



**NOTICE OF MEETING AND PUBLIC HEARING OF THE  
BARTON SPRINGS EDWARDS AQUIFER CONSERVATION DISTRICT  
BOARD OF DIRECTORS**

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**Thursday, April 11, 2024**

**5:00 PM**

**IN-PERSON**

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Notice is given that a **Regular Meeting and Public Hearing** of the Board of Directors (Board) of the Barton Springs/Edwards Aquifer Conservation District will be held on **Thursday, April 11, 2024** commencing at **5:00 p.m.** at the **District office, located at 1124 Regal Row, Austin, Texas.**

This meeting will be audio recorded and the recording will be available on the District’s website after the meeting.

Public Comments at the Board Meeting – Please complete a comment card prior to the start of the meeting. Each registered person will be recognized and identified by the Presiding Officer or staff moderating the communications when it is their turn to speak. **Public comment is limited to 3 minutes per person.**

**AGENDA**

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. 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.)*
  - a. Approval of Financial Reports under the Public Funds Investment Act, Directors’ Compensation Claims, and Specified Expenditures greater than \$5,000.
  - b. Approval of minutes of the Board’s February 8, 2024, Regular Meeting and Public Hearing.

**4. General Manager's Report. Discussion and possible action.**

**Topics**

- a. Review of key team activities/projects.
  - i. Trinity Sustainable Yield Study
  - ii. Groundwater Symposium with the Edwards Aquifer Authority
  - iii. Administrative Program update
  - iv. New website
- b. Aquifer status update.
- c. Upcoming events of possible interest.

**5. Public Hearing**

The City of Buda, 405 E Loop St, Buda, TX, 78610, filed an Aquifer Storage and Recovery (ASR) application with the Barton Springs/Edwards Aquifer Conservation District (District). The City of Buda is applying for an Aquifer Storage and Recovery Permit that authorizes the production of Class D Conditional Edwards Aquifer water during non-drought periods for the purposes of injection, storage, and recovery from an ASR recovery well. The City of Buda is requesting a Class D Conditional Permit to withdraw up to 133,660,000 gallons/year from the Edwards Aquifer; this permit class is reserved for ASR projects and is 100% curtailed during drought. The City of Buda ASR project involves the production of Edwards Aquifer water for injection into the Middle Trinity Aquifer for subsequent recovery and use as public water supply. The ASR project and associated wells are located at 673 Cullen Blvd, Buda, TX, 78610.

**6. Discussion and possible action.**

- a. Discussion and possible action related to the appointment, employment, evaluation, reassignment, duties, discipline, or dismissal of the General Manager.
- b. Discussion and possible action on EEOC No. 451-2024-00138 charge of discrimination by Brian Smith against the District.
- c. Discussion and possible action related to the City of Buda Aquifer Storage and Recovery (ASR) production/recovery permit application as described in the Public Hearing Agenda item above.
- d. Discussion and possible action on grant agreement/contract with City of Austin for installation of the Westbay Multiport equipment in the new Zilker Park monitoring well.
- e. Discussion and possible action on Interlocal Agreement for joint funding of an explanatory report and related activities for Groundwater Management Area 10.
- f. Discussion and possible action on Phase 2 Scope of Work related to database and MSA with LRE Water.
- g. Discussion and possible action related to the performance and compliance of District permittees with their User Drought Contingency Plan curtailments.

- h. Discussion and possible action on the District's transition to new general counsel by end of the calendar year.

## **7. Director Reports.**

Directors may report on their involvement in activities and dialogue that are of likely interest to the Board, in one or more of the following topical areas:

- Meetings and conferences attended or that will be attended;
- Board committee updates;
- Conversations with public officials, permittees, stakeholders, and other constituents;
- Commendations; and
- Issues or problems of concern.

## **8. 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

### 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.)*

- a. Approval of Financial Reports under the Public Funds Investment Act, Directors' Compensation Claims, and Specified Expenditures greater than \$5,000.
  
- b. Approval of minutes of the Board's February 8, 2024, Regular Meeting and Public Hearing.

# **Financial Reports – March 2024**

## **April 11, 2024 Board Meeting**

(These report numbers are pre-audit adjustments)

**1. Profit and Loss Budget vs Actual**

September 1, 2023 through March 31, 2024

**2. Profit and Loss Previous Year Comparison**

September 1, 2023 through March 31, 2024

**3. Balance Sheet Previous Year Comparison**

As of March 31, 2024 (compared to March 31, 2023)

**4. Truist Credit Card**

Statement from February 6, 2024 – March 5, 2024

**1. Profit and Loss Budget vs Actual**

**September 1, 2023 through March 31, 2024**





# BARTON SPRINGS EDWARDS AQUIFER

Budget vs. Actuals: FY\_2023\_2024 - FY24 P&L

September 2023 - March 2024

	TOTAL			
	ACTUAL	BUDGET	OVER BUDGET	% OF BUDGET
<b>Income</b>				
4300.0 PROJECT INCOME				
4350.0 Magellan-CoA-BSEACD Wells	72,640.00	1.00	72,639.00	7,264,000.00 %
<b>Total 4300.0 PROJECT INCOME</b>	<b>72,640.00</b>	<b>1.00</b>	<b>72,639.00</b>	<b>7,264,000.00 %</b>
4400.0 Interest Income	60,833.68	40,000.00	20,833.68	152.08 %
4625.0 MISCELLANEOUS INCOME				
4626.1 Other Income	10,410.40		10,410.40	
<b>Total 4625.0 MISCELLANEOUS INCOME</b>	<b>10,410.40</b>		<b>10,410.40</b>	
4800.0 USAGE AND PRODUCTION FEES				
4801.0 Permittees Water Production Fee	484,029.36	637,047.00	-153,017.64	75.98 %
4803.0 CoA Water Use Fee Assessment	658,980.00	878,640.00	-219,660.00	75.00 %
4805.0 Permittees Annual Permit Fee	9,075.00	8,925.00	150.00	101.68 %
4807.0 Permittees Water Transport Fees	124,000.00	124,000.00	0.00	100.00 %
<b>Total 4800.0 USAGE AND PRODUCTION FEES</b>	<b>1,276,084.36</b>	<b>1,648,612.00</b>	<b>-372,527.64</b>	<b>77.40 %</b>
4810.0 OTHER FEES	4,175.00		4,175.00	
4815.0 Well Develop Application Inspec	4,825.00	9,800.00	-4,975.00	49.23 %
4816.0 Meter Reading Fees/Pluggings	750.00		750.00	
4816.1 Shared Territory Monitoring		2,500.00	-2,500.00	
4817.0 Enforcement Fines and Penalties	18,401.50		18,401.50	
4817.1 Agreed Orders 2023 Drought	159,200.00		159,200.00	
4818.0 Drought Management Fees	18,210.00		18,210.00	
<b>Total 4810.0 OTHER FEES</b>	<b>205,561.50</b>	<b>12,300.00</b>	<b>193,261.50</b>	<b>1,671.23 %</b>
Services	1,466,934.60		1,466,934.60	
Shipping Income	-72.67		-72.67	
<b>Total Income</b>	<b>\$3,092,391.87</b>	<b>\$1,700,913.00</b>	<b>\$1,391,478.87</b>	<b>181.81 %</b>
<b>GROSS PROFIT</b>	<b>\$3,092,391.87</b>	<b>\$1,700,913.00</b>	<b>\$1,391,478.87</b>	<b>181.81 %</b>
<b>Expenses</b>				
6000.0 UTILITIES				
6001.0 Electricity & Water Service	3,068.28	6,000.00	-2,931.72	51.14 %
6002.0 Phone, Internet, Telemetry	5,527.96	16,000.00	-10,472.04	34.55 %
6003.0 Smartphone Reimbursements	2,600.00		2,600.00	
<b>Total 6002.0 Phone, Internet, Telemetry</b>	<b>8,127.96</b>	<b>16,000.00</b>	<b>-7,872.04</b>	<b>50.80 %</b>
<b>Total 6000.0 UTILITIES</b>	<b>11,196.24</b>	<b>22,000.00</b>	<b>-10,803.76</b>	<b>50.89 %</b>
6005.0 Print/Copy/Photo Services	29.17	2,000.00	-1,970.83	1.46 %
6007.0 Postage/Freight/Shipping	104.04	2,000.00	-1,895.96	5.20 %
6010.0 Office Supplies	2,934.25	6,000.00	-3,065.75	48.90 %
6010.1 Canteen	1,517.65		1,517.65	
<b>Total 6010.0 Office Supplies</b>	<b>4,451.90</b>	<b>6,000.00</b>	<b>-1,548.10</b>	<b>74.20 %</b>
6010.2 Office Furniture		5,000.00	-5,000.00	



# BARTON SPRINGS EDWARDS AQUIFER

Budget vs. Actuals: FY\_2023\_2024 - FY24 P&L

September 2023 - March 2024

	TOTAL			
	ACTUAL	BUDGET	OVER BUDGET	% OF BUDGET
6011.0 Comp Hardware-Plotter Supplies	10,491.08	25,000.00	-14,508.92	41.96 %
6014.0 Software Acquisition & Upgrades	3,764.82	6,000.00	-2,235.18	62.75 %
6015.0 IT Monthly Maintenance	14,221.87	30,000.00	-15,778.13	47.41 %
6016.0 Meeting Expense	1,162.08	4,500.00	-3,337.92	25.82 %
6017.3 Sponsorships		5,000.00	-5,000.00	
6019.0 Subscriptions/Publications	335.42	5,000.00	-4,664.58	6.71 %
6020.0 Advertising	105.00	4,000.00	-3,895.00	2.63 %
6020.12 Public Notices	2,710.94		2,710.94	
<b>Total 6020.0 Advertising</b>	<b>2,815.94</b>	<b>4,000.00</b>	<b>-1,184.06</b>	<b>70.40 %</b>
6021.0 MISCELLANEOUS EXPENSES	46,584.22		46,584.22	
6021.2 General	80,365.51		80,365.51	
6021.3 Bank Charges	39.00		39.00	
6021.5 Payroll Processing Fees	4,440.94		4,440.94	
<b>Total 6021.0 MISCELLANEOUS EXPENSES</b>	<b>131,429.67</b>		<b>131,429.67</b>	
6022.0 Accounting System Operation		7,500.00	-7,500.00	
6022.1 Timekeeping Service-prepaid	698.00		698.00	
<b>Total 6022.0 Accounting System Operation</b>	<b>698.00</b>	<b>7,500.00</b>	<b>-6,802.00</b>	<b>9.31 %</b>
6023.0 MAINTENANCE				
6024.0 Auto Maintenance	1,195.51	5,500.00	-4,304.49	21.74 %
6025.0 Office Complex Maintenance	9,113.37	11,000.00	-1,886.63	82.85 %
6025.4 Facilities Repairs	1,600.48	7,000.00	-5,399.52	22.86 %
<b>Total 6023.0 MAINTENANCE</b>	<b>11,909.36</b>	<b>23,500.00</b>	<b>-11,590.64</b>	<b>50.68 %</b>
6030.0 CAPITAL OUTLAY-over 5,000				
6035.0 Vehicles - Capital		40,000.00	-40,000.00	
<b>Total 6030.0 CAPITAL OUTLAY-over 5,000</b>		<b>40,000.00</b>	<b>-40,000.00</b>	
6040.0 LEASES				
6040.2 Copier Lease & Maintenance	4,772.25	8,500.00	-3,727.75	56.14 %
6040.3 Postage Machine Lease	794.70	1,150.00	-355.30	69.10 %
<b>Total 6040.0 LEASES</b>	<b>5,566.95</b>	<b>9,650.00</b>	<b>-4,083.05</b>	<b>57.69 %</b>
6065.0 DIRECTOR EXPENSES		2,500.00	-2,500.00	
6065.1 Directors Travel/Meals	0.00		0.00	
6065.3 Directors Non-Travel Reimb/Exp	55.16		55.16	
<b>Total 6065.0 DIRECTOR EXPENSES</b>	<b>55.16</b>	<b>2,500.00</b>	<b>-2,444.84</b>	<b>2.21 %</b>
6066.0 Directors Compensation	7,150.00	25,000.00	-17,850.00	28.60 %
6075.0 DUES & MEMBERSHIPS	-70.00	6,100.00	-6,170.00	-1.15 %
6076.0 District Dues & Memberships	2,515.00		2,515.00	
6077.0 Staff Dues & Memberships	45.00		45.00	
<b>Total 6075.0 DUES &amp; MEMBERSHIPS</b>	<b>2,490.00</b>	<b>6,100.00</b>	<b>-3,610.00</b>	<b>40.82 %</b>
6080.0 COMMUNICATIONS AND OUTREACH				



# BARTON SPRINGS EDWARDS AQUIFER

Budget vs. Actuals: FY\_2023\_2024 - FY24 P&L

September 2023 - March 2024

	TOTAL			
	ACTUAL	BUDGET	OVER BUDGET	% OF BUDGET
6080.20 Communications and Outreach		3,000.00	-3,000.00	
6080.29 Equipment and Supplies	76.99	4,000.00	-3,923.01	1.92 %
6080.34 Scholarship Programs/Awards		7,500.00	-7,500.00	
6080.35 Programs/Events	3,446.15	5,800.00	-2,353.85	59.42 %
<b>Total 6080.0 COMMUNICATIONS AND OUTREACH</b>	<b>3,523.14</b>	<b>20,300.00</b>	<b>-16,776.86</b>	<b>17.36 %</b>
6081.0 REGULATORY COMPLIANCE				
6081.1 Projects & Services		5,000.00	-5,000.00	
6081.2 Well Sampling and Services	650.00		650.00	
6081.6 Equipment and Supplies	36.00	2,500.00	-2,464.00	1.44 %
<b>Total 6081.0 REGULATORY COMPLIANCE</b>	<b>686.00</b>	<b>7,500.00</b>	<b>-6,814.00</b>	<b>9.15 %</b>
6084.92 GENERAL MANAGEMENT				
6086.3 Administrative Expenses	217.16	20,000.00	-19,782.84	1.09 %
6086.4 Non-contracted Support	53.86	5,000.00	-4,946.14	1.08 %
6086.5 Logo/Apparel/Equipment	407.02		407.02	
<b>Total 6084.92 GENERAL MANAGEMENT</b>	<b>678.04</b>	<b>25,000.00</b>	<b>-24,321.96</b>	<b>2.71 %</b>
6089.0 AQUIFER SCIENCE				
6089.1 Hydrogeologic Characterization		3,000.00	-3,000.00	
6089.2 Water Chemistry Studies	674.00	4,000.00	-3,326.00	16.85 %
6089.3 Monitor Wells, Equipment /Suppl	9,295.75	8,000.00	1,295.75	116.20 %
<b>Total 6089.0 AQUIFER SCIENCE</b>	<b>9,969.75</b>	<b>15,000.00</b>	<b>-5,030.25</b>	<b>66.47 %</b>
6095.0 CONTRACTED SUPPORT	409.20		409.20	
6095.1 Aquifer Science Team	6,750.00	26,750.00	-20,000.00	25.23 %
6095.2 Regulatory Compliance Team		3,000.00	-3,000.00	
6095.3 General Management	32,971.75	20,000.00	12,971.75	164.86 %
6095.4 Communications Outreach Team	10,408.87	16,000.00	-5,591.13	65.06 %
6095.5 Policy and Project Management	15,075.00	65,000.00	-49,925.00	23.19 %
<b>Total 6095.0 CONTRACTED SUPPORT</b>	<b>65,614.82</b>	<b>130,750.00</b>	<b>-65,135.18</b>	<b>50.18 %</b>
6100.0 INSURANCE - DISTRICT		7,047.00	-7,047.00	
6101.0 Liability & Property - Pre-paid	2,261.80		2,261.80	
<b>Total 6100.0 INSURANCE - DISTRICT</b>	<b>2,261.80</b>	<b>7,047.00</b>	<b>-4,785.20</b>	<b>32.10 %</b>
6150.0 INSURANCE - GROUP	64.00	16,000.00	-15,936.00	0.40 %
6151.1 Health Insurance Employee	53,086.80	95,000.00	-41,913.20	55.88 %
6151.11 Health Insurance Dependents	5,245.37	8,000.00	-2,754.63	65.57 %
6151.2 Dental Insurance Employee	3,948.64	5,400.00	-1,451.36	73.12 %
6151.3 Life Insurance Employee	3,561.03	9,250.00	-5,688.97	38.50 %
6151.4 Vision Insurance Employee	328.50	1,000.00	-671.50	32.85 %
<b>Total 6150.0 INSURANCE - GROUP</b>	<b>66,234.34</b>	<b>134,650.00</b>	<b>-68,415.66</b>	<b>49.19 %</b>
6160.0 LEGAL SERVICES		85,000.00	-85,000.00	
6161.0 General Matters / Personnel	26,060.25		26,060.25	
6169.0 Legislation	3,000.00		3,000.00	



# BARTON SPRINGS EDWARDS AQUIFER

Budget vs. Actuals: FY\_2023\_2024 - FY24 P&L

September 2023 - March 2024

	TOTAL			
	ACTUAL	BUDGET	OVER BUDGET	% OF BUDGET
<b>Total 6160.0 LEGAL SERVICES</b>	<b>29,060.25</b>	<b>85,000.00</b>	<b>-55,939.75</b>	<b>34.19 %</b>
6170.0 PROFESSIONAL SERVICES	60,056.44		60,056.44	
6173.0 Financial Annual Audit	14,950.00	14,950.00	0.00	100.00 %
6176.0 Website and Database		0.00	0.00	
6176.1 District Database Project	27,000.00	36,000.00	-9,000.00	75.00 %
6176.4 Shared Territory		2,500.00	-2,500.00	
6176.6 GMA-10 Planning Cycle		7,500.00	-7,500.00	
6177.0 Standard Retirement Plan Admin	8,839.96	35,200.00	-26,360.04	25.11 %
6178.0 Elections/Redistrict/Co Coding		15,000.00	-15,000.00	
<b>Total 6170.0 PROFESSIONAL SERVICES</b>	<b>110,846.40</b>	<b>111,150.00</b>	<b>-303.60</b>	<b>99.73 %</b>
6179.0 LEGISLATION	3,000.00	12,000.00	-9,000.00	25.00 %
6180.0 PROFESSIONAL DEVELOPMENT	0.00	25,000.00	-25,000.00	0.00 %
6180.1 Aquifer Science	810.00		810.00	
6180.2 RegComp	1,215.00		1,215.00	
6180.3 Education	405.00		405.00	
6180.4 GM Team	1,811.47		1,811.47	
6180.5 Administration	0.00		0.00	
<b>Total 6180.0 PROFESSIONAL DEVELOPMENT</b>	<b>4,241.47</b>	<b>25,000.00</b>	<b>-20,758.53</b>	<b>16.97 %</b>
6199.0 SALARIES AND WAGES		751,339.00	-751,339.00	
6200.0 Salaries	364,995.36		364,995.36	
<b>Total 6199.0 SALARIES AND WAGES</b>	<b>364,995.36</b>	<b>751,339.00</b>	<b>-386,343.64</b>	<b>48.58 %</b>
6203.0 TAXES & BENEFITS				
6203.1 Workers Comp Insurance Pre-p	806.24	2,301.00	-1,494.76	35.04 %
6203.2 Payroll Tax Expenses-FICA-Med	27,528.67	59,390.00	-31,861.33	46.35 %
6203.3 Retirement-District Contributio	21,992.12	48,500.00	-26,507.88	45.34 %
6203.4 Texas Workforce C3 Taxes	75.09	2,358.00	-2,282.91	3.18 %
6203.7 Accrued Vacation and Comp	4,231.50		4,231.50	
<b>Total 6203.0 TAXES &amp; BENEFITS</b>	<b>54,633.62</b>	<b>112,549.00</b>	<b>-57,915.38</b>	<b>48.54 %</b>
6690.0 Reconciliation Discrepancies	780.22		780.22	
6800.0 PROJECTS				
6905.2 Sustainability Studies	2,530.00		2,530.00	
6905.5 HCP ILA Commitments		2,500.00	-2,500.00	
6905.8 Magellan-CoA-BSEACD Wells	116,525.96		116,525.96	
<b>Total 6800.0 PROJECTS</b>	<b>119,055.96</b>	<b>2,500.00</b>	<b>116,555.96</b>	<b>4,762.24 %</b>
69810 Bank Service Charges	30.01		30.01	
Payroll Expenses				
Taxes	-1,957.18		-1,957.18	
Wages	23,649.82		23,649.82	
<b>Total Payroll Expenses</b>	<b>21,692.64</b>		<b>21,692.64</b>	
Uncategorized Expense	3,993.65		3,993.65	



# BARTON SPRINGS EDWARDS AQUIFER

Budget vs. Actuals: FY\_2023\_2024 - FY24 P&L

September 2023 - March 2024

	TOTAL			
	ACTUAL	BUDGET	OVER BUDGET	% OF BUDGET
<b>Total Expenses</b>	<b>\$1,069,169.17</b>	<b>\$1,670,535.00</b>	<b>\$ -601,365.83</b>	<b>64.00 %</b>
NET OPERATING INCOME	<b>\$2,023,222.70</b>	<b>\$30,378.00</b>	<b>\$1,992,844.70</b>	<b>6,660.16 %</b>
Other Income				
9000.00 Transfer from Reserves		105,375.00	-105,375.00	
<b>Total Other Income</b>	<b>\$0.00</b>	<b>\$105,375.00</b>	<b>\$ -105,375.00</b>	<b>0.00%</b>
Other Expenses				
9001.00 Transfer to Reserves	595,000.00	135,000.00	460,000.00	440.74 %
<b>Total Other Expenses</b>	<b>\$595,000.00</b>	<b>\$135,000.00</b>	<b>\$460,000.00</b>	<b>440.74 %</b>
NET OTHER INCOME	<b>\$ -595,000.00</b>	<b>\$ -29,625.00</b>	<b>\$ -565,375.00</b>	<b>2,008.44 %</b>
NET INCOME	<b>\$1,428,222.70</b>	<b>\$753.00</b>	<b>\$1,427,469.70</b>	<b>189,671.01 %</b>

**1. Profit and Loss Previous Year Comparison**

**September 1, 2023 through March 31, 2024**

# BARTON SPRINGS EDWARDS AQUIFER

## Profit and Loss Comparison

September 2023 - March 2024

	TOTAL			
	SEP 2023 - MAR 2024	SEP 2022 - MAR 2023 (PY)	CHANGE	% CHANGE
<b>Income</b>				
4300.0 PROJECT INCOME				
4350.0 Magellan-CoA-BSEACD Wells	72,640.00		72,640.00	
<b>Total 4300.0 PROJECT INCOME</b>	<b>72,640.00</b>		<b>72,640.00</b>	
4400.0 Interest Income	60,833.68	39,603.28	21,230.40	53.61 %
4625.0 MISCELLANEOUS INCOME				
4626.1 Other Income	10,410.40	41,654.09	-31,243.69	-75.01 %
<b>Total 4625.0 MISCELLANEOUS INCOME</b>	<b>10,410.40</b>	<b>41,654.09</b>	<b>-31,243.69</b>	<b>-75.01 %</b>
4800.0 USAGE AND PRODUCTION FEES				
4801.0 Permittees Water Production Fee	484,029.36	442,903.08	41,126.28	9.29 %
4803.0 CoA Water Use Fee Assessment	658,980.00	659,982.00	-1,002.00	-0.15 %
4805.0 Permittees Annual Permit Fee	9,075.00	8,850.00	225.00	2.54 %
4807.0 Permittees Water Transport Fees	124,000.00	124,000.00	0.00	0.00 %
<b>Total 4800.0 USAGE AND PRODUCTION FEES</b>	<b>1,276,084.36</b>	<b>1,235,735.08</b>	<b>40,349.28</b>	<b>3.27 %</b>
4810.0 OTHER FEES	4,175.00	2,500.00	1,675.00	67.00 %
4806.0 Permittees Late Payment Fees		986.21	-986.21	-100.00 %
4815.0 Well Develop Application Inspec	4,825.00	7,075.00	-2,250.00	-31.80 %
4816.0 Meter Reading Fees/Pluggings	750.00	950.00	-200.00	-21.05 %
4817.0 Enforcement Fines and Penalties	18,401.50	74,705.00	-56,303.50	-75.37 %
4817.1 Agreed Orders 2023 Drought	159,200.00		159,200.00	
4818.0 Drought Management Fees	18,210.00	11,940.00	6,270.00	52.51 %
<b>Total 4810.0 OTHER FEES</b>	<b>205,561.50</b>	<b>98,156.21</b>	<b>107,405.29</b>	<b>109.42 %</b>
Services	1,466,934.60	411,567.31	1,055,367.29	256.43 %
Shipping Income	-72.67		-72.67	
<b>Total Income</b>	<b>\$3,092,391.87</b>	<b>\$1,826,715.97</b>	<b>\$1,265,675.90</b>	<b>69.29 %</b>
<b>GROSS PROFIT</b>	<b>\$3,092,391.87</b>	<b>\$1,826,715.97</b>	<b>\$1,265,675.90</b>	<b>69.29 %</b>
<b>Expenses</b>				
6000.0 UTILITIES				
6001.0 Electricity & Water Service	3,068.28	3,217.16	-148.88	-4.63 %
6002.0 Phone, Internet, Telemetry	5,527.96	4,823.49	704.47	14.60 %
6003.0 Smartphone Reimbursements	2,600.00	4,200.00	-1,600.00	-38.10 %
<b>Total 6002.0 Phone, Internet, Telemetry</b>	<b>8,127.96</b>	<b>9,023.49</b>	<b>-895.53</b>	<b>-9.92 %</b>
<b>Total 6000.0 UTILITIES</b>	<b>11,196.24</b>	<b>12,240.65</b>	<b>-1,044.41</b>	<b>-8.53 %</b>
6005.0 Print/Copy/Photo Services	29.17	1,147.89	-1,118.72	-97.46 %
6007.0 Postage/Freight/Shipping	104.04	904.38	-800.34	-88.50 %
6010.0 Office Supplies	2,934.25	2,043.61	890.64	43.58 %
6010.1 Canteen	1,517.65	1,532.84	-15.19	-0.99 %
<b>Total 6010.0 Office Supplies</b>	<b>4,451.90</b>	<b>3,576.45</b>	<b>875.45</b>	<b>24.48 %</b>
6011.0 Comp Hardware-Plotter Supplies	10,491.08	4,704.35	5,786.73	123.01 %
6014.0 Software Acquisition & Upgrades	3,764.82	2,554.43	1,210.39	47.38 %

# BARTON SPRINGS EDWARDS AQUIFER

## Profit and Loss Comparison

September 2023 - March 2024

	TOTAL				
	SEP 2023 - MAR 2024	SEP 2022 - MAR 2023 (PY)	CHANGE	% CHANGE	
6015.0 IT Monthly Maintenance	14,221.87	15,553.90	-1,332.03	-8.56 %	
6016.0 Meeting Expense	1,162.08	3,237.58	-2,075.50	-64.11 %	
6019.0 Subscriptions/Publications	335.42	1,948.76	-1,613.34	-82.79 %	
6020.0 Advertising	105.00		105.00		
6020.12 Public Notices	2,710.94	446.50	2,264.44	507.15 %	
<b>Total 6020.0 Advertising</b>	<b>2,815.94</b>	<b>446.50</b>	<b>2,369.44</b>	<b>530.67 %</b>	
6021.0 MISCELLANEOUS EXPENSES	46,584.22	27,745.34	18,838.88	67.90 %	
6021.2 General	80,365.51	51,628.42	28,737.09	55.66 %	
6021.3 Bank Charges	39.00	75.50	-36.50	-48.34 %	
6021.5 Payroll Processing Fees	4,440.94	276.00	4,164.94	1,509.04 %	
<b>Total 6021.0 MISCELLANEOUS EXPENSES</b>	<b>131,429.67</b>	<b>79,725.26</b>	<b>51,704.41</b>	<b>64.85 %</b>	
6022.0 Accounting System Operation		1,056.96	-1,056.96	-100.00 %	
6022.1 Timekeeping Service-prepaid	698.00	2,416.20	-1,718.20	-71.11 %	
<b>Total 6022.0 Accounting System Operation</b>	<b>698.00</b>	<b>3,473.16</b>	<b>-2,775.16</b>	<b>-79.90 %</b>	
6023.0 MAINTENANCE					
6024.0 Auto Maintenance	1,195.51	581.28	614.23	105.67 %	
6025.0 Office Complex Maintenance	9,113.37	6,869.14	2,244.23	32.67 %	
6025.4 Facilities Repairs	1,600.48	7,353.29	-5,752.81	-78.23 %	
<b>Total 6023.0 MAINTENANCE</b>	<b>11,909.36</b>	<b>14,803.71</b>	<b>-2,894.35</b>	<b>-19.55 %</b>	
6040.0 LEASES					
6040.2 Copier Lease & Maintenance	4,772.25	5,018.56	-246.31	-4.91 %	
6040.3 Postage Machine Lease	794.70	794.70	0.00	0.00 %	
<b>Total 6040.0 LEASES</b>	<b>5,566.95</b>	<b>5,813.26</b>	<b>-246.31</b>	<b>-4.24 %</b>	
6065.0 DIRECTOR EXPENSES		60.25	-60.25	-100.00 %	
6065.1 Directors Travel/Meals	0.00	0.00	0.00		
6065.3 Directors Non-Travel Reimb/Exp	55.16		55.16		
<b>Total 6065.0 DIRECTOR EXPENSES</b>	<b>55.16</b>	<b>60.25</b>	<b>-5.09</b>	<b>-8.45 %</b>	
6066.0 Directors Compensation	7,150.00	3,850.00	3,300.00	85.71 %	
6075.0 DUES & MEMBERSHIPS	-70.00		-70.00		
6076.0 District Dues & Memberships	2,515.00	3,429.00	-914.00	-26.66 %	
6077.0 Staff Dues & Memberships	45.00	394.00	-349.00	-88.58 %	
<b>Total 6075.0 DUES &amp; MEMBERSHIPS</b>	<b>2,490.00</b>	<b>3,823.00</b>	<b>-1,333.00</b>	<b>-34.87 %</b>	
6080.0 COMMUNICATIONS AND OUTREACH					
6080.20 Communications and Outreach		916.27	-916.27	-100.00 %	
6080.23 Media and PR		50.00	-50.00	-100.00 %	
<b>Total 6080.20 Communications and Outreach</b>		<b>966.27</b>	<b>-966.27</b>	<b>-100.00 %</b>	
6080.29 Equipment and Supplies	76.99	766.76	-689.77	-89.96 %	
6080.35 Programs/Events	3,446.15	500.00	2,946.15	589.23 %	
<b>Total 6080.0 COMMUNICATIONS AND OUTREACH</b>	<b>3,523.14</b>	<b>2,233.03</b>	<b>1,290.11</b>	<b>57.77 %</b>	



