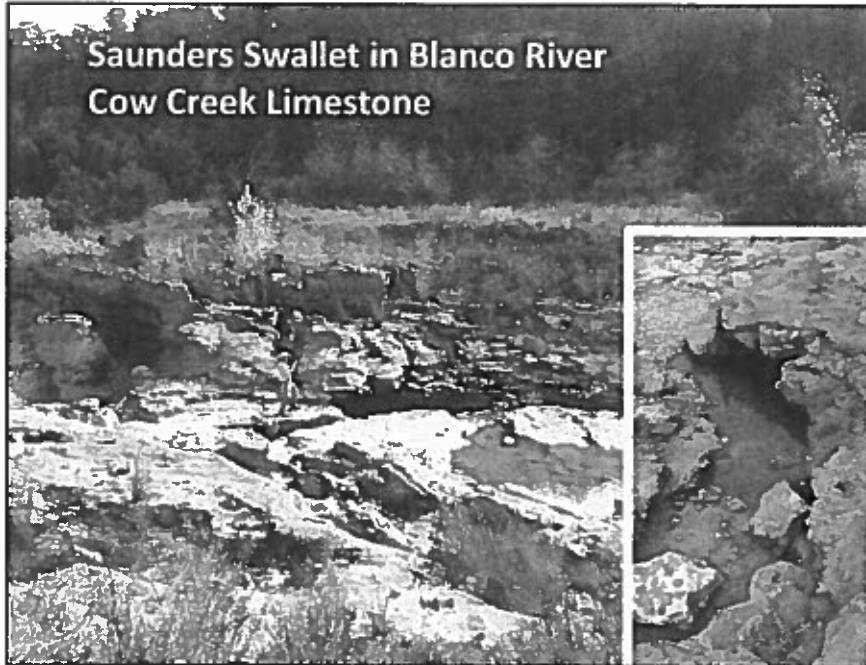
### Studies:

Summary of dye studies around San Marcos Springs (2012)

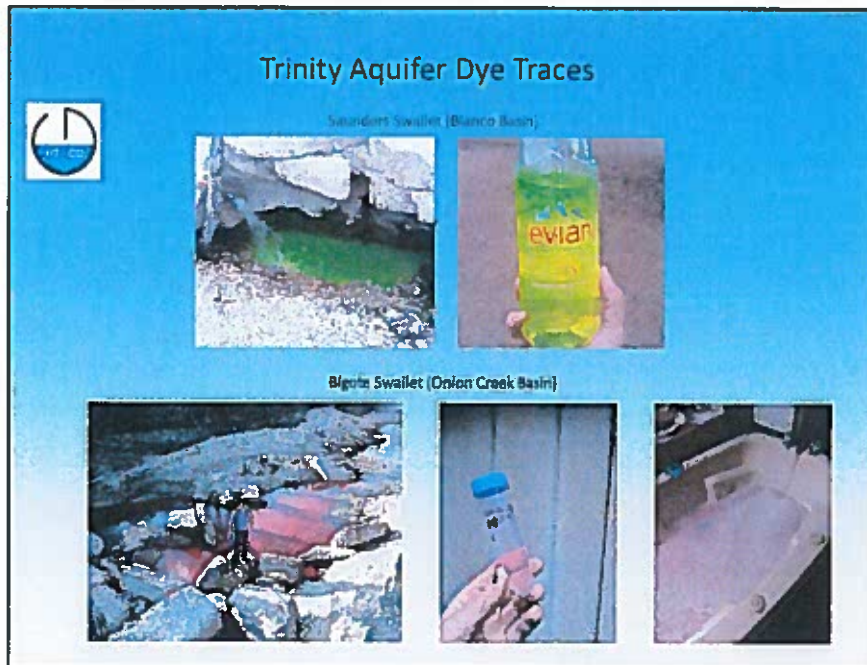
[https://bseacd.org/uploads/blanco-report-8-17-2012\\_low-res.pdf](https://bseacd.org/uploads/blanco-report-8-17-2012_low-res.pdf)

Summary of dye tracing results in the BSEACD (2002).

