### NOTICE OF OPEN MEETING

Notice is given that a **Special Meeting of** the Board of Directors (Board) of the Barton Springs/Edwards Aquifer Conservation District to be held on **Thursday, February 11, 2021,** commencing at **4:00 p.m. via Telephone and Videoconference** pursuant to Texas Government Code, Sections 551.125, 551.127 and 551.131, as modified by the Governor of Texas (Governor) who ordered suspension of various provisions of the Open Meetings Act, Chapter 551, Government Code, effective March 16, 2020, in accordance with the Texas Disaster Act of 1975. Under his proclamation of March 13, 2020, the Governor certified that the COVID-19 pandemic poses an imminent threat of disaster and declared a state of disaster for all counties in Texas. The COVID-19 pandemic makes it difficult to convene a quorum of the Board at one location with the public. Moreover, the COVID-19 pandemic creates an emergency and unforeseeable situation, a sense of urgency, and immediacy for conducting the meeting via Telephone and Videoconference.

This meeting will be audio/video recorded and the recording will be available on the District's website after the meeting. A copy of the agenda packet for this meeting will be available on the District's website at the time of the meeting.

The method for public participation described below follows the Governor's guidance for conducting a public meeting and ensures public accessibility. Members of the public may participate via videoconference or call in by telephone via the instructions provided below:

### INSTRUCTIONS FOR JOINING MEETING

You may join the meeting by one of two options:

1. Join the Meeting using Zoom – use your computer audio/video features

https://us02web.zoom.us/j/83815354713?pwd=VIE5MjhLTUQ2QVFCWThaRmhSNGhOdz09

Meeting ID: 838 1535 4713

Passcode: 821328

Helpful Tips – For tips on how to set up Zoom on your device prior to the Board Meeting, visit the District's Board Meeting webpage: https://bseacd.org/transparency/agendas-backup/

### 2. Join the Meeting by Telephone only

Meeting Dial In +1-346-248-7799

Meeting ID: 838 1535 4713

Passcode: 821328

### INSTRUCTIONS FOR PUBLIC COMMENTS

- Register for Public Comment prior to Board Meeting Day Persons wishing to provide public comment must register by calling (512-282-8441) or emailing tammy@bseacd.org by 5:00 p.m. on Wednesday, February 10, 2021. Please include the following information in the registration:
  - a. first and last name
  - b. email address
  - c. phone number
  - d. the agenda item on which you wish to comment
  - e. indicate whether you would like to comment the day of or have your written comments submitted read into the record, and
  - f. include written comments, if any.
- 2. Public Comments at the Board 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. Only persons who have registered in advance to give public comment during the meeting will be allowed to provide comment.

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 4:00 p.m.
- 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. Pg. 4
  - **b.** Approval of minutes of the Board's January 14, 2021 Special Meeting. **Not for public** review at this time
- 4. General Manager's Report. Discussion and possible action.

### **Topics**

- **a.** Update on personnel matters.
- **b.** Aquifer conditions and status of drought indicators.
- c. Update on Strategic Planning Activities.

- d. Update on Rule Making planning activities.
- e. Update on Trinity Aquifer Sustainable Yield Study.
- f. Scholarship program update.
- g. Upcoming public events of possible interest.
- h. Review of Status Report and update on team activities/projects. Pg. 27

### 5. Discussion and Possible Action.

- a. Discussion and possible action on the approval of a Well Drilling Authorization request from Aqua Texas Inc. to drill a Lower Trinity Well for the Bliss Spillar Water System in Hays, County. Pg. 38
- **b.** Discussion and possible action related to the Management Plan Overview. Prerecorded presentation: <a href="https://vimeo.com/508617705">https://vimeo.com/508617705</a> **Pg. 49**
- c. Discussion and update on the Education & Outreach programmatic activities. Pg. 63
- d. Discussion and possible action on approval of the draft US Fish & Wildlife ITP Annual Report. Pg. 71
- e. Discussion and possible action related to a legislative update by Sledge Law Group. (6:15p) NBU

### 6. 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.

### 7. Adjournment.

**Please note:** This agenda and available related documentation, if any, have been posted on the District website, 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 January 14, 2021 Special Meeting.

### Financial Reports – January 2021 February 11, 2021 Board Meeting

### 1. Profit and Loss Budget vs Actual

September 1, 2020 through January 31, 2021

### 2. Profit and Loss Previous Year Comparison

September 1, 2020 through January 31, 2021

### 3. Balance Sheet Previous Year Comparison

As of January 2021 (compared to January 2020)

### 4. Check Register - TRUIST Account

January 1, 2021 through January 31, 2021

### 1. Profit and Loss Budget vs Actual

September 1, 2020 January 31, 2021

### Page 1 of 2

# **BARTON SPRINGS EDWARDS AQUIFER CONSERVATION DISTRICT**

### PROFIT AND LOSS - BUDGET VS ACTUAL

September 1, 2020 - January 31, 2021

	Sept 1, 2020 - Jan 31, 2021	Budget	% of Budget	Notes
INCOME				
4400.0 · Interest Income	619.03	12,000.00	5.16%	Interest rates remain low.
4625.0 · MISCELLANEOUS INCOME	557.95			
4800.0 · USAGE AND PRODUCTION FEES	920,623.29	1,719,010.00	53.56%	Includes \$504,077 CoA water use fees.
4810.0 · OTHER FEES	5,633.93	9,800.00	57.49%	Applications, pluggings, late fees.
TOTAL INCOME	927,434.00	1,741,810.00	53.25%	
EXPENSE				
6000.0 · UTILITIES	8,278,71	23,000.00	35.99%	Electric, water, phones, internet service.
6005.0 · Print/Copy/Photo Services	284.17	2,000.00	14.21%	
6007.0 · Postage/Freight/ Shipping	765.92	2,500.00	30.64%	
6010.0 · Office Supplies	380.47	9,000.00	4.23%	
6010.2 · Office Furniture	0.00	1,500.00	%0.0	
6011.0 · Comp Hardware-Plotter Supplies	100.00	6,000.00	1.67%	
6014.0 · Software Acquisition & Upgrades	1,960.64	6,000.00	32.68%	
6015.0 · IT Monthly Maintenance	2,000.00	17,400.00	28.74%	
6016.0 · Meeting Expense	502.67	2,000.00	25.13%	
6019.0 · Subscriptions/Publications	359.88	4,200.00	8.57%	
6020.0 · Advertising	435.50	4,000.00	10.89%	
6021.0 · MISCELLANEOUS EXPENSES	1,485.13	1,000.00	148.51%	
6022.0 · Accounting System Operation	1,567.80	7,200.00	21.78%	Quickbooks, Payroll, Journyx timekeeping.
6023.0 · MAINTENANCE (Office and Auto)	4,917.65	17,900.00	27.47%	