# BARTON SPRINGS EDWARDS AQUIFER

## Profit and Loss Comparison

September 2023 - March 2024

	TOTAL			
	SEP 2023 - MAR 2024	SEP 2022 - MAR 2023 (PY)	CHANGE	% CHANGE
<b>6081.0 REGULATORY COMPLIANCE</b>				
6081.1 Projects & Services		3,250.00	-3,250.00	-100.00 %
6081.2 Well Sampling and Services	650.00		650.00	
6081.6 Equipment and Supplies	36.00		36.00	
<b>Total 6081.0 REGULATORY COMPLIANCE</b>	<b>686.00</b>	<b>3,250.00</b>	<b>-2,564.00</b>	<b>-78.89 %</b>
<b>6084.92 GENERAL MANAGEMENT</b>				
6086.3 Administrative Expenses	217.16	0.00	217.16	
6086.4 Non-contracted Support	53.86		53.86	
6086.5 Logo/Apparel/Equipment	407.02		407.02	
<b>Total 6084.92 GENERAL MANAGEMENT</b>	<b>678.04</b>	<b>0.00</b>	<b>678.04</b>	
<b>6089.0 AQUIFER SCIENCE</b>				
6089.2 Water Chemistry Studies	674.00		674.00	
6089.3 Monitor Wells, Equipment /Suppl	9,295.75	3,018.96	6,276.79	207.91 %
6089.6 Contracted Support (deleted)		0.00	0.00	
<b>Total 6089.0 AQUIFER SCIENCE</b>	<b>9,969.75</b>	<b>3,018.96</b>	<b>6,950.79</b>	<b>230.24 %</b>
<b>6095.0 CONTRACTED SUPPORT</b>	<b>409.20</b>		<b>409.20</b>	
6095.1 Aquifer Science Team	6,750.00	2,625.00	4,125.00	157.14 %
6095.3 General Management	32,971.75	4,083.99	28,887.76	707.34 %
6095.4 Communications Outreach Team	10,408.87		10,408.87	
6095.5 Policy and Project Management	15,075.00		15,075.00	
<b>Total 6095.0 CONTRACTED SUPPORT</b>	<b>65,614.82</b>	<b>6,708.99</b>	<b>58,905.83</b>	<b>878.01 %</b>
<b>6100.0 INSURANCE - DISTRICT</b>				
6101.0 Liability & Property - Pre-paid	2,261.80	3,917.28	-1,655.48	-42.26 %
6102.0 Insurance not pre-paid (bonds)		1,362.00	-1,362.00	-100.00 %
<b>Total 6100.0 INSURANCE - DISTRICT</b>	<b>2,261.80</b>	<b>5,279.28</b>	<b>-3,017.48</b>	<b>-57.16 %</b>
<b>6150.0 INSURANCE - GROUP</b>	<b>64.00</b>		<b>64.00</b>	
6151.1 Health Insurance Employee	53,086.80	56,750.11	-3,663.31	-6.46 %
6151.11 Health Insurance Dependents	5,245.37	2,828.32	2,417.05	85.46 %
6151.2 Dental Insurance Employee	3,948.64	3,160.39	788.25	24.94 %
6151.3 Life Insurance Employee	3,561.03	5,166.60	-1,605.57	-31.08 %
6151.4 Vision Insurance Employee	328.50	499.82	-171.32	-34.28 %
<b>Total 6150.0 INSURANCE - GROUP</b>	<b>66,234.34</b>	<b>68,405.24</b>	<b>-2,170.90</b>	<b>-3.17 %</b>
<b>6160.0 LEGAL SERVICES</b>				
6161.0 General Matters / Personnel	26,060.25	27,437.50	-1,377.25	-5.02 %
6169.0 Legislation	3,000.00		3,000.00	
<b>Total 6160.0 LEGAL SERVICES</b>	<b>29,060.25</b>	<b>27,437.50</b>	<b>1,622.75</b>	<b>5.91 %</b>
<b>6170.0 PROFESSIONAL SERVICES</b>	<b>60,056.44</b>		<b>60,056.44</b>	
6173.0 Financial Annual Audit	14,950.00	14,250.00	700.00	4.91 %
6176.1 District Database Project	27,000.00	27,000.00	0.00	0.00 %
6177.0 Standard Retirement Plan Admin	8,839.96	15,371.97	-6,532.01	-42.49 %

# BARTON SPRINGS EDWARDS AQUIFER

## Profit and Loss Comparison

September 2023 - March 2024

	TOTAL				
	SEP 2023 - MAR 2024	SEP 2022 - MAR 2023 (PY)	CHANGE	% CHANGE	
6178.0 Elections/Redistrict/Co Coding		270.50	-270.50	-100.00 %	
<b>Total 6170.0 PROFESSIONAL SERVICES</b>	<b>110,846.40</b>	<b>56,892.47</b>	<b>53,953.93</b>	<b>94.83 %</b>	
6179.0 LEGISLATION	3,000.00	18,000.00	-15,000.00	-83.33 %	
6180.0 PROFESSIONAL DEVELOPMENT	0.00		0.00		
6180.1 Aquifer Science	810.00	0.00	810.00		
6180.2 RegComp	1,215.00	350.00	865.00	247.14 %	
6180.3 Education	405.00		405.00		
6180.4 GM Team	1,811.47	1,526.05	285.42	18.70 %	
6180.5 Administration	0.00		0.00		
<b>Total 6180.0 PROFESSIONAL DEVELOPMENT</b>	<b>4,241.47</b>	<b>1,876.05</b>	<b>2,365.42</b>	<b>126.09 %</b>	
6199.0 SALARIES AND WAGES					
6200.0 Salaries	364,995.36	493,132.50	-128,137.14	-25.98 %	
<b>Total 6199.0 SALARIES AND WAGES</b>	<b>364,995.36</b>	<b>493,132.50</b>	<b>-128,137.14</b>	<b>-25.98 %</b>	
6203.0 TAXES & BENEFITS					
6203.1 Workers Comp Insurance Pre-p	806.24	1,552.19	-745.95	-48.06 %	
6203.2 Payroll Tax Expenses-FICA-Med	27,528.67	37,288.53	-9,759.86	-26.17 %	
6203.3 Retirement-District Contributio	21,992.12	30,855.63	-8,863.51	-28.73 %	
6203.4 Texas Workforce C3 Taxes	75.09	96.88	-21.79	-22.49 %	
6203.7 Accrued Vacation and Comp	4,231.50	-12,316.38	16,547.88	134.36 %	
<b>Total 6203.0 TAXES &amp; BENEFITS</b>	<b>54,633.62</b>	<b>57,476.85</b>	<b>-2,843.23</b>	<b>-4.95 %</b>	
6690.0 Reconciliation Discrepancies	780.22	0.00	780.22		
6800.0 PROJECTS					
6905.1 Hays Co/HTGCD Jacobs Well (deleted)		0.00	0.00		
6905.2 Sustainability Studies	2,530.00		2,530.00		
6905.8 Magellan-CoA-BSEACD Wells	116,525.96		116,525.96		
<b>Total 6800.0 PROJECTS</b>	<b>119,055.96</b>	<b>0.00</b>	<b>119,055.96</b>		
69810 Bank Service Charges	30.01		30.01		
Payroll Expenses					
Taxes	-1,957.18		-1,957.18		
Wages	23,649.82		23,649.82		
<b>Total Payroll Expenses</b>	<b>21,692.64</b>		<b>21,692.64</b>		
Uncategorized Expense	3,993.65	132,690.90	-128,697.25	-96.99 %	
<b>Total Expenses</b>	<b>\$1,069,169.17</b>	<b>\$1,034,265.30</b>	<b>\$34,903.87</b>	<b>3.37 %</b>	
NET OPERATING INCOME	<b>\$2,023,222.70</b>	<b>\$792,450.67</b>	<b>\$1,230,772.03</b>	<b>155.31 %</b>	
Other Expenses					
9001.00 Transfer to Reserves	595,000.00	285,000.00	310,000.00	108.77 %	
<b>Total Other Expenses</b>	<b>\$595,000.00</b>	<b>\$285,000.00</b>	<b>\$310,000.00</b>	<b>108.77 %</b>	
NET OTHER INCOME	<b>\$ -595,000.00</b>	<b>\$ -285,000.00</b>	<b>\$ -310,000.00</b>	<b>-108.77 %</b>	
NET INCOME	<b>\$1,428,222.70</b>	<b>\$507,450.67</b>	<b>\$920,772.03</b>	<b>181.45 %</b>	

### **3. Balance Sheet Previous Year Comparison**

As of March 31, 2024 (compared to March 31, 2023)



# BARTON SPRINGS EDWARDS AQUIFER

## Balance Sheet Comparison

As of March 31, 2024

	TOTAL			
	AS OF MAR 31, 2024	AS OF MAR 31, 2023 (PY)	CHANGE	% CHANGE
<b>ASSETS</b>				
Current Assets				
Bank Accounts				
1000.0 Cash in Bank-Checking Truist	792,637.15	113,640.76	678,996.39	597.49 %
1010.0 Cash in Bank - Payroll Truist	64,722.92	50,370.22	14,352.70	28.49 %
1030.0 TexPool Funds - General	<b>802,058.01</b>	<b>1,033,164.91</b>	<b>-231,106.90</b>	<b>-22.37 %</b>
1040.0 TexPool Funds - Contingency	650,134.94	619,806.33	30,328.61	4.89 %
1045.0 TexPool Funds - Reserve	69,557.47	66,312.62	3,244.85	4.89 %
<b>Total Bank Accounts</b>	<b>\$2,379,110.49</b>	<b>\$1,883,294.84</b>	<b>\$495,815.65</b>	<b>26.33 %</b>
Accounts Receivable				
1200.0 Accounts Receivable	109,215.20	25,410.92	83,804.28	329.80 %
1200.1 A/R DMF	1,000.00	845.00	155.00	18.34 %
<b>Total 1200.0 Accounts Receivable</b>	<b>110,215.20</b>	<b>26,255.92</b>	<b>83,959.28</b>	<b>319.77 %</b>
<b>Total Accounts Receivable</b>	<b>\$110,215.20</b>	<b>\$26,255.92</b>	<b>\$83,959.28</b>	<b>319.77 %</b>
Other Current Assets				
1100.0 Petty Cash	1,393.36	656.94	736.42	112.10 %
1300.0 Pre-paid Expenses	33,184.89	8,001.11	25,183.78	314.75 %
1499.0 Undeposited Funds-A/R payments	404.55	19,929.20	-19,524.65	-97.97 %
Inventory Asset	502.17		502.17	
Uncategorized Asset	-20,000.00		-20,000.00	
<b>Total Other Current Assets</b>	<b>\$15,484.97</b>	<b>\$28,587.25</b>	<b>\$ -13,102.28</b>	<b>-45.83 %</b>
<b>Total Current Assets</b>	<b>\$2,504,810.66</b>	<b>\$1,938,138.01</b>	<b>\$566,672.65</b>	<b>29.24 %</b>
Fixed Assets				
1400.0 Field Equipment	376,487.89	376,487.89	0.00	0.00 %
1410.0 Office Equipment & Furniture	20,436.27	19,722.90	713.37	3.62 %
1410.1 Computer Hardware & Software	20,354.06	19,329.69	1,024.37	5.30 %
1420.0 Vehicles	54,947.69	52,363.03	2,584.66	4.94 %
1430.0 Accumulated Depreciation	-608,852.24	-608,852.24	0.00	0.00 %
1440.0 Land (Antioch Cave)	165,415.00	165,415.00	0.00	0.00 %
1445.0 Office Building	268,588.04	268,588.04	0.00	0.00 %
<b>Total Fixed Assets</b>	<b>\$297,376.71</b>	<b>\$293,054.31</b>	<b>\$4,322.40</b>	<b>1.47 %</b>
Other Assets				
1500.0 Organizational Costs	306,725.04	300,795.26	5,929.78	1.97 %
1510.0 Accumulated Amortization	-326,324.26	-326,324.26	0.00	0.00 %
1600.0 Deposits Paid (Utilities)	71.00	71.00	0.00	0.00 %
<b>Total Other Assets</b>	<b>\$ -19,528.22</b>	<b>\$ -25,458.00</b>	<b>\$5,929.78</b>	<b>23.29 %</b>
<b>TOTAL ASSETS</b>	<b>\$2,782,659.15</b>	<b>\$2,205,734.32</b>	<b>\$576,924.83</b>	<b>26.16 %</b>



# BARTON SPRINGS EDWARDS AQUIFER

## Balance Sheet Comparison

As of March 31, 2024

	TOTAL			
	AS OF MAR 31, 2024	AS OF MAR 31, 2023 (PY)	CHANGE	% CHANGE
<b>LIABILITIES AND EQUITY</b>				
Liabilities				
Current Liabilities				
Accounts Payable				
2000.0 Accounts Payable	31,886.72	0.00	31,886.72	
<b>Total Accounts Payable</b>	<b>\$31,886.72</b>	<b>\$0.00</b>	<b>\$31,886.72</b>	<b>0.00%</b>
Credit Cards				
2007.0 Truist VISA	-25,090.40	-3,226.98	-21,863.42	-677.52 %
2007.1 Truist VISA Credit Card	4,332.17	-20,542.13	24,874.30	121.09 %
2007.2 Truist VISA Credit Card - GM 7453	0.00		0.00	
<b>Total 2007.0 Truist VISA</b>	<b>-20,758.23</b>	<b>-23,769.11</b>	<b>3,010.88</b>	<b>12.67 %</b>
<b>Total Credit Cards</b>	<b>\$ -20,758.23</b>	<b>\$ -23,769.11</b>	<b>\$3,010.88</b>	<b>12.67 %</b>
Other Current Liabilities				
2005.0 A/P - created by Auditor	0.00	0.00	0.00	
2010.0 Rebates Payable - Cons Credits (deleted)	0.00	0.01	-0.01	-100.00 %
2100.0 Deferred Revenue	75,741.00	75,741.00	0.00	0.00 %
2110.0 Direct Deposit Liabilities	-345,000.13	-3,412.65	-341,587.48	-10,009.45 %
2200.0 Fica & Medicare Withheld	95.47	-11.31	106.78	944.12 %
2220.0 Federal Income Tax Withheld	-1,065.01	-1,065.01	0.00	0.00 %
2230.0 Employer Fica & Med Payable	-43.78	-150.56	106.78	70.92 %
2250.0 TWC Unemployment Tax Payable	75.63	0.00	75.63	
2270.0 Payroll Liabilities	-526,462.45	-110,654.65	-415,807.80	-375.77 %
125 -Dental/Life/Vision Ins	0.00		0.00	
125 -Health Ins (pre-tax) UHC	908.39		908.39	
Federal Taxes (941/943/944)	6,073.14		6,073.14	
Retirement	1,253.18		1,253.18	
TX Unemployment Tax	-3,696.91		-3,696.91	
<b>Total 2270.0 Payroll Liabilities</b>	<b>-521,924.65</b>	<b>-110,654.65</b>	<b>-411,270.00</b>	<b>-371.67 %</b>
2300.0 Accrued Vacation Payable	42,511.01	49,476.60	-6,965.59	-14.08 %
Direct Deposit Payable	0.00		0.00	
<b>Total Other Current Liabilities</b>	<b>\$ -749,610.46</b>	<b>\$9,923.43</b>	<b>\$ -759,533.89</b>	<b>-7,653.95 %</b>
<b>Total Current Liabilities</b>	<b>\$ -738,481.97</b>	<b>\$ -13,845.68</b>	<b>\$ -724,636.29</b>	<b>-5,233.66 %</b>
<b>Total Liabilities</b>	<b>\$ -738,481.97</b>	<b>\$ -13,845.68</b>	<b>\$ -724,636.29</b>	<b>-5,233.66 %</b>
Equity				
3000.0 Fund Balance	1,722,651.06	1,322,886.86	399,764.20	30.22 %
3000.1 Opening Balance Equity	25,221.02	23,815.21	1,405.81	5.90 %
3000.3 Invested in Capital Assets	365,127.26	365,127.26	0.00	0.00 %
3110.0 Reserve for Petty Cash	-20,080.92	300.00	-20,380.92	-6,793.64 %



# BARTON SPRINGS EDWARDS AQUIFER

## Balance Sheet Comparison

As of March 31, 2024

	TOTAL			
	AS OF MAR 31, 2024	AS OF MAR 31, 2023 (PY)	CHANGE	% CHANGE
Net Income	1,428,222.70	507,450.67	920,772.03	181.45 %
<b>Total Equity</b>	<b>\$3,521,141.12</b>	<b>\$2,219,580.00</b>	<b>\$1,301,561.12</b>	<b>58.64 %</b>
<b>TOTAL LIABILITIES AND EQUITY</b>	<b>\$2,782,659.15</b>	<b>\$2,205,734.32</b>	<b>\$576,924.83</b>	<b>26.16 %</b>

**4. Truist Credit Card**

**Statement from February 6, 2024 – March 5, 2024**

**2007.0 Truist VISA**  
**Date: 2/6/24 - 3/5/24**

<u>Date</u>	<u>Memo</u>	<u>Charge</u>	<u>Payment</u>	<u>Type</u>	<u>Account</u>
03/05/2024	VMO*VIMEO.COM848-359-5618 NY US	84.00		Expense	1410.1 Computer Hardware & Software
03/04/2024	CLIENT ASSISTED TO ****6437 - TRUIST ONLINE CREDIT CARD PMT		79.00	Credit Card Pmt	1000.0 Cash in Bank-Checking Truist
03/03/2024	WF WAYFAIRXXXXXXXXX29866-263-8325 MA US	72.48		Expense	Inventory Asset
03/01/2024	DOCUSIGN INC.Wilmington DE US	255.84		Expense	Uncategorized Expense
03/01/2024	ADOBE INC.408-536-6000 CA US	29.99		Expense	6080.35 COMMUNICATIONS AND OUTREACH:Programs/Events
02/28/2024	WF WAYFAIRXXXXXXXXX99866-263-8325 MA US	38.95		Expense	Inventory Asset
02/27/2024	CHIPOTLE ONLINEhttps://prod. CA US	58.62		Expense	1500.0 Organizational Costs
02/25/2024	ADOBE INC.408-536-6000 CA US	359.88		Expense	6080.35 COMMUNICATIONS AND OUTREACH:Programs/Events
02/25/2024	MPIX620-231-8050 KS US	60.46		Expense	1500.0 Organizational Costs
02/22/2024	SP THE WATERSHED ASSOCHTTPS0F7A292. TX US	43.49		Expense	1500.0 Organizational Costs
02/22/2024	AMZN Mktp US*RW7QT3AT2Amzn.com/bill WA US	57.97		Expense	6010.0 Office Supplies
02/18/2024	MPIX620-231-8050 KS US	52.83		Expense	1500.0 Organizational Costs
02/16/2024	AMAZON.COM*RI1KB3W70SEATTLE WA US	39.84		Expense	6010.0 Office Supplies
02/14/2024	INTUIT *QBooks OnlineCL.INTUIT.COM CA US	1,151.28		Expense	Uncategorized Expense
02/14/2024	INTUIT *PayrollEE usageCL.INTUIT.COM CA US	54.00		Expense	Uncategorized Expense
02/14/2024	Opening Balance from Bank		1,405.81	CC-Credit	3000.1 Opening Balance Equity
02/13/2024	BIG FROG CUSTOM T-SHIRTS512-899-3764 TX US	636.52		Expense	1300.0 Pre-paid Expenses
02/12/2024	AMAZON RET* 114-295862WWW.AMAZON.CO WA US	49.99		Expense	6010.0 Office Supplies
02/12/2024	AMZN Mktp US*RI0KL2E80Amzn.com/bill WA US	42.84		Expense	6010.0 Office Supplies
02/09/2024	CENTRAL MARKET #420AUSTIN TX US	40.19		Expense	1500.0 Organizational Costs
02/09/2024	AMZN Mktp US*RB6379MH2Amzn.com/bill WA US	9.99		Expense	6010.0 Office Supplies
02/08/2024	SQ *LONGHORN FIRE AND SAFEAustin TX US	214.34		Expense	1500.0 Organizational Costs
02/07/2024	AMZN Mktp US*R26Z156X1Amzn.com/bill WA US	39.96		Expense	6010.0 Office Supplies
02/06/2024	AMZN Mktp US*R23AA2H91Amzn.com/bill WA US	69.99		Expense	6010.0 Office Supplies
02/06/2024	KDM ELECTRICAL SERVICES L512-9448894 TX US	312.64		Expense	1500.0 Organizational Costs
02/06/2024	EVENTBRITE.COM ORG FEEHTTPSWWW.EVEN CA US	24.99		Expense	Uncategorized Expense



## Item 4

# General Manager's Report

## Discussion and possible action topics

### Topics

- a. Review of key team activities/projects.
  - i. Trinity Sustainable Yield Study
  - ii. Groundwater Symposium with the Edwards Aquifer Authority
  - iii. Administrative Program update
  - iv. New website
- b. Aquifer status update.
- c. Upcoming events of possible interest.

# Summary of Team Activities in April/May 2024

## **Aquifer Science Team**

### March Activities

- Barton Springs core donation to BEG.
- Antioch maintenance.
- Creedmoor Trinity aquifer test plan review.
- Westbay Multiport well visits.
- Geodatabase update.

### On Deck:

- Barton Springs discharge measurements with USGS and COA.
- 1<sup>st</sup> quarter monitor well visits & new installs including Colemans' Canyon multiport well testing.
- Sierra West & Oak Meadows aquifer test plans review.
- Develop TAS Phase II model workplan
- Barton Springs multiport equipment installation.

## **Administration Team**

- All administrative processes and procedures are being recreated in a new-online version of QuickBooks.
- A new payroll system, Gusto, is being implemented.
- A new [geninfo@bseacd.org](mailto:geninfo@bseacd.org) mailbox has been created for vendors to submit their invoices.

## **Regulatory Compliance Team**

### March Activities:

- Staff continues to work on new applications and assisting permittees with drought compliance.
- Staff continuing to work through enforcement process with non-compliant permittees including Ruby Ranch W.S.C.
- Staff working with AS team on review of a couple of well aquifer testing plans including Paradis Vineyard.
- Staff continuing to provide input to database project on relevant modules.
- Staff will meet with Rules & Enforcement Committee to continue discussion on enforcement plan update.

### On Deck:

- Very early preparations of District-wide UDCP/UCP update in FY 24 will begin.
- Preparations for collaborative permittee education event with Communications team.

## **Policy and Project Team**

### April Activities:

- Phase 2 database project scope with LRE.
  - Staff training on phase 1
- Buda ASR application/Board meeting prep
- Ruby Ranch ASR discussions and meeting prep

## **Communications and Outreach Team**

### April Activities:

- Continue planning and advertising the permittee event happening in May; develop resources for attending permittees and their end-users.
- Add additional website pages including details on board members and drought fees.
- Coordinate Well Water Checkup for May or June.

### On Deck

- Execute the permittee event in May.
- Plan for Groundwater to the Gulf.

# **Status Report Update**

## **April 11, 2024 Board Meeting**

**Summary of Significant Activities – Prepared by Staff Leads**

### **Upcoming Dates of Interest**

- Springwater Revival (Hill Country Alliance) – April 1-30, 2024 | [See events here](#)
- Managing Groundwater in a Changing Climate (BSEACD) – May 16, 2024, Buda, TX
- Groundwater to the Gulf (Colorado River Alliance) – June 11-13, 2024, Austin, TX
- Texas Alliance of Groundwater Districts (TAGD) Regular Business Meeting – June 6-7, 2024, Round Rock, TX
- Texas Water Conservation Association (TWCA) Summer Conference – June 12-14, 2024  
Arlington, TX
- Texas Alliance of Groundwater Districts (TAGD) Summit – August 20-22, 2024, San Antonio, TX

# DROUGHT MANAGEMENT

## Drought Status and Water-Level Monitoring (*Justin*)

During March, the Austin area typically experiences a monthly average rainfall of approximately 2.9 inches. To date, we have received 2.1 inches. Despite receiving steady rainfall in both February and March, rainfall amounts for both months were about a half-inch short of their respective monthly averages.

Barton Springs flow has experienced fluctuations in recent months. As of April 4, Barton Springs' 10-day average flow stands at 47 cubic feet per second (cfs). In January, spring flow surged to 72 cfs as a result of early 2024 rains, prompting a shift in drought status from Stage IV to Stage III, and now, to Stage II. Although there has been some recharge in February and March, it has not been enough to prevent the decline in spring flow, a pattern seen since mid-February.

The Lovelady monitor well also continued to see a positive response to the early 2024 rainfall until the second week of March, when levels began to decline (figure 2). January rainfall elevated water levels nearly 16 ft, climbing out of Stage IV Exceptional Drought and into Stage II Alarm Drought status along with Barton Springs.

As of April 4, Lovelady 10-day average water level is 472.0 feet above mean sea level (ft-msl). The District will remain in Stage II drought for now, but it is important for the area to receive average or above average rainfall leading into summer to prevent a decline in drought status.

Water levels in the Upper Trinity (green) showed a strong response to the January rains, witnessing a significant increase of 20 feet (figure 4). However, those 20 feet have almost entirely diminished as water levels receded. In contrast, the Middle Trinity (purple) has displayed a more subdued yet positive response to the rains, maintaining subtle rise (10 feet since August 2023).

The flow at Jacob's Well has shown encouraging responses to recent rains though not enough to maintain steady flow from the spring. Flow has been consistently reported below 1 cfs while the Blanco River at Wimberley maintains a steady flow in the low teens.

## DISTRICT PROJECTS

### **GMA Joint Planning**

➤ ***GMA 10 Coordination (Tim)***

The GMA 10 joint-planning group is working with Alyson McDonald of Collier Consulting. The fourth joint-planning process, culminating in February 2027 with the presentation of final explanatory reports, is estimated to cost \$110,081. The estimated cost to the District is \$24,000 over the next three to four fiscal years beginning with FY 2024. This cost, however, does not include costs for new model runs that are ultimately deemed necessary or desirable. A final draft ILA is being presented to the Board of Directors for all six GCDs in the month of April. Some will have been approved by the time of the next GMA 10 meeting scheduled for April 15, 2024. All meetings are hosted by the Edwards Aquifer Authority in San Antonio.

### **Trinity Aquifer Sustainable Yield Study & Planning**

➤ ***Policy Concepts and Advisory Workgroup Planning (Kendall)***

District staff had their first update meeting with LRE on the well-impact analysis project. The LRE team walked staff through the methodology regarding the well database review (task one). LRE will begin the aquifer designation task 2 soon. Staff will meet with Community Consulting to talk about facilitation and rational/structured decision-making processes but has made any decisions regarding hiring a facilitator.

### ***Technical Evaluations (Jeff)***

Aquifer Science staff continue to collect data on the geology and hydrogeology related to the Trinity Aquifers. We are continuing to collect and evaluate water level data from our network of Trinity monitoring wells. In February we published the final report of findings from our 2023 synoptic drought study. The study provided valuable data and insights on how the Trinity has responded to the current severe drought in different locations, which will be important for informing the Trinity Sustainable Yield project.

The first phase of work on the Trinity Aquifer Sustainability (TAS) model (previously called the “in-house model) has been completed. A comprehensive report with technical details of model construction has been published on the District website. An executive summary was also published summarizing key model findings for non-technical audiences, and is available for download in PDF format on the District website. The next phase of modeling will involve building a series of predictive models from the calibrated TAS model to provide quantitative estimates of impacts of various pumping scenarios on Trinity Aquifer water levels and spring flow. These predictive models will incorporate stakeholder input to identify key questions of interest for the model to answer. Staff met with INTERA to discuss their review of the TAS on September 2023 and suggestions for the model improvements during the next phase of modeling. A detailed workplan is currently being developed for the second phase of modeling, which we are calling TAS Phase II.

### **Habitat Conservation Plan (Staff)**

- **Planning for Technical Tasks:** Aquifer Science staff are coordinating studies at Barton Springs with COA staff. These studies include measurement of dissolved oxygen (DO) in the Barton Springs pool

and the installation of a monitor well within Zilker Park and south of the pool. Deployment of this equipment will take place after the monitor well is installed. Staff submitted an application for a grant from the City of Austin in February which would help pay for the conversion of a standard monitor well to a multiport well. As of May 2023, there is tentative approval of the grant request and AS staff are preparing details of the project with COA staff. The purpose of the monitor well is to understand how groundwater flows from the deeper portions of the Edwards Aquifer to the springs and how DO is distributed vertically in the aquifer. The HCP identified low levels of DO as a threat to the endangered salamanders. A potential remedy for low DO during severe drought is augmentation of DO in the shallow aquifer so that the threat of low DO is reduced. Drilling of the monitoring well borehole began on February 1, 2024.

- **Barton Springs Flow Measurements:** On Monday, October 2, 2023 Staff met with collaborating agency staff from US Fish and Wildlife, the US Geological Survey, and the City of Austin to discuss options for improving Barton Springs flow measurements, which have been shown to have lower accuracy during low flow drought conditions. Also on Monday, October 2, AS staff met with Brian Hunt at the Bureau of Economic geology to test a new flow measurement instrument at Barton Springs. Data collected from this field outing will be compared with flow data collected from other BSEACD and other agencies using the old method, to evaluate if the new instrument (which is called an Acoustic Doppler Current Profiler) can provide higher accuracy flow data. AS staff will continue to work with staff from collaborating agencies to explore solutions for improving flow data accuracy.
- **Annual Report:** The annual report was submitted to the U.S. Fish and Wildlife Service on February 26, 2024.

#### **Database Management System – LRE Water (*Kendall, Tim*)**

Phase 1 is finalized. Staff is working with LRE to identify the scope and deliverables for “Phase 2” database project.

#### **ILA Commitments (*Staff*)**

The District has an ILA with COA to coordinate studies for the respective HCPs such as scientific feasibility studies and monitoring evaluations; to collaborate on the planning of future Kent Butler Summits; and to exchange technical information regularly on an annual basis. An annual technical meeting is held between the District and COA in December each year to discuss each organization’s activities related to their respective HCPs. The next meeting will be held in December 2024.

#### **Region K Planning Activities (*Tim, Kendall*)**

The GM attended the last Region K meeting in LaGrange, TX on February 13, 2024, and will report out to the GMA 10 planning group on April 15<sup>th</sup>.

#### **New Maps, Publications, or Reports**

A list of recent publications, including our new 2023 Drought Synoptic Study report, can be found at: <https://bseacd.org/scientific-reports/>

# RULEMAKING, PERMITTING, AND ENFORCEMENT

*(Tim, Erin, Jacob, District Counsel, Rules and Enforcement Committee)*

## Rulemaking and Enforcement

There is nothing new to report for rulemaking. The Enforcement Committee is scheduled to meet on April 16, 2024 as they continue to evaluate ways to streamline and improve the enforcement process, particularly during drought.