[https://bseacd.org/uploads/Dye\\_BSEACD\\_report\\_2002.pdf](https://bseacd.org/uploads/Dye_BSEACD_report_2002.pdf)



This is an example of a recharge feature within the Blanco River called Saunders Swallet.



The top picture was from a dye trace conducted by the University of Texas at Austin (Dr. Marcus Gary) into Saunders Swallet. The dye was detected at down-gradient springs and visible in a nearby well.

The lower pictures are from a dye trace conducted along Onion Creek which recharged into the Trinity Aquifer and appeared about a mile away within a day in some water supply wells.

These traces in the Trinity Aquifer confirm the karstic nature of the Trinity Aquifer and the strong surface and groundwater relationship.

<https://gsa.confex.com/gsa/2018AM/webprogram/Paper324949.html>

[https://bseacd.org/uploads/Upper-Onion-trace-memo\\_05182018.pdf](https://bseacd.org/uploads/Upper-Onion-trace-memo_05182018.pdf)

## Edward Aquifer Dye Trace Blanco River and Onion Creek



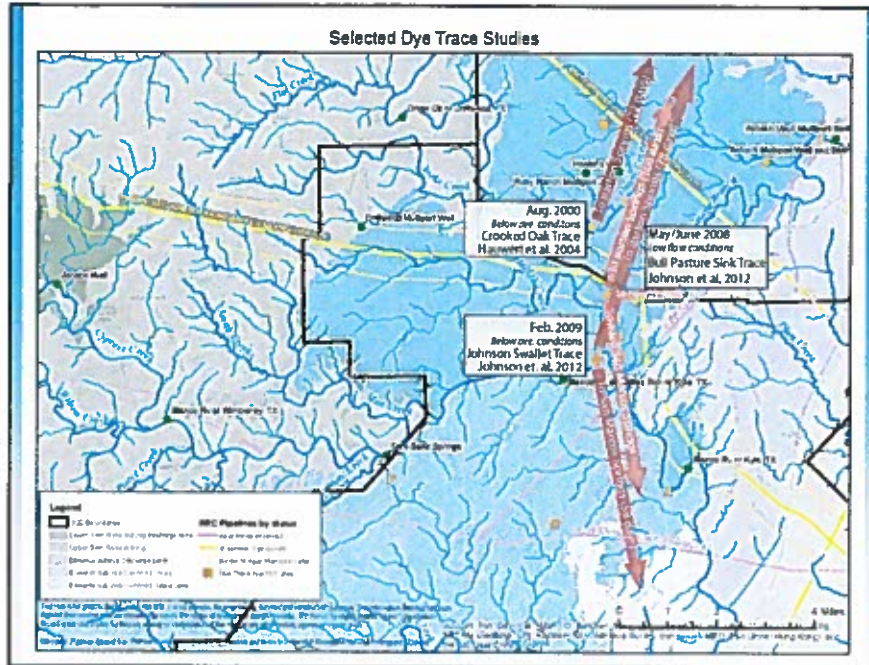
Cripple Crawfish cave



Bull Pasture Sinkhole

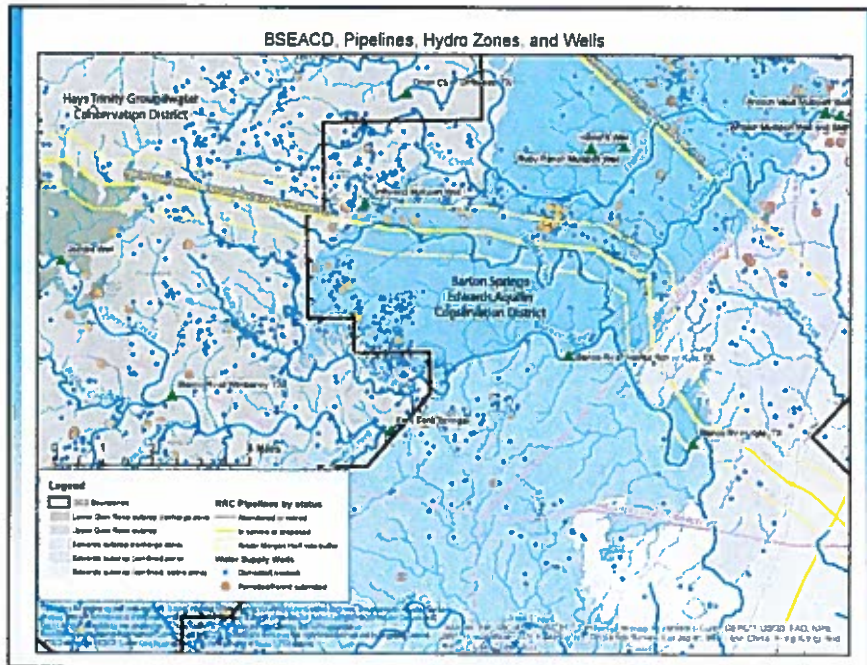


Photos on the left side are from a dye trace in Onion Creek. The dye traveled about 18 miles to Barton Springs in less than 2.5 days. The photo on the right is very near the proposed pipeline south of FM 150. This feature was traced to Barton Springs, water supply wells, and toward San Marcos Springs.



Geologic map showing the proposed pipeline pathway and some dye tracing results. A significant release of hydrocarbon in the area along the proposed route would result in contaminants flowing to water-supply wells, Barton and San Marcos Springs.





Geologic map showing the proposed pipeline pathway and known water wells in the vicinity. These wells only represent a fraction of the domestic and ranch wells that are actually in the region. Given the karstic nature (previous slide) of the aquifer, the potential for contaminants to reach wells miles to the north and south of the proposed route is high.



## Highway and Pipeline Construction over Karst

The District often gets asked to review and provide hydrogeologic advice on how to best minimize impacts from construction projects in karst settings.



Void in side of wall for highway construction

**Karst features  
encountered in the  
Edwards limestone during  
construction activities in  
South Austin**