	Sept 1, 2020 - Jan 31, 2021	Budget	% of Budget	Notes
6025.4 · Facilities Repairs	920.00	5,000.00	18.4%	
6040.0 · LEASES (Copier and Postal Meter)	3,824.67	10,650.00	35.91%	
6065.0 · DIRECTOR EXPENSES	-411.23	2,500.00	-16.45%	
6066.0 · Directors Compensation	7,700.00	40,000.00	19.25%	
6075.0 · DUES & MEMBERSHIPS	3,729.12	6,100.00	61.13%	
6080.0 · EDUCATION AND OUTREACH	914.51	19,350.00	4.73%	
6081.0 · REGULATORY COMPLIANCE	00.00	21,500.00	%0.0	
6084.92 · GENERAL MANAGEMENT	00.00	39,400.00	%0.0	
6089.0 · AQUIFER SCIENCE	4,938.24	34,800.00	14.19%	
6090.0 · Conservation Credits	00.00	19,149.00	%0:0	
6100.0 · INSURANCE - DISTRICT	2,634.87	7,070.00	37.27%	Property, Auto, Liability, E&O.
6150.0 · INSURANCE - GROUP	55,331.15	172,114.00	32.15%	Employee health, dental, life, vision.
6160.0 · LEGAL SERVICES	43,382.25	135,000.00	32.14%	
6170.0 · PROFESSIONAL SERVICES	140,857.89	63,000.00	223.58%	Includes election - county costs.
6179.0 · LEGISLATION	10,000.00	36,000.00	27.78%	
6180.0 · PROF DEVELOPMENT & SUPPORT	88.78	16,500.00	0.54%	
6199.0 · SALARIES AND WAGES	345,382.86	868,061.00	39.79%	
6203.0 · TAXES & BENEFITS	41,048.36	136,879.00	29.89%	
TOTAL EXPENSE	686,380.01	1,736,773.00	39.52%	
	241,053.99	5,037.00		
9001.00 · Transfer to Contingency	0.00	5,000.00		
NET INCOME	241,053.99	37.00		

CAPITALIZATION INDICATES ACCOUNTS THAT HAVE SUB-CATEGORIES.

Those sub-categories have been collapsed.

### 2. Profit and Loss - Previous Year Comparison

September 1, 2020 - January 31, 2021

# **BARTON SPRINGS EDWARDS AQUIFER CONSERVATION DISTRICT**

## PROFIT AND LOSS - PREVIOUS YEAR COMPARISON

September 1, 2020 - January 31, 2021

	Sept 1, 2020 - Jan 31, 2021	Sept 1, 2019 - Jan 31, 2020	\$ Change	% Change
INCOME				
4300.0 · PROJECT INCOME	0.00	108,000.00	-108,000.00	-100.0%
4400.0 · Interest income	619.03	9,024.74	-8,405.71	-93.14%
4625.0 · MISCELLANEOUS INCOME	557.95	6,968.52	-6,410.57	-91.99%
4800.0 · USAGE AND PRODUCTION FEES	920,623.29	914,657.45	5,965.84	0.65%
4810.0 · OTHER FEES	5,633.93	7,773.37	-2,139.44	-27.52%
TOTAL INCOME	927,434.20	1,046,424.08	-118,989.88	-11.37%
EXPENSE				
6000.0 · UTILITIES	8,278,71	8,658.34	-379.63	-4.39%
6005.0 · Print/Copy/Photo Services	284,17	206.24	77.93	37.79%
6007.0 · Postage/Freight/Shipping	765.92	853.87	-87.95	-10.3%
6010.0 · Office Supplies	380,47	3,321.96	-2,941.49	-88.55%
6011.0 · Comp Hardware-Plotter Supplies	100.00	62,44	37.56	60.15%
6014.0 · Software Acquisition & Upgrades	1,960.64	1,360.76	599.88	44.08%
6015.0 · IT Monthly Maintenance	5,000.00	5,000.00	00.00	%0.0
6016.0 · Meeting Expense	502.67	612.58	-109.91	-17.94%
6019.0 · Subscriptions/Publications	359.88	359.88	0.00	%0:0
6020.0 · Advertising	435.50	630.04	-194.54	-30.88%
6021.0 · MISCELLANEOUS EXPENSES	1,485.13	378.62	1,106.51	292.25%
6022.0 · Accounting System Operation	1,567.80	2,246.17	-678.37	-30.2%
6023.0 · MAINTENANCE (Office and Auto)	4,917.65	6,775,54	-1,857,89	-27.42%

	Sept 1, 2020 - Jan 31, 2021	Sept 1, 2019 - Jan 31, 2020	\$ Change	% Change
6025.4 · Facilities Repairs	920.00	929.39	-9.39	-1.01%
6040.0 · LEASES	3,824.67	3,848.45	-23.78	-0.62%
6065.0 · DIRECTOR EXPENSES	-411.23	114.95	-526.18	-457.75%
6066.0 · Directors Compensation	7,700.00	9,550.00	-1,850.00	-19.37%
6075.0 · DUES & MEMBERSHIPS	3,729.12	3,304.92	424.20	12.84%
6080.0 · EDUCATION AND OUTREACH	914.51	4,322.51	-3,408.00	-78.84%
6081.0 · REGULATORY COMPLIANCE	0.00	0.00	0.00	%0.0
6084.92 GENERAL MANAGEMENT	0.00	680.00	-680.00	-100.0%
6089.0 · AQUIFER SCIENCE	4,938.24	24,424.60	-19,486.36	-79.78%
6100.0 · INSURANCE - DISTRICT	2,634.87	3,453.11	-818.24	-23.7%
6150.0 · INSURANCE - GROUP	55,331.15	62,735.78	-7,404.63	-11.8%
6160.0 · LEGAL SERVICES	43,382.25	52,350.48	-8,968.23	-17.13%
6168.11· SOAH - EP	0.00	4,359.38	4,359.38	-100.0%
6170.0 · PROFESSIONAL SERVICES *	140,857.89	27,232.82	113,625.07	417.24%
6179.0 · LEGISLATION	10,000.00	3,000.00	7,000.00	233.33%
6180.0 · PROF DEVELOPMENT & SUPPORT	88.78	3,562.67	-3,473.89	-97.51%
6199.0 · SALARIES AND WAGES	345,382.86	411,022.61	-65,639.75	-15.97%
6203.0 · TAXES & BENEFITS	41,048.36	53,307.00	-12,258.64	-23.0%
TOTAL EXPENSE	686,380.01	698,665.11	-12,285.10	-1.76%
NET INCOME	241,054.19	347,758.97	-106,704.78	-30.68%

CAPITALIZATION INDICATES ACCOUNTS THAT HAVE SUB-CATEGORIES. Those sub-categories have been collapsed.

<sup>\*</sup> Election County Services are included here.

### 3. Balance Sheet - Previous Year Comparison

As of January 2021 (compared to January 2020)