## Drought (Erin)

- Will continue working with permittees to ensure compliance per their Agreed Orders.
- Will continue monthly pumpage analysis to determine all permittee’s compliance status of drought curtailments.
- Will continue to assist permittees in ensuring they successfully comply with their UDCPs and Stage IV drought curtailments for February.

## Enforcement and Compliance Matters (Erin)

<b>Compliance/Enforcement</b>			
<b>Permittee or Entity Name</b>	<b>Aquifer</b>	<b>Use Type</b>	<b>Notes</b>
Aqua Texas – Bear Creek Park	Edwards	PWS	Agreed Order Executed.
Aqua Texas – Bliss Spillar (Edwards)	Edwards	PWS	Agreed Order Executed.
Creedmoor-MAHA	Edwards	PWS	Agreed Order Executed.
Monarch Utilities, Inc.	Edwards	PWS	Agreed Order Executed.
Tindol Restaurant Group, LLC	Middle Trinity	Commercial	Agreed Order Executed.
Aqua Texas – Sierra West	Middle Trinity	PWS	Agreed Order Executed.
Seiders, Roy	Middle Trinity	Irrigation	

## Permitting Activity (Erin, Jacob)

<b>Upcoming</b>					
<b>Precinct</b>	<b>Application Type</b>	<b>Aquifer</b>	<b>Applicant Name</b>	<b>Use Type</b>	<b>Volume Request (GPY)</b>
1 – Pickens	WDA	Middle Trinity	Aqua TX, Inc. – Oak Meadows	PWS	TBD – 10,000,000?
1 – Pickens	WDA	Middle Trinity	Aqua TX, Inc. – Sierra West	PWS	TBD - 6,000,000?
2 – Stansberry	Production Only	Edwards – Class A	LandTec	Commercial	61,200
1 – Pickens	Combo IPP	Upper or Middle Trinity	Oak Haven Preserve	Commercial	~1,800,000

1 - Pickens	LPP	Middle Trinity	Martinez, Sergio	Domestic	500,000
2- Stansberry	Plugging	TBD	Rangel, Alonso	Plugging	0
1-Pickens	WDA	Middle Trinity	LandSea Homes	Irrigation	TBD
	ASR	Middle Trinity/Edwards	City of Buda	ASR/PWS	133,660,000

<i>In Review</i>					
<b>Precinct</b>	<b>Application Type</b>	<b>Aquifer</b>	<b>Applicant Name</b>	<b>Use Type</b>	<b>Volume Request (GPY)</b>
1 - Pickens	LPP	Upper Trinity	Pena, Estrella	Domestic	500,000
1 - Pickens	Volume Increase	Middle Trinity	Tindol Restaurant Group	Commercial	2.5 million?
1 – Pickens	WDA	Middle Trinity	Whiskey Ridge	Commercial	0 - Monitoring
<b>Recently Approve and/or Admin Complete</b>					
<b>Precinct</b>	<b>Application Type</b>	<b>Aquifer</b>	<b>Applicant Name</b>	<b>Use Type</b>	<b>Volume Request (GPY)</b>
2- Stansberry	Aquifer Test Only	Middle Trinity	Creedmoor-Maha W.S.C.	PWS	N/A
1 - Pickens	LPP	Middle Trinity	Martin, Stephen	Commercial	250,000



# **AQUIFER STUDIES**

*(Jeff, Justin, and Tim)*

## **Permitting Hydrogeologic Studies:**

Working with Regulatory Compliance on permitting issues as needed. AS staff continue to review geophysical logs of wells prior to final completion of the wells on an as-needed basis. In February-March 2024, AS staff worked with the Regulatory Compliance team to review an aquifer test plan in support of a potential Middle Trinity production permit application for Creedmoor-Maha. AS staff has also been assisting with technical review of the Buda ASR permit, and ongoing issues with the RRWSC ASR permit.

## **Groundwater Studies: *Dye Tracing, Water Quality, Aquifer Characterizations***

- Coleman’s Canyon- continuing to collect water-level data from the multiport well every month to 6 weeks. Groundwater sampling of these two wells was performed in May and June as part of the TWDB summer sampling program.
- There are no dye-trace studies planned at this time because of minimum to no flow in streams and springs.
- A synoptic water level study characterizing the Trinity Aquifer during severe drought conditions is underway. Data collection for this study was finished in September 2023, and a final report of study findings was published in February 2023.
- Aquifer science staff are working with the GM, City of Austin staff, and others to complete the new multiport well in Zilker Park. The Garrison Park well was completed on January 31, 2024.

## **Field Activities:**

- Cooperating with USGS and City of Austin staff to confirm accurate real-time gauge reporting at Barton Springs and Lovelady. Conducting bi-weekly to monthly field measurements. AS staff tested a new flow measurement instrument to measure Barton Springs flow on 10/2/23. Data from this instrument will be compared with flow measurements using the traditional method to determine if it can provide a more accurate flow measurement, especially during low-flow periods. A follow-up field visit occurred on 12/14/23 to collect another set of Barton Springs flow data with the new instrument.
- Cooperating with USGS staff to confirm accurate real-time gauge reporting at Jacob’s Well and the Blanco River at Wimberley.
- Calibrating telemetry monitoring equipment at the Needmore index well (Amos) and reviewing pumping and water-level data as drought worsens.
- Antioch- Continuing to maintain the system and to collect data on flow into the vault (when there is flow). A recent visit to Antioch Cave to assess operating components and electronics indicated the need to recondition most electrical systems.
- Well monitoring- Because of drought, staff are increasing the amount of time maintaining equipment in numerous monitor wells and downloading and interpreting data; and occasionally checking on wells that have been reported as “dry”.
- Downhole camera surveys and geophysical logging of the City of Austin monitor well borehole. Westbay equipment to be installed in April 2024.
- Texas Water Development Board annual water chemistry sampling.

- Magellan Pipeline annual sampling.

**Trinity Aquifer Modeling Development:**

- Trinity Aquifer Sustainability model (TAS): The first phase of modeling has been completed and a report has been published on the District website detailing specifics of model construction. Planning for the second phase of modeling is underway, and is set to begin in 2024.
- BRAAT modeling: Staff was informed during an October 2023 meeting that the BRAAT modeling project has stalled due to a variety of issues related to contracting, budgeting, and technical challenges related to model development. It is unclear at this point if a model useful to BSEACD will arise from the BRAAT project.
- New TWDB Southern Trinity GAM model: In July 2023 staff participated in a kickoff meeting hosted by TWDB modeling staff for the Southern Trinity GAM model. This regional model will cover the BSEACD portion of the Trinity Aquifer. AS will be in regular contact with the TWDB modeling team to provide data and technical guidance on model construction.

# COMMUNICATIONS AND OUTREACH

(Shay)

## New Website

The new website went live the evening of February 28, 2024. It features:

- Improved [Scientific Reports](#) searching capabilities
- Simplified [Wells Permits & Forms](#) page and created a page to help viewers find resources they're looking for
- Fresh clean design and layout
- More concise navigation bar
- Improved mobile and tablet views

## Events

### 1. Groundwater Symposium (4/2/24)

- [Eventbrite link](#)
- Overview of event
  - The Groundwater Symposium was an opportunity for university students and the general public alike to come together and learn about local aquifers and those who manage and conserve groundwater resources. Demands on the Edwards and Trinity aquifers continue to increase in the face of a growing population and drier climate. It's important for community members and future conservation professionals to understand how groundwater is managed, the challenges this resource faces, and how groundwater regulatory bodies are preparing for a changing climate.
- Registrants: 250 (sold out)
- Attendees: 175
- Speakers
  - Dylan Baddour - Texas Correspondent at InsideClimate News
  - Dr. Mario Garza & Maria Rocha - Elders from the Miakan-Garza Band of the Coahuiltecan People
  - Dr. Robert Mace - Executive Director of The Meadows Center for Water and the Environment
  - Vanessa Puig-Williams - Director, Texas Water Program at Environmental Defense Fund
  - Dr. Tim Loftus - General Manager at the Barton Springs/Edwards Aquifer Conservation District
  - Charlie Flatten - General Manager at the Hays Trinity Groundwater Conservation District
  - Roland Ruiz - General Manager at the Edwards Aquifer Authority
- Exhibitors (15 total)
  - Bobcat Stream Team
  - BSEACD
  - COA Water Quality Protection Lands
  - Edwards Aquifer Habitat Conservation Plan
  - Edwards Aquifer Research and Data Center
  - Great Springs Project

- Hill Country Alliance
- Indigenous Cultures Institute
- Meadows Center
- San Marcos Greenbelt Alliance
- San Marcos River Foundation
- TAGD
- Watershed Association
- What Goes Here Flows Here

## 2. Permittee Event with Hill Country Alliance

- [Eventbrite Link](#)
- Title: Managing Groundwater in a Changing Climate
- Overview:
- Date: Thursday, May 16, 2024 at 10am-12pm
- Speakers
  - Dr. John Neilsen-Gammon (Texas State Climatologist)
  - District staff
  - Marisa Bruno (Hill Country Alliance)
- Location: Buda City Hall

### **Kent Butler Scholarship**

After not offering a scholarship in 2023, the District offered six \$1,000 scholarships for EARCD's Aquatic Science Adventure Camp through Texas State University. These overnight camps take place over five days for students ages 9 – 14. Applications were due March 22 and included submitting a written essay about what the student hopes to do at camp this summer, and they received bonus points for including artwork.

Staff contact all the school districts in our territory including Wimberley, Austin, San Marcos, Hays, Eanes, Del Valle, etc. The scholarship was also promoted on the District website and across all social media outlets.

We received 32 applications of all ages. The winners and runner ups' artwork are displayed in the office and will be shared on social media. Winners have been informed and are working with EARDC to get registered for the camps.

### **Drought Communications**

#### Press Coverage - Drought Stages

- Barton Springs/Edwards Aquifer Conservation District enters Stage 2 drought restrictions – [KVUE](#), 3/1/24
- Conservation district has good news on drought level – [Austin Monitor](#), 3/5/24
- Bout with Drought - [Austin Chronicle](#), 2/16/24

#### Move to Stage III

- Sent [email](#) to subscribers

- Posted on social media
- Posted on website homepage and Drought Information and Resources page

#### Move to Stage II

- Shared information in [Drought Update](#)
- Posted on social media
- Posted on website homepage and Drought Information and Resources page

#### **Drought Update/ Newsletters**

- [February 2024](#) - Drought Update
- [March 2024](#) – Drought Update
- [March/April Newsletter](#)

#### **Zilker and Garrison Parks Monitor Well – Coverage**

- [Drilling underway on new monitoring well at Zilker Park](#) – Fox 7, 2/2/24
- [Barton Springs Multiport Well: Importance, progress, and next steps](#) – 3/29/24

## **ADMINISTRATION**

*(Tim, Hannah, and Tina Cooper/AAG)*

The District's administrative program is undergoing a thorough review to improve processes and procedures. Underway since the beginning of the calendar year, the review is likely to last through the end of the fiscal year as standard operating procedures need to be documented in a fashion that has not occurred in the past. The review involves the GM, the District's Administrative Coordinator, Hannah Riggs, and the District's fractional HR consultant, Tina Cooper with the Austin Alliance Group (AAG). To date many changes have taken place including a move to the online version Quickbooks Advanced for general accounting, and Gusto for payroll.

*The Administration Team typically has repetitive monthly tasks e.g. monthly bank reconciliations, monthly adjusting journal entries, accounts payable, payroll, contract/grant/project tracking, office maintenance and repairs, budget monitoring, bi-weekly payroll journal updates, directors' compensation, pre-paids, DMFs, posting public meetings, preparing meeting backups, etc. These types of tasks are not listed in this report because they are repetitive. Administration status reports are generally more summarized than the other teams, as we list our extra-ordinary tasks outside of our routine tasks, while supporting all other teams.*

## Item 5

### Public Hearing

The City of Buda, 405 E Loop St, Buda, TX, 78610, filed an Aquifer Storage and Recovery (ASR) application with the Barton Springs/Edwards Aquifer Conservation District (District). The City of Buda is applying for an Aquifer Storage and Recovery Permit that authorizes the production of Class D Conditional Edwards Aquifer water during non-drought periods for the purposes of injection, storage, and recovery from an ASR recovery well. The City of Buda is requesting a Class D Conditional Permit to withdraw up to 133,660,000 gallons/year from the Edwards Aquifer; this permit class is reserved for ASR projects and is 100% curtailed during drought. The City of Buda ASR project involves the production of Edwards Aquifer water for injection into the Middle Trinity Aquifer for subsequent recovery and use as public water supply. The ASR project and associated wells are located at 673 Cullen Blvd, Buda, TX, 78610.

## Item 6

### Board Discussion and Possible Action

- a. Discussion and possible action related to the appointment, employment, evaluation, reassignment, duties, discipline, or dismissal of the General Manager.



## Item 6

### Board Discussion and Possible Action

- b. Discussion and possible action on EEOC No. 451-2024-00138 charge of discrimination by Brian Smith against the District.

## Item 6

### Board Discussion and Possible Action

- c. Discussion and possible action related to the City of Buda Aquifer Storage and Recovery (ASR) production/recovery permit application as described in the Public Hearing Agenda item above.

**Application Summary and Staff Review**  
(Board Meeting April 11, 2024)

**DESCRIPTION OF APPLICATION**

Applicant: The City of Buda

Type of Application: Storage and Recovery Permit Application

Request: The City of Buda is requesting a Class D Conditional Permit to withdraw up to 133,660,000 gallons/year from the Edwards Aquifer for the purposes of injection, storage, and recovery from an ASR recovery well.

**Summary**

The City of Buda filed an application for an Aquifer Storage and Recovery (ASR) permit on July 18, 2023. This permit would authorize the production of Class D Conditional Edwards Aquifer water during times of non-drought periods for the purposes of injection, storage, and recovery from an ASR recovery well completed in the Middle Trinity Aquifer (Cow Creek limestone). The City of Buda ASR project involves the production of Edwards Aquifer water for injection into the Middle Trinity Aquifer for subsequent recovery and use as public water supply.

The City of Buda constructed a new ASR well in 2020 to store and provide supplemental drinking water drought supply for the City of Buda as it continues to grow. The new ASR well, ASR1, well is completed in the Cow Creek unit of the Middle Trinity Aquifer at a total depth of 1,425 ft (Appendix A) and is about 90 feet from the Edwards source water well (#4). Well 5 was drilled in 2016 to a depth of 480 feet and is completed within the Edwards Group. Well 5 will be the source of water to be stored in the ASR well. Untreated Edwards aquifer groundwater from Well 5 will be stored in the Cow Creek formation of the Middle Trinity aquifer using the new ASR1 well. The City of Buda plans to produce, inject, and store Class D Conditional Edwards water during non-drought periods. The primary operational goal is to develop sufficient storage to serve as a future long term drought supply. The typical scenario assumes a 5 year shut in period (no recovery) before recovery begins, however that is dependent upon duration and frequency of drought conditions.

**1. Well Location and Receiving Area**

The ASR project and associated wells are located at 673 Cullen Blvd, Buda, TX, 78610. (Appendix B). The ASR1 well directly stores raw Edwards groundwater produced from the City's existing Well 5 and is not directly connected to the City's water distribution system. Only raw Edwards groundwater (untreated) will be stored in the ASR1 well as the connection between Well 5 and

ASR1 is upstream of the existing chlorine disinfection feed location. The piping required to connect the source water (Well 5) to the ASR1 well, along with an identification of the flow path. The recovered water from the ASR1 well is pumped to the existing 0.25-million-gallon ground storage tank located at the project site, where it is blended with Edwards water from Well 5 before it is distributed to the City of Buda service area for public-water supply (Appendix C). The design injection rate for the ASR1 well is limited to no more than 300 gpm. The existing Well 5 is equipped with a variable frequency drive which allows the City to adjust the pumping output from the well. The arrangement of the process piping is such that Well 5 can be operated to send water to the existing ground storage tank while also supplying water to the ASR1 well.

## **2. Requested Edwards (Class D) Permit**

The City of Buda is requesting a Class D Conditional Permit to withdraw up to 133,660,000 gallons/year from the Edwards Aquifer. The ASR1 well design and operating plan assumes the well will recharge untreated Edwards groundwater from Well 5 at an average rate of 260 gpm over a 15.7 month period to develop a total storage volume of approximately 180 million gallons (548 ac-ft). Based on this, an annual permitted volume of 136.66 million gallons is requested. The typical scenario assumes a 5-year shut in period before recovery begins, however, the duration of this shut in phase will be dependent on duration and frequency of drought conditions. Therefore, it's possible that under extended drought conditions a shorter shut in period could occur.

Class D requires 100% curtailment upon the declaration of Stage II Alarm Drought, but more importantly, it is only available for groundwater production from wells associated with ASR projects where stored water is recovered and used to supplement or substitute freshwater Edwards Aquifer supplies during District-declared drought (District Rule 3-1.24.F).

## **3. Buffer Zone**

In 2019, while drafting ASR rules and working with Ruby Ranch Water Supply Corporation, the District consulted with David Pyne of ASR System LLC. Mr. Pyne has written multiple books on ASR and worked on many ASR projects in Florida, and around the world. Mr. Pyne recommended the formation of an adequate buffer zone as it is essential to increasing recoverability and reducing the mobilization of arsenic and other constituents. Establishment of a buffer zone, which is achieved by leaving a minimum volume of recharge water in the aquifer, ensures that no reaction products are allowed close to the well during recovery and minimizes the mixing.

Mr. Pyne went on to indicate that Florida ASR projects that met at least this minimum buffer zone volume criteria did not have an arsenic problem and high levels of recoverability. Forming and maintaining a buffer zone is a proven and inexpensive “rule of thumb” that works in Florida, avoiding the need for deoxygenation of the recharge water, which is complex, expensive, and impractical for larger ASR operations. Mr. Pyne also indicated that if the recovery efficiency after buffer zone formation is any less than 100%, it would likely be due to lateral movement of the stored water.

While conservative guidance (Pyne, 2005) calls for a buffer zone volume roughly equal to the planned recovery volume, the target formation in this case is only 70 feet thick, which suggests a smaller buffer zone requirement relative to the planned recovery volume. Furthermore, based on Florida ASR experience, Mr. Pyne recommended that an adequate buffer zone would be at least the volume associated with recovery at the design capacity of the well for 70 days. Due to this information and the data from other ASR projects, District staff is recommending the City of Buda maintain a 44.6 million gallon buffer volume to increase the recoverability and minimize the mobilization of arsenic. The 44.6 MG buffer zone volume represents 25% of the ~ 180 million gallons (548 acre-feet) proposed Total Storage Volume.

#### 4. TSV

The Total Storage Volume (TSV) is the sum of the stored water plus the buffer zone volume (Figure 1). The estimated TSV for the Buda ASR1 project is approximately 180 million gallons and the target buffer zone volume is 44.6 million gallons. Therefore, the anticipated max recovery is approximately 135 million gallons.

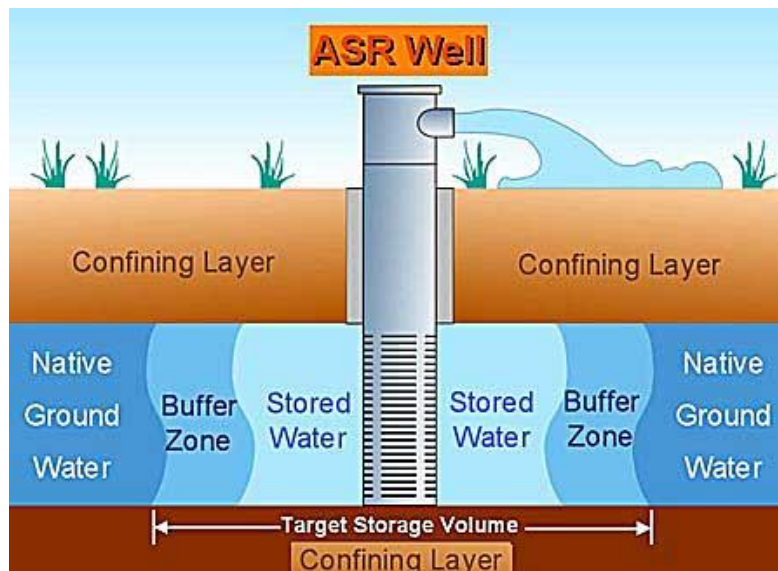


Figure 1. ASR Schematic Diagram

## 5. Recoverability

One of the biggest questions regarding ASR projects is “how much of the water that I inject will I get back?” ASR applicants must assess the volume of water (recoverable volume) that can be recovered compared to the volume of water injected. ASR operators must not withdraw a volume of water that exceeds the recoverable volume without a permit for the native water.

Recoverability or recovery efficiency can be assessed based on aquifer and operational parameters and movement, as well as water-quality criteria. TCEQ worked with the University of Texas (UT) to develop a recoverability model based on operational parameters such as injection and pumping rate, and aquifer parameters such as hydraulic conductivity and gradient, porosity, and thickness. However, the District defines recovery efficiency as the percentage of stored water volume that is subsequently recovered based on satisfying, and not exceeding, a set of water-quality criteria for the recovered water.

The estimated recovery efficiency for the City of Buda ASR project is different for the two assessment methods. TCEQ estimated, based on the UT model, a recovery efficiency of 76%. As cited in the Section 6.3 below, a recovery analysis based on water quality criteria indicated that after the recovery portion of Cycle 2, when 32% of the recharged water volume had been recovered, the total dissolved solids (TDS) criteria had been exceeded. As mentioned above, this is due to mixing between the source water and native water and indicates the buffer zone is not fully formed or of sufficient size. Mixing of the waters is not a problem as long as the degree of mixing is within the limitations of the water-quality criteria. Recovery efficiency tends to improve with successive cycles when water is stored in each phase or cycle; this is because water that is not recovered becomes a transition or buffer zone of marginal quality surrounding the stored water (Pyne, 1995). Once the buffer zone has been formed, a common strategy is to avoid recovering the groundwater buffer zone because of water-quality concerns.

The total recoverable water volume does not include the buffer zone volume. At most ASR sites, up to 100% recovery efficiency is attainable after an adequate buffer has been established. Because the Buda ASR project is in the early stages and an adequate buffer volume has not been established, the actual recovery efficiency is unknown at this time. Therefore, for permitting purposes the District recommends a recovery efficiency of 100% until which time there is enough actual data and an operational report to reassess the recoverability efficiency. The District has proposed that a revised recoverability analysis be conducted in 5 years.

## 6. Hydrogeologic Report

In accordance with District rules, applicants for permits seeking more than 2 MGY shall conduct an aquifer test and submit a hydrogeologic report addressing the potential impacts associated with the project. The applicant provided a hydrogeological report (HDR, 2023a) and cycle testing evaluation technical memo (HDR, 2023b) that provided data and analysis regarding these potential impacts. Based on a review by District staff, these reports satisfy the District's aquifer test and hydrogeologic report requirements for the permit applications. Potential impacts to water levels (in the Edwards and Middle Trinity Aquifers) and water quality (in the Middle Trinity Aquifer) are expected to be minor. Primary contributing factors to this conclusion include:

- Well 5, which will provide the source water for recharge, is an existing PWS well completed in the Edwards Aquifer. Additional pumping from Well 5 to provide recharge water would only occur under Class D conditional permit conditions, where the Edwards Aquifer is not experiencing severe drought.
- ASR1, the pilot ASR well completed in the Middle Trinity Aquifer, was tested to estimate transmissivity and storativity. The 36-hour constant rate test provided good aquifer characterization information which gives confidence to predictions of potential drawdown impacts in the Middle Trinity during recovery cycles.
- The maximum estimated drawdown impact in the Middle Trinity at the nearest existing well was 12.5 feet, compared to 880 feet of available drawdown in that well. All recovery from the Middle Trinity will have been preceded by recharge of equal or greater amount, resulting in a net-zero or net-positive water balance for ASR1.
- The potential radius of the recharge water bubble is estimated to be 0.2 miles, compared to a distance of 4.7 miles to the nearest downgradient well in the Middle Trinity (Appendix D).
- The potential for mobilization of arsenic is present at this site, but measured arsenic levels were below the MCLs during pilot testing, with stable or downward trends overall.

### 6.1 Hydrogeology

The hydrogeology at the site is described in more detail in the hydrogeological report (HDR, 2023). The Cow Creek limestone is the target zone for storage and is the primary water-bearing formation in the Middle Trinity Aquifer in this area. The thickness of the Cow Creek storage zone in the study area is about 70 feet and has a relatively high hydraulic conductivity of 31 feet per day. The Middle Trinity is conceptualized as being isolated from the shallower Edwards Aquifer by the Upper Glen Rose. (Appendix E). This conceptualization is supported by water level observations at BSEACD's Antioch multi-port well. Results from both the aquifer testing

and cycle testing of ASR1 indicate that the hydrogeology of the Middle Trinity supports a well capable of recharging and recovering water at the proposed rates.

## 7. ASR Pilot Testing

### *7.1 Background and Objectives*

Pilot testing of ASR1 began in November 2021. The objectives of the pilot testing were primarily to:

- Evaluate native, injected, and recovered water quality.
- Estimate recoverability of stored water (this is a limited estimate, as explained below)
- Evaluate injection/recovery operations and well performance.

This testing activity consisted of two cycles.

**Cycle 1:** Conducted in November 2021, this phase involved recharging 2.5 million gallons of water sourced from the Edwards Aquifer and recovering approximately 150% of this volume to assess potential contamination risks and water quality changes. The tests verified that arsenic and other potential contaminants remained well below maximum contaminant levels (MCLs), suggesting that the system could be suitable for public supply.

**Cycle 2:** Beginning in December 2021 and concluding in January 2022, this phase involved recharging a larger volume of 10.1 million gallons, with a focus on evaluating the system under operational conditions reflective of annual usage patterns. With a recovery rate of about 32% of the stored volume, water quality analyses again confirmed compliance with drinking water standards, with particular attention to arsenic levels, which remained safely below regulatory thresholds.

#### *Native, Injected, and Recovered Water Quality*

The native water quality in the Cow Creek formation is fairly high in total dissolved solids, at about 1,000 mg/L, but meets primary drinking water standards. The recharge water from the Edwards Aquifer Well No. 5 is of excellent quality, with a total dissolved solids of about 275 mg/L and all measured constituents well below their respective MCLs.

The recovered water quality was the focus of the cycle testing, to determine whether arsenic or other unwanted constituents were mobilized from the formation during recovery. Six samples were taken during the recovery portion of Cycle 1, with no detection of arsenic in any of the samples, and an increasing total dissolved solids as native water began to dominate the recovered water. Four samples were taken during the shut-in phase of Cycle 2, and three samples showed arsenic above the detection limit, but not above the MCL. The first sample

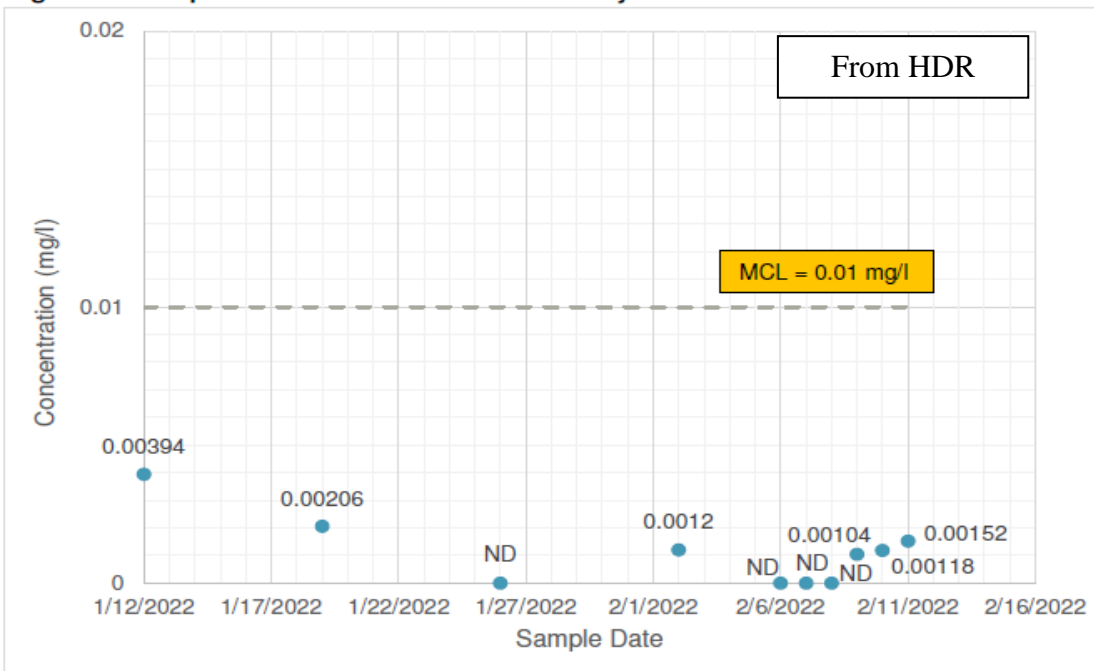


result showed aluminum concentration above the MCL. After reviewing construction data, HDR believes this spike in aluminum concentration was due to interaction between the stored water and aluminate material in well's cement grout plug. The aluminum concentration decreased to well below the MCL by the end of Cycle 2. No other constituents were present in concentrations above their respective MCLs.

During the recovery phase of Cycle 2, arsenic was detected in three of the six samples. The highest measured arsenic concentration was in the first recovered sample during the shut-in phase. Concentrations appeared to be generally stable during the remainder of the recovery. Figure 2 from HDR (2023) is reproduced below, showing this trend. Arsenic concentrations for all samples with detections remained well below the primary MCL.

Arsenic concentrations, observed to be above baseline levels, are likely derived from the natural arsenic present within the storage zone's geological matrix. However, the specific arsenic source mineral in the Cow Creek at this site is not currently known. In the context of the ASR1 well, the dissolved oxygen content of the Edwards Aquifer water is likely the key factor in promoting arsenic's mobilization due to an elevation in redox potential. Over the course of the cycle testing, it has been noted that arsenic levels tend to decrease as a result of natural attenuation mechanisms within the aquifer, influenced by time, the distance from the well, and the frequency of operational cycles that maintain consistent buffer zones.

**Figure 2. Sampled Arsenic Concentrations - Cycle Test 2**



ND = below detectable limit

### *7.2 Recoverability of Stored Water*

Recoverability of the stored water was estimated by using total dissolved solids as a natural tracer, indicating the fraction of Edwards Aquifer recharge water versus Cow Creek native water. Increasing total dissolved solids concentrations during recovery are indicative of a great proportion of native water recovery. A simple mixing model analysis indicated that after the recovery portion of Cycle 2, when 32% of the recharged water volume had been recovered, the recovered water was comprised of about 68% recharge water and 32% native water. Because only 10 MG had been recharged, this result cannot be considered an estimate of overall recoverability. A much larger buffer volume is proposed as part of the permit that will increase the percent recoverability, as discussed in Section 4.