Void in the bottom of trench for water pipeline installation



## Highway 45- South Austin



Photo 2. Feature PF-001



PF-q04 after mitigation

Highway rerouted to avoid large karst feature.

## Longhorn Pipeline- South Austin



This pipeline was installed in the 1950s and was put back into commission in the early 2000s. In recognition of the risk such a pipeline poses, the City of Austin and the District persuaded the pipeline company to: 1) replace the old pipeline entirely over the Edwards recharge zone, 2) mitigate and close karst features and line the trench with gunite 3) install additional safety valves and leak detection equipment, 3) fund monitoring (water sampling and monitor wells).

## Concerns and Questions

### Construction Phase: Protection of Karst Features

- **Excavation Impacting Karst Features and Potential for Groundwater Contamination**
  - KM has hired an expert who is conducting a survey to identify karst features. GCDs request to review the survey report.
  - The KM karst expert will be developing a void mitigation plan. GCDs request to review the plan to ensure construction methods eliminate the potential impacts to karst features.
  - GCDs request an Aquifer Protection Plan be developed – how will stormwater runoff be managed?
- **Oversight to Construction**
  - GCDs request to be notified when karst features are encountered during construction and to be allowed access to significant features that are found.
- **Pipeline Specifications and Cathodic Protection Wells**
  - KM plans to develop a corrosion prevention plan to determine if cathodic protection wells are needed. GCDs request to review the well specifications (depth, casing, material, spacing, etc.)

## Concerns and Questions

### Operations Phase: Protection of the Aquifers

- **Potential for Liquids in Highly Permeable Rock**
  - KM is pursuing the legal rights for the transmission of oil hydrocarbons.  
GCDs request to review the KM biological assessment required to be done by USFWS.
  - What is the emergency response plan?
    - What resources will be in place to respond in the event of a leak/contamination?
    - What actions will be taken to protect water users?
  - Will KM conduct ongoing sampling of groundwater wells for possible pipeline contaminants?
- **Pipeline Management Plan**
  - KM should produce its pipeline management plan including its inspections and testing plans.