# BARTON SPRINGS EDWARDS AQUIFER CONSERVATION DISTRICT

## **BALANCE SHEET - PREVIOUS YEAR COMPARISON**

As of January 31, 2020

	January 31, 2021	January 31, 2020	\$ Change	% Change
ASSETS				
Current Assets				
Checking/Savings				
1000.0 · Cash in Bank-Truist Checking	78,362,34	58,907.00	19,455.34	33.03%
1010.0 · Cash in Bank - Truist Payroll	9,455.32	8,385.15	1,070,17	12.76%
1030.0 · TexPool Funds - General				
1030.1 · Aquifer Protection Reserve	52,050.00	52,050.00	00'0	%0.0
1030.2 · Deposits Held (EP-SOAH)	54,575.62	61,560.00	-6,984.38	-11,35%
1030.21 · Cash Flow Reserve	350,000.00	150,000.00	200,000.00	133,33%
1030.3 · HC/HTGCD/BOR Reserve	83,000.00	0.00	83,000.00	100.0%
1030.0 · TexPool Funds - General - District	328,068.71	322,001.11	6,067.60	1.88%
Total 1030.0 · TexPool Funds - General	867,694,33	585,611.11	282,083,22	48 17%
1040.0 - TexPool Funds - Contingency	504,678.84	596,168.52	-91,489.68	-15.35%
1045,0 - TexPool Funds - Reserve	61,049.04	60,827.47	221.57	%98"0
Total Checking/Savings	1,521,239.87	1,309,899,25	211,340.62	16.13%
Accounts Receivable				
1200.0 - Accounts Receivable	31,742.04	16,723.96	15,018.08	89.8%
Total Accounts Receivable	31,742.04	16,723.96	15,018.08	%8'68
Other Current Assets				
1100.0   Petty Cash	300.00	300 00	0.00	%0.0
1300.0 · Pre-paid Expenses	8,642.18	8,802.91	-160,73	-1.83%
1499.0 · Undeposited Funds-A/R payments	11,066.34	0.00	11,066.34	100.0%
Total Other Current Assets	20,008.52	9,102.91	10,905.61	119.8%
Total Current Assets	1,572,990.43	1,335,726,12	237,264.31	17.76%

	January 31, 2021	January 31, 2020	\$ Change	% Change
Fixed Assets				
1400.0 - Field Equipment	376,487.89	376,487 89	0.00	%0 0
1410.0 Office Equipment & Furniture	19,722.90	19,722.90	0.00	%0.0
1410.1 : Computer Hardware & Software	19,329.69	19,329.69	0.00	0.0%
1420.0 · Vehicles	78,339.03	78,339.03	00.0	%0.0
1430.0 - Accumulated Depreciation	-601,561.24	-601,561.24	0.00	%0.0
1440.0 - Land (Antioch Cave)	165,415.00	165,415.00	00.00	0.0%
1445.0 · Office Building	268,588.04	268,588.04	0.00	%0'0
Total Fixed Assets	326,321.31	326,321.31	0.00	%0.0
Other Access				
1500 0 Organizational Costs	300.783.26	300,783,26	00.00	%0.0
1510 0. Accumulated Amentization	-326 324 26	-326 324 26	00.0	%00
10.000 Donoring Daily (Hillipse)	71.00	21 00	00 0	%U 0
Tooloo Deposits Faid (Offines)	00.17			
Total Other Assets	-25,470.00	-25,470.00	0.00	%0:0
TOTAL ASSETS	1,873,841.74	1,636,577.43	237,264.31	14.5%
LIABILITIES & EQUITY				
Liabilities				
Current Liabilities				
Other Current Liabilities				
2010.0 · Rebates Payable - Conservation Credits	20,183.63	19,148.06	1,035.57	5.41%
2110.0 · Direct Deposit Liabilities	1,035.00	1,035.00	0.00	%0.0
2220.0 · Federal Income Tax Withheld	-1,035.01	-1,035.01	0.00	%0.0
2230.0 · Employer Fica & Medicare Payable	-139.25	-139.25	00.00	%0.0
2250.0 · TWC Unemployment Tax Payable	946.34	1,423.60	477.26	-33.53%
2270.0 · Payroll Liabilities	0.00	0.10	-0.01	-10.0%
2300.0 · Accrued Vacation Payable	46,434.80	47,229.52	-794.72	-1.68%
Total Other Current Liabilities	67,425.60	67,662.02	-236.42	-0.35%

	January 31, 2021	January 31, 2020	\$ Change	% Change
Total Current Liabilities	67,425.60	67,662.02	-236.42	-0.35%
Total Liabilities	67,425.60	67,662.02	-236.42	-0.35%
Equity				
3000.0 · Fund Balance	1,199,954.64	855,729.11	344,225,53	40.23%
3000.3 · Invested in Capital Assets	365,127,26	365,127.26	00.00	%0.0
3110.0 · Reserve for Petty Cash	300.00	300.00	00.00	%0.0
Net Income	241,034.24	347,759.04	-106,724.80	-30.69%
Total Equity	1,806,416.14	1,568,915.41	237,500.73	15.14%
TOTAL LIABILITIES & EQUITY	1,873,841.74	1,636,577.43	237,264.31	14.5%

### 4. Check Register

TRUIST BANK January 1 – January 31, 2021

## **BARTON SPRINGS EDWARDS AQUIFER CONSERVATION DISTRICT**

### MONTHLY CHECK REGISTER

### January 1 - January 31, 2021

Type	Date	Num	Name	Memo	Amount	Balance
						82,421.48
Check	01/03/2021	25749	Travis County Alarm Permit	Annual permit (1/1/2021 - 12/31/2021)	-50.00	82,371.48
Check	01/03/2021	25750	Waste Management of Texas, Inc.	Trash and Recycling Service	488.37	81,883.11
Check	01/03/2021	25751	Pedemales Electric Cooperative	Electricity	-355.60	81,527.51
Check	01/05/2021	25752	The County of Hays	Additional Election Fees	-29.73	81,497.78
Check	01/05/2021	25753	Jan-Pro of Austin	January Office Cleaning Services	-260.00	81,237.78
Check	01/05/2021	25754	Integritek	IT, Phone, Anti-virus, Office 365	-1,756.74	79,481.04
Transfer	01/07/2021			Funds Transfer Payroll	-21,000.00	58,481.04
Check	01/07/2021	25755	Michael Redman	Mileage Reimbursement	-54.63	58,426.41
Check	01/12/2021	25756	BB&T	Various Credit Card Charges	415.04	58,011.37
Check	01/12/2021	25757	Reserve Account	Postage Replenishment	-300.00	57,711.37
Check	01/12/2021	25758	Time Warner Cable	Internet	-145.74	57,565.63
Check	01/12/2021	25759	CIT Technology Fin Serv, Inc	Copier Lease	-675.00	56,890.63
Deposit	01/13/2021			Deposit (permittee production fee payments)	42,635,08	99,525,71
Liability Check	01/14/2021	EFT	Reliance Trust Company	Bi-weekly Retirement and Loan Pmt	-4,178,96	95,346,75
Liability Check	01/14/2021	EFT	United States Treasury	74-2488641 Employee Payroll Taxes	-6,796.93	88,549.82
Check	01/15/2021	25760	Bickerstaff	Legal - General Matters	-12,025.25	76,524.57
Liability Check	01/18/2021	1182021EFT	United States Treasury	74-2488641 Directors Taxes	-332.40	76,192.17
Check	01/19/2021	25761	Sam's Club	Canteen	-63.24	76,128.93
Check	01/19/2021	25762	Dave's Well Service	Aquifer Science - Coleman Canyon	-378.66	75,750.27
Transfer	01/21/2021			Funds Transfer Payrol!	-20,000.00	55,750.27
Check	01/21/2021	25763	United States Treasury	4th Quarter 2020 940-GTLI Annual Tax Reporting	-144.95	55,605.32
Check	01/26/2021	25764	City of Austin	Water Utilities	-18.19	55,587.13
Check	01/26/2021	25765	Barton Publications	Public Hearing Ad - Aqua Texas	-112.50	55,474.63
Check	01/26/2021	25766	Enoch Kever PLLC	December 2020 EP Legal Services	-60.00	55,414.63