### *7.3 Injection/recovery operations and well performance*

During the ASR1 cycle tests, detailed observations were made on the operational parameters, including flow rates and injection pressures, to assess the ASR system's performance. Key observations included:

- **Flow Rates:** During the cycle tests, water was injected at varying flow rates, adjusting to optimize the system's performance. For instance, in the first cycle, the maximum observed injection flow rate reached up to 314-318 gallons per minute (gpm), while in the second cycle, it was slightly reduced to around 307-312 gpm during peak operation times.
- **Injection Pressures:** In the first cycle test, the maximum surface pressure observed during the injection phase was 41 pounds per square inch gauge (psig). This pressure increased in the second cycle, reaching up to 47 psig at comparable flow rates, suggesting a potential decrease in injection specific capacity.

The increase in injection pressure and corresponding decrease in injection specific capacity from the first to the second cycle indicated potential fouling/plugging issues. This led to the recommendation of backflushing the ASR well at least every two weeks during recharge at 300 gpm to prevent persistent plugging. The observed specific capacity and pressure responses indicated the well's performance could be optimized through routine maintenance and operational adjustments to prevent long-term issues.

## **8. TCEQ Authorizations**

The District and TCEQ (UIC) share authority over ASR projects, with the District having authority over the recovery side of the system. Therefore, the City of Buda was required to obtain authorizations from TCEQ UIC Division for pilot testing and the ASR project. In addition, since the recovered water is used for public drinking-water supply, the TCEQ's Drinking Water

Division also reviewed the project and water-quality data and will be reviewing periodic water quality samples.

- In June 2019, the TCEQ granted authorization to City of Buda to own and operate a Class V Aquifer Storage and Recovery Well (appendix F).
- In October 2022, the TCEQ Water Supply Division granted authorization to use ASR water recovered from ASR1 as a public water supply (appendix G)

## **9. Application Review**

- The staff has reviewed the above referenced application and has determined that the application has satisfied all the requirements pursuant to District Rule 3-1.4.A and that the required documentation and payment of fees have been satisfied.
- The permit request does not exceed the Fresh Edwards All-Conditions MAG of 16 cfs (11,600 ac-ft/yr).
- Staff has confirmed that the applicant filed proper notice and the required 28-day public comment period has expired in accordance with District Rule 3-1.4.B. The noticed was published in the Austin American Statesman on January 26, 2024 and in The Hays Free Press on January 31, 2024. The 28-day comment expired on February 23, 2024 and the District has not received any comments on the application.
- The District filed public hearing notice pursuant to District Rule 3-1.4.C.

### **BASIS FOR APPLICATION REVIEW**

The following items were considered in the review of the application:

1. Application submitted on July 18, 2023
2. Supplemental information submitted on January 11, 2024
3. District Rules and ByLaws.
4. District Aquifer Test Guidelines.

## Staff Recommendation/Special Provisions

The District's staff recommends approval of the ASR Source and Recovery Permit which authorizes 1) the annual production of 133,660,000 gallons per year under an Edwards Class D Conditional Production Permit and 2) the recovery of 100% of total recoverable water volume<sup>1</sup>.

District staff recommends approval of the above-referenced ASR Source and Recovery Permit with the following special provisions:

1. Water quality samples shall be collected from ASR well upon commencement and conclusion of each recovery cycle. During each recovery cycle, samples shall be taken after 50%, 75%, 90%, and 100% of the total stored water volume has been recovered. Future sampling frequency may be decreased depending on the results of the initial recovery cycle. These recovery samples should be analyzed for water quality parameters that include *arsenic, conductivity, total dissolved solids, dissolved oxygen, iron, and manganese*.
2. Samples shall be collected from the Edwards well prior to or during the initialization of each recharge cycle. The samples should be analyzed for water quality parameters *pH, oxidation-reduction potential (ORP), and dissolved oxygen*. The goal is to assess the oxidation reduction (redox) potential of the recharge water. Future recharge water sampling requirements will depend on whether water quality changes in the recovery water are observed that are a result of redox reactions.
3. The City of Buda shall submit to the District copies of any and all water-quality sampling requirements or reports required by TCEQ's Water Supply Division and/or Underground Injection Control Division.
4. All applicable results and reports (identified in provisions 1- 3 above) shall be compiled and submitted to the District within 30 days of collection and no later July 1<sup>st</sup> of each year. TCEQ sampling parameters or requirements do not need to be duplicated.
5. The City of Buda shall take all necessary steps to ensure water quality of the native aquifer (Middle Trinity Aquifer - Cow Creek Formation) is protected due to operations of an ASR project.
  - A. Once established, a buffer zone volume of at least 44.6 million gallons shall be maintained. Should the total volume in storage drop to the 44.6 MG buffer zone requirement (indicating recovery of 100% of the recoverable water volume), the City of Buda shall cease recovery operations and contact the District immediately. Water quality samples shall be collected as specified at 100% recovery in Provision #1.
  - B. If arsenic concentrations in the recovered water from the ASR well exceed 6.0 µg/L for two consecutive samples collected no more than 30 days apart or

exceeds the Maximum Contaminate Limit ( MCL) of 10 µg/L in any single sample collected The City of Buda shall:

- i. Notify District staff in writing within 10 business days of lab results if the arsenic concentrations exceed the above thresholds;
  - ii. Collect arsenic samples from the ASR well every month during recovery;
  - iii. Schedule meeting(s) with the District to discuss and specify what operational controls (e.g. maintenance of the target buffer volume) or treatment would be adequate to reduce the mobilization of arsenic and reduce any risk to the aquifer.
6. Following implementation of operational controls or treatment identified provision (5(B)(iii) above) and in the event that arsenic concentrations exceed 10 µg/L in the recovered water for three consecutive sampling months, The City of Buda will submit plans to the District for implementing additional controls, treatment, and monitoring to reduce the arsenic concentrations and to assess movement of arsenic within the aquifer.
  7. The City of Buda shall submit a revised recoverability analysis along with the submittal of the required operations report within five years of permit issuance (April 2029). The analysis should be conducted once the buffer volume is established and should be based on any data collected from the previous five years.
  8. The City of Buda shall coordinate with the District to obtain groundwater monitoring data for District Antioch scientific multiport monitoring well 58-58-431.

<sup>1</sup> Note that the total recoverable water volume does not include the buffer zone volume. The Target Storage Volume generally consists of the total recoverable water volume plus the buffer zone volume (item 5A).

## References

HDR Engineering Inc, May 11, 2022. Buda ASR1 Cycle Testing Evaluation Technical Memo

HDR Engineering Inc, May 23, 2023. City of Buda ASR1 Hydrogeological Report

Pyne, R. David G, 1995, Groundwater Recharge and Wells: A Guide to Aquifer Storage and Recovery.

Pyne, R. David G, 2005, Aquifer Storage Recovery: A Guide to Groundwater Recharge Through Wells

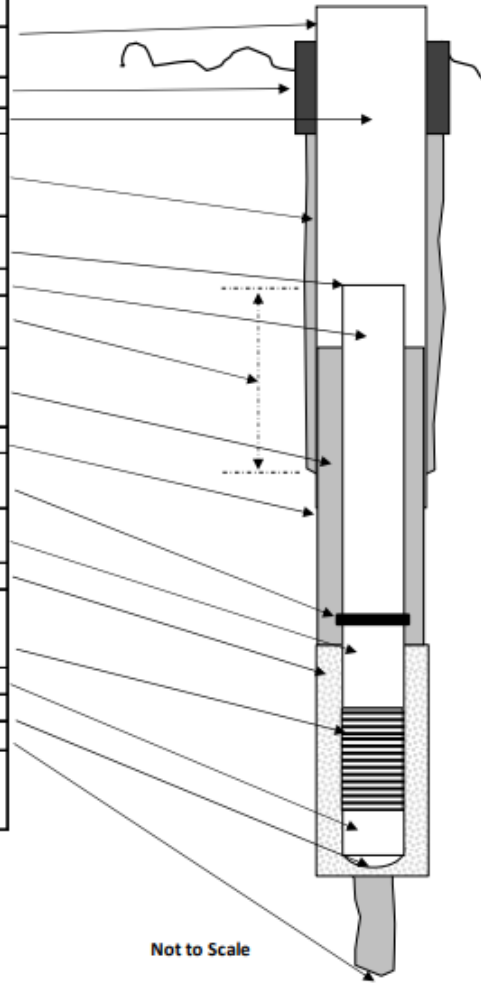
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## Appendix A

### ASR Trinity Well As-Built Diagram

Depth or Interval (ft btoc <sup>A</sup> )	Item
Stickup, (-)3.2-ft (Top at El 730.25 ft msl)	Upper Casing (14-inch A606)
0 - 41 (Top at EL 727.05)	22-inch Conductor Casing
0 - 603.6	Upper Casing (14-inch A606)
0 - 603.6	Upper Casing Grout (ASTM C150 Type 1 Cement w/ 6% Bentonite; 8/16 Gravel Fill)
563.6	Top of 6" Production Casing (6.625-in OD A606)
563.4 - 1,249	6.625-inch OD A606 Blank Casing
40 ft	Overlap between Upper Casing and Production String
564 - 1,270	Class H (neat) Cement Grout
603.6 - 1,405	12-1/4 inch Lower Borehole Ream
1,248 - 1,250	A606 to Type 304L SST Dielectric Coupling
1,250 - 1,310	6.625-inch OD Type 304L SST Blank Casing
1,270 - 1,405	8/16 Gravel Pack
1,310 - 1,380	7.155-inch OD Production Screen, 0.040" Opening (Type 304L SST )
1,380 - 1,400	Sump (6.625-inch OD Type 304L SST)
1,400	Total Well Depth (to Bottom of Sump)
1,425	Total Pilot Depth (8-3/4 inch)

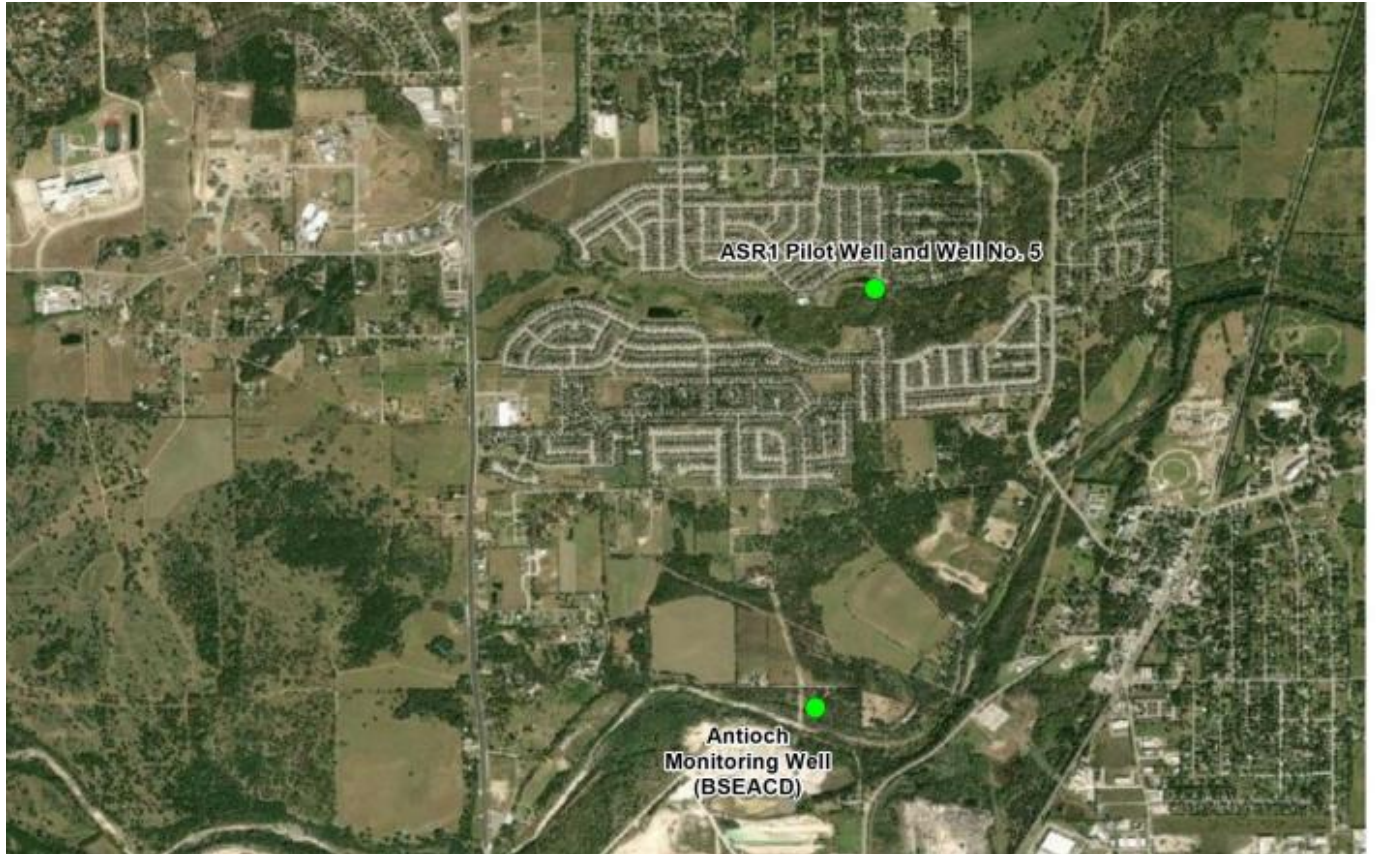
*Notes:*  
<sup>A</sup> btoc = below top of conductor casing



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Appendix B

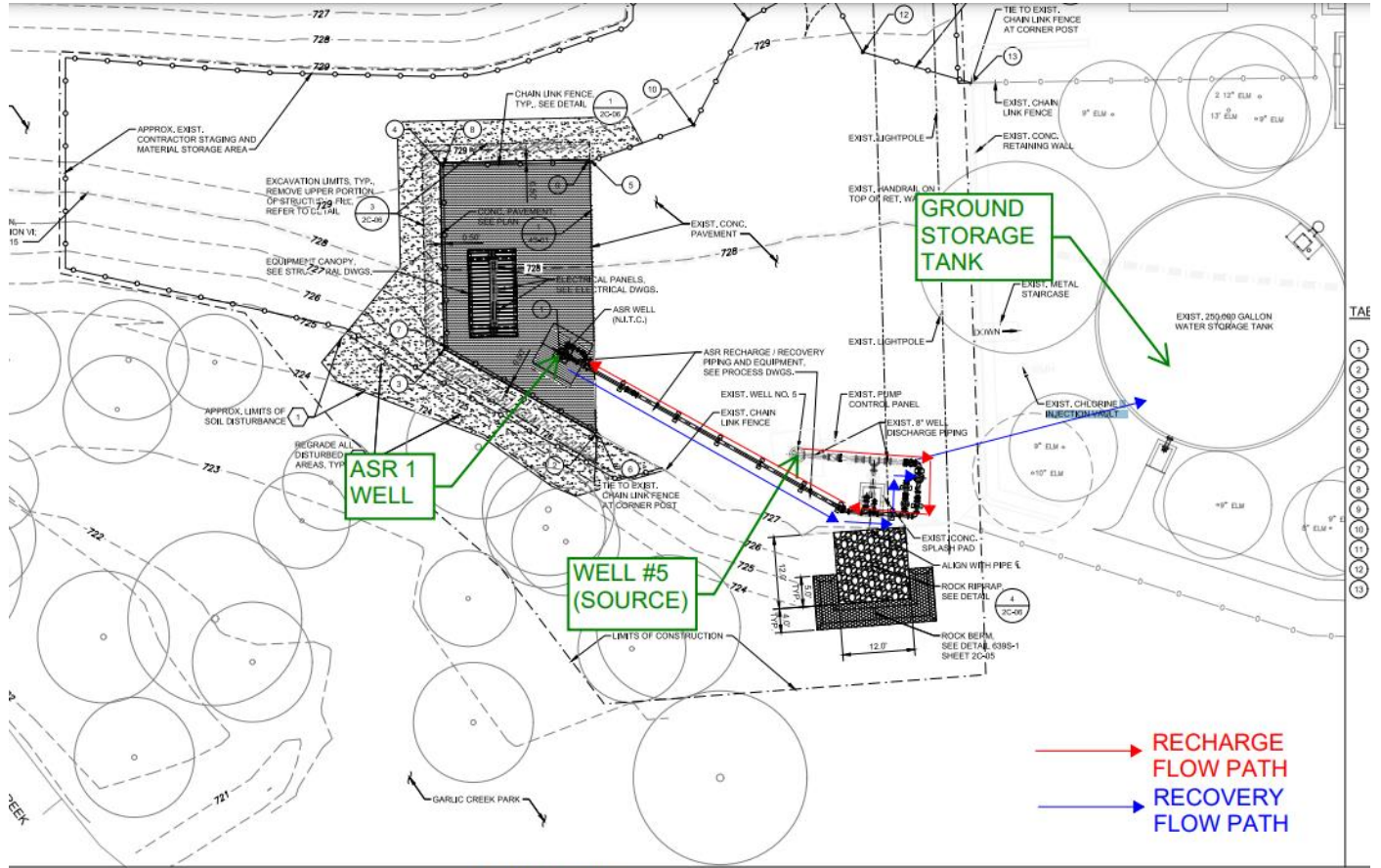
Well Location





# Appendix C

## Buda ASR As-Built Site Plan



# Appendix D

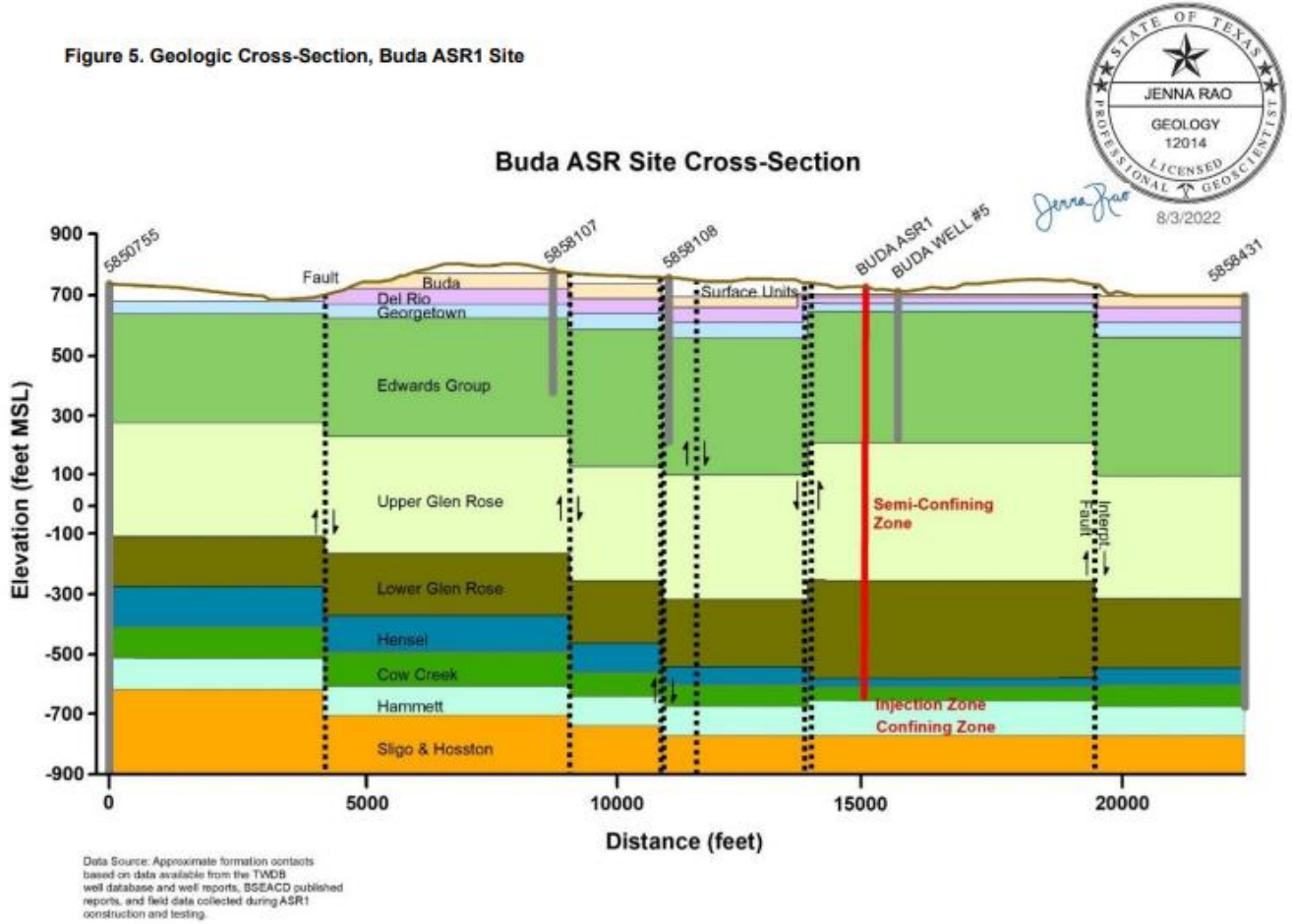
## Average Extent of Injected Water



Appendix E

Buda ASR Site Cross Section

Figure 5. Geologic Cross-Section, Buda ASR1 Site



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Appendix F

TCEQ Authorization  
Class V Aquifer Storage and Recovery Well



JUN 27 2019

## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

June 21, 2019

Mr. Blake Neffendorf, Water Resources Coordinator  
City of Buda  
405 East Loop Street, Building 100  
Buda, Texas 78610

RE: Authorization of a Class V Aquifer Storage and Recovery Injection Well  
TCEQ Authorization No. 5R2100051  
CN600739866/RN110638178  
City of Buda ASR1  
Intersection of Cullen Boulevard and Talley Loop  
Buda, Texas 78610

Dear Mr. Neffendorf:

The Texas Commission on Environmental Quality (TCEQ) Underground Injection Control (UIC) Permits Section staff has completed review of the authorization application dated December 21, 2018 prepared by HDR Engineering, Inc. for the above referenced Class V Aquifer Storage and Recovery (ASR) authorization.

Approval is hereby given for the construction of one ASR well and the injection of untreated groundwater withdrawn from the Edwards Formation (Edwards Aquifer) into the Cow Creek Formation. The application provides modeled groundwater recoverability results based on 478-days of continuous injection at a rate of 260 gallons per minute (gpm), 1,825 days of storage (no injection or recovery), and 365 days of recovery at a rate of 340 gpm. Modeling results indicate the ASR operator can recover up to 90% of the total volume of water injected into the Cow Creek Formation under the afore referenced operating scenario(s). **Any volume of water recovered that exceeds 90% of the injected volume may be subject to the requirements of Texas Water Code (TWC) Chapter 36, Subchapter N.** The authorized volume of recovered water does not include any volume(s) of injected water recovered during cycle testing prior to ASR operations. The approved authorization is limited to the plans and specifications for this site as described by the Class V ASR authorization application dated December 21, 2018 as revised on March 7, 2019 and May 10, 2019.

In order to maintain authorization by rule, injection operations must meet all requirements of 30 Texas Administrative Code (TAC) Chapter 331 (Underground Injection Control) as well as all applicable requirements of TWC Chapter 27 and 30 TAC Chapters 290, 295, and 297. Requirements for the authorization include:

1. All injection wells are to be constructed to meet the standards provided in 30 TAC §331.132 or as approved otherwise. Mechanical integrity of the well(s) shall be maintained at all times.

2. One original and one copy of as built construction diagrams are to be submitted to the UIC Permits Section, Radioactive Materials Division, at mail code MC233 within 30 days of completion.
3. Upon completion of an ASR injection well(s), the following information shall be submitted to the executive director within 30 days of the receipt of all analyses and test results:
  - all completion, logging and testing data on the well;
  - all completion data on any monitoring well(s) installed as part of the ASR system;
  - formation fluid analyses;
  - injection fluid analyses, with demonstration that injected fluids meet requirements of 30 TAC §331.186(a)(1) and 30 TAC §331.19 (if injecting into or through the Edwards Aquifer);
  - injectivity and pumping tests determining well capacity and reservoir characteristics; hydrogeologic modeling, with supporting data, that predicts mixing zone characteristics and injection fluid movement and quality; and,
  - all relevant cycle testing data, including arsenic concentrations in the Cow Creek Formation prior to, during, and after cycle testing.

The total volume of untreated Edwards Aquifer groundwater injected into the Cow Creek Formation during cycle testing shall not exceed 12.6 million gallons (MG), and the total volume of water withdrawn from the Cow Creek Formation during cycle testing shall not exceed 7 MG.

One original and one copy of the information shall be submitted to the UIC Permits Section, Radioactive Materials Division, at mail code MC233.

4. Each calendar month, the executive director shall be provided with a report containing the following information for the previous month:
  - the volume of water injected for storage;
  - the volume of water recovered for beneficial use;
  - monthly average injection pressures; and,
  - a summary statement relating to mobilization of arsenic, or lack thereof, in that portion of the Cow Creek Formation receiving injected water

One original and one copy of the report shall be submitted to the UIC Permits Section, Radioactive Materials Division, at mail code MC233.

5. Annual water quality testing shall be performed on water that is to be injected into the ASR system and on water that is recovered from the ASR system. The executive director shall be provided with a report of the results of the testing which shall include all parameters identified in the authorization. The report shall also include summary results of testing on any groundwater samples collected from monitoring well(s) associated with the ASR system. One original and one copy of the report shall be submitted to the UIC Permits Section, Radioactive Materials Division, at mail code MC233.
6. Changes to the authorization, including but not limited to the addition or replacement of wells, changes in completion of wells/setting of screens, and changes to the injection interval require an amendment. The executive director shall be notified

immediately, and one original and one copy of the amendment request shall be submitted to and approved by the UIC Permits Section prior to implementation of the changes.

7. Closure (plugging) of ASR injection wells shall comply with standards provided in 30 TAC §331.133. One original and one copy of closure reports including injection well monitoring data (injection volumes, pressures, and results) and plugging reports shall be submitted to the UIC Permits Section, Radioactive Materials Division, at mail code MC233 within 60 days of conclusion of injection activities.
8. This Class V ASR Authorization does not convey any property rights of any sort, nor any exclusive privilege, and does not become a vested right in the permittee.
9. The issuance of this Class V ASR Authorization does not authorize any injury to persons or property or an invasion of other property rights, or any infringement of state or local law or regulations.
10. The following rules are incorporated as terms and conditions of this permit by reference:
  - 30 TAC Chapter 305
  - 30 TAC Chapter 331
11. The express incorporation of the above rules as terms and conditions of this Class V ASR Authorization does not relieve the authorized entity of an obligation to comply with all other laws or regulations that are applicable to the activities approved by the authorization.

If you have any questions or comments regarding this matter, please contact me at [dan.hannah@tceq.texas.gov](mailto:dan.hannah@tceq.texas.gov) or (512) 239-2161. If you will be responding by letter, please include mail code MC233 in the mailing address.

Sincerely,



Dan Hannah, P.G., Project Manager  
Underground Injection Control Permits Section  
Radioactive Materials Division  
Texas Commission on Environmental Quality

DH/krh-d

cc: Mr. Peter Newell, HDR Engineering, Inc.

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Appendix G

TCEQ Water Supply Division Authorization



October 27, 2022

Mr. Daniel M. Frazier, P.E.  
HDR Engineering, Inc.  
4401 West Gate Blvd.  
Austin, Texas 78745

Re: City of Buda - Public Water System ID No. 1050012  
Completion Data for ASR Well  
Engineer Contact Telephone: (512) 912-5179  
Plan Review Log No. P-08172022-128  
Hays County, Texas

CN600739866; RN103783528

Dear Mr. Frazier:

On August 17, 2022, the Texas Commission on Environmental Quality (TCEQ) received completion data with your letter dated August 17, 2022 for Aquifer Storage and Recovery (ASR) Well Completion. Based on our review of the information submitted, the project generally meets the minimum requirements of Title 30 Texas Administrative Code (TAC) Chapter 290 - Rules and Regulations for Public Water Systems and the constructed well is **approved for use** based on the conditions noted below and may now be placed into service. The well's continued use is contingent upon the following conditions:

1. The ASR well construction and operation must conform to the requirements of the TCEQ Class V Injection Well Permit dated June 21, 2019 and the Amendment dated August 11, 2022 (enclosed).
2. The construction and operation of the ASR well must conform to the TCEQ Exception letters dated January 29, 2020 and March 26, 2019 (enclosed).
3. There were six "Recovery Phase" water quality samples for Cycle Test 1 and six for Cycle Test 2. In both cases the total dissolved solids (TDS) and sulfates rose over the six days of testing. A sample for the Cow Creek aquifer water (pre-injection of stored water) provided with the submittal on July 14, 2021 showed TDS of 1030 mg/L and a sulfate concentration of 545 mg/L. The sample of recovered water on February 11, 2022 showed 514 mg/L TDS and 193 mg/L sulfate. Please monitor the secondary concentration of TDS and sulfate when in recovery mode and ensure levels remain below secondary constituent levels at the entry point.
4. Upon placing the well into service, the Public Water System is required to notify the Drinking Water Inventory & Protection (DWIP) Team in writing by emailing PWSINVEN@tceq.texas.gov.
5. After facility activation by the DWIP team, a representative of TCEQ's Drinking Water Quality Team will contact the public water system to arrange for the collection of the official chemical samples. It is the water system's responsibility to contact the Drinking Water Quality (DWQ) Team at (512) 239-4691 if they have not had the official sample collection within 180 days of the date of this letter.

6. If official chemical analysis testing confirms that a regulated constituent does not meet primary drinking water standards; additional treatment, blending, or public notice may be required. The DWQ Team will notify the water system of any chemical analysis data not meeting primary drinking water standards and if a public notice is required. The system will need to propose what additional treatment or blending may be needed to meet compliance. Plans for any proposed water treatment and blending must be reviewed and approved by the Plan Review Team.
  