## Conclusions

- The Trinity and Edwards Aquifer meet the definition of a karst aquifers due to conduit permeability within soluble rocks.
- These aquifers are very sensitive to activities, such as construction and contaminant spills, at and near the surface.
- Tens of thousands of people in central Hays County depend on these aquifers as their sole source of drinking water.

Additional information and maps:

<https://bseacd.org/2019/02/proposed-kinder-morgan-pipeline/>

Thank you.  
Questions?

<https://bseacd.org/2019/02/proposed-kinder-morgan-pipeline/>

**Item 4b**

**Presentation**

**Presentation by Kinder Morgan on the Permian Highway Pipeline Project.**





## Permian Highway Pipeline Project Fact Sheet

### Project Overview:

- Kinder Morgan Texas Pipeline (KMTP) and EagleClaw Midstream Ventures (EagleClaw) have announced a final investment decision to proceed with the Permian Highway Pipeline Project (PHP Project). An affiliate of an anchor shipper exercised its option in January 2019 to acquire a 20 percent equity interest in the project, bringing KMTP and EagleClaw's ownership interest to 40 percent each. Altus Midstream (a gas gathering, processing and transportation company formed by shipper Apache Corporation) has an option to acquire an equity interest in the project from the initial partners by September 2019. If Altus exercises its option, Kinder Morgan, Inc., EagleClaw and Altus will each hold a 26.67 percent ownership interest in the project.
- The approximately \$2 billion PHP Project is designed to transport up to 2.1 billion cubic feet per day (Bcf/d) of natural gas through approximately 430 miles of 42-inch pipeline from the Waha, Texas area to the U.S. Gulf Coast and Mexico markets. KMTP will build and operate the pipeline.
- A number of federal and state agencies will be involved with the approval and oversight of the PHP Project, including, but not limited to, the Railroad Commission of Texas, U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, Texas Historical Commission, Texas Commission on Environmental Quality, Texas General Land Office and Native American tribes as applicable.