01/26/2021	1 25767	SledgeLaw Group	December Monthly Legislative Fee	-4,000 00	51 414 63
01/26/2021	1 25768	Fidelity Security Life Insurance Co.	February Supplemental Gap Insurance Premium	-989.94	50,424.69
01/26/2021	1 25769	The Standard	Retirement Plan Administration (October-December 2020)	-7,235.66	43,189,03
01/26/2021	1 25770	Pedernales Electric Cooperative	Electricity	-470.61	42,718.42
01/26/2021	1 25771	Exxon Mobil Business Card	Gasoline	-32.12	42,686.30
01/26/2021	1 25772	Waste Management of Texas, Inc.	Trash and Recycling Service	489.54	42,196.76
01/28/2021	1 EFT	Reliance Trust Company	Bi-weekly Retirement and Loan Pmt	-4,178.96	38,017.80
01/28/2021	1 EFT	United States Treasury	74-2488641 Employee Payroll Taxes	-7,143.89	30,873,91
01/28/2021	1 25773	AFLAC	Employee-paid Supplemental Insurance Premium	-146.69	30,727,22
01/28/2021	1 25774	United Healthcare	February Health Insurance Premium	-11,164.65	19,562.57
01/28/2021	1 25775	Sun Life Financial	February Dental/Vision/Life/Disability Insurance Premium	-1,200.23	18,362.34
01/28/2021	_		Funds Transfer (low checking balance)	00.000,09	78,362.34
				-4,059.14	78,362.34
				-4,059.14	78,362.34

### Bickerstaff Heath Delgado Acosta LLP

3711 S. Mo-Pac Expy.

Building One, Suite 300

Austin, Texas 78746

(512) 472-8021

Fax (512) 320-5638

Tax ID No 74-2153894

Barton Springs/Edwards Aquifer Conservation District 1124-A Regal Row Austin, TX 78748 Attention: Vanessa Escobar January 20, 2021

Client

000148

Invoice #: Bill Atty: 113881 BD

1

Page:

For Professional Services Rendered Through January 15, 2021

RE: In Conn	ection with	General Matters		Matter	000000
SERVICES		Collocal Massello		Watter	000000
Date	Person	Description of Services	Hours	Rate	Amount
1/14/2021	BD	Participate in Board meeting.	2.5	\$275.00	\$687.50
1/15/2021	BD	Calls with G. Ellis and B. Stansberry re: resolution in support of HTGCD.	0.2	\$275.00	\$55,00
		Professional Services This Matter	3.0		\$742.50

### Timekeeper Recap for this matter BILLING RECAP

		Level	Hours	Rate	Amount
BD	Bill Dugat	Partner	0.3	\$0.00	\$0.00
80	Bill Dugat	Partner	2.7	\$275.00	\$742.50

RE: Electro	Purification	LLC		Matter:	000109
SERVICES					
Date	Person	Description of Services	Hours	Rate	Amount
12/16/2020	BD	Conference calls with V. Escobar, K.B-Enders, B. Smith and P. Goodson in preparation of testimony; draft question and answers for V. Escobar.	5.0	\$275,00	\$1,375.00
12/17/2020	BD	Work on testimony of B. Smith, V. Escobar and P. Goodson; call with B. Smith re: exhibit; conference calls with V. Escobar, P. Goodson and K. Bell-Enders re: testimony.	5.0	\$275,00	\$1,375.00

### Item 4

### General Manager's Report Discussion and possible action topics

- a. Update on personnel matters.
- b. Aquifer conditions and status of drought indicators.
- c. Update on Strategic Planning Activities.
- d. Update on Rule Making planning activities.
- e. Update on Trinity Aquifer Sustainable Yield Study.
- f. Scholarship program update.
- g. Upcoming public events of possible interest.
- h. Review of Status Report and update on team activities/projects.

### STATUS REPORT UPDATE FOR THE FEBRUARY 11, 2021 BOARD MEETING

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

### **Upcoming Dates of Interest**

- District Offices closed: February 15th
- GMA 9 Meeting: March 22, 2021
- GMA 10 Meeting: March 9, 2021
- Region K Meetings: April 15<sup>th</sup>
- RWQPG: Feb 19<sup>th</sup> at 10:30
- Changing Face of Water Law February 20-21 (San Antonio)
- ASR for Texas: May 4, 2021 (Austin)
- Central Texas Water Conservation Symposium Tentative Late Spring 2021 April 20-21

### DROUGHT MANAGEMENT

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

Drought was officially declared at the October 8 Board meeting. On February 5, the Lovelady well had a level of 467.1 ft msl, about 12 ft below the drought trigger level. On February 5, Barton Springs was flowing at 31 cfs, about 7 cfs below the drought trigger point. Flow at Barton Springs has increased recently due to rain in late December and early January, and the rate of decline of the water level in the Lovelady well has decreased since mid-December.

### **Drought Communication (Jackie, Michael)**

Staff has updated District resources and the website to reflect the current Alarm drought stage. Regular social media posts are being scheduled to remind users to conserve and reduce all non-essential groundwater use. Educational resources have been prepared and are available upon request for permittees. Digital educational downloads are available on the website with the Drought Media Tool-Kit located on the Drought Education Page and includes links to other helpful resources. https://bseacd.org/drought-edu/

Written permittee notifications and public notice of drought conditions were mailed and emailed out. November is the first month that drought curtailments will take effect. Drought Management Fees (DMFs) are now being assessed for permittees over pumping their drought targets. Permittees that are over pumping their drought targets receive a letter and an email stating that they will be assessed the DMFs. Drought curtailments will continue to be in place until drought restrictions are lifted.

Permittee Drought Compliance (Michael, Erin)

Permittee Name	Aquifer	Permitted Volume 436,117	Use Type	Notes  Reg Comp had enforcement meeting with Representatives	
Roy Seiders	Edwards		Irrigation		
Aqua Texas	Edwards	12,875,000	PWS	Talk to reps. To discuss moving to their alternative source	
Vance Lane LLC	Edwards	460,000	Irrigation	Meeting with Driller and Permittee to discuss options regarding the well filling up with silt and sand	
Forest Oaks MHC	Oaks MHC Edwards		Commercial	Staff is updating drought target chart for permittee	

### DISTRICT PROJECTS

### **GMA Joint Planning**

### > GMA 10 Coordination (Michael, Vanessa)

BSEACD now serves as the GMA 10 chair and will guide the discussions and planning activities at the GMA 10. The primary activities of focus for the 2021 years is the adoption of DFCS and the development of the explanatory report. We continue to coordinate internally on long-term goals related to DFC revisions and DFC monitoring compliance. Staff is actively collaborating in planning discussions internally, and with neighboring GCD representatives and TWDB staff. A GMA 10 meeting was held on January 26, 2020. More information can be found at www.gma10.org

### > Explanatory Report Development (Michael, Jeff)

GM and staff are coordinating a significant planning effort to review technical reports and to update content for the explanatory report that is scheduled to be completed by Summer 2021. Staff is coordinating with the team from Plum Creek GCD to review the previous explanatory report and identify areas of revision.

### Trinity Aquifer Sustainable Yield Study & Planning

### > Advisory Workgroup Planning (Kendall, Vanessa)

Staff will present an updated and revised timeline for the project at the March board meeting. GM and staff are continuing to review research on sustainability goals, metrics and thresholds. Staff has met with our facilitator twice to discuss the project timeline, communication, and certain components of an Advisory Work Group. Staff will begin internal discussions to evaluate the level of public participation, the fundamental objectives of the Advisory Work Group, the scope, and process and workflow to engage the participants, all of which will be incorporated into the Advisory Work Group Plan. Staff has the goal of holding the first meeting with the Sustainable Yield Advisory Working Group in summer.