7. This submittal constitutes notification of the addition of a new source as required by 30 TAC Section 290.117(i)(9)(B). In accordance with 30 TAC Section 290.117(d)(2)(E), systems that change treatment or have the addition or deletion of a source of water may be required by the TCEQ to conduct additional monitoring to ensure that the system maintains minimal levels of corrosion. The source was determined to be slightly corrosive using water quality indices. Based upon this addition of a new source, the TCEQ is removing any previous approvals for reduced Lead and Copper Rule monitoring frequency and requiring your system to return to routine sampling for two consecutive six-month periods. The new two consecutive six-month sampling schedule will be changed to the next viable sampling period by a TCEQ lead and copper program coordinator. **The required sampling needs to be indicative of the system when using this well. It is understood that this well will be used seasonally for peak use in the summer. Please coordinate with the Lead and Copper Program to do this testing during the well's seasonal usage.** You may contact the Lead and Copper Program at 512-239-4691 to coordinate the testing and regarding any other questions or concerns. Required monitoring is:
  - a) **Routine Tap Sampling:** Lead and copper tap sampling during two consecutive six-month periods [290.117(c)(2)(A)(ii)].
  - b) **Water Quality Parameter Sampling:** Water quality parameters (WQPs) monitoring at the frequency and locations in the following table and during the same timeframe as the two consecutive 6-month lead and copper tap sampling noted above.

WQP List	Location	Frequency
<ul style="list-style-type: none"> <li>• pH</li> <li>• Total Alkalinity (as CaCO<sub>3</sub>)</li> <li>• Calcium</li> <li>• Calcium (as CaCO<sub>3</sub>)</li> <li>• Chloride</li> <li>• Iron</li> <li>• Manganese</li> <li>• Sodium</li> <li>• Sulfate</li> <li>• Conductivity</li> <li>• TDS</li> <li>• temperature</li> <li>• orthophosphate or silica</li> </ul>	Routine number of distribution sites and all entry points	Quarterly

*Note: Orthophosphate (measured as phosphate-phosphorous (PO<sub>4</sub>-P)) must be measured only when an inhibitor containing a phosphate compound is used; inhibitors that contain phosphate include orthophosphate and polyphosphate. Silica must be measured only when an inhibitor containing silicate compound is used.*

After successful monitoring with no Action Levels Exceedances, you will be eligible to have a reduced monitoring schedule again if new sources or new treatment are not added. As stated above, WQPs will be required for all entry points and distributions sites during four quarters during the two consecutive 6-month lead and copper tap sampling. Please provide a signed and sealed engineering report (see attached Corrosivity Engineering Report Checklist) within 7 months of the start date of the first six-month period on the results of the first two quarter of WQP samples and the first six-month tap sample results and a discussion on the corrosiveness of the treated water from the new source. The report shall be submitted to:

Craig Stowell, P.E.  
Plan Review Team, MC-159  
Texas Commission on Environmental Quality  
P.O. Box 13087  
Austin, Texas 78711-3087

The well completion data consisted of the following:

- State of Texas Well Report (Tracking No. 550183);
- Well Latitude and Longitude: Lat. 30°05'41.2" N; Long. 97°51'23.3" W;
- Driller's log (geologic log and material setting report);
- Cementing certificate in accord with TCEQ exceptions;
- 36-hour pumping test results;
- City owns all property within 150 feet for Sanitary Control;
- U. S. Geological Survey 7.5-minute map showing the well location;
- Three bacteriological sampling results showing no coliform contamination from LCRA Environmental Lab Services on July 14, 15, and 16, 2021; and,
- Chemical analysis results from LCRA Environmental Lab Services dated February 11, 2022 (Day 6 sample of Cycle Test 2):

<b>Primary Contaminants</b>		
<b>Contaminant</b>	<b>MCL (mg/L)</b>	<b>Results</b>
Arsenic	0.01	0.00152
Fluoride	4.0	1.17
Nitrate	10 (as N)	<0.0100
Nitrite	1 (as N)	<0.0100

<b>Secondary Contaminants</b>		
<b>Contaminant</b>	<b>SCL (mg/L)</b>	<b>Results</b>
Aluminum	0.2	<0.00500
Chloride	300	12.9
Copper	1.0	<0.00100
Fluoride	2.0	1.17
Iron	0.3	0.217
Manganese	0.05	0.00484
pH	≥7 (Standard Unit)	7.4
Sulfate	300	193
Total Dissolved Solids	1,000	514
Zinc	5.0	<0.00500

<b>Corrosive Water Parameters</b>	
<b>Parameter (mg/L)</b>	<b>Result</b>
Alkalinity as CaCO <sub>3</sub>	238
Calcium as CaCO <sub>3</sub>	212
Sodium	11.2
Lead	<0.00100

The constructed ASR well includes the following:

- One (1) public water supply well drilled to 1405 feet with:
  - 604 linear feet (lf) of 14-inch outside diameter (od) ASTM A606 Type 4 upper casing and pressure-cemented to 604 lf;
  - 644 lf of 6.625-inch od ASTM A606 Type 4 lower casing pressure-cemented 644 lf;
  - 22 lf of 6.625-inch od AISI Type 304 stainless steel liner as part of the lower casing below the dielectric coupling and pressure-cemented 22 lf;
- 70 lf of 6.625-inch od stainless steel screen, 60 lf of 6.625-inch od Type 304 stainless steel blank liner with 135 lf of gravel pack;
- The well is rated for 410 gallons per minute (gpm) yield with a 60-horsepower vertical turbine pump set at 367 feet deep. The design capacity of the pump is 410 gpm at 370 feet of total dynamic head.

This approval is for the above listed items only. Any wastewater components contained in this design were not considered. The authorization provided in this letter does not relieve a Public Water System from the need to comply with other applicable state and federal regulations.

The City of Buda public water system provides water treatment.

The project is located adjacent to City Well #5 at the intersection of Cullen Blvd. and Talley Loop in Hays County, Texas.

Texas Water Code Section 36.0015 allows for the creation of groundwater conservation districts (GCDs) as the preferred method of groundwater management. GCDs manage groundwater in many counties and are authorized to regulate production and spacing of water wells. **Public water systems drilling wells within an existing GCD are responsible for meeting the GCD's requirements.** The authorization provided in this letter does not affect GCD authority to manage groundwater or issue permits.

The well was approved for construction in our February 12, 2020 letter (Plan Review Log No. P-01222020-142).

Please refer to the Plan Review Team's Log No. **P-08172022-128** in all correspondence for this project.

Please complete a copy of the most current Public Water System Plan Review Submittal form for any future submittals to TCEQ. Every blank on the form must be completed to minimize any delays in the review of your project. The document is available on TCEQ's website at the address shown below. You can also download the most current plan submittal checklists and forms from the same address.

<https://www.tceq.texas.gov/drinkingwater/udpubs.html>

For future reference, you can review part of the Plan Review Team's database to see if we have received your project. This is available on TCEQ's website at the following address:

<https://www.tceq.texas.gov/drinkingwater/planrev.html/#status>

You can download the latest revision of 30 TAC Chapter 290 - [Rules and Regulations for Public Water Systems](#) from this site.

If you have any questions concerning this letter or need further assistance, please contact David Yager at (512) 239-0605 or by email at David.Yager@Tceq.Texas.Gov or by correspondence at the following address:

Plan Review Team, MC-159  
Texas Commission on Environmental Quality  
P.O. Box 13087  
Austin, Texas 78711-3087

Sincerely,



David H. Yager, P.E.  
Plan Review Team  
Plan and Technical Review Section  
Water Supply Division  
Texas Commission on Environmental Quality



Joel Klumpp, Section Manager  
Plan and Technical Review Section  
Water Supply Division  
Texas Commission on Environmental Quality

JK/DY/av

Enclosures: TCEQ Exception Letter dated January 29, 2020  
TCEQ Exception Letter dated March 26, 2019  
TCEQ Class V Well Permit dated June 21, 2019,  
TCEQ Class V Well Amendment dated August 11, 2022

cc: City of Buda, Attn: George Haehn, 405 East Loop Street, Building 100, Buda, Texas  
78610,

bcc: TCEQ Central Records PWS File 1050012 (P-08172022-128/City of Buda)  
TCEQ Region No. 11 Office - Austin  
TCEQ PWSINVEN, MC-155  
TCEQ PWSCHEM, MC-155  
TCEQ Drinking Water Special Functions, MC-155  
TCEQ PWSLCR, MC-155

## Item 6

### Board Discussion and Possible Action

- d. Discussion and possible action on grant agreement/contract with City of Austin for installation of the Westbay Multiport equipment in the new Zilker Park monitoring well.





**GRANT AGREEMENT BETWEEN  
THE CITY OF AUSTIN  
AND  
BARTON SPRINGS EDWARDS AQUIFER CONSERVATION DISTRICT, AWARDEE**

This Grant Agreement (**Agreement**) is made by and between the City of Austin (**City**), a home-rule municipality incorporated by the State of Texas, and Barton Springs Edwards Aquifer Conservation District, a groundwater conservation district established by the State of Texas (**Awardee**), operating at 1124 Regal Row, Austin, TX, 78748.

**RECITALS**

The Barton Springs Salamander Conservation Fund (**BSSCF**) was established as a conservation measure in the City's Habitat Conservation Plan (**HCP**) and associated incidental take permit (**ITP**) from the U.S. Fish and Wildlife Service (**USFWS**) that allows for the operation and management of Barton Springs Pool as a recreational facility.

The objective of the BSSCF is to support educational, scientific, or management projects that promote the conservation of endangered Barton Springs and Austin blind salamanders, and the groundwater ecosystem where they exist. Each year, a portion of the proceeds from entrance fees to Barton Springs Pool is allocated to the BSSCF.

In accordance with the HCP and ITP, the use of BSSCF is restricted to "the study of salamander biology, captive breeding, refugium development, reintroduction, watershed related research, improved cleaning techniques for natural water bodies, education and/or land acquisition."

The City seeks to use these funds to provide further funding for installation of monitoring wells in City parks that provide unique data regarding aquifer dynamics and water chemistry near Barton Springs. In accordance with this goal, the City has entered into an ILA dated May 8, 2019, and a Memorandum of Understanding dated September 19, 2023 with Awardee for access to Zilker Park for monitor well installation and ongoing sample operations.

**SECTION 1. TERM**

**1.1 Term of Agreement.** The term of this Agreement begins on the date the Agreement is signed by the last of the parties (**Effective Date**) for a term of one year unless terminated earlier in accordance with provisions of this Agreement. The City reserves the right to extend this Agreement if it determines it is necessary.

**SECTION 2. USE OF GRANT FUNDS**

**2.1 Permitted Uses.** These grant funds are to be used for contractor and equipment costs related to the Awardee's responsibilities as described in the Proposal, Scope of Work and Budget set forth in Exhibit A,

**SECTION 3. GRANT AMOUNT AND REPORTING**

**3.1 Grant Amount.** Awardee acknowledges and agrees that, notwithstanding any other provision of this Agreement, the maximum amount payable by the City for this grant award is \$73,700.

3.1.1 The City shall pay the grant award of \$73,700 to the Awardee within thirty business days of the Effective Date.

**3.2 Reports.**

3.2.1 The Awardee shall complete and submit reports, as required in Exhibit A. Any encumbrances of funds incurred prior to the date of termination of this Agreement shall be subject to verification by the City. Upon termination of this Agreement, any unused funds, unobligated funds, rebates, credits, or interest earned on funds received under this Agreement shall be returned to the City.

**3.3 Awardee Policies and Procedures.**

3.3.1 As applicable and during the Term, the Awardee shall provide the City with copies of any revised Articles of Incorporation and Doing Business As (DBA) certificates (if applicable) within 14 calendar days of receipt of the notice of filing by the Secretary of State's office. During the Term, the Awardee shall provide the City with copies of any revised By-Laws within 14 calendar days of their approval by Awardee's governing body.

**3.4 Monitoring and Evaluation.**

3.4.1 The Awardee agrees that the City or its designee may carry out monitoring and evaluation activities to ensure adherence by the Awardee to this Agreement. The Awardee shall fully cooperate in any monitoring or review by the City.

3.4.2 As applicable, the Awardee shall keep on file copies of all notices of Board of Directors meetings, Subcommittee or Advisory Board meetings, and copies of approved minutes of those meetings, related to this Agreement.

**3.5 Right to Audit by Office of City Auditor.**

3.5.1 The Awardee agrees that the representatives of the Office of the City Auditor, or other authorized representatives of the City, shall have access to, and the right to audit, examine, and copy any and all records of Awardee related to the performance under this Agreement during normal business hours (Monday – Friday, 8 am – 5 pm) upon reasonable notice. In addition to any other rights of termination or suspension set forth herein, the City shall have the right to immediately suspend the Agreement, upon written notice to the Awardee, if the Awardee fails to cooperate with this audit provision. The Awardee shall retain all such records for a period of 5 years after the expiration or early termination of this Agreement or until all audit and litigation matters that the City has brought to the attention of the Awardee are resolved, whichever is longer. The Awardee agrees to refund to the City any overpayments or inappropriate use of funds disclosed by any such audit.

3.5.2 Awardee shall include this audit requirement in any sub agreements entered into in connection with this Agreement.

**SECTION 4. RESPONSIBILITIES OF AWARDEE.**

4.1 **Awardee Responsibilities** The Awardee agrees to fully and timely perform the responsibilities and adhere to the terms identified in the Proposal, Scope of Work, and Budget attached herein as Exhibit A.

**SECTION 5. TERMINATION**

5.1 **Right to Assurance.** Whenever one party to the Agreement in good faith has reason to question the other party's intent to perform, demand may be made to the other party for written assurance of the intent to perform. In the event that no assurance is given within the time specified after demand is made, the demanding party may treat this failure as an anticipatory repudiation of the Agreement.

**5.2 Default.** The Awardee shall be in default under the Agreement if the Awardee (a) fails to fully, timely and faithfully perform any of its material obligations under the Agreement, (b) fails to provide adequate assurance of performance under the "Right to Assurance" paragraph herein, (c) becomes insolvent or seeks relief under the bankruptcy laws of the United States or (d) makes a material misrepresentation in the Awardee's grant application or in any report or deliverable required to be submitted to the City.

**5.3 Termination for Cause.** In the event of a default by Awardee, the City shall have the right to terminate the Agreement for cause, by written notice effective upon 10 calendar days, unless otherwise specified, after the date of such notice, unless the Awardee, within such 10-day period, cures such default, or provides evidence sufficient to prove to the City's reasonable satisfaction that such default does not, in fact, exist.

## **SECTION 6. OTHER DELIVERABLES**

**6.1 Insurance.** The Awardee shall carry insurance as required, in the following types and minimum amounts for the duration of this Agreement and upon request, furnish certificates of insurance along with copies of policy declaration pages and all policy endorsements as evidence thereof. The required specified types of insurance for are as follows:

- 6.1.1 Commercial General Liability Insurance with a minimum bodily injury and property damage per occurrence limit of \$500,000 for coverages A and B. The policy shall contain medical payments coverage, contractual liability coverage, and independent contractor's coverage.
- 6.1.2 Business Automobile Liability Insurance for all owned, non-owned and hired vehicles with a minimum combined single limit of \$500,000 per occurrence for bodily injury and property damage. Alternate acceptable limits are \$250,000 bodily injury per person, \$500,000 bodily injury per occurrence and at least \$100,000 property damage liability per accident.
- 6.1.3 Worker's Compensation and Employers' Liability Insurance. Coverage shall be consistent with statutory benefits outlined in the Texas Worker's Compensation Act (Sec. 401). The minimum policy limits for Employer's Liability are \$100,000 bodily injury each accident, \$500,000 bodily injury by disease policy limit and \$100,000 bodily injury by disease each employee. The policy shall apply to the City of Austin and the State of Texas.
- 6.1.4 Property Insurance: The Awardee shall provide All Risk (Special Form) Property coverage including, but not limited to, fire, wind, hail, theft, vandalism, and malicious mischief for all real and personal property owned by the City and in the care, custody, and control of the for the period of time from acquisition of equipment until installation. The City shall be added to the property policy as a Loss Payee as their interest may appear.

**6.2** In addition, certificates of insurance shall contain the proper office of the insurer, the locations and operations to which the insurance applies and the expiration date of coverage. If the insurance policy amounts are for less than the amounts listed above, the Awardee shall carry an Excess Liability Insurance policy for any differences in amounts. If Excess Liability Insurance is provided, it shall follow the form of the primary coverage. The Awardee is responsible for all deductibles or self-insured retentions. Insurance is to be written by a company licensed to do business in the State of Texas at the time the policy is issued and acceptable to the City.

- 6.2.1 The Awardee shall produce an endorsement to each effected policy naming the City of Austin, Watershed Protection Department, Environmental Management and Compliance Division, 505 Barton Springs Rd., Austin, Texas 78704, as an additional insured (except Workers' Compensation). Endorsements shall also:
  - 6.2.1.1 Provide a waiver of subrogation in favor of the City of Austin Watershed Protection Department, Environmental Management and Compliance Division, 505 Barton Springs Rd., Austin, Texas 78704.
  - 6.2.1.2 Obligate the insurance company to provide 30 days' written notification to the City of Austin, Watershed Protection Department, Environmental Management and

Compliance Division 505 Barton Springs Rd., Austin, Texas 78704, of any non-renewals, cancellations or other material changes to the insurance coverage(s).

6.2.1.3 Ensures the "other" insurance clause shall not apply to the City where the City is an additional insured shown on the policy declarations or by endorsement. It is intended that policies required in this agreement shall be considered primary coverage as applicable.

6.2.2 The Awardee shall not cause any insurance to be canceled nor permit any insurance to lapse during the term of this Agreement. All certificates of insurance shall include a clause to the effect that the policy shall not be canceled, renewed or material changes made without 30 days' prior written notice made to the City.

6.2.3 The City shall be entitled, upon request, and without expense, to receive certified copies of policies and all endorsements.

**6.3 Awardee's Driver(s).** All employees of the Awardee who drive a vehicle during the course and scope of their employment shall possess a valid Texas driver's license and liability insurance. The insurance requirement is waived if the Awardee has obtained such insurance for its employees who drive for it.

**6.4 Equal Opportunity.**

6.4.1 Equal Employment Opportunity: The Awardee shall not engage in any discriminatory employment practice as defined in Chapter 5-4 of the City Code. Non-compliance with Chapter 5-4 of the City Code may result in sanctions, including termination of the Agreement and the Awardee's suspension or debarment from participation on future City Contracts or Agreements until deemed compliant with Chapter 5-4.

6.4.2 Non-Retaliation: The Awardee agrees to prohibit retaliation, discharge or otherwise discrimination against any employee or applicant for employment who has inquired about, discussed or disclosed their compensation.

6.4.3 Americans with Disabilities Act (ADA) Compliance: The Awardee shall not engage in any discriminatory practice against individuals with disabilities as defined in the ADA, including but not limited to: employment, accessibility to goods and services, reasonable accommodations, and effective communications.

**SECTION 7. MISCELLANEOUS**

**7.1 Indemnity.**

7.1.1 Definitions:

7.1.1.1 "Indemnified Claims" shall include any and all claims, demands, suits, causes of action, judgments and liability of every character, type or description, including all reasonable costs and expenses of litigation, mediation or other alternate dispute resolution mechanism, including attorney and other professional fees for:

7.1.1.1.1 damage to or loss of the property of any person (including, but not limited to the City, Awardee, their respective agents, officers, employees; and/or

7.1.1.1.2 death, bodily injury, illness, disease, worker's compensation, loss of services, or loss of income or wages to any person (including but not limited to the agents, officers and employees of the City, Awardee, and third parties),

7.1.1.2 "Fault" shall include the sale of defective or non-conforming deliverables, negligence, willful misconduct, or a breach of any legally imposed strict liability standard.

7.1.2 TO THE EXTENT PERMITTED BY LAW, AWARDEE SHALL DEFEND (AT THE OPTION OF THE CITY), INDEMNIFY, AND HOLD THE CITY, ITS SUCCESSORS, ASSIGNS, OFFICERS, EMPLOYEES AND ELECTED OFFICIALS HARMLESS FROM AND AGAINST ALL INDEMNIFIED CLAIMS DIRECTLY ARISING OUT OF, INCIDENT TO, CONCERNING OR RESULTING FROM THE FAULT OF AWARDEE, OR AWARDEE'S AGENTS, OR EMPLOYEES, IN THE PERFORMANCE OF AWARDEE'S OBLIGATIONS UNDER THE AGREEMENT. NOTHING HEREIN SHALL BE DEEMED TO LIMIT THE RIGHTS OF THE CITY OR AWARDEE (INCLUDING, BUT NOT LIMITED TO, THE RIGHT TO SEEK CONTRIBUTION) AGAINST ANY THIRD PARTY WHO MAY BE LIABLE FOR AN INDEMNIFIED CLAIM.

7.2 **Attorney's Fees:** In consideration of the award and execution of this Agreement and in consideration of the City's waiver of its right to attorney's fees, the Awardee knowingly and intentionally waives its right to attorney's fees under §271.153, Texas Local Government Code, in any administrative proceeding, alternative dispute resolution proceeding, or litigation arising out of or connected to this Agreement.

7.3 **Claims.** If any claim, demand, suit, or other action is asserted against Awardee which arises under or concerns the Agreement, or which could have a material adverse effect on Awardee's ability to perform hereunder, Awardee shall give written notice thereof to the City within 10 calendar days after receipt of notice by Awardee. Such notice to the City shall state the date of notification of any such claim, demand, suit, or other action; the names and addresses of the claimant(s); the basis thereof; and the name of each person against whom such claim is being asserted. Such notice shall be delivered personally or by mail and shall be sent to the City and to the Austin City Attorney. Personal delivery to the City Attorney shall be to City Hall, 301 West 2nd Street, 4th Floor, Austin, Texas 78701, and mail delivery shall be to P.O. Box 1088, Austin, Texas 78767.

7.4 **Notices.** Unless otherwise specified, all notices, requests, or other communications required or appropriate to be given under the Agreement shall be in writing and shall be deemed delivered 3 business days after postmarked if sent by U.S. Postal Service Certified or Registered Mail, Return Receipt Requested. Notices delivered by other means shall be deemed delivered upon receipt by the addressee. Routine communications may be made by first class mail, email, or other commercially accepted means. Notices to the City and Awardee shall be addressed as follows:

**To the City:**

City of Austin  
Watershed Protection Department  
ATTN: Salamander Conservation  
PO Box 1088  
Austin TX 78767  
BSSCF@austintexas.gov

**To Awardee:**

Tim Loftus, General Manager  
Barton Springs Edwards Aquifer Conservation District  
1124 Regal Row, Austin, TX, 78748

7.5 **Gratuities.** The City may, by written notice to Awardee, cancel the Agreement without liability if it is determined by the City that gratuities were offered or given by Awardee or any agent or representative of Awardee to any officer or employee of the City with a view toward securing the Agreement or securing favorable treatment with respect to the awarding or amending or the making of any determinations with respect to the performing of such Agreement. In the event the Agreement is canceled by the City pursuant to this provision, the City shall be entitled, in addition to any other rights and remedies, to recover or withhold the amount of the cost incurred by Awardee in providing such gratuities.

- 7.6 Prohibition Against Personal Interest in Agreements.** No officer, employee, independent consultant, or elected official of the City who is involved in the development, evaluation, or decision-making process of the performance of any solicitation shall have a financial interest, direct or indirect, in the Agreement resulting from that solicitation. Any willful violation of this Section shall constitute impropriety in office, and any officer or employee guilty thereof shall be subject to disciplinary action up to and including dismissal. Any violation of this provision, with the knowledge, expressed or implied, of Awardee shall render the Agreement voidable by the City.
- 7.7 Independent Contractor.** The Agreement shall not be construed as creating an employer/employee relationship, a partnership, or a joint venture. Awardee's services shall be those of an independent contractor. Awardee agrees and understands that the Agreement does not grant any rights or privileges established for employees of the City.
- 7.8 Assignment-Delegation.** The Agreement shall be binding upon and inure to the benefit of the City and Awardee and their respective successors and assigns, provided however, that no right or interest in the Agreement shall be assigned and no obligation shall be delegated by Awardee. Any attempted assignment or delegation by Awardee shall be void. The Agreement is not intended to confer rights or benefits on any person, firm or entity not a party hereto; it being the intention of the parties that there be no third party beneficiaries to the Agreement.
- 7.9 Waiver.** No claim or right arising out of a breach of the Agreement can be discharged in whole or in part by a waiver or renunciation of the claim or right unless the waiver or renunciation is supported by consideration and is in writing signed by the aggrieved party. No waiver by either Awardee or the City of any one or more events of default by the other party shall operate as, or be construed to be, a permanent waiver of any rights or obligations under the Agreement, or an express or implied acceptance of any other existing or future default or defaults, whether of a similar or different character.
- 7.10 Modifications.** The Agreement can be modified or amended only by a written, signed agreement by both parties. No pre-printed or similar terms on any Awardee invoice, order, or other document shall have any force or effect to change the terms, covenants, and conditions of the Agreement.
- 7.11 Interpretation.** The Agreement is intended by the parties as a final, complete and exclusive statement of the terms of their agreement. No course of prior dealing between the parties or course of performance or usage of the trade shall be relevant to supplement or explain any term used in the Agreement. Although the Agreement may have been substantially drafted by one party, it is the intent of the parties that all provisions be construed in a manner to be fair to both parties, reading no provisions more strictly against one party or the other. Whenever a term defined by the Uniform Commercial Code, as enacted by the State of Texas, is used in the Agreement, the UCC definition shall control, unless otherwise defined in the Agreement.
- 7.12 Jurisdiction and Venue.** The Agreement is made under and shall be governed by the laws of the State of Texas, including, when applicable, the Uniform Commercial Code as adopted in Texas, V.T.C.A., Bus. & Comm. Code, Chapter 1, excluding any rule or principle that would refer to and apply the substantive law of another state or jurisdiction. All issues arising from this Agreement shall be resolved in the courts of Travis County, Texas and the parties agree to submit to the exclusive personal jurisdiction of such courts. The foregoing, however, shall not be construed or interpreted to limit or restrict the right or ability of the City to seek and secure injunctive relief from any competent authority as contemplated herein.
- 7.13 Invalidity.** The invalidity, illegality, or unenforceability of any provision of the Agreement shall in no way affect the validity or enforceability of any other portion or provision of the Agreement. Any void provision shall be deemed severed from the Agreement and the balance of the Agreement shall be construed and enforced as if the Agreement did not contain the particular portion or provision held to be void. The parties further agree to reform the Agreement to replace any stricken provision with a valid provision that comes as close as possible to the intent of the stricken provision. The provisions of this Section shall not prevent this entire Agreement from being void should a provision which is the essence of the Agreement be determined to be void.

- 7.14 **Survivability of Obligations**. All provisions of the Agreement that impose continuing obligations on the parties, including but not limited to indemnity, shall survive the expiration or termination of the Agreement.
- 7.15 **Non-Suspension or Debarment Certification**. The City is prohibited from contracting with or making prime or sub-awards to parties that are suspended or debarred or whose principals are suspended or debarred from federal, state, or City Agreements. By accepting an Agreement with the City, Awardee certifies that its firm and its principals are not currently suspended or debarred from doing business with the Federal Government, as indicated by the Exclusions records at SAM.gov, the State of Texas, or the City of Austin.
- 7.16 **Public Information Act**. Awardee acknowledges that the City is required to comply with Chapter 552 of the Texas Government Code (Public Information Act). Under the Public Information Act, this Agreement and all related information within the City's possession or to which the City has access are presumed to be public and will be released unless the information is subject to an exception described in the Public Information Act.
- 7.17 **Political and Sectarian Activity**. No portion of the funds received by Awardee under this Agreement shall be used for any political activity (including, but not limited to, any activity to further the election or defeat of any candidate for public office) or any activity undertaken to influence the passage, defeat, or final content of legislation; or for any sectarian or religious purposes.
- 7.18 **Funding Out and Offset for Taxes Owed**. Awardee acknowledges that the City has provided notice of Article VIII, Section 1 of the Austin City Charter which prohibits the payment of any money to any person who is in arrears to City of Austin for taxes, and of § 2-8-3 of the Austin City Code concerning the right of City of Austin to offset indebtedness owed City of Austin. Awardee also acknowledges that the City has provided notice that the City's payment obligations are payable only from funds appropriated or available for the purpose of this Agreement. If the City does not appropriate funds for this Agreement, or if there are no other lawfully available funds for this Agreement, the Agreement is void. City shall provide Awardee notice of the failure of City to make an adequate appropriation for any fiscal year to pay the amounts due under the Agreement or the reduction of any appropriation to an amount insufficient to permit City to pay its obligations under the Agreement.
- 7.19 **Entire Agreement**. This Agreement, together with the below Exhibits, and any addenda and amendments thereto constitute the entire agreement between the parties, and this Agreement shall not be modified, amended, altered, or changed except with the written consent of the parties.
- 7.20 **Counterparts and Electronic Signature**. This Agreement may be executed simultaneously in one or more counterparts, each of which is considered an original and all of which together shall constitute one and the same instrument. The counterparts to this Agreement may be executed and delivered by electronic signature by either party and the receiving party may rely on the receipt of such document so executed and delivered electronically as if the original had been received.

[signatures follow on next page]

In witness whereof, the parties have caused duly authorized representatives to execute this Agreement on the dates set forth below.

**AWARDEE  
Barton Springs/Edwards Aquifer  
Conservation District**

**CITY OF AUSTIN**

Signature: \_\_\_\_\_  
Blayne Stansberry, Board President

Signature: \_\_\_\_\_

Name: \_\_\_\_\_  
*Printed*

Name: \_\_\_\_\_  
*Printed*

Signature: \_\_\_\_\_  
Tim Loftus, General Manager

Title: \_\_\_\_\_

Name: \_\_\_\_\_  
*Printed*

Date: \_\_\_\_\_

Date: \_\_\_\_\_

**APPROVED AS TO FORM AND LEGALITY:**

**Assistant City Attorney**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name (printed)

By: \_\_\_\_\_  
Lauren Khoury

\_\_\_\_\_  
Title (printed)

**EXHIBITS**

Exhibit A                      Proposal, Scope of Work, and Budget



## PROPOSAL, SCOPE OF WORK, AND BUDGET

Proposal for Enhancing a Standard-Monitoring Well:  
Installation of a Multiport Monitor Well in Zilker Park  
December 22, 2023

### Introduction

The Barton Springs/Edwards Aquifer Conservation District (BSEACD) is currently in negotiations with the City of Austin (COA) to install two standard monitoring wells in city parks: Zilker Park and Garrison Park. The installation of these new wells is made possible with funding from Magellan Midstream Partners, L.P. (Magellan) to the BSEACD for this purpose. Magellan also provides the BSEACD with limited annual funding to conduct water sampling and laboratory analysis for BTEX<sup>1</sup> and total petroleum hydrocarbons (TPH). The purpose of this grant proposal is to seek additional funding to enhance the standard monitoring well planned for Zilker Park by converting it into a multiport well as described below and at the time of well installation. The enhancement will generate uniquely useful data. Following analysis, the new information from a multiport well will add to joint management and protection efforts and benefit the endangered species that reside in the Barton Spring pool and subterranean cavities.