### Project Benefits:

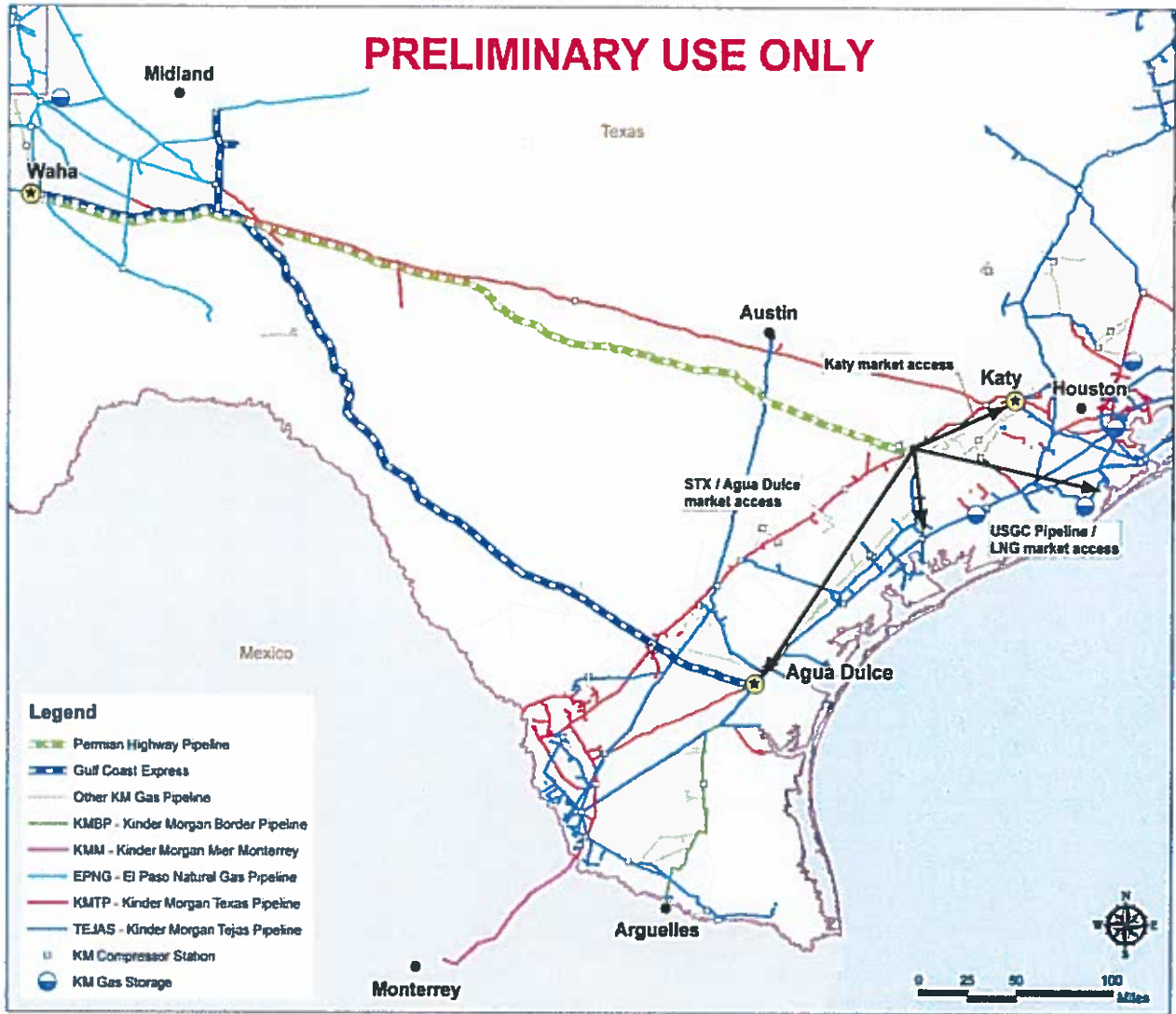
- The PHP Project will provide an outlet for increased natural gas production from the Permian Basin to growing market areas along the U.S. Gulf Coast, including new LNG facilities that will be in service in the next few years.
- The PHP Project will directly generate an estimated 2,500 local construction and 18 full-time jobs. There will be ongoing positions following construction that will continue to accelerate the development and job creation from the booming oil and gas activity throughout Texas.
- When complete, the new facilities constructed as part of the PHP Project will generate approximately \$42 million of increased annual revenue to applicable state and local taxing bodies.

### Estimated Project Schedule:

- Stakeholder Outreach: Ongoing
- Civil and Environmental Surveys: September 2018 – June 2019
- Begin Construction: Fall 2019
- Proposed In-Service Date: Fourth Quarter of 2020



# PRELIMINARY USE ONLY



## Hays County

### Kinder Morgan in Hays County

#### Economic Impact

- Kinder Morgan paid approximately \$20,000 to state and local taxing bodies in Hays County last year.

#### Kinder Morgan Existing Assets *(owned and/or operated)*

Kinder Morgan owns and/or operates approximately 13.6 miles of pipelines in Hays County.

- **Kinder Morgan Tejas Pipeline:** ~1.2 miles
- **Kinder Morgan Texas Pipeline:** ~12.4 miles