### > Technical Evaluations (Brian)

Aquifer Science staff continue to collect data on the geology and hydrogeology related to the Trinity Aquifers. We are working with Hays County to install Trinity monitor wells in the Jacob's Well area. Work on the first phase of the District's own numerical modeling has been completed. This phase involved the development of a steady-state model. We are currently evaluating the need for converting the steady-state model into a transient model. We are members of a technical committee to guide the development of a numerical groundwater model of the aquifers influenced by the Blanco River. Planning and funding of the Blanco River/Trinity model (BRATWURST) are close to being finalized with ongoing discussions between Hays County, Meadows Center, and Southwest Research Institute.

### BOR WaterSmart Drought Resiliency Grant Application (Vanessa, Brian)

Aquifer Science staff worked with the General Manager and the Regulatory Compliance team and other partners to submit an application for a Bureau of Reclamation drought resiliency grant. The grant application was submitted on August 5, 2020. The BOR regional office has not announced

the award recipients. We anticipate a February or March announcement timeframe. The delay in the announcement also poses a delay on some of the projects associated with the grant scope of work – JWS Monitor Wells, BRAT Model Development.

### Habitat Conservation Plan (Brian, Erin)

- ➤ COA/ BSEACD Technical Meeting: In December, Aquifer Science hosted a virtual meeting with staff from the City of Austin Watershed Protection Department to discuss activities related to the HCPs of each entity and to share data and reports about these activities.
- MAC Meeting & Annual Report: Staff prepared the annual report for review by the Management Advisory Committee (MAC). The MAC met on 1/26/2021 for its annual meeting and provided minimal edits and comments. The comments will be incorporated to the final report.
- ➤ Implementation Schedule: Staff is reviewing previous planning documents and will develop a new implementation timeline and schedule to guide project tasks and activities for the 1-3yr timeframe.

### Planning for Technical Tasks:

Aquifer Science staff are coordinating studies at Barton Springs with COA staff. These studies include measurement of dissolved oxygen in the Barton Springs pool and the installation of a monitor well.

### Database Management System - Intera Inc (Michael, Kendall)

Intera continues to work on modules for completion and deployment. Staff had internal meetings and with Intera on December 16, 2020 to discuss the progress of the project which included review and discussion on public map access and drought compliance. Meetings with Intera are scheduled throughout the next few months to review mockups and to review other sections of the database. Staff will likely need to spend more time on this project to get it finalized.

### ILA Commitments (Brian)

The District has ILA commitments with Hays County and HTGCD to install two monitor wells in the Jacob's Well Area. Information from these wells will be used to better understand the flow system that delivers Middle Trinity groundwater to Jacob's Well, and to develop our numerical groundwater models.

The ILA with COA is intended 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.

Status update – An annual technical meeting was held in December 2020. In January 2021, the annual MAC meeting was held. Kent Butler Summit small group discussions took place in

Jan- Feb 2021. COA/BSEACD plan to have additional discussions and planning efforts to coordinate the details of the DO studies and the monitor well installation.

### Kent Butler Summit Planning (Vanessa, Jackie)

Vanessa and Jackie are participating in the planning and coordination of the 2020/2021 Kent Butler small group discussions. The planning committee consists of Austin Water, Austin Watershed, Hill Country Alliance, and an outside facilitator. The small group discussions are targeted toward local officials, key decision makers, and staff at municipalities, counties, WSCs and GCDs. The focus will be on land and water resource management and how partnerships with counties, municipalities, GCDs and NGOs can be leveraged. Small group meetings are underway this Jan. and Feb. and follow-ups will be coordinated afterwards. Invitees included hand-selected city/county staff and elected officials from throughout Hays, Travis, Blanco, Comal, and Kendall counties, with about 50 participants total. These small county meetings are focused on needs, strategies, and successes for advancing land conservation initiatives in each of their unique regions. The format for future Kent Butler Summits is under discussion and aligned with the strategic planning of these small county meetings. A COA/ BSEACD virtual small group discussion will take place on Feb 25, 2021.

### **Region K Planning Activities (Vanessa)**

A meeting was held on Jan 27<sup>th</sup>. There was a senate resolution to honor John Burke's 20 service as Region K Chair. There were also updates from TWDB on the status of the Edwards-Trinity Plateau BRACS study. A separate Hill Country Study will be published in late 2021.

### **Strategic Planning Preparation (Vanessa):**

Vanessa, Blayne, and Christy met to discuss the strategic planning goals and process. There was discussion about timeline and desired outcomes. There will be some overlap with the staff presentations and program overviews in March 2021. The timeframe for strategic planning discussion is March – April 2021.

### Training, Presentations, and Conferences (All Teams):

- Aquifer Science: NA
- Regulatory Compliance: NA
- Administration: PFIA (Public Funds Investment Act) biennial training as required by Chapter 6.
- Communications and Outreach: Staff recently completed an online workshop hosted by TWRI, The Digital Now for Natural Resource Professionals, Online in the 21st Century Workshop, which was well attended by other natural resource professionals from around the state.
- General Manager: Webinars on Effective Board Governance.

### New Maps, Publications, or Reports:

A list of recent publications can be found at: <a href="https://bseacd.org/scientific-reports/">https://bseacd.org/scientific-reports/</a>

The latest eNewsletter published in January 2021 can be found at: <a href="https://bseacd.org/publications/newsletters/">https://bseacd.org/publications/newsletters/</a>

### LITIGATION AND LEGISLATION

### **Litigation and SOAH Activities (Vanessa)**

### • Electro Purification Production Permit:

The District submitted pre-filed testimony and a revised GM Position Statement in December 2020. Depositions were scheduled for Jan-Feb 2021. On Jan 11, 2021 EP filed a Notice of Nonsuit and request to remand the application back to the District. On Jan 15, 2021, the District filed a response to the applicant's Notice of Nonsuit and requested that the ALJs find that with a nonsuit, that EP has withdrawn the application. On Jan 25, 2021 EP filed a response disagreeing with the District's request that the ALJs find the application withdrawn. On Feb 4, 2021, the ALJs dismissed the EP matter and remanded the matter back to the District. The original hearing on the merits will no longer be set for the dates of April 12-16 & 19-20, 2021.

### Needmore Water LLC:

No updates. Protestants filed an appeal of Needmore Water LLC permit. The District filed a response in March 2020. A hearing on the merits is scheduled for May 24, 2021.

### Permian Highway Pipeline:

A motion to dismiss was filed on 12/17/2020. It argues that the protestants case is over (moot) because construction of the pipeline is finished. The protestants will be filing a response opposing these arguments by January 12. The Court will likely include any recent filings with the rest of the briefing that's been pending with him for decision since summer 2020.

### 87th Legislature Bill Activity (Vanessa, Kendall)

A few groundwater related bills have been filed in the House and Senate. The GM is working with SledgeLaw Group to track bill activity that will affect the District and groundwater regulation in general. GM and staff are tracking the legislative initiatives and participating in the following subcommittees at TWCA and TAGD committees.

Of note, is S.B. 152 filed by Senator Perry that is an omnibus groundwater bill. This bill focuses on attorney's fees, petitions to GCDs for rulemaking, and permit notices to affected persons. More information is described in the confidential legislative report provided in Board backup.