### Project Goal

The goal of this project is to enhance a standard monitoring well being planned for installation in order to gain a better understanding of aquifer dynamics and water chemistry close to Barton Springs. The well enhancement project will enable certain activities to be performed year-round, but especially during periods of extreme drought to improve protection of two endangered species: Barton Springs salamander (*Eurycea sosorum*) and Austin blind salamander (*Eurycea waterlooensis*). This project falls under the goal of “watershed related research” as specified in the COA’s Habitat Conservation Plan (HCP) and Incidental Take Permit (ITP) and will focus specifically on characteristics of the Edwards Aquifer in the immediate vicinity of Barton Springs. This will be accomplished with the installation of a multiport well that is capable of monitoring multiple zones in the aquifer in a single borehole. An enhanced understanding of the dynamics of the entire vertical profile of the aquifer gained from this well will allow for an evaluation of the feasibility of dissolved oxygen (DO) augmentation of the groundwater that discharges at Barton Springs. Dissolved oxygen augmentation was identified in the BSEACD HCP as Mitigation Measure M2 for periods of extreme drought when DO levels in water in and near Barton Springs decrease such that the salamanders would be subject to high levels of take.

### Project Objectives

The respective HCPs of the BSEACD and the COA call for studies that can increase the protections of the salamanders. This proposed study directly addresses the potential for augmentation of DO into the system that feeds groundwater to the springs. The main objective of this project, therefore, is to characterize the Edwards Aquifer beneath Barton Springs with a multiport monitor well to gain a better understanding of the chemistry and hydrologic relationships of the various hydrostratigraphic units of the Edwards Aquifer that affect the habitat of the endangered salamanders. This specific project objective falls within the objective of the Barton Springs Salamander Conservation Fund (BSSCF) which is to “support educational, scientific, or management projects that promote the conservation of endangered Barton Springs and Austin blind salamanders, and the groundwater ecosystem where they exist.”

The HCP for the BSEACD recommends studying the potential for augmentation of dissolved oxygen (DO) to the Edwards Aquifer in the vicinity of Barton Springs during periods of extreme drought so that threats to the endangered salamanders because of low DO will be minimized. Studies conducted during

<sup>1</sup> BTEX = benzene, toluene, ethylbenzene, and xylene

the preparation of the HCP showed that low levels of DO during extreme drought will cause considerable take of the salamanders. If levels of DO in the groundwater near the springs could be increased by either the injection of oxygen, or by injecting oxygenated water, into the aquifer, then DO levels could be maintained at a protective level even as springflow is decreasing. To address the potential for DO augmentation, we propose the installation of a multiport monitor well between 500 and 800 feet south of the main spring outlet. This well will be used to characterize the distinct hydrogeologic units of the Edwards Aquifer to better understand the chemistry of these units and how groundwater flows towards the springs, both horizontally and vertically. The improved understanding of vertical and horizontal groundwater flowpaths in the vicinity of the spring outlets provided by the proposed multiport well will be critical for implementing an effective DO augmentation plan.

Very little is known about the Edwards Aquifer beneath the immediate vicinity of Barton Springs. Discharge from the various spring outlets has been well documented for over 100 years. The surface geology has been well characterized and data from hundreds of wells provide significant insight into the aquifer some distance from Barton Springs. It is known that the aquifer is very complex both horizontally and vertically, and key pathways of flow to the springs have been documented by numerous dye traces. However, the vertical positions of these pathways are unknown, and the chemistry associated with specific Edwards hydrologic units has not been determined except for three multiport wells installed by the BSEACD adjacent to Onion Creek at about 15 miles south of the springs.

It is important to understand the chemistry of the water feeding into the habitat of the endangered salamanders. Water discharging from the springs comes from many portions of the aquifer, but the amount of water coming from greater depths relative to intermediate and shallow depths is unknown. Knowledge of this distribution and the associated chemistry is important to better predict water quality at the springs during extreme drought. We expect that the amounts of total dissolved solids and dissolved oxygen vary with depth, but there are no data about these parameters in the vicinity of the springs. The proposed multiport monitor well is capable of yielding discrete groundwater samples from multiple zones in the aquifer from which water quality parameters can be analyzed.

The BSEACD has been studying the Edwards Aquifer since the District was formed 35 years ago. We have worked jointly with the COA Watershed Protection Program on many projects. And we have installed four multiport monitor wells into the Edwards Aquifer and an additional three multiport wells that include much of the Trinity Aquifers. Results from testing of these wells have shown that there is minimal to no potential for flow of groundwater between the Edwards and the Middle Trinity units. Results also show that there is considerable variation in aquifer parameters within the Edwards Aquifer.

## **Scope of Work**

### Project Term and Interlocal Agreement

This project is estimated to begin after June 1, 2023. Once started, on-site activities should be finished within two months. For example, actual drilling and installation of the well will take about three weeks. An initial round of sampling and testing will take an additional two weeks. Additional monitoring and sampling of the well will then continue indefinitely. An interlocal agreement (ILA) has been executed between the BSEACD and the COA for access to a site in Zilker Park for monitor well installation and ongoing sampling operations will be codified prior to project commencement.

### Primary Activities

The primary activities of this project are drilling and installation of a standard monitoring well then conversion into a multiport monitor well. After drilling of the well borehole and before multiport equipment installation, a downhole geophysical survey of the borehole will be conducted which will allow us to better understand the system of conduits that direct groundwater flow to the springs, and

inform where to set packers to isolate zones within the multiport monitor well. Following well completion, site visits for water level data collection, water sampling, and subsequent analysis will be conducted periodically for an indefinite period of time.

### Project Planning

The initial concept of installing a multiport monitor well close to Barton Springs includes the installation of up to 14 monitor zones in the well with a minimum of one zone per hydrogeologic layer and with a depth sufficient to reach the uppermost layers of the Upper Trinity Aquifer. Exact depths and locations of each zone will be determined following completion of the borehole and evaluation of the geophysical log of the borehole. Once these details have been determined, the monitor well equipment is organized so that the well is completed to fulfill the initial objectives. The BSEACD staff have considerable experience with multiport monitor wells and we have worked with the contractors that will be selected for the project. Because the BSEACD is the party responsible for installation of the monitor well, a well drilling permit is not needed. The ILA between the BSEACD and the COA will cover any permitting requirements by the COA. No other permits are deemed necessary.

### Project Reporting

Within three months of completion of the wells and initial testing and sampling, the BSEACD will deliver a report to the City of Austin documenting the well-installation process and sampling results. The BSEACD will provide results of the testing and sampling of the well for the past year every December when the BSEACD and the City of Austin staffs meet to discuss their respective HCPs.

## **Methodology**

### Multiport Monitor Well

Multiport wells using Westbay components have been installed in many parts of the world since about 1978 and have been chosen for studies by the BSEACD of the Edwards and Trinity Aquifers. Multiport monitor wells allow collection of groundwater samples from discrete intervals and repeat sampling of these same zones. "Water-level" or head measurements can be made in each zone and changes in head can be recorded over varying aquifer conditions. Differences in heads between monitoring zones can indicate the potential for vertical flow in the aquifer or between aquifers and can impact the chemistry of the groundwater discharging from the springs. Hydraulic conductivity tests can also be conducted in each zone using slug-test techniques.

In 2008, the BSEACD installed its first multiport well on City of Austin Watershed Protection lands near Ruby Ranch, about 5 miles west of Buda, Texas. This well was installed to a depth of 1,120 ft with 14 monitor zones. The purpose of this well was to evaluate vertical variations in the Edwards and Trinity Aquifers and to determine if there was any potential for significant flow between the Edwards and Trinity Aquifers (Figure 1). A second multiport well was installed in 2010 near Antioch Cave (Figure 1). In addition to evaluating the potential for hydraulic connections between the Edwards and Trinity Aquifers, the well was designed to determine vertical variations in hydraulic characteristics of the Edwards Aquifer. This well covered the entire vertical thickness of the Edwards Aquifer and terminates in the Cow Creek Limestone at the base of the Middle Trinity Aquifer.

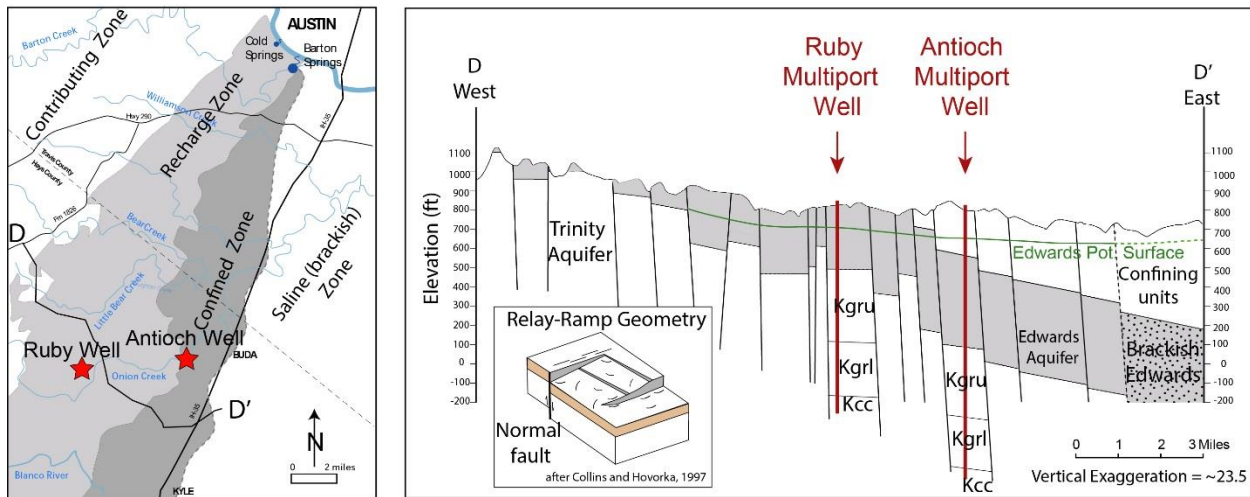


Figure 1. (left) Map of the study area showing Edwards Aquifer contributing, recharge, confined and saline zones and the locations of the Ruby Ranch and Antioch multiport monitor wells. (right) A generalized geologic cross section of the study area. Kgru- Upper Glen Rose, Kgrl- Lower Glen Rose, Kcc- Cow Creek Limestone. (Smith and Hunt, 2019)

For the two multiport monitor wells mentioned above, BSEACD selected materials manufactured by Westbay Instruments of Vancouver, Canada, the key components of the Westbay system are 5- and 10-foot sections of 1.5-inch inside diameter PVC casing (riser pipe), PVC couplings to connect each section of casing, packers to isolate the annular space for each zone, measurement ports, and pumping ports (Figure 2). In addition, an end cap is set at the lower end of the casing to prevent groundwater from entering the casing, and magnetic collars are set to aid in location of each measurement port with the wireline sampling instrument. O-rings are used at each connection point to prevent groundwater from entering the casing or for water inside the casing from escaping into the annular space of the borehole. The sampling instrument contains a pressure transducer and is capable of collecting one liter of water per trip down the well. Measurement ports are used to collect groundwater samples and to measure pressures within each monitor zone. When the sampling instrument is seated on a measurement port, the transducer will be reading pressures in that specific zone of the aquifer. When a valve is activated in the sampling instrument, water from the formation will enter the sampling device for retrieval to the surface. The pumping port is used to purge drilling fluids from the borehole and to measure the hydraulic conductivity of each zone. The pumping port has a sleeve that can be opened with a wireline tool so that a 2-inch screened section of the casing is exposed to the annular space of the borehole. With the pumping port open, rising- and falling-head slug tests can be conducted with changes in head recorded with a pressure transducer inserted in the casing.



Figure 2. Cut-away model of the measurement and pumping ports, magnetic collar, and section of casing of a typical multiport monitoring zone. Not shown are hydraulic packers that are inflated in

the borehole to seal off the annular space of each zone from any zones above and below. (Smith and Hunt, 2019)

The optimum location for this well is on the south side of Zilker Park, about 750 feet directly south of Main Barton Springs. A location close to the southwest corner of the paved parking lot north of Azie Morton Road and east of Barton Hills Drive would allow for minimal disturbance of grassy areas. Discussions are underway between the project partners regarding the location and the overall project.

The multiport well proposed for installation in Zilker Park will be drilled using air-rotary techniques. The only fluids introduced into the borehole during drilling are potable water and foaming substance formulated for use in drinking-water wells. Core (rock) samples will be collected over the entire depth of the borehole.

The well will be constructed with up to 14 monitor zones. A monitor zone will be installed for each member of the Person and Kainer Formations plus one or two zones in the uppermost Trinity (Upper Glen Rose limestone) if the borehole is drilled deep enough to reach those units. Hydraulic packers are installed at or near the contacts between the different hydrologic units so that samples and measurements will be representative of the zone between packers.

#### Sampling and testing

Following installation, initial testing will verify the effectiveness of each monitor zone. Each zone will be purged of drilling fluids by either pumping from each zone or allowing each zone to purge by natural flow in the aquifer. Head (water level) measurements will be made in each well prior to and following this purging. A pressure transducer will be installed in the well to provide continuous monitoring of water levels in one of the deeper zones. When it is determined that the zones contain native groundwater without residual drilling fluids, samples will be collected from each zone and analyzed for the Texas Water Development Board (TWDB) suite of analytes, which consists of basic cations, anions, and metals plus BTEX and TPH. The well can also be used as part of the COA aquifer and spring sampling program. Samples will also be analyzed for DO. If funding is available from the TWDB, additional samples will be collected and submitted to the laboratory for selected stable and radiogenic isotopes which may allow additional characterization of the source and relative age of the groundwater in each zone.

#### Downhole Geophysical Survey

After the well borehole has been drilled, a downhole geophysical survey will be conducted in the bore hole including, at a minimum, gamma ray, resistivity, and caliper. Additional downhole methods such as fluid conductivity, fluid temperature, or vertical flow meter may be utilized if deemed necessary. The data provided from these methods will help determine where to place packers for isolation of multiport zones, as well as provide valuable information on lithology, geologic structures, and groundwater flow within the aquifer system feeding the Barton Springs complex.

#### Site Rehabilitation

Activities associated with borehole drilling and monitor well installation are likely to disturb the soil and vegetation in a radius of about 20 feet from the well. The site will be rehabilitated according to requirements by the COA Parks and Recreation Department.

#### **Research/Management Implications**

Results of this project will provide knowledge about the Edwards Aquifer in an area that has very limited data, mainly the subsurface hydrogeology in the vicinity of Barton Springs. Our understanding of flowpaths in the aquifer, geochemistry of distinct hydrologic units, and potential changes in the salamander habitat due to DO fluctuations during periods of extreme drought will be increased

significantly. This project should lead to further studies such as a feasibility study of DO augmentation in groundwater flowing toward the springs. Results of this project could lead to revision of policies by the BSEACD for management of pumping from the aquifer under extreme drought.

### **Dissemination/Community Involvement**

The BSEACD has a robust communications and outreach program that disseminates results of aquifer studies to the public. This is accomplished by publication of technical reports, interacting with special interest groups, publication of monthly newsletters, maintaining a website, and providing information to the media. The BSEACD is willing to partner with the COA in these outreach activities.

### **Supporting Information**

#### Project Participants

Barton Springs/Edwards Aquifer Conservation District

City of Austin

Parks and Recreation Department,  
Watershed Protection Department, and  
Office of the City Manager

### **Project Budget**

The BSEACD has received funding approval from Magellan for the two standard monitoring wells. These funds are considered to be matching toward this grant proposal. The BSEACD estimates that the funding amount will be about \$100,000. The project budget follows this narrative and thus, indicates a private/public partnership in action. As for the proposed enhancement project and following BSEACD purchasing guidelines, bids will be solicited for the borehole geophysical log. Water-quality analyses will be conducted by LCRA Laboratory under a TWDB program with additional funding support by Magellan. Previous reviews of drilling companies have determined that the only company capable of coring the borehole and installing the multiport well system is Geoprojects International, Inc., located in Austin. Westbay Instruments of Vancouver, Canada is the only company capable of providing the material for the multiport well and for the installation services. Specific budget items are shown in Table 1.

### **References**

Habitat Conservation Plan [https://bseacd.org/uploads/BSEACD\\_FinalHCPVol.1-Final-for-Submission-to-FWS-4.19.18.pdf](https://bseacd.org/uploads/BSEACD_FinalHCPVol.1-Final-for-Submission-to-FWS-4.19.18.pdf)

Hunt, Brian B., Smith, Brian A., Hauwert, Nico M, 2019, The Barton Springs Segment of the Edwards (Balcones Fault Zone) Aquifer, central Texas: in The Edwards Aquifer: The Past, Present, and Future of a Vital Water Resource: eds. Sharp, Jr., John M., Schindel, Gary M., Green, Ronald T., Memoir 215 Chapter 7, Geological Society of America. <https://bseacd.org/uploads/Hunt-et-al.-2019-Barton-Springs-aquifer-GSA-Memoir-215.pdf>

Incidental Take Permit 2018 [https://bseacd.org/uploads/BSEACD\\_20YearIncidentalTakePermit.pdf](https://bseacd.org/uploads/BSEACD_20YearIncidentalTakePermit.pdf)  
Smith, Brian A., Hunt, Brian B., 2019, Multilevel Monitoring of the Edwards and Trinity Aquifers: in The Edwards Aquifer: The Past, Present, and Future of a Vital Water Resource: eds. Sharp, Jr., John M., Schindel, Gary M., Green, Ronald T., Geological Society of America Memoir 215, Chapter 25. <https://rock.geosociety.org/Store/detail.aspx?id=MWR215>

**Table 1. Monitoring Wells: Project Partners Budget**

Personnel	Magellan Midstream Partners, L.P.*	BSEACD in-kind	COA / USFWS BSSCF grant	Total Project Cost
Communications & Outreach Coordinator		2,583.50		2,583.50
Staff Hydrogeologist/PG	-	8,943.75	-	8,943.75
Hydrogeologic Technician	-	7,022.50	-	7,022.50
General Manager		2,083.40		2,083.40
avg fringe @ 43%		8,872.25		8,872.25
<b>total personnel</b>	-	29,505.40	-	29,505.40
<b>Contractor Costs</b>				
well-drilling comp.	84,800.00			84,800.00
site restoration	3,000.00			3,000.00
adv. borehole geophysics-BS well			4,700.00	
<b>total contractor costs</b>	87,800.00	-	4,700.00	92,500.00
<b>Equipment Costs</b>				
geophysical logs (2)	3,500.00			3,500.00
multiport			69,000.00	69,000.00
pump, accessories, etc.	4,875.40			
<b>total equipment costs</b>	8,375.40	-	69,000.00	77,375.40
<b>Travel</b>				
in-state mileage				-
in-state conference				-
<b>total travel costs</b>	-	-	-	-
<b>Total Direct Costs</b>	96,175.40	29,505.40	73,700.00	199,380.80
<b>Admin. Overhead 5%</b>		9,969.04		-
<b>Total Project Costs</b>	<b>96,175.40</b>	<b>39,474.44</b>	<b>73,700.00</b>	<b>209,349.84</b>

updated on 1/9/2024, costs subject to change prior to final execution of any agreement or contract

Admin overhead is charged against Total Direct Costs

\* Magellan was acquired by ONEOK, Inc. ("ONEOK"), and as of 9/25/23 Magellan is a wholly owned, indirect subsidiary of ONEOK.

## Item 6

### Board Discussion and Possible Action

- e. Discussion and possible action on Interlocal Agreement for joint funding of an explanatory report and related activities for Groundwater Management Area 10.



**INTERLOCAL AGREEMENT FOR FISCAL YEAR 2023 – 2024  
REGARDING JOINT FUNDING OF AN  
EXPLANATORY REPORT  
FOR GROUNDWATER MANAGEMENT AREA 10**

THIS INTERLOCAL AGREEMENT REGARDING JOINT FUNDING OF AN EXPLANATORY REPORT FOR GROUNDWATER MANAGEMENT AREA 10 (the “Agreement”) is made effective as of \_\_\_\_\_, 2024, by and between the Barton Springs/Edwards Aquifer Conservation District (BSEACD), the Comal Trinity Groundwater Conservation District (CTGCD), the Kinney County Groundwater Conservation District (KCGCD), the Medina County Groundwater Conservation District (MCGCD), the Plum Creek Conservation District (PCCD), and the Uvalde County Underground Water Conservation District (UCUWCD) (collectively, the “Districts”). In this Agreement, the Districts are sometimes individually referred to as a “Party” and collectively referred to as the “Parties.”

**WHEREAS**, each Party is a political subdivision of the State of Texas created under the authority of Article XVI, Section 59, of the Texas Constitution, and operates or exercises powers related to the management and regulation of groundwater within each Party’s respective boundaries pursuant to Chapter 36 of the Texas Water Code and each Party’s respective enabling act;

**WHEREAS**, the Parties desire to and are authorized to enter into this Agreement pursuant to the Texas Interlocal Cooperation Act, codified as Chapter 791 of the Texas Government Code, their respective enabling acts, and Chapter 36 of the Texas Water Code, including, but not limited to, Sections 36.1086, 36.205, and 36.207;

**WHEREAS**, each Party’s boundaries, or a portion thereof, are within the geographic region delineated by the Texas Water Development Board (the “TWDB”) pursuant to Section 356.22 of TWDB Rules, Title 31 Texas Administrative Code § 356.22, and designated as Groundwater Management Area 10 (“GMA 10”);

**WHEREAS**, pursuant to Section 36.108, Texas Water Code, the Parties are required to participate in joint planning for the management of the groundwater resources within their respective boundaries, including the development of “Desired Future Conditions” or “DFCs” for the relevant aquifers within their boundaries on a 5-year cycle;

**WHEREAS**, the Parties desire to enter into this Interlocal Agreement to provide funding to support the joint planning activities, including the engagement of a qualified third-party consultant to prepare the required Explanatory Report (collectively the “Project” as further defined below);

**WHEREAS**, the Plum Creek Conservation District (“PCCD”) has agreed to serve as the GMA 10 Contract Manager during the current 5-year joint planning cycle, which includes the solicitation of proposals from GMA 10’s identified preferred consultant, Collier Consulting (the “Contractor”), for purposes of executing a contract between GMA 10 Districts and the Contractor for the gathering and incorporation of technical information for the Explanatory Report, and the performance of such other services as determined to be necessary or appropriate to complete the Project pursuant to the terms of the Contract;

**WHEREAS**, the Parties shall be responsible to pay for such costs of the Contract as further described herein pursuant to this Interlocal Agreement;

**WHEREAS**, the Parties desire to enter into this Agreement to: (i) memorialize their agreement to provide funding for the Project and Contract, and the purposes and intent of the Parties in participating in the Project; and (ii) evidence the ultimate rights and responsibilities of the Parties;

**WHEREAS**, the Parties will all benefit from the Project; and

**WHEREAS**, this Agreement concerns the performance of governmental functions and services in fulfillment of the Parties obligation to participate in joint planning pursuant to Section 36.108, Texas Water Code;

**NOW, THEREFORE**, in consideration of the foregoing premises, and the mutual promises and agreements of the Parties contained in this Agreement, the Parties agree as follows:

## **I. DEFINITIONS**

When used in this Agreement, capitalized terms not otherwise defined shall have the meanings set forth below:

- 1.01 “Agreement” means this “Interlocal Agreement for Fiscal Year 2023 Regarding Joint Funding of an Explanatory Report for Groundwater Management Area 10.”
- 1.02 “Annual Party Expense” means the portion that each Party shall pay of each Contractor invoice, which portion shall not exceed the amount specified in the GMA 10 Explanatory Report Funding Matrix, which is attached to this Agreement as Exhibit A.
- 1.03 Another “Party Expense” shall be the Amount allocated by Plum Creek Conservation District for its expenses in serving as the Contract Manager.
- 1.04 “Contractor” means Collier Consulting.
- 1.05 “Contract” means the contract generally in the form attached hereto as Exhibit B of this Agreement, to be executed by the PCCD, acting in its limited capacity as representative of GMA 10 pursuant to this Agreement, and the Contractor, to undertake all work necessary to prepare the required Explanatory Report for GMA 10. The proposed actual Contract will be circulated among the Parties for comment and approval before its execution by PCCD.
- 1.06 “Contract Manager” means the PCCD acting in its limited capacity as representative of GMA 10 pursuant to this Agreement.
- 1.07 “Effective Date” means the last date of execution of this Agreement by the Parties as indicated on the signature pages; provided further that to be effective each of the Parties must execute this Agreement.
- 1.08 “Party” or “Parties” means the BSEACD, the CTGCD, the KCGCD, the MCGCD, the

PCCD and the UCUWCD, individually or collectively, as applicable. If a Party listed in Paragraph 1.08 does not sign the agreement, then no work done under the Consulting Contract authorized by the Agreement would include work done for that party.

- 1.09 “Project” means the development of an Explanatory Report for all relevant aquifers within GMA 10 for which a DFC is adopted or re-adopted. The Project also includes conducting groundwater availability model runs.
- 1.10 “Term” means the term of this Agreement, which shall commence on the Effective Date and terminate on August 31st, 2028, or as otherwise extended or terminated in accordance with the provisions herein.
- 1.11 “Total Contract Price” means the maximum amount the Parties shall collectively pay under the Contract for the Project, which shall not exceed One Hundred and Twenty Thousand Dollars (\$120,000).
- 1.12 “Funding Needed” means the additional funding needed that exceeds the “Total Contract Price” and which arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. A written funding petition may be submitted by the Contractor that lists the additional costs needed to complete the Project and any associated rationale.
- 1.13 “Funding Petition” means a request by the Contractor to GMA 10 members to consider any “Funded Needed” and, where appropriate, make adjustments to the GMA 10 Explanatory Report Funding Matrix which must be approved by unanimous vote.

## **II. STRUCTURE & SCOPE OF PROJECT**

- 2.01 General Responsibility for the Project.
  - (a) The Parties acknowledge and agree that the PCCD, acting in its limited capacity as representative of the District Members of GMA 10, will manage the Contractor and the Contract. The Parties shall be jointly responsible for funding the Project, as set forth in this Agreement.
  - (b) The PCCD will oversee the Contractor’s work performed under the Contract and assess each Party their estimated annual portion of expenses as evidenced in the Contract, attached as Exhibit B of this Agreement, and provide budget reports and progress updates as appropriate, during each GMA 10 meeting. The PCCD will also include its expenses related to actions as Contract Manager as a part of the expenses related to the consulting contract.
  - (c) Individual GMA 10 members may contract separately with the Contractor to conduct additional studies, or perform additional modeling runs, that may be used in the development of DFCs and preparation of the Explanatory Reports; PROVIDED, HOWEVER, that absent a prior written amendment to this Agreement executed by all of the member Districts of GMA 10, any such contract(s) between any GMA 10 member

District and the Contractor shall be the sole economic responsibility of the contracting District and not an obligation of GMA 10, or any other member District.

### **III. CONTRACT**

#### 3.01 Contract.

- (a) Acting in its limited capacity as representative of the Districts, PCCD will enter into the Contract with Contractor generally in the form attached hereto as Exhibit "B" containing terms consistent with this Agreement on behalf of the Districts.
- (b) The Contractor shall be responsible for the technical work related to the Project and for completion of the Project.
- (c) All payments made by each Party under this Agreement shall constitute funds budgeted by each respective District from its current fiscal year revenues as appropriated by each Party's Board of Directors. The Districts shall repeat this exercise for each annual budget adopted in accordance with the applicable law and procedures of each Party through the 5-year joint planning and DFC adoption cycle.

#### 3.02 Payment for Project.

- (a) The Parties agree that the process for payment of Project invoices is for each Party to remit to the Contract Manager their appropriate annual expense estimate as described in Exhibit A within 30 days of the beginning of each Party's fiscal year. The Contractor will submit invoices on a monthly basis for the previous month's work on the Project to the Contract Manager. The Contract Manager will then review the invoice and, if the expenses are appropriate, submit payment to the Contractor. If the Contract Manager finds a discrepancy or finds that clarification of an invoice submitted by the Contractor is needed, the Contract Manager shall work with the Contractor to resolve any such discrepancy or receive the requested clarification. All expenses, including any travel expenses, incurred by the Contractor related to the Project are included in the total Contract price for the Project. Upon termination of the Contract, all fees due and owed to the Contractor shall be paid under the terms of this Agreement and as provided in the Contract, and any unspent funds shall be returned to the Parties within 60 days. Fees due to PCCD for its activities as Contract Manager shall be estimated and billed monthly, as necessary, provided that such amounts billed shall exceed Two Thousand Five Hundred and no/100 Dollars (\$2500.00) for reimbursement for the period billed. The fees due PCCD shall be divided equally among all Districts participating in the Project as of the date of the invoice submitted by PCCD.
- (b) Payments to the Contract Manager shall not exceed more than \$6,000 during the life of the Project unless the Parties to the Project agree to a different amount for the duration of the Project.

### 3.03 Failure to Pay

A Party's failure to make timely payment to the Contract Manager as set forth under Section 3.02 or 3.03 and the other terms of the Contract may result in the termination of work on that Party's portion of the Project. A failure to allow PCCD to recover its costs as Contract Manager in excess of \$6,000 shall, at the sole election of PCCD, allow PCCD to terminate its work as Contract Manager under this Agreement.

## IV.

### OWNERSHIP AND MAINTENANCE OF EXPLANATORY REPORT

#### 4.01 Acceptance of Explanatory Report.

Upon acceptance of the Explanatory Report, the Parties hereby acknowledge and agree that the Explanatory Report is to be owned collectively by the Parties. The Explanatory Report is to be provided to TWDB in coordination with GMA 10 in the joint planning process, including, but not limited to, for the development, proposal, and adoption of DFCs and the calculation of MAGs, as those terms are defined in Chapter 36, Texas Water Code. After completion of the Project, the Parties may jointly or independently utilize the Project results for any purposes which either Party deems reasonably necessary. The Parties acknowledge and agree that the Explanatory Report shall be "public information" subject to disclosure pursuant to Chapter 552, Texas Government Code.

## V.

### GENERAL PROVISIONS

5.01 Recitals. The recitals in this Agreement are true and correct.

5.02 Cooperation. During the Term of this Agreement, the Parties agree to cooperate at all times in good faith to effectuate the purposes and intent of this Agreement and to carry out the purposes and intent of the Project.

5.03 Compliance with Laws. All activities of the Parties under this Agreement and the Contractor shall be in compliance with all applicable Federal, State and Local rules, laws, and regulations.

5.04 Agreement Regarding Remedies. The Parties agree that the breach of this Agreement will allow the non-breaching Party/Parties to seek all appropriate remedies provided by law.

5.05 Authority. This Agreement is made in part under the authority conferred in Chapter 791, Texas Government Code and Sections 36.1086, 36.205, and 36.207, of the Texas Water Code. Each Party represents and warrants that it has the full right, power, and authority to execute this Agreement.