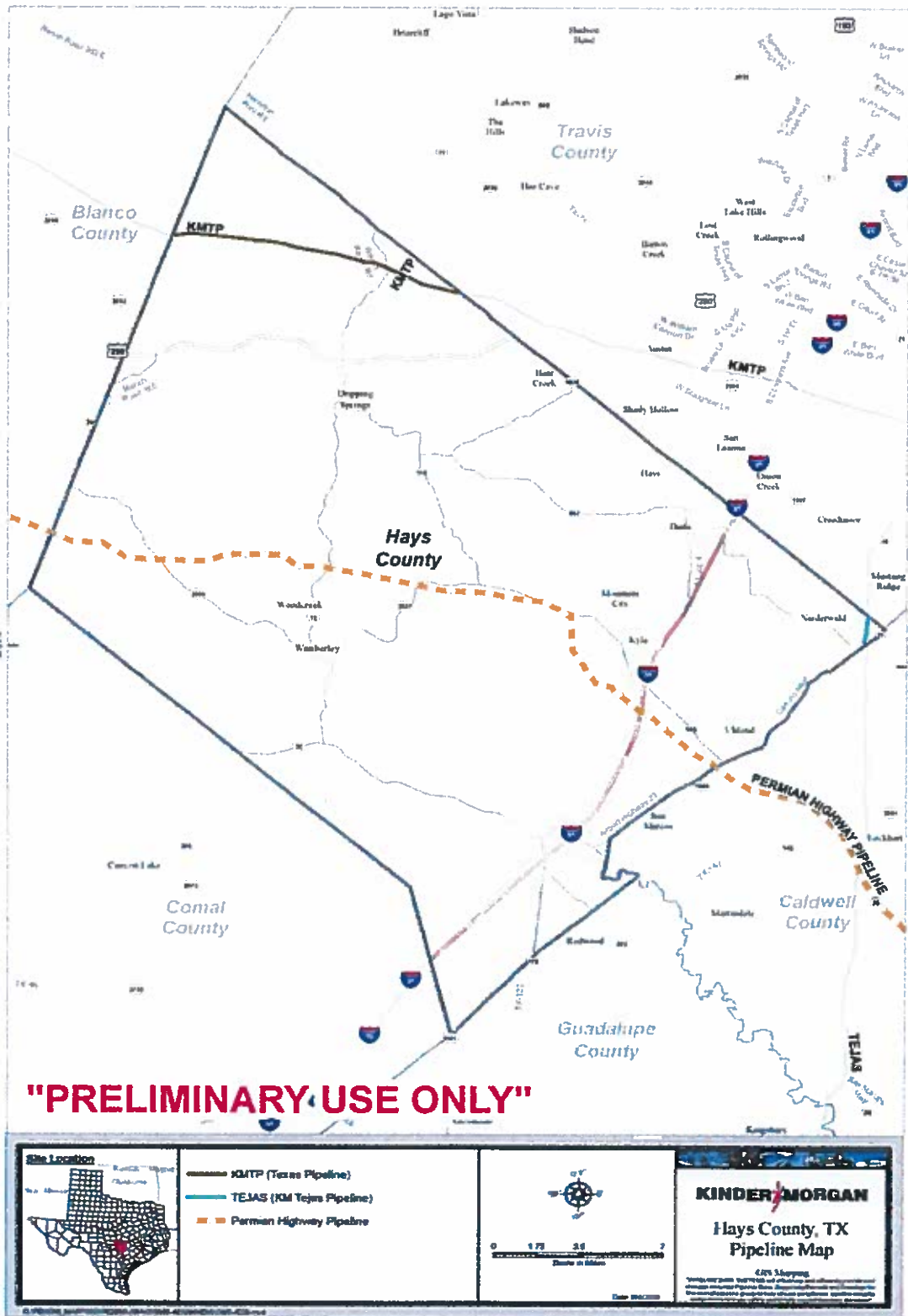
### Proposed Permian Highway Pipeline Project

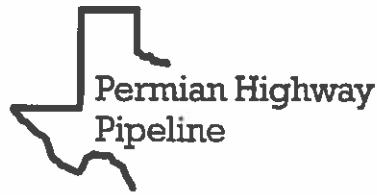
The approximately \$2 billion PHP Project will provide an outlet for increased natural gas production from the Permian Basin to growing market areas along the Texas Gulf Coast and is designed to transport up to 2 billion cubic feet per day (Bcf/d) of natural gas through approximately 430 miles of 42-inch pipeline from the Waha to Katy, Texas, areas, with connections to the U.S. Gulf Coast and Mexico markets. The PHP Project is expected to be in service in late 2020, assuming timely receipt of the requisite regulatory approvals.