On 2/4/21 the Speaker Phalen Speaker Phalen released his committee assignments for the 87th Legislature. House Natural Resources is as follows:

Chair: Tracey King of Uvalde. Vice Chair: Cody Harris

Seniority Assignments: Tracy King of Uvalde, Lyle Larson, Eddie Lucio, Armando Walle

Walle, Armando

Speaker Appointments: Rhetta Bowers, Kyle Kacal, Dennis Paul, Four Price, Ana-Maria

Ramos, Terry Wilson

### RULEMAKING, PERMITTING, AND ENFORCEMENT

### Rulemaking (Michael, Kendall)

The Regulatory Compliance team is starting the process of updating District Rules and enforcement procedures that pertain to two rulemaking areas in particular. The staff will meet internally and with the rules committee as needed. Staff will present rule concepts and a process timeline to the full board during future work sessions. The two areas of focus for the rulemaking efforts are:

- Improving the rule language relating to enforcement violations and penalties for over pumping during and out of drought.
- Open up permit criteria relating to Conditional Class A permits that would allow for more firm yield permit options for small volume permittees.

Staff will estimate the number of new permits and an associated volume (range) that could result from the rule change. Staff will then meet with our consultant Kirk Holland in early March to discuss any potential impacts to the HCP and what, if any, changes need to be made.

### **Enforcement and Compliance Matters (Michael, Erin)**

Compliance/Enforcement			
Permittee or Entity Name	Aquifer	Use Type	Notes
Well on Polk Rd	Not sure	Commercial	Staff received complaint from citizen regarding well supplying businesses and homes and being charged and water quality issues

### Permitting Activity (Michael, Erin)

Application Type	Aquifer	Applicant Name	Use Type	Volume Request
Exempt	Edwards	LCRA	Exempt	0
Change of Owner	Edwards	Matt Goebler	Commercial	<2,000,000 gal/y
Well Drilling Authorization	Lower Trinity	Aqua Texas	PWS	6,000,000
LPP	Trinity	Lule, Berlim and Elona	Domestic	500,000
Change of Ownership		James Stinson	PWS or Commercial	100,000
Change of Ownership		Ford Restaurant Group	Commercial	1,875,000
Recently Approved				
Application Type	Aquifer	Applicant Name	Use Type	Volume Request
Plugging	Edwards	Meritage Homes	Plugging	NA
IPP	Trinity	Hays County	Monitoring/Industrial	100,000
LPP	Trinity	Amelia Virden	Domestic	500,000
LPP	Edwards**	Coy Campbell	Domestic	500,000

### AQUIFER STUDIES (Brian)

### Permitting Hydrogeologic Studies:

 Aqua Texas Inc- Aquifer Science staff are reviewing an aquifer test workplan from Aqua Texas for a Lower Trinity well.

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

- Colemans Canyon- As part of the Jacob's Well study, we are collecting data from domestic
  wells in the area. A dye-trace study will be conducted this year with Hays County, EAA, and
  HTGCD.
- KM PHP WQ Workgroup: Planning for a meeting in Feb/March with interested parties.

### **Field Activities:**

- Antioch- Continuing to maintain the system and to collect data on flow into the vault.
- Well Monitoring- Continuing to maintain equipment in numerous monitor wells and to download and interpret data.

### **Trinity Aquifer Modeling Development:**

- BRAT Modeling- Waiting to hear about BOR grant as discussed above.
- In-house model- Working to transition the steady-state model into a transient model
- DSS Tool -A small project is underway by a consulting company in Nebraska to develop a Groundwater Evaluation Tool (GET) for the Trinity Aquifers.

### COMMUNICATIONS AND OUTREACH (Jackie)

### Gen:Thrive by EcoRise

Gen:Thrive is a collaborative initiative created by EcoRise which aims to accelerate sustainability and environmental education programs through data tools and collaboration. This year the District Education Team participated in the Gen:Thrive data surveys and presentation meetings which highlighted their newly developed online data mapping tools. The goal of their project is to map and understand environmental programs in our region, foster partner alliances, and use data visualization to increase support for environmental education programs. These tools intended for service providers, educators, and communities are now live and publicly available online at https://www.ecorise.org/our-work/gen-thrive/.

### Website & Public Information

Staff has been working to improve basic readability and functionality of key web pages, in addition to updating spotlights, banners, and project pages for public information purposes. This month's activities have included updates to the Austin Cave Festival webpage, GMA10 webpage, HCP webpage, drought education resources, home page, and About Us: Staff webpage.

### **District Newsletter**

The latest eNews is scheduled for release the second week of January to District contact lists. The Winter eNews topics included 'District Welcomes New Directors', 'Winterize Your Well', 'Annual Report', and 'Staff Updates'. Education staff has been working with all teams to redevelop the format and frequency of the District newsletter with decreased team staff.

### **District Operation Updates**

Education staff has continued working with all teams to keep the public up-to-date with changed office operations, updated staff contacts, and other useful resources for the public during remote work operations. Updates are made to the website, front door signage, social media, and shared with eNews and press contacts as operations shift.

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

From Jan-Feb, the District website had 2,967 total page views by 2,548 unique sessions. Top sites in order of number of views were the Home Page (611), About Us Board (156), Outreach Manager Job Posting (138), About Us Staff (111). The most popular FB posts included: Job Posting for Communications & Outreach Manager, Drought Reminders, and Winter eNews.

### Other meetings and activities:

- Central Texas Water Efficiency Network (CTWEN): The District continues to participate in the regular gathering of water professionals involved with the CTEWN group virtually. A subgroup of this network is planning for a potential virtual Central Texas Water Conservation Symposium (tentatively set for April 20-21, 2021).
- Scholarship Planning: The format for the scholarships program for this FY is currently being updated. No plans for camp scholarships this year due to the pandemic, and the college essay contest deadline will be pushed to mid-April.

### GENERAL ADMINISTRATION

### **Accounts Receivable/Permittee Cycle Billings**

On February 16, invoices will go out for March monthly production fees, and 3<sup>rd</sup> quarter production fees, which includes AWU/COA quarterly water use fee.

### <u>Drought Assessments - DMFs (Drought Management Fees)</u>

Drought letters have been mailed out to permittees to notify them of any drought compliance target chart issues.

No DMFs have yet been assessed since Drought was declared. The first fees are to be assessed after February board presentation of the drought targets.

### Financial Reporting - Website Transparency Section

These are four separate reports and in different format (data over formatting) than the four monthly financial reports that are included in Board backups.

Transparency Star-related: Most current, available financial reports are to be posted, as required by the Texas Comptroller of Public Accounts. Balance Sheets, Profit and Loss Statements, and Check Registers (Operating and Payroll) through January 2021 have been posted on the District website.

Also, recently posted are the updated required five-year income and expense, and per capita graph numbers.

### **Tax Reporting**

Tax Reporting Completed. New 1099-NEC form, 1099-MISC, 1096, W-2s, W-3, Quarterly payroll taxes C-3, and 940 with GTLI to TWC, SSA, and to the IRS.

The Administration Team typically has repetitive monthly tasks e.g. monthly bank reconciliations, daily phone answering, monthly adjusting journal entries, accounts payable, contract/grant/project tracking, monthly meter reading reporting, office maintenance and repairs, budget monitoring, 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.