5.06 Severability. The provisions of this Agreement are severable and, if any provision of this Agreement is held to be invalid for any reason by a court or agency of competent jurisdiction, the remainder of this Agreement will not be affected and this Agreement will be construed as if the invalid portion had never been contained herein.

- 5.07 Source of Payment; Pledge to Secure Payment. The Parties represent and covenant that annual payments to be made by each of them pursuant to this Agreement, and under the Contract, shall constitute funds from the current fiscal year's budgeted revenues appropriated by each Party's Board of Directors through that Party's annual budget, adopted in accordance with the applicable procedures of each Party.
- 5.08 Third Party Beneficiaries. Except as expressly provided for herein with regard to the Contractor and Contract Manager, nothing in this Agreement, express or implied, is intended to confer upon any person or entity, other than the Parties (who are third party beneficiaries under the Contract), any rights, benefits, or remedies under or by reason of this Agreement.
- 5.09 Entire Agreement. This Agreement contains the entire agreement of the Parties regarding the subject matter hereof and supersedes all prior or contemporaneous understandings or representations, whether oral or written, regarding the subject matter. The Parties confirm that if further agreements regarding the Project in accordance with the Contract are contemplated, they will not be affected or limited by this Agreement.
- 5.10 Interpretation and Reliance. No presumption will apply in favor of any Party in the interpretation of this Agreement or in the resolution of any ambiguity of any provisions hereof.
- 5.11 Relationship of Parties. This Agreement is based upon the active participation of the Parties. Neither the execution nor the delivery of this Agreement shall create or constitute a partnership, joint venture, or any other form of business organization or arrangement between the Parties, except for the contractual arrangements specifically set forth in this Agreement. No Party shall have any power to assume or create any obligation on behalf of the other Party.
- 5.12 Amendments. Any amendment of this Agreement must be in writing and will be effective if it is signed by all Parties. The annual expenses allotted to each Party in the contract attached as Exhibit A cannot be amended without specific action being taken by the governing body of each Party.
- 5.13 Applicable Law; Venue. This Agreement will be construed in accordance with Texas laws. Venue for any action arising hereunder will be exclusively in the appropriate court in Hays County, Texas.
- 5.14 Notices. Any notices given under this Agreement will be effective if (i) forwarded to a Party by hand-delivery; (ii) transmitted to a Party by confirmed telecopy or electronic mail; or (iii) deposited with the U.S. Postal Service, postage prepaid, certified, to the address of the Party indicated below:

Barton Springs/Edwards Aquifer Conservation District:	BSEACD Board of Directors 1240 Regal Row Austin, TX 78748 Telephone: (512) 282-8441 Facsimile: (512) 282-7016 Tloftus@bseacd.org
Comal Trinity Groundwater Conservation District:	CTGCD Board of Directors PO Box 664 9850 FM 311 Spring Branch, TX 78070 Telephone: (830) 885-2130 admin@comaltrinitygcd.com
Kinney County Groundwater Conservation District:	Kinney County GCD Board of Directors 503 S. Ann St. P.O. Box 369 Brackettville, TX 78832 Telephone: (830) 563-9699 Facsimile: (830) 563-9606 Kinneyh2o@att.net
Medina County Groundwater Conservation District:	Medina County GCD Board of Directors 1607 Avenue K Hondo, TX 78861 Telephone: (830) 741-3142 Facsimile: (830) 741-3540gmmcgcd@att.net
Plum Creek Conservation District:	PCCD Board of Directors PO Box 328 1101 W. San Antonio St. Lockhart, TX 78644 Telephone: (512) 398-2383 Facsimile: (512) 398-7776 daniel.meyer@pccd.org
Uvalde County Underground Water Conservation District	Uvalde County UWCD Board of Directors PO Box 1419 200 E. Nopal, Suite 203 Uvalde, TX 78802 Telephone: (830)278-8242

5.15 Counterparts; Effect of Partial Execution. This Agreement may be executed simultaneously in multiple counterparts, each of which will be deemed an original, but all of which will constitute the same instrument.

*(This page left intentionally blank - Signature Pages Follow)*

*(Signature page of Barton Springs/Edwards Aquifer Conservation District to Interlocal Agreement Regarding Funding for an Explanatory Report for GMA 10)*

BARTON SPRINGS/EDWARDS AQUIFER CONSERVATION DISTRICT:

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: President, Barton Springs/Edwards Aquifer Conservation District Board of Directors

Date: \_\_\_\_\_

ATTEST:

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: Secretary, Barton Springs/Edwards Aquifer Conservation District Board of Directors

Date: \_\_\_\_\_

APPROVED AS TO FORM:

By: \_\_\_\_\_

Printed Name: William D. Dugat III

Title: Attorney, Barton Springs/Edwards Aquifer Conservation District Board of Directors

Date: \_\_\_\_\_



*(Signature page of Kinney County Groundwater Conservation District to Interlocal Agreement Regarding Funding for an Explanatory Report for GMA 10)*

KINNEY COUNTY GROUNDWATER CONSERVATION DISTRICT:

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: President, Kinney County Groundwater Conservation District Board of Directors

Date: \_\_\_\_\_

ATTEST:

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: Secretary, Kinney County Groundwater Conservation District Board of Directors

Date: \_\_\_\_\_

APPROVED AS TO FORM:

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: Attorney, Kinney County Groundwater Conservation District Board of Directors

Date: \_\_\_\_\_

*(Signature page of Medina County Groundwater Conservation District to Interlocal Agreement Regarding Funding for an Explanatory Report for GMA 10)*

MEDINA COUNTY GROUNDWATER CONSERVATION DISTRICT:

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: President, Medina County Groundwater Conservation District Board of Directors

Date: \_\_\_\_\_

ATTEST:

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: Secretary, Medina County Groundwater Conservation District Board of Directors

Date: \_\_\_\_\_

APPROVED AS TO FORM:

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: Attorney, Medina County Groundwater Conservation District Board of Directors

Date: \_\_\_\_\_

*(Signature page of Plum Creek Conservation District to Interlocal Agreement Regarding Funding for an Explanatory Report for GMA 10)*

PLUM CREEK CONSERVATION DISTRICT:

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: President, Plum Creek Conservation District Board of Directors

Date: \_\_\_\_\_

ATTEST:

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: Secretary, Plum Creek Conservation District Board of Directors

Date: \_\_\_\_\_

APPROVED AS TO FORM:

By: \_\_\_\_\_

Printed Name: Robert C. Wilson

Title: Attorney, Plum Creek Conservation District Board of Directors

Date: \_\_\_\_\_

*(Signature page of Uvalde County Underground Water Conservation District to Interlocal Agreement Regarding Funding for an Explanatory Report for GMA 10)*

UVALDE COUNTY UNDERGROUND WATER CONSERVATION DISTRICT:

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: Chair, Uvalde County Underground Water Conservation District Board of Directors

Date: \_\_\_\_\_

ATTEST:

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: Secretary, Uvalde County Underground Water Conservation District Board of Directors

Date: \_\_\_\_\_

APPROVED AS TO FORM:

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: Attorney, Uvalde County Groundwater Conservation District Board of Directors

Date: \_\_\_\_\_

*(Signature page of Comal Trinity Groundwater Conservation District to Interlocal Agreement Regarding Funding for an Explanatory Report for GMA 10)*

COMAL TRINITY GROUNDWATER CONSERVATION DISTRICT:

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: Chair, Comal Trinity Groundwater Conservation District Board of Directors

Date: \_\_\_\_\_

ATTEST:

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: Secretary, Comal Trinity Groundwater Conservation District Board of Directors

Date: \_\_\_\_\_

APPROVED AS TO FORM:

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: Attorney, Comal Trinity Groundwater Conservation District Board of Directors

Date: \_\_\_\_\_

**NOTE:** The funding matrix does **not** include the costs for all the tasks in the plan of work that was presented at the July 2023 GMA-10 meeting, as the budgeted costs for some of these tasks are yet to be determined. See Appendix C for further information (areas highlighted in yellow).

**Exhibit A -GMA 10- Explanatory Report -Funding Matrix**

District	Phase 1-Kickoff	Phase 2 Southern Trinity GAM & Model Runs		Phase 3 - Desired Future Conditions	Phase 4 - Explanatory Reports		Phase 5-Admin Deadlines	Buffer	TOTAL COST ALLOCATION	Appropriate Annual Expense Estimate				
BSEACD	\$ 2,786.25	Trinity	\$ 7,447.80	\$ 1,460.00	Trinity	\$ 5,186.40	\$ 690.83	\$ 1,653.08	\$ 25,707.36	\$ 8,569.12				
		Others	\$ -		Others(Saline & Fresh Edwards)	\$ 6,483.00								
		<b>Total Cost</b>	\$ 7,447.80		<b>Total Cost</b>	\$ 11,669.40								
Comal Trinity CGD	\$ 2,786.25	Trinity	\$ 7,447.80	\$ 1,460.00	Trinity	\$ 5,186.40	\$ 690.83	\$ 1,653.08	\$ 19,224.36	\$ 6,408.12				
		Others	\$ -		Others	\$ -								
		<b>Total Cost</b>	\$ 7,447.80		<b>Total Cost</b>	\$ 5,186.40								
Kinney County GCD	\$ 2,786.25	Trinity	\$ -	\$ 1,460.00	Trinity	\$ -	\$ 690.83	\$ 1,653.08	\$ 10,912.16	\$ 3,637.39				
		Others	\$ -		Others(Western Edwards)	\$ 4,322.00								
		<b>Total Cost</b>	\$ -		<b>Total Cost</b>	\$ 4,322.00								
Medina County GCD	\$ 2,786.25	Trinity	\$ 7,447.80	\$ 1,460.00	Trinity	\$ 5,186.40	\$ 690.83	\$ 1,653.08	\$ 19,224.36	\$ 6,408.12				
		Others	\$ -		Others	\$ -								
		<b>Total Cost</b>	\$ 7,447.80		<b>Total Cost</b>	\$ 5,186.40								
Plum Creek CD	\$ 2,786.25	Trinity	\$ 7,447.80	\$ 1,460.00	Trinity	\$ 5,186.40	\$ 690.83	\$ 1,653.08	\$ 21,385.38	\$ 7,128.46				
		Others	\$ -		Others(Saline Edwards)	\$ 2,161.00								
		<b>Total Cost</b>	\$ 7,447.80		<b>Total Cost</b>	\$ 7,347.40								
Ulvalde County UWCD	\$ 2,786.25	Trinity	\$ 7,447.80	\$ 1,460.00	Trinity	\$ 5,186.40	\$ 690.83	\$ 1,653.08	\$ 23,546.36	\$ 7,848.79				
		Others	\$ -		Others(Buda/Aust in Chalk & Leona Gravel)	\$ 4,322.00								
		<b>Total Cost</b>	\$ 7,447.80		<b>Total Cost</b>	\$ 9,508.40								
<b>TOTAL</b>	<b>\$ 16,717.50</b>	<b>\$</b>	<b>37,239.00</b>	<b>\$</b>	<b>8,760.00</b>	<b>\$</b>	<b>43,220.00</b>	<b>\$</b>	<b>4,145.00</b>	<b>\$</b>	<b>9,918.50</b>	<b>\$</b>	<b>120,000.00</b>	

**EXHIBIT B**  
**CONTRACT No. 12-19-2023**

BETWEEN the Plum Creek Conservation  
District as Agent for Members of GMA 10

AND

Collier Consulting, Inc. ("Contractor")  
FOR PREPARATION OF AN EXPLANATORY REPORT FOR  
GROUNDWATER MANAGEMENT AREA 10

This Contract is made and entered into by and between the Plum Creek Conservation District, a political subdivision of the State of Texas, with its principal place of business located at 1101 West San Antonio Street, Lockhart, Texas 78644, as the Agent for members of GMA 10, and Collier Consulting, Inc. ("Contractor"), a geosciences consulting firm with its principal place of business located at 590 East South Loop, Stephenville, Texas 76401. Each of these entities is, at times, referred to in this Contract individually as a "Party" and both are referred to collectively as "Parties."

**RECITALS**

WHEREAS, the Plum Creek Conservation District ("PCCD") was created in 1957 by an act of the 55<sup>th</sup> Texas Legislature) and in 1989 the Act creating the District was amended to add powers of an underground water district; and

WHEREAS, PCCD is a conservation and reclamation district created by virtue of Article XVI, Section 59 of the Texas Constitution, and is a governmental agency and body politic and corporate vested with the full authority to exercise the powers and to perform the functions specified in the Act; and

WHEREAS, PCCD is a member of Groundwater Management Area 10 (GMA 10); and

WHEREAS, GMA 10 is required by Section 36.108 of the Texas Water Code to produce an Explanatory Report; and

WHEREAS, PCCD, on behalf of GMA 10 and its members, wishes to engage the services of a geosciences consulting firm for conducting groundwater availability model runs and the production of an Explanatory Report; and

WHEREAS, it is in the public interest that the PCCD enter into this Contract as Agent for the Entities that are members of GMA 10;

## AGREEMENT

NOW THEREFORE, for and in consideration of the mutual promises and agreements set forth in this Contract, the PCCD for itself and as agent for members of GMA 10, and the Contractor agree as follows:

### ARTICLE I – TERM; DESCRIPTION OF WORK

Section 1.1. Term. This Contract is effective and commences on \_\_\_\_\_, 2023 ("Effective Date"), and terminates on August 31, 2028 ("Expiration Date").

Section 1.2. Services. Subject to the terms and conditions of this Contract, PCCD engages the Contractor to perform, for the benefit of the members of GMA 10, the work set forth and described in this Contract and in the following documents ("Services") which are attached hereto: (1) the Scope of Work which is attached hereto as Exhibit A ("Scope of Work"); and (2) the Budget Estimate which is attached hereto as Exhibit B ("Budget Estimate"). The Contractor accepts such engagement and agrees to devote its best efforts and abilities and furnish all necessary labor, machinery, equipment, tools, and transportation necessary in furtherance of its engagement under this Contract.

Section 1.3. Commencement and Completion of Services. The Contractor will commence performing the Services immediately upon the date of receipt of the written Notice to Proceed issued by PCCD's Executive Manager. All Services will be completed and delivered to the PCCD by the Expiration Date and shall be completed in compliance with the schedules, budgets, descriptions and specifications contained herein and in the Exhibits attached hereto. It shall be the Contractor's responsibility to ensure that the completion times for the tasks required under this Contract are met. At the option of PCCD, on behalf of GMA 10, this Contract may be renewed and extended for one additional year, with such election made by the PCCD and the members of GMA 10 by giving the Contractor written notice to renew and extend this Contract prior to August 31st, 2028. Time is of the essence in the performance of this Contract.

A delay in or failure of either party to perform its obligations hereunder as described shall not constitute default under this Contract nor give rise to any claim for damage if and to the extent such delay or failure is caused by occurrences beyond the control of the party affected, including but limited to: acts of God; expropriation or confiscation of facilities or compliance with any order or request of any governmental authority or person purporting to act therefore which affects to a degree not presently existing the supply, availability or use of materials or labor; acts of war or the public enemy; public disorders, rebellion, or sabotage; floods; riots; strikes; whether direct or indirect; or any causes whether or not the class or kind specifically named above, not within the control of the party affected which, by exercise of reasonable diligence, said party is unable to prevent, mitigate or remove.

### ARTICLE II – AMENDMENTS

Section 2.1. This Contract may be amended only by written agreement of the Parties.



Section 2.2. Amendments by the Executive Manager. The Board of Directors of PCCD and GMA 10 Members delegate the authority to the Executive Manager to enter into amendments to this Contract without further authorization by the Board and GMA Members consistent with the PCCD's Executive Manager's authority to enter into contracts under PCCD Board's delegation of authority to its Executive Manager expressed by Resolution No. \_\_\_\_\_ adopted on \_\_\_\_\_ as that Resolution may be amended.

### ARTICLE III – COMPENSATION

Section 3.1. Fees and Expenses. PCCD agrees to pay the Contractor, on behalf of GMA 10, for the Services rendered under this Contract in accordance with the Scope of Work, and Budget Estimate, but in no event shall payments to the Contractor exceed \$120,000. The Contractor may not exceed this amount and will be responsible for the payment of all of its other and additional costs and expenses. The Contractor is not authorized to expend any additional funds in excess of this amount without prior written approval from the PCCD. PCCD will not be held accountable for any unauthorized work performed or funds expended by the Contractor in providing the Services under this Contract.

Section 3.2. Payment. All invoices from the Contractor to the PCCD for the Services performed under this Contract shall be sent quarterly and shall provide an itemization of the Services rendered, costs and expenses incurred. The terms of each invoice shall be net thirty (30) days upon PCCD receipt and approval of that invoice.

### ARTICLE IV – INDEPENDENT CONTRACTOR

Section 4.1. No Employment Relationship. The Parties understand and agree that this Contract does not create a fiduciary relationship between them, that they are separate entities, that the Contractor is an independent contractor with respect to the performance of the Services and is not subject to the direct or continuous control and supervision of the PCCD, and that nothing in this Contract is intended to make either Party a subsidiary, joint venturer, partner, employee, agent, servant or representative of the other Party for any purpose whatsoever. The Contractor shall provide any and all equipment and materials necessary for the performance of the Services under this Contract. PCCD shall have no right of direction or control of the Contractor, or its employees and agents, except in the results to be obtained, and in a general right to order the performance of the Services to start or stop as agreed to herein, to inspect the progress of the Services, and to receive reports. The Contractor shall accommodate reasonable requests from PCCD to allow PCCD employees, agents or representatives (including listed representatives of GMA 10 Members) to accompany and observe Contractor personnel in carrying out the Services under this Contract.

### ARTICLE V – CONTRACTOR PERSONNEL AND SUBCONTRACTORS

Section 5.1. Personnel. The Contractor will provide any and all personnel necessary for its performance of the Services. The Contractor will be responsible for its employees and agents in all respects, including, without limitation, their compliance with applicable laws and their safety, including without limitation, all Occupational Safety and Health Administration (OSHA) standards, requirements, and regulations. The Contractor indemnifies and holds harmless PCCD and entities for

which PCCD is acting as agent, and collectively their officers, employees and directors, from and against any claims brought by any subcontractor or other agent of the Contractor relating in any way to the Services performed under this Contract.

Section 5.2. Subcontractors. In performing the Services under this Contract, the Contractor may retain and utilize as its subcontractors, to the extent that they are not already employees of the Contractor, those individuals identified to and approved in writing by the PCCD, in advance. PCCD, in consultation with the Contractor, shall have the right to terminate, limit, or alter, at any time, the participation of any subcontractor utilized by the Contractor. No additional subcontractors may be retained by the Contractor to perform any Services under this Contract without the prior written consent of the PCCD, provided that no such consent shall be necessary for the retention of any subcontractor previously approved by PCCD and identified by the Contractor on the Effective Date of this Contract. The Contractor will be responsible for its subcontractors in all respects including their compliance with applicable laws and their safety, including without limitation, all OSHA standards, requirements, and regulations.

Subcontracting services under this contract will be provided by:

- \_\_\_\_\_

## ARTICLE VI – TERMINATION

Section 6.1. Termination. PCCD may terminate this Contract at any time, including at the expiration of each budget or payment period during the term of this Contract, with or without cause, upon ten (10) days prior written notice to the Contractor. Upon receipt of such termination notice, the Contractor shall immediately stop all work in progress, including all work performed by subcontractors. Insofar as possible, all work in progress will be brought to a logical termination point. Within thirty (30) days of the final invoice following termination, PCCD shall pay the Contractor all moneys then due and owing for the Services rendered, costs and expenses reasonably incurred up to the time of termination using funds provided by GMA 10 entities.

## ARTICLE VII – OWNERSHIP OF MATERIALS

Section 7.1. Ownership. All information, documents, property, or materials produced, created, or supplied under this Contract by the Contractor, its employees, agents or subcontractors or anyone else, and whether finished or unfinished or in draft or final form, will be the property of the PCCD and the entities for which PCCD is acting as agent. This shall not prevent Contractor from retaining a copy of the final report generated by Contractor for archival purposes and to reflect Contractor's work performed and services rendered. PCCD shall have unlimited rights to technical and other data resulting directly from the performance of the Contractor's Services under this Contract.

Section 7.2. Delivery of Documents upon Termination. Upon termination of this Contract under Sections 1.3 or 6.1, all such information, property, and materials not already in the possession of the PCCD will be promptly delivered to the PCCD.

Section 7.3. Nondisclosure of Documents. The information, documents, property, or materials produced, created or supplied under this Contract by the Contractor, including preliminary

technical reports and studies, shall not be disclosed by the Contractor to any third-party without the prior written consent of the PCCD. The Contractor shall immediately advise the PCCD of any requests for any such information, document, property, or materials by a third-party. The unauthorized disclosure of such information, documents, property, or materials in violation of this section shall, in the sole judgment of the PCCD, constitute a breach of this Contract and shall be subject to all applicable remedies at law or equity.

Section 7.4. Record Copies. The Contractor shall retain a record copy of all information, documents, property, or materials developed in the course of performing the Services. Upon request of PCCD, such information, documents, property, or materials will be promptly supplied to the PCCD, including after the Expiration Date or the termination of this Contract under Section 6.1. The PCCD will reimburse the Contractor for actual cost of time and expenses of reproduction of such materials when requested.

#### ARTICLE VIII – NON-PERFORMANCE

Section 8.1. The Contractor warrants that it will perform all Services in a good and workmanlike manner, strictly in accordance with the standards of the Contractor’s profession, the Scope of Work, and as otherwise provided in this Contract and the Exhibits hereto. The Contractor’s failure to timely perform the Services as warranted and agreed shall constitute a breach of this Contract and shall be subject to all applicable remedies at law or equity. Judgment of nonperformance shall rest solely with the PCCD.

#### ARTICLE IX – LIQUIDATED DAMAGES

*[This section intentionally left blank]*

#### ARTICLE X – BOND COVERAGE

*[This section intentionally left blank]*

#### ARTICLE XI – INSURANCE

Section 11.1. Insurance Coverages. During the term of this Contract, the Contractor shall obtain and maintain in effect, at Contractor’s expense, the insurance policies listed below: (1) worker’s compensation insurance in compliance with applicable state law; (2) commercial general liability insurance, insuring against property damage, personal injury and death, in an amount of no less than \$1,000,000.00 per occurrence; (3) automobile liability insurance in an amount no less than \$1,000,000.00; (4) umbrella liability insurance in an amount of no less than \$1,000,000.00. Said insurance policies shall be with insurance carriers licensed to do business in Texas. The Contractor shall be responsible for requiring that its subcontractors carry and maintain adequate insurance coverage.

Section 11.2. Additional Insureds. The Contractor shall name the PCCD, the entities for which PCCD is acting as agent and the officers, directors, and employees of PCCD and the entities for which PCCD is acting as agent, as “additional insureds” on all the insurance policies specified in Subsection 11.1 above, or with respect to the worker’s compensation insurance, contain waivers

of subrogation by Contractor and the insurance carrier in favor of the PCCD. Not later than the date of receipt of the written notice to proceed under Section 1.3, the Contractor must provide the PCCD with certificates of insurance to be issued directly to the PCCD by the Contractor's insurance agent, identifying the specified coverage. The Contractor, through its agent of record, shall notify the PCCD of any material changes in coverages within thirty (30) days prior to any effective date of change.

Section 11.3. No limitations. Contractor's obligation to obtain and maintain the foregoing policy or policies in the amounts specified shall not be limited in any way by reason of any insurance which may be maintained by the PCCD or any entity for which PCCD is acting as agent, nor shall Contractor's performance of this obligation relieve it of liability under the indemnity provisions set forth in Section 12.2.

## ARTICLE XII – ASSUMPTION OF RISK AND INDEMNIFICATION

Section 12.1. Risk. The Contractor shall assume all risks associated with the Contractor's or its subcontractors' performance under this Contract and shall waive any claim against the PCCD and other participants for damages arising out of the performance of the Services under this Contract.

Section 12.2. Indemnification. The Contractor shall defend, indemnify and hold harmless the PCCD, the entities for which PCCD is operating as agent, their directors, employees, and agents from any and all damages, loss, or liability of any kind whatsoever, including the costs of litigation and attorneys' fees arising from (a) contracts or arrangements between the Contractor and any third parties entered into in performing this Contract, (b) any claims brought by any person relating to this Contract or the Services provided hereunder, or (c) the quality of the Services or the performance of the Services covered by this Contract.

## ARTICLE XIII – NOTICES

Section 13.1. Notices to the PCCD. All notices or communications under this Contract to be mailed or delivered to the PCCD shall be in writing and shall be sent to the PCCD's principal place of business as follows, unless and until the Contractor is otherwise notified:

PLUM CREEK CONSERVATION DISTRICT  
1101 West San Antonio Street  
Lockhart, Texas 78644  
ATTENTION: Daniel Meyer, Executive Manager

Section 13.2. Notices to the Contractor. All notices or communications under this Contract to be mailed or delivered to the Contractor shall be in writing and shall be sent to the address of the Contractor as follows, unless and until the PCCD is otherwise notified:

COLLIER CONSULTING, INC.  
590 E. South Loop  
Stephenville, TX 76401

Section 13.3. Effective Date of Notice. Any notices or communications required to be given in writing by one Party to the other shall be considered as having been given to the addressee on the date the notice of communication is posted by the sending Party.

#### ARTICLE XIV – MISCELLANEOUS

Section 14.1. Entire Agreement. This Contract and the attached Exhibits constitute the entire agreement between the Parties regarding the Services to be performed by the Contractor and there are no representations, warranties, agreements, or commitments between the Parties except as set forth herein. Unless otherwise authorized herein, no amendments or additions to this Contract shall be binding on the Parties unless in writing and signed by the Parties.

Section 14.2. Non-Waiver. No delay or failure by either Party to exercise any right under this Contract, nor any partial or single exercise of that right, shall constitute a waiver of that or any other right, unless otherwise expressly provided herein.

Section 14.3. Headings. Headings in this Contract are for convenience only and shall not be used to interpret or construe its provisions.

Section 14.4. Governing Law. This Contract shall be deemed to have been executed and performed in the State of Texas and shall be construed in accordance with and governed by the laws of the State of Texas. Venue for any disputes or claims arising from this Contract shall be exclusively in the proper courts in Caldwell County, Texas.

Section 14.5. Counterparts. This Contract may be executed in two (2) or more counterparts, each of which shall be deemed an original but all of which together shall constitute one and the same instrument.

Section 14.6. Binding Effect. The provisions of this Contract shall be binding upon and inure to the benefit of the Parties and their respective successors and assigns; provided, however, that the Contractor may not assign any of its rights nor delegate any of its duties hereunder without the PCCD's prior written consent.

Section 14.7. Validity. The invalidity of any provision or provisions of this Contract shall not affect any other provision of this Contract, which shall remain in full force and effect, nor shall the invalidity of a portion of any provision of this Contract affect the balance of such provision.

Section 14.8. Non-Waiver of Immunity. Nothing in this Contract is intended as any waiver by the PCCD of any immunity from suit to which it is entitled under Texas law.

Section 14.9. Survival. Termination of this Contract for breach shall not constitute a waiver of any rights or remedies available at law or in equity to a Party to redress such breach. All remedies, either under this Contract or at law or in equity or otherwise available to a Party, are cumulative and not alternative and may be exercised or pursued separately or collectively in any order, sequence, or combination. In addition to these provisions, applicable provisions of this Contract shall survive any termination of this Contract.

Section 14.10. Attachments. The Exhibits, schedules and/or other documents attached hereto or referred to herein are incorporated herein and made a part hereof for all purposes. As used herein, the expression "Contract" means the body of this Contract and such attachments, Exhibits, schedules and/or other documents, and the expressions "herein," "hereof," and "hereunder" and other words of similar import refer to this Contract and such attachments, exhibits, schedules and/or other documents as a whole and not to any particular part or subdivision thereof.

Section 14.11. Costs. If any legal action, arbitration, or other proceeding is brought by a Party for the enforcement of this Contract or because of an alleged breach or default of this Contract, the prevailing Party shall be entitled to recover reasonable costs incurred, including but not limited to attorney's fees, in such action or proceeding in addition to any other relief to which it or they may be entitled.

Section 14.12. Authority to Contract. Each Party represents and warrants for the benefit of the other Party that: (1) it has the legal authority to enter into this Contract; (2) this Contract has been duly approved and executed; (3) no other authorizations or approvals are or will be necessary in order to approve this Contract and to enable that Party to enter into and comply with the terms and conditions of this Contract; (4) the person executing this Contract on behalf of each Party has the authority to bind that Party; and (5) the Party is empowered by law to execute any other agreement or documents and to give such other approvals, in writing or otherwise, as are or may hereafter be required to implement and comply with this Contract.

Section 14.13. Officers or Agents. No officer or agent of the Parties is authorized to waive or modify any provision of this Contract. No amendment to or rescission of this Contract may be made except by a written document signed by the Parties' authorized representatives.

IN WITNESS WHEREOF, this Contract is executed as of the day and date first written above.

PLUM CREEK CONSERVATION DISTRICT

COLLIER CONSULTING, INC,

By: \_\_\_\_\_

By: \_\_\_\_\_

Aaron Collier  
Vice -President

ATTEST :

ATTEST:

By: \_\_\_\_\_

By: \_\_\_\_\_

Name:  
Title:

Name:  
Title:

## EXHIBIT A SCOPE OF WORK

### **Phase I. Kickoff**

The tasks and objectives of Phase I include a review of GMA 10 District Management Plans, a virtual meeting with each District to understand their monitoring well networks and obtain their water level and other data (e.g. flow tests and production) pertinent to the joint planning process along with each District's approach to evaluating Desired Future Condition (DFC) compliance. Collier will coordinate with GMA 10 to identify data gaps and possibly identify areas to collect additional hydrogeologic data such as single and multi-well pumping tests, and borehole geophysical logs. Members will begin articulating new model run requests. If the members agree, it would be useful to take a close look at exempt groundwater use estimates calculated by Texas Water Development Board (TWDB). The 2021 values should be available in August 2023. Phase I includes one GMA 10 meeting during the last quarter of 2023.

### **Phase II. Southern Trinity Groundwater Availability Model (GAM) and Simulations**

The Southern Trinity (Hill Country) GAM is scheduled to be released at the end of 2024. Collier staff will begin reviewing the model in January 2025. We will examine the model structure, well file, boundary conditions, hydraulic properties, and possibly others. We also will test that the model will load and run in Groundwater Vistas. If so, then we can begin modifying input files as necessary and conducting model runs requested by GMA 10 members to meet objectives articulated during the GMA 10 meeting in mid-January 2025. Phase II includes five GMA 10 meetings, two of which have been allocated to present modelling progress and results to the GMA members. Modelling effort has not been estimated. This will depend on the number of model runs, and the associated number of GAMs, requested by the Districts. Alternatively, if the GMA has a set budget for numerical modelling, we can adjust the number of model runs accordingly. At times, more than one hydrogeologist will be working on groundwater modelling. Collier will also assess the feasibility of proposed DFCs, and submit the model files and supporting documentation to TWDB. This phase currently includes only the Trinity aquifer; additional aquifers may be added based on discussions at the July 17, 2023 meeting or subsequent meetings.