#### In Hays County:

- **Proposed Permian Highway Pipeline (42" diameter):** ~31.5 miles

# Hays County





## Permian Highway Pipeline (PHP) Project Frequently-Asked Questions

### Project Specifications

#### 1) What is the Permian Highway Pipeline Project?

The Permian Highway Pipeline (PHP) Project ("Project") is designed to transport up to 2.1 billion cubic feet per day (Bcf/d) of natural gas through approximately 430 miles of 42-inch pipeline from the Waha, Texas, area to the U.S. Gulf Coast and Mexico markets. Kinder Morgan Texas Pipeline (KMTP) will build and operate the pipeline. The Project will provide much-needed takeaway capacity for natural gas in the Permian Basin in West Texas.

#### 2) Who is Kinder Morgan?

Kinder Morgan is one of the largest energy infrastructure companies in North America, owning an interest in or operating approximately 84,000 miles of pipelines and 157 terminals. Kinder Morgan's pipelines transport natural gas, gasoline, crude oil, carbon dioxide (CO<sub>2</sub>) and more.

In the State of Texas, Kinder Morgan operates approximately 26,000 miles of natural gas, CO<sub>2</sub>, crude and refined products pipelines and 15 terminals handling liquid and bulk goods. Kinder Morgan employs over 4,970 people in Texas and is headquartered in Houston.

#### 3) What product is this pipeline transporting?

The Project is being developed to transport dry pipeline quality natural gas. Multiple shippers have signed long-term, binding contracts strictly for natural gas transmission.

A new regulatory review and approval process would be required for this pipeline to transport any product aside from natural gas. Numerous facility and mechanical upgrades would also be required prior to transporting a new product in the pipeline.

#### 4) What are the local and statewide benefits of the PHP project?

- **Jobs:** The PHP Project will directly generate an estimated 2,500 local construction jobs and 18 full-time positions following the project's completion.
- **Tax Revenue:** When complete, the new facilities constructed as part of the Project will generate approximately \$42 million in increased annual tax revenue to state and local taxing bodies.
- **Environmental Benefits:** The Project will provide a much-needed outlet for natural gas in the Permian Basin of West Texas. Natural gas is produced as a by-product of the crude oil drilling process in the Permian Basin. Currently, an estimated 400 million cubic feet per day (Mcf/d) of natural gas is flared in the Permian Basin due to a lack of natural gas pipelines that are capable of transporting the gas out of the region to market. Flaring is projected to increase in the area unless new pipelines are constructed. The PHP Project will provide 2.1 billion cubic feet per day (Bcf/d) of natural gas takeaway capacity from the Permian, thereby reducing flaring and associated CO<sub>2</sub> and methane emissions directly into the atmosphere.
- **Strengthening Texas's Economy and Infrastructure:** The booming oil and gas production in the Permian Basin provides major economic benefits not just for west Texas, but for the entire state. Oil and gas severance taxes in Texas provide a large amount of funding for the TXDOT's highway fund,

as well as the Permanent University Fund that provides approximately half of the funding for Texas A&M University and the University of Texas systems.

**5) What regulatory agencies will oversee the project?**

A number of federal and state agencies will be involved with the approval and oversight of the PHP Project, including, but not limited to, the Railroad Commission of Texas, U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, Texas Historical Commission, Texas Commission on Environmental Quality, Texas General Land Office and Native American tribes as applicable.

**6) Why are you pursuing this particular route—i.e. why go through the Hill Country?**

In order to facilitate the transportation of additional natural gas supplies throughout Texas, Kinder Morgan Texas Pipeline (KMTP) developed a proposed pipeline route that provides interconnections with other existing pipeline systems, and is located in an operationally feasible area that minimizes the pipeline's impact on the environment. KMTP's engineers and environmental specialists developed this route after close examination of publicly available information, as well as aerial, environmental, cultural and civil survey data. KMTP will attempt, as much as possible, to locate the PHP pipeline parallel to existing pipeline rights-of-way and utility corridors.

**7) When is the project expected to be placed into service?**

Pending regulatory approvals, the project is expected to be in service in 2020.