### Item 5

### **Board Discussions and Possible Action**

a. Discussion and on the approval of a Well Drilling Authorization request from Aqua Texas Inc. to drill a Lower Trinity Well for the Bliss Spillar Water System in Hays, County.

### Application Summary and Staff Recommendations 02/11/2021

### **DESCRIPTION OF APPLICATION**

Applicant: Aqua Texas Inc., Copper Hills Water System

Type of Application: Well Drilling Authorization for new well in the Lower Trinity Management

Zone

Request: Applicant requests to drill one (1) well in the Lower Trinity Aquifer for the

purposes of supporting an existing public water supply system. A separate Production Permit Application will be required in order to operate and

produce from this well in the future.

### **REASON FOR REQUEST**

Aqua Texas Inc. filed one (1) well drilling authorization application on October 16, 2020 with the District for a new nonexempt Lower Trinity well. The new well (Well Project #5) is expected to be completed in the Lower Trinity as well. The proposed well is being drilled for the purpose of public water supply for an existing water system (Bliss Spillar) that supplies three (3) existing subdivisions: Chaparral Park, Copper Hills and Southwest Territory. The applicant intends to diversify their groundwater portfolio which will help mitigate any future issues in the existing Edwards and Middle Trinity wells, such as reduced yield or declining water levels during times of drought or exceptionally high water demands.

### WELL/RECEIVING AREA LOCATION

The proposed well is located in Hays County on an existing water system site that is 1 acre (30° 08' 34.15"N, 97° 52' 48.74" W). Attachment A shows the location of the proposed new well (Well Project #5) and the other wells in the well field.

### **WELL DESIGN**

The well is expected to be completed in the Lower Trinity. The total well depth of the lower Trinity Well will be approximately 1,200 - 1,400 ft below ground surface and completed so that water is only produced from the Lower Trinity Sligo and Hosston Formations (Attachment B).

### **APPLICATION REVIEW**

- Staff has reviewed the application and has determined that the application has satisfied all the requirements pursuant to the application checklist requirements in District Rule 3-1.4.A and that the required documentation and payment of fees have been satisfied.
- Staff has determined that the applicant has sufficiently addressed the criteria and considerations for Board action in accordance with District Rule 3-1.6(A).

• Staff has confirmed that the applicant filed proper notice and the required 20-day public comment period has expired in accordance with District Rule 3-1.4.B. (Attachment C).

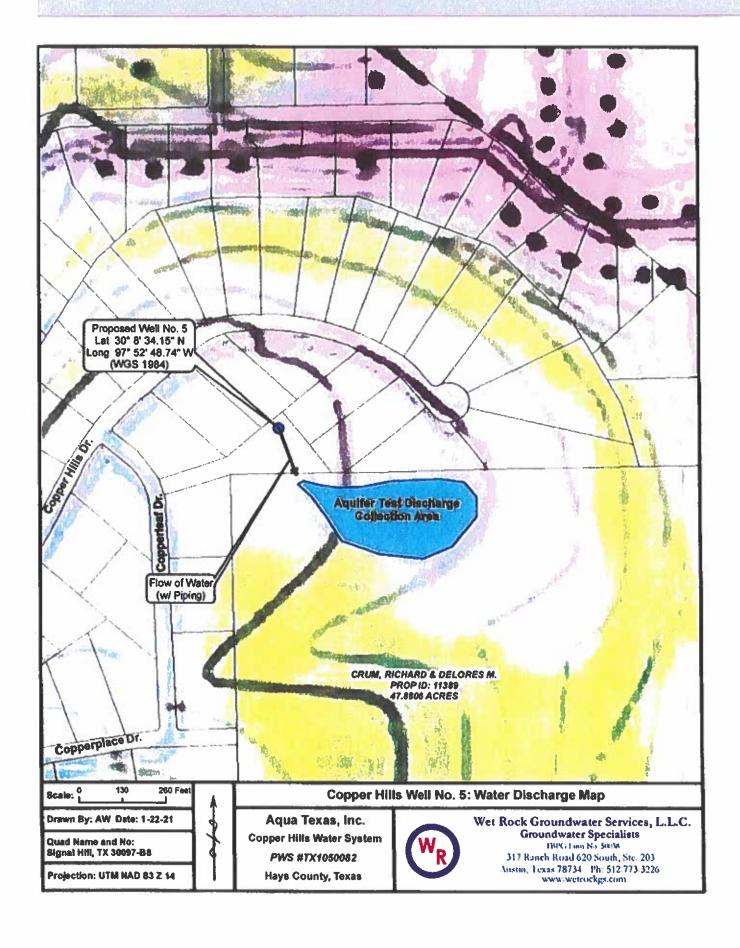
### **ADDITIONAL INFORMATION**

• The Bliss Spillar Water System currently has a Historic Edwards Aquifer permit for 12,875,000 gallons per year (19 wells) and a Middle Trinity Aquifer permit for 38,625,000 gallons per year (3 wells). Aqua Texas, Inc. is not wanting to increase its overall permitted use and therefore would like to transfer 6,000,000 gallons of their Middle Trinity Aquifer permit to their new Lower Trinity permit.

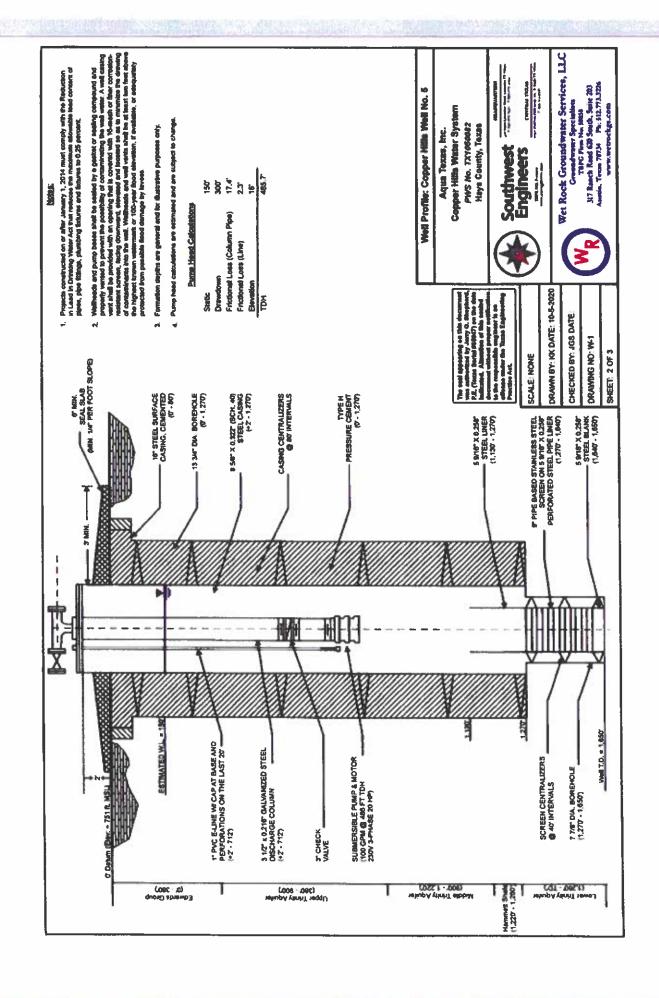
### STAFF RECOMMENDATIONS - 02/11/2021

Staff recommends approval of the above-referenced well drilling authorization application.