### **Phase III. Desired Future Conditions**

Collier will review current District procedures used to evaluate DFCs. Collier can assist with tracking DFC compliance, using District and TWDB water level data if procedures are not already in place. If data gaps are identified, possible additions to existing monitoring networks can be suggested. The GAMs can be used to assess current DFCs and modify as warranted. Phase III includes two GMA 10 meetings. An estimated cost for this phase will be provided once we understand the effort required to evaluate DFCs. For instance, how many Districts have already completed this task? How much effort will be required to organize monitoring data to conduct the evaluation? Results of this DFC evaluation can also be compared to drawdowns predicted by the respective GAMs.

### **Phase IV. Explanatory Reports**

We recommend discussing the 9 Factors a few at a time, during a series of three meetings, the first of which is proposed to be held in mid-October 2023. Collier will update the 2021 Explanatory Reports

for the Trinity, Fresh Edwards (BFZ) Northern Subdivision, Leona Gravel, Austin Chalk and Buda Limestone, and Western Fresh Edwards (BFZ) aquifers and prepare the DFC Submission Packet for TWDB. Phase IV includes three GMA 10 meetings.

**Phase V. Administrative Deadlines**

This phase includes joint planning and deliverable deadlines established by TWDB beginning with GMA 10’s adoption of proposed DFCs no later than May 1, 2026. This is followed by a 90-day public comment period, after which each District in the GMA is responsible for holding public hearings, and summarizing and addressing public comments related to DFCs. Adoption of final DFCs must be complete no later than January 1, 2027 and Explanatory Reports (ER) for each DFC must be submitted by March 5, 2027. One GMA 10 meeting is scheduled for Phase V.

**Estimated Costs and Invoicing**

An estimate of time required to complete tasks for each phase is provided in column G “HOURS” in the GMA 10 Joint Planning Project Schedule (attached). Associated costs are in column H. Travel time and mileage have been estimated based on meeting location at the Edwards Aquifer Authority facility at 900 E. Quincy St. in San Antonio. If the effort required to complete a Task exceeds the estimate, this work can be completed via a change order. A “change order” is to be approved under the provisions of Section 2.2 of this Agreement.



## Explanatory Report for Submittal of Desired Future Conditions to the Texas Water Development Board

Texas Water Code §36.108 requires groundwater conservation districts to submit desired future conditions of the groundwater resources in their groundwater management area to the Texas Water Development Board (TWDB). The TWDB expects to receive the following in a submission packet (31 Texas Administrative Code §356.32) no later than 60 days after final adoption by the groundwater management area of a desired future condition:

- A copy of the explanatory report addressing the information required by Texas Water Code § 36.108(d-3) and the criteria in Texas Water Code § 36.108(d) A copy of the resolution of the groundwater management area adopting the desired future conditions as required by Texas Water Code § 36.108(d-3);
- A copy of the notice that was posted for the joint planning meeting at which the districts collectively adopted the desired future condition(s) as required by Texas Water Code § 36.108(e) and § 36.108(e-2) the name of the designated representative of the districts in the groundwater management area;
- any groundwater availability model files or aquifer assessments acceptable to the executive administrator used in developing the adopted desired future conditions with documentation sufficient for TWDB staff to replicate the work; and,
- any other information the executive administrator may require in order to estimate the modeled available groundwater.

The Texas Water Code and TWDB rules do not provide a specific format or organization for the explanatory report. Therefore, districts in groundwater management areas are free to develop explanatory reports that best suit the needs of the districts and fulfill the requirements of the statute. The TWDB recommends that an explanatory report be organized in such a way as to facilitate use by groundwater stakeholders and district constituents. The report will also be a key document if a petition is filed challenging the reasonableness of a desired future condition. The following paragraphs describe a possible approach to organizing the explanatory report.

### **Elements of the Explanatory Report**

According to Texas Water Code §36.108 (d-3), the district representatives shall produce a desired future conditions explanatory report for the management area and submit to the TWDB and each district in the management area proof that notice was posted for the joint planning meeting, a copy of the resolution, and a copy of the explanatory report. The report must:

1. Identify each desired future condition;
2. Provide the policy and technical justifications for each desired future condition;

3. Include documentation that the factors under Texas Water Code §36.108(d) were considered by the districts and a discussion of how the adopted desired future conditions impact each factor;
4. List other desired future condition options considered, if any, and the reasons why those options were not adopted; and
5. Discuss reasons why recommendations made by advisory committees and relevant public comments received by the districts were or were not incorporated into the desired future conditions.

Factors identified in Texas Water Code §36.108(d) that are to be discussed in the explanatory report include:

1. Aquifer uses or conditions within the management area, including conditions that differ substantially from one geographic area to another;
  - a. for each aquifer, subdivision of an aquifer, or geologic strata and
  - b. for each geographic area overlying an aquifer
2. The water supply needs and water management strategies included in the state water plan;
3. Hydrological conditions, including for each aquifer in the management area the total estimated recoverable storage as provided by the executive administrator, and the average annual recharge, inflows, and discharge;
4. Other environmental impacts, including impacts on springflow and other interactions between groundwater and surface water;
5. The impact on subsidence;
6. Socioeconomic impacts reasonably expected to occur;
7. The impact on the interests and rights in private property, including ownership and the rights of management area landowners and their lessees and assigns in groundwater as recognized under Section 36.002;
8. The feasibility of achieving the desired future condition; and
9. Any other information relevant to the specific desired future conditions.

The desired future conditions proposed under Texas Water Code §36.108(d) must:

- a. Be established for each aquifer, subdivision of an aquifer, or geologic strata, or
- b. Be established for each geographic area overlying an aquifer in whole or in part or subdivision of an aquifer; and
- c. Provide a balance between the highest practicable level of groundwater production and the conservation, preservation, protection, recharging, and prevention of waste of groundwater and control of subsidence in the management area.

### **Documentation Supporting Classification of an Aquifer as Non-Relevant**

Districts in a groundwater management area may, as part of the process for adopting and submitting desired future conditions, propose classification of a portion or portions of a relevant aquifer as non-relevant (31 Texas Administrative Code 356.31 (b)). This proposed classification of an aquifer may be made if the districts determine that aquifer characteristics, groundwater demands, and current groundwater uses do not warrant adoption of a desired future condition.

The districts must submit to the TWDB the following documentation for the portion of the aquifer proposed to be classified as non-relevant:

1. A description, location, and/or map of the aquifer or portion of the aquifer;
2. A summary of aquifer characteristics, groundwater demands, and current groundwater uses, including the total estimated recoverable storage as provided by the TWDB, that support the conclusion that desired future conditions in adjacent or hydraulically connected relevant aquifer(s) will not be affected; and
3. An explanation of why the aquifer or portion of the aquifer is non-relevant for joint planning purposes.

## **Approach and Data Sources for Explanatory Report**

1. Identify each desired future condition;
2. Provide the policy and technical justifications for each desired future condition;
3. Aquifer uses or conditions within the management area, including conditions that differ substantially from one geographic area to another;
  - a. for each aquifer, subdivision of an aquifer, or geologic strata and
  - b. for each geographic area overlying an aquifer

There are seven aquifers or subdivisions of aquifers covered in the Explanatory Report. These seven are:

Aquifer	Desired Future Condition (DFC)
Northern Fresh Edwards	Springflow at Barton Springs during extreme drought conditions, including those as severe as a recurrence of the 1950s drought of record, shall be no less than 6.5 cfs average on a monthly basis.
	Springflow at Barton Springs during average recharge conditions shall be no less than 49.7 cfs averaged over an 84 month (7-year) period.
Northern Saline Edwards	No more than 75 feet of regional average potentiometric surface drawdown due to pumping when compared to pre-development conditions.
Western Fresh Edwards (Kinney County)	Water level in well number 70-38-902 shall not fall below 1,184 feet above mean sea level
Trinity Aquifer (undifferentiated)	To be Determined
Leona Gravel (Uvalde County)	No drawdown (including exempt and non-exempt use)
Austin Chalk & Buda (Uvalde County)	No drawdown (including exempt and non-exempt use)

Each aquifer or aquifer subdivision will have a separate chapter in the Explanatory Report. As each chapter is completed, it will be shared with GMA 10 for review.

**Source for information for each chapter will be the GCD Management Plans. In addition, TWDB records of historical GW use will be cited for all subsections:**  
<http://www.twdb.texas.gov/waterplanning/waterusesurvey/historical-pumpage.asp>

**Northern Subsection:**

Fresh Edwards: BSEACD , cite BSEACD management plan .

Saline Edwards: BSEACD and Plum Creek, cite BSEACD and Plum Creek CD management plans.

### **Central Subsection:**

Buda and Austin Chalk will be considered together. Buda/Austin Chalk: only relevant in Uvalde County UWCD. Cite Uvalde County UWCD documents.

Leona: Medina and Uvalde counties. , Uvalde County UWCD, and TWDB documents.

### **Western Subsection:**

Kinney County Groundwater Conservation District.

## **1. The water supply needs and water management strategies included in the state water plan;**

Sources for information: GCD Management Plans, 2022 State Water Plan, and water demand estimates for 2021 regional water plans.

Rely on GCD management plans and regional water planning information for all aquifers, all subsections.

## **2. Hydrological conditions, including for each aquifer in the management area, the total estimated recoverable storage as provided by the executive administrator, and the average annual recharge, inflows, and discharge;**

Sources for information: GCD Management Plans, GAM runs, and aquifer analyses. Other TWDB data in addition to GAM runs may also be used in this task. However, with the exception of “the total estimated recoverable storage”, all data are from the GAM runs. It is assumed that all GCD management plans are consistent with the GAM runs.

Total estimated recoverable storage as provided by the TWDB executive administrator will be used for all cases. A brief description of the relevance of total estimated recoverable storage to joint planning in GMA 10 will be included.

Recharge estimates will be taken from GAM documentation.

Average annual inflows and discharge from the GAM will be cited.

Inflows and discharge will be determined for each subsection as follows:

### **Northern Subsection:**

Fresh Edwards: BSEACD . Cite BSEACD management plan.

Saline Edwards: BSEACD and Plum Creek CD. Cite BSEACD and Plum Creek CD

management plans.

**Central Subsection:**

Buda and Austin Chalk will be considered together. Buda/Austin Chalk: Only relevant in Uvalde County UWCD. Cite Uvalde County UWCD and TWDB documents.

Leona: Medina and Uvalde counties. Uvalde County UWCD, and TWDB documents and TWDB GAM runs.

**Western Subsection:**

Kinney County Groundwater Conservation District.

**3. Other environmental impacts, including impacts on springflow and other interactions between groundwater and surface water;**

Sources for information: TWDB GAMs supplemented by USGS, TWDB, TCEQ, GCD Management Plan data.

The primary source of information for evaluating environmental impacts will be predictive model runs of the GAMs. This is because the models incorporate spring flow and groundwater/surface water interaction and can capture the dynamic relationships of the major components of the aquifer systems. Environmental impacts of a DFC are predictive in nature and relate to a specific pumping distribution. However, we may supplement information on predicted impacts with impacts that have occurred historically using data from USGS, TWDB, and other historical reports.

**4. The impact on subsidence;**

A brief note will be included about the subsidence risk for each aquifer based on data and the Subsidence Prediction Tool (SPT) assessment.

**5. Socioeconomic impacts reasonably expected to occur;**

Source for information: 2021 Regional Water Plans.

The water plans for Region J, K, and L include socioeconomic studies conducted by TWDB for each. This information is adequate.

**6. The impact on the interests and rights in private property, including ownership and the rights of management area landowners and their lessees and assigns in groundwater as recognized under Section 36.002;**

This section will note that additional litigation, statutes, or case law may be needed to determine this impact. If acceptable to the districts, input of attorneys for the districts will be solicited as contributors or reviewers for this section to ensure it appropriately addresses the link between private property rights and aquifer management.

**7. The feasibility of achieving the desired future condition; and**

The feasibility of achieving a DFC directly relates to the ability of the districts to manage the aquifer toward that goal. Districts can be limited by the hydrogeology of the resource (e.g., how it responds to drought), the authority of the district to regulate pumping (e.g., uses exempt from permitting in statute or enabling legislation), and practical limitations such as whether a particular DFC can be monitored. Uses exempted by statute and feedback from districts for other uses exempt by the districts enabling legislation or rules will be documented. This will include a general discussion on how the hydrogeology of the aquifers impacts the feasibility of achieving the DFCs and the type of monitoring protocol that will be necessary.

**8. Any other information relevant to the specific desired future conditions.**

Include additional relevant information for each specific desired future condition.

**9. Provide a balance between the highest practicable level of groundwater production and the conservation, preservation, protection, recharging, and prevention of waste of groundwater and control of subsidence in the management area.**

Source for information: TWDB has not developed guidance on how to approach this factor. It is up to the wishes of the GCDs on how they wish to approach it, whether in a qualitative, quantitative, or combination manner. But, the GCDs need to include stakeholder input so that this factor can be satisfactorily addressed. Participation by the project team at town hall meetings or with individual GCDs is not included in the scope of this work. GCD management plans will be used to complete this requirement.

**10. Discussion of other desired future conditions considered.**

List other desired future condition options considered, if any, and the reasons why those options were not adopted.

**11. Discussion of other recommendations.**

Discuss reasons why recommendations made by advisory committees and relevant public comments received by the districts were or were not incorporated into the desired future conditions.

Each GCD will provide their material for this section.

## **12. Advisory committees.**

GMA 10 will determine whether to have an advisory committee.

### **Additional Assumptions**

The scope of work includes delivery of an explanatory report. GMA 10 will vote, or in some other acceptable fashion, determine whether the explanatory report, as delivered, is administratively complete. Assigned GMA members will make editorial corrections to the explanatory report, as delivered, but substantive modifications to the report will be billed at time and material rates.

### **Proposed Meeting Dates and Topics:**

Quarterly meetings may be an adequate frequency to present and request feedback from the Districts. Additional meetings can be scheduled as required by the GMA.

Mid-October 2023 – Summarize and present water supply needs and water management strategies from 2021 SWP. Discuss estimated exempt groundwater use. ,

Mid-January 2024 - Present and discuss aquifer uses and conditions; Present Factor 2. Technical memo. GMA 10 members present their concerns with the GAMs or MAGs.

Mid-April 2024 - Present results of the DFC evaluation; Summarize and present springflow and surface water x groundwater studies within GMA 10; Present Factor 1. Technical memo.

Mid-October 2024 - Present data gaps and discuss possible solutions; Present Factor 4. Technical memo.

Mid-January 2025 - Present results of Southern Trinity GAM model review and finalize objectives of new model runs.

Mid-April 2025 - Present results of model runs; Summarize and present recharge, x-formational flow, and Q.

Mid-July 2025 - Present results of model runs; Present Factor 3. Technical memo.

Mid-October 2025 - Present comparison of observed and simulated drawdowns using new Southern Trinity GAM.

Mid-April 2026 - Present Factor 8. Feasibility of Achieving DFCs; Adopt proposed DFCs.

Mid-October 2026 - Summarize/address public comments and compile for packet submission.

Mid-December 2026 - Present draft explanatory reports; Adopt final DFCs.

Mid-February 2027 - Present finalized explanatory reports.



# APPENDIX C - PLAN OF WORK



PO Box 1137 | 590 E South Loop | Stephenville, TX. 76401  
(254) 968-8741 | collierconsulting.com | F-8170

**To:**

**Mr. Timothy Loftus, Ph.D.**

GMA 10 Coordinator

General Manager

**Barton Springs/Edwards Aquifer Conservation District**

and

**Mr. Daniel Meyer**

GMA 10 Administrative Coordinator

General Manager

**Plum Creek Conservation District**

June 28, 2023

Dear Dr. Loftus and Mr. Meyer,

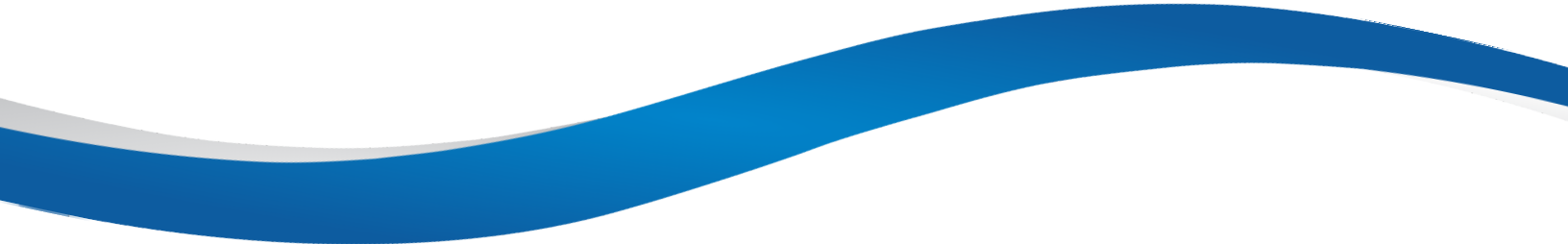
Collier Consulting (Collier) was pleased to be selected to provide scientific, planning, and programmatic consulting services for the fourth round of joint planning to Groundwater Management Area 10 (GMA 10). As requested, we have prepared a detailed project timeline of tasks to meet statutory and regulatory requirements. We propose to divide the remainder of the 2026 round of joint planning into five phases. The Phases and associated Tasks are organized by the work to be accomplished, and not necessarily in chronological order. We consider this to be a draft for your consideration and anticipate the need to revise it.

We look forward to your feedback.

Sincerely,

A handwritten signature in black ink, appearing to read "Dan Meyer", is written below the "Sincerely," text.

**Aaron Collier, P.G.**  
Vice-President  
Collier Consulting, Inc.



### **Phase I. Kickoff**

The tasks and objectives of Phase I include a review of GMA 10 District Management Plans, a virtual meeting with each District to understand their monitoring well networks and obtain their water level and other data (e.g. flow tests and production) pertinent to the joint planning process along with each District's approach to evaluating Desired Future Condition (DFC) compliance. Collier will coordinate with GMA 10 to identify data gaps and possibly identify areas to collect additional hydrogeologic data such as single and multi-well pumping tests, and borehole geophysical logs. Members will begin articulating new model run requests. If the members agree, it would be useful to take a close look at exempt groundwater use estimates calculated by Texas Water Development Board (TWDB). The 2021 values should be available in August 2023. Phase I includes one GMA 10 meeting during the last quarter of 2023.

### **Phase II. Southern Trinity Groundwater Availability Model (GAM) and Simulations**

The Southern Trinity (Hill Country) GAM is scheduled to be released at the end of 2024. Collier staff will begin reviewing the model in January 2025. We will examine the model structure, well file, boundary conditions, hydraulic properties, and possibly others. We also will test that the model will load and run in Groundwater Vistas. If so, then we can begin modifying input files as necessary and conducting model runs requested by GMA 10 members to meet objectives articulated during the GMA 10 meeting in mid-January 2025. Phase II includes five GMA 10 meetings, two of which have been allocated to present modelling progress and results to the GMA members. Modelling effort has not been estimated. This will depend on the number of model runs, and the associated number of GAMs, requested by the Districts. Alternatively, if the GMA has a set budget for numerical modelling, we can adjust the number of model runs accordingly. At times, more than one hydrogeologist will be working on groundwater modelling. Collier will also assess the feasibility of proposed DFCs, and submit the model files and supporting documentation to TWDB. This phase currently includes only the Trinity aquifer; additional aquifers may be added based on discussions at the July 17, 2023 meeting or subsequent meetings.

### **Phase III. Desired Future Conditions**

Collier will review current District procedures used to evaluate DFCs. Collier can assist with tracking DFC compliance, using District and TWDB water level data if procedures are not already in place. If data gaps are identified, possible additions to existing monitoring networks can be suggested. The GAMs can be used to assess current DFCs and modify as warranted. Phase III includes two GMA 10 meetings. An estimated cost for this phase will be provided once we understand the effort required to evaluate DFCs. For instance, how many Districts have already completed this task? How much effort will be required to organize monitoring data to conduct the evaluation? Results of this DFC evaluation can also be compared to drawdowns predicted by the respective GAMs.

### **Phase V. Administrative Deadlines**

This phase includes joint planning and deliverable deadlines established by TWDB beginning with GMA 10's adoption of proposed DFCs no later than May 1, 2026. This is followed by a 90-day public comment period, after which each District in the GMA is responsible for holding public hearings, and summarizing and addressing public comments related to DFCs. Adoption of final DFCs must be complete no later than January 1, 2027 and Explanatory Reports (ER) for each DFC must be submitted by March 5, 2027. One GMA 10 meeting is scheduled for Phase V.

### **Proposed Meeting Dates and Topics:**

Quarterly meetings may be an adequate frequency to present and request feedback from the Districts. Additional meetings can be scheduled as required by the GMA.

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Mid-January 2024 - Present & discuss aquifer uses and conditions; Present Factor 2. Technical memo

Mid-April 2024 - Present results of the DFC evaluation; Summarize & present springflow and surface water x groundwater studies within GMA 10; Present Factor 1. Technical memo

Mid-October 2024 - Present data gaps and discuss possible solutions; Present Factor 4. Technical memo

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Mid-April 2025 - Present results of model runs; Summarize & present recharge, x-formational flow, and Q.

Mid-July 2025 - Present results of model runs; Present Factor 3. Technical memo

Mid-October 2025 - Present comparison of observed and simulated drawdowns using new Southern Trinity GAM

Mid-April 2026 - Present Factor 8. Feasibility of Achieving DFCs; Adopt proposed DFCs

Mid-October 2026 - Summarize/address public comments and compile for packet submission

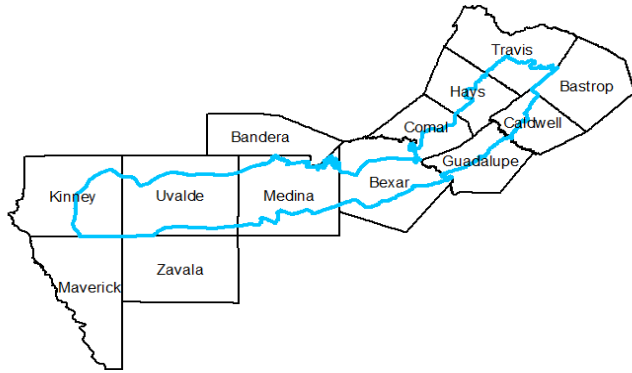
Mid-December 2026 - Present draft explanatory reports; Adopt final DFCs

Mid-February 2027 - Present finalized explanatory reports

### **Estimated Costs and Invoicing**

An estimate of time required to complete tasks for each phase is provided in column G "HOURS" in the GMA 10 Joint Planning Project Schedule (attached). Associated costs are in column H. Travel time and mileage have been estimated based on meeting location at the Edwards Aquifer Authority facility at 900 E. Quincy St. in San Antonio. If the effort required to complete a Task exceeds the estimate, this work can be completed via a change order.

GMA 10 JOINT PLANNING



TASK	ASSIGNED TO	PROGRESS	START	END	HOURS	\$	GMA 10 MEETING
<b>PHASE I. KICKOFF</b>							
Review District management plans	CC	0%	7/18/23	8/15/23	10.0	\$2,350.00	
Virtual meeting with each member District	CC	0%	8/15/23	10/10/23	12.0	\$2,820.00	
Review, present, and discuss estimates of exempt groundwater use (2021 data to be pub. in August)	CC/GMA	0%	9/1/23	10/15/23	38.0	\$8,930.00	\$2,265.00
Discuss known issues with current GCCs or MAGs	GMA	0%		10/15/23	0.8	\$176.25	
Begin articulating new model runs for each District	GMA/CC	0%		10/15/23	0.8	\$176.25	
<b>TOTAL PHASE I</b>					<b>61.5</b>	<b>\$16,717.50</b>	
<b>PHASE II. NEW SOUTHERN TRINITY GAM &amp; MODEL RUNS</b>							
Review GAM Conceptual Model Report	CC	0%	10/15/23	1/15/24	8.0	\$1,880.00	
Identify & present data gaps and discuss implications & possible solutions	CC	0%	1/1/24	10/15/24	8.0	\$1,880.00	\$2,265.00
Compile well data, pumping data, aquifer test data, logs	CC	0%			80.0	\$18,800.00	
Review Model Files	CC	0%	12/31/24	1/15/25	9.5	\$2,232.50	
Model structure	CC	0%	12/31/24	1/15/25	-		
Well file	CC	0%	12/31/24	1/15/25	-		

TASK	ASSIGNED TO	PROGRESS	START	END	HOURS	\$	GMA 10 MEETING
Boundary conditions	CC	0%	12/31/24	1/15/25	-		
Hydraulic properties	CC	0%	12/31/24	1/15/25	-		
Present results of model review and finalize objectives of new model runs	CC/GMA	0%		1/15/25	1.5	\$352.50	\$2,265.00
Model runs	CC	0%	1/16/25	12/31/25	?		
Present results of model runs	CC	0%		4/15/25	1.5	\$352.50	\$2,265.00
Present results of model runs	CC	0%		7/15/25	1.5	\$352.50	\$2,265.00
Present comparison of observed drawdowns (change in water level) to GAM predicted drawdown	CC	0%	7/15/25	10/15/25	?		\$2,265.00
<b>TOTAL PHASE II</b>					<b>110.0</b>	<b>\$37,239.00</b>	
<b>PHASE III. DESIRED FUTURE CONDITIONS</b>							
Evaluate DFCs with monitoring data provided by Districts	CC	0%	10/15/23	4/15/24	?	\$0.00	
Is additional monitoring needed?	GMA						
Assist with design of additional monitoring	CC/GMA	0%				\$0.00	
Present results of DFC evaluation	CC/GMA	0%		4/15/24	1.5	\$352.50	\$2,265.00
Revise DFCs as necessary based on water level and other data, including the updated GAM	CC/GMA	0%	10/15/25	1/15/26	?		
Assess feasibility of achieving DFCs	CC	0%	1/15/26	4/15/26	8.0	\$1,880.00	
Present Factor 8. Feasibility of Achieving DFCs	CC/GMA	0%		4/15/26	3.5	\$822.50	\$2,265.00
Prepare technical memo	CC	0%	4/15/26	10/15/26	5.0	\$1,175.00	
<b>TOTAL PHASE III</b>					<b>18.0</b>	<b>\$8,760.00</b>	
<b>PHASE IV. EXPLANATORY REPORTS</b>							
Factor 1. Aquifer uses & condition; differentiators	CC						
Summarize & present trends/changes or anticipated changes since last round? e.g. new permits?	GMA	0%	10/15/23	1/15/24	10.0	\$2,350.00	\$2,265.00
Prepare technical memo	CC	0%	1/15/24	4/15/24	10.0	\$2,350.00	

TASK	ASSIGNED TO	PROGRESS	START	END	HOURS	\$	GMA 10 MEETING
Factor 2. Water supply needs & water management strategies	CC						
Summarize & present SWP and request feedback. How might these affect current/proposed DFCs?	CC/GMA	0%	7/18/23	10/15/23	7.0	\$1,645.00	
Prepare technical memo	CC	0%	10/15/23	1/15/24	10.0	\$2,350.00	
Factor 3. Hydrological conditions (TERS)	CC						
Summarize & present recharge, x-formational flow, and Q and request feedback. Are there some that are questionable?	CC/GMA	0%	1/15/25	4/15/25	35.0	\$8,225.00	
Prepare technical memo	CC	0%	4/15/25	7/15/25	16.0	\$3,760.00	
Factor 4. Environmental impacts e.g. springflows, swxgw	CC						
Summarize & present springflow and swxgw studies for each GCD and summarize. Is this complete? Are there any gaps? Do we want to address those in this round?	CC/GMA	0%	1/15/24	4/15/24	28.0	\$6,580.00	
Prepare technical memo	CC	0%	4/15/24	10/15/24	16.0	\$3,760.00	
<del>Factor 5. Subsidence</del>	CC	0%					
Factor 6. Socioeconomic impacts							
Should a committee be formed to address Factor 6?		0%	10/15/23	12/15/26			
Prepare technical memo	CC	0%			?		
Factor 7. Impacts on private property interests and rights							
Should a committee be formed to address Factor 7?		0%	10/15/23	12/15/26			
Prepare technical memo	CC	0%			?		
Factor 9. Additional factors	CC/GMA						
Update Explanatory Reports	CC	0%	12/31/25	12/15/26			
Policy justification	CC	0%			12.5	\$2,937.50	
Technical justification	CC	0%			9.0	\$2,115.00	
Present Draft Explanatory Reports to GMA	CC	0%		12/15/26	1.5	\$352.50	\$2,265.00
Present Finalized Explanatory Reports to GMA	CC	0%		2/15/27	1.5		\$2,265.00

TASK	ASSIGNED TO	PROGRESS	START	END	HOURS	\$	GMA 10 MEETING
<b>TOTAL PHASE IV</b>					<b>156.5</b>	<b>\$43,220.00</b>	
<b>PHASE V. ADMINISTRATIVE DEADLINES</b>							
<b>Adopt Proposed DFCs</b>	GMA	0%		<b>5/1/26</b>			
90 Day Public Comment Period	GMA	0%		8/1/26			
Districts hold public hearings	GMA	0%					
Districts summarize public comments	CC	0%		10/15/26	8.0	\$1,880.00	\$2,265.00
<b>Final adoption</b>	GMA	0%		<b>1/5/27</b>			
<b>Submit Explanatory Reports</b>	GMA	0%		<b>3/5/27</b>			
<b>TOTAL PHASE V</b>					<b>8.0</b>	<b>\$4,145.00</b>	

## Item 6

### Board Discussion and Possible Action

- f. Discussion and possible action on Phase 2 Scope of Work related to database and MSA with LRE Water.



## Item 6

### Board Discussion and Possible Action

- g. Discussion and possible action related to the performance and compliance of District permittees with their User Drought Contingency Plan curtailments.

## Item 6

### Board Discussion and Possible Action

- h. Discussion and possible action on the District's transition to new general counsel by end of the calendar year.

## Item 7

### Director Reports

Directors may report on their involvement in activities and dialogue that are of likely interest to the Board, in one or more of the following topical areas:

- Meetings and conferences attended or that will be attended
- Board committee updates
- Conversations with public officials, permittees, stakeholders, and other constituents
- Commendations
- Issues or problems of concern

## Item 8

### Adjournment