**8) What is the usual width of the pipeline right of way?**

A pipeline normally requires a permanent right-of-way that is 50-feet wide. During construction, an additional 75-feet of temporary workspace next to the permanent right of way will be required. We will also need additional temporary workspace in certain areas such as road, railroad, river, and wetland crossings to accommodate safe and environmentally responsible construction activities and store construction materials. Once construction is complete, the temporary workspace will revert to the landowner after it is restored to its original condition.

**Landowners**

**9) How is Kinder Morgan approaching the land acquisition process for this project? Is eminent domain being utilized to construct the project?**

Our rights-of-way agents are working closely with landowners to ensure their concerns are addressed. At all times, our overarching goal is to arrive at mutually beneficial terms and conditions regarding the fair market value of property with landowners, so that eminent domain and condemnation can be avoided. Statutory eminent domain actions, while still resulting in just compensation to the landowner, are a rare last resort. We go to court only if all attempts to obtain easements for right-of-way are unsuccessful and mutually beneficial agreements with landowners cannot be reached.

**10) Can landowners utilize the right-of-way after construction is completed?**

Yes. Following completion of pipeline construction and restoration of the right-of-way, the landowner still may use the land over the pipeline for most purposes, including agriculture and cattle grazing. The landowner may plant smaller shrubs, flowers, bushes and grasses on the right-of way. Working with the company, landowners can also build access roads across the pipeline easement. Landowners are not permitted to construct buildings or structures, or plant deep-rooted trees in the permanent right-of-way, as this may impede with safe operation and continued monitoring of the pipeline.

## **Safety**

### **11) How safe is transporting natural gas through underground pipeline? What measures does Kinder Morgan or its partners take to ensure safe operations of the pipeline?**

Pipelines are the safest and most efficient way to transport and deliver natural gas. We meet and exceed hundreds of regulations and procedures to regularly monitor, test and inspect the mechanical and operational integrity of our pipelines. We keep communities safe in large part because we monitor our pipelines 24 hours a day, seven days a week and 365 days a year. Our safety efforts include: electronic surveillance systems, visual inspections of right-of way, as well as internal inspections using sophisticated computerized equipment called "smart pigs".

## **The Environment**

### **12) Why is there not a comprehensive environmental impact statement for this project?**

KMTP is committed to protecting significant cultural sites and environmentally sensitive areas. This commitment extends through all aspects of the project. Kinder Morgan is working with the applicable federal and state agencies to comply fully with all applicable laws and regulations. Since this is an intrastate pipeline project, it is not regulated by the Federal Energy Regulatory Committee (FERC), therefore there is no requirement for Kinder Morgan or the applicable agencies to complete an environmental impact statement. Beyond that, Kinder Morgan also has its own standards and procedures that help ensure employed professionals and contractors do their utmost to exercise care and respect for the possible effect of project activities on the environment.

### **13) How will Kinder Morgan protect wetlands and culturally important sites?**

We start by selecting a route that avoids sensitive areas whenever possible. This route is based on detailed professional surveys and studies. We also mark wetlands and culturally important sites that need to be avoided during construction.

Should there be any wetlands or culturally important sites that cannot be avoided, we exercise the utmost care around these sites during construction. We choose only qualified and experienced professional pipeline builders to minimize the impact of construction activities on these sites. In addition, we will have a specially trained environmental inspector at the site to ensure the protection of environmentally sensitive areas and endangered species. Following construction, we thoroughly restore the land as close as possible to, if not better than, it's original condition.

It is also very important to note that if any major river or water body crossings are required for this project, it is typically our practice to horizontally directionally drill (HDD) under those major rivers or water bodies along the proposed route, when possible, safe and practical. This highly technical and very expensive method of installing a pipeline, minimizes environmental impacts.

## **Item 5**

### **Board Discussions and Possible Actions**

- a. Discussion and possible action related to the Permian Highway Pipeline Project.**



## **Item 5**

### **Board Discussions and Possible Actions**

- b. Discussion and possible action related to amending the BSEACD FY 2019 Annual Budget.**

**Item 6**

**Adjournment**