## Appendix A Well Location Map



### Appendix B Well Schematic



### Attachment C Proof of Public Notice

# San Marcos Publishing, LP San Marcos Daily Record

P.O. Box 1109, San Marcos, Texas 78667 **(512) 392-2458** 

State of Texas County of Hays

Before me, the undersigned authority, holding the office of Notary Public in and for Hays County, Texas, personally appeared Lance Winter, who being by me here and now duly sworn, upon oath says:

My name is <u>Lance Winter</u>, and I am the <u>Publisher</u>, of the <u>San Marcos Daily Record</u>, a newspaper of general circulation in Hays County and Caldwell County, Texas, and a newspaper which has been regularly and continuously published in San Marcos, Hays County, Texas, for a period of more than one year immediately preceding the date of publications of the following, and that the said notice, a copy of which follows, was published in the regular edition of said newspaper for a period of

Sanuary B, 201

The said <u>Publisher</u>, <u>Lance Winter</u> further states that the rate charged for this publication is the lowest rate charged to commercial advertisers for the same class as advertising for a like amount of space.

Signature of Affiant

Subscribed and Sworn to me, by the said Publisher Lance Winter this day of 2021 to certify which witness my hand and seal of office

RONDA YOUNG
Notary Public, State of Texas
Comm. Expires 05-24-2024
Notary ID 128999495

OTARY PUBLIC in and for Hays County, Texas

### NOTICE OF INTENT TO INTRODUCE

This is to give notice of intent to introduce in the 87th Legislature, Regular Session, a bill to be entitled an Act relating to Anthem Municipal Utility District, which bill shall pertain to the to the redefining of the boundaries Anthem Municipal Utility District of Hays County, a Conservation and Recismation District that was created Under Article XVI, Section 59 of the Texas Constitution created to Acquire, Construct, Finance, and Operate Water, Sewer, Drainage, and Road improvements serving the following respective tracts of land:

NOTICE

BEING 422.996 ACRES OF LAND LO-CATED - IN THE ANDREW DUNN LEAGUE, ABSTRACT NO. 4, THE JOHN COOPER SURVEY NO. 13. ABSTRACT NO. 100 AND THE JESSE DAY SURVEY, ABSTRACT 152 IN HAYS COUNTY, TEXAS AND BEING A PORTION OF THE SAME LAND CONVEYED TO MOUNTAIN CITY-150, L.P., CALLED TRACT 1, A 599.25 ACRE TRACT AND TRACT 2 A CALLED 73.693 ACRE TRACT AS DE-SCRIBED IN VOLUME 5272, PAGE 475 AND A CALLED 867 SQUARE FOOT TRACT 3 AND A 0.308 ACRE TRACT 4 AS DESCRIBED IN VOLUME 5272, PAGE 490 OF THE OFFICIAL PUBLIC RECORDS OF HAYS COUNTY, TEXAS.

Aqua Texas, Inc. (2611 FM 2325 Wimberley, TX 78676) filed a well drilling application on October 16, 2020, with the Barton Springs/Edwards Aquifer Conservation District (District) for one new nonexempt well. The well is proposed to be discretely completed in the Lower Trinity aquifer, and is planned to be used as a public water supply well to support residents connected to the Chaparral Water System Hays, Copper Hills Water System and Southwest Territory (aka Bliss Spillar Systems). A separate Production Permit Application will be required in order to operate and produce from this well in the future. The proposed well is located in Hays County on a 1 acre tract located at Copperleaf Dr (30°8'34.16" 97°52'48,74").

Publication of this notice begins a 20-day public response period for which comments, written formal protests and requests for a public hearing will be accepted by the District. Parties interested in formally participating in a hearing on a contested application should refer to District Rule 4-9.13. For further information, please contact the District, 1124 Regal Row, Austin, Texas 78748, (512) 282-8441, basad@basacd.org. You may also contact the applicant, Aqua Texas, Inc. at (512) 330-9904.





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# Item 5

# **Board Discussions and Possible Actions**

b. Discussion and possible action related to the Management Plan Overview.

# Status and Progress on Management Plan Objectives & Habitat Management Plan Objectives FY 2020

<b>Feams</b>	General Mgmt.	Administration	Education & Outreach	Aquifer Science	Reg. Compliance
	(9 objectives)	(3 objectives)	(6 objectives)	(8 objectives)	(7 objectives)

TWDB GOAL 1 - Providing the Most Efficien [HCP Measures 6.2.1.1 – Providing Management Plan Objectives	Providing the Most Efficier Measures 6.2.1.1 – Providing	TWDB GOAL 1 - Providing the Most Efficient Use of Groundwater – TWC §36.1071(a)(1)  [HCP Measures 6.2.1.1 – Providing Most Efficient Use of Groundwater]  ectives	Objective
Mgmt. Plan (HCP ID)	(HCP Minimization Measure)		Status
1-1	Provide and maintain on an ongoing basis	A. Develop, implement, and revise as necessary, the District Management Plan in	
(1-1)	a sound statutory, regulatory, financial,	accordance with state law and requirements. Each year, the Board will evaluate	
	and policy framework for continued	progress towards satisfying the District goals. A summary of the Board evaluation and	
	District operations and programmatic	any updates or revisions to the management plan will be provided in the annual report.	MET
	needs.	B. Review and modify District Rules as warranted to provide and maintain a sound	
		statutory basis for continued District operations and to ensure consistency with both	
		District authority and programmatic needs. A summary of any rule amendments	
		adopted in the previous fiscal year will be included in the annual report.	
1-2	Monitor aggregated use of various types	Monitor annual withdrawals from all nonexempt wells through required monthly or annual	
(1-2)	of water wells in the District, as feasible	meter reports to ensure that groundwater is used as efficiently as possible for beneficial use.	
	and appropriate, to assess overall	A summary of the volume of aggregate groundwater withdrawals permitted and actually	MET
	groundwater use and trends on a	produced from permitted wells for each Management Zone and permit type will be provided	
	continuing basis.	in the annual report.	
1-3	Evaluate quantitatively at least every five	A. Provide an estimate of groundwater withdrawn by exempt wells in the District using	
(1-3)	years the amount of groundwater	TDLR and TWDB databases and District well records and update the estimate every five	
	withdrawn by exempt wells in the District	years with the District's management plan updates.	MET
	to ensure an accurate accounting of total	B. In the interim years between management plan updates, the most current estimates of	
	withdrawals in a water budget that	exempt well withdrawals will be included in a summary of the volume of aggregate	
	includes both regulated and non-	groundwater withdrawals permitted and actually produced from permitted wells for	
	regulated withdrawals, so that	each Management Zone and permit type that will be provided in the annual report.	
	appropriate groundwater management		
	actions are taken.		

MET	MET	MET	MET	Objective Status	MET
<ul> <li>A. Publicize District drought trigger status (Barton Springs 10-day average discharge and Lovelady Monitor Well water level) in monthly eNews bulletins and continuously on the District website.</li> <li>B. Provide summaries of associated outreach and education programs, events, workshops, and meetings in the monthly team activity reports in the publicly-available Board backup.</li> <li>C. A summary of outreach activities and estimated reach will be provided in the annual report.</li> </ul>	<ul> <li>A. Receive a clean financial audit each year. A copy of the auditor's report will be included in the <u>annual report</u>.</li> <li>B. Timely develop and approve fiscal-year budgets and amendments. The dates for public hearings and Board approval of the budget and any amendments will be provided in the annual <u>report</u>.</li> </ul>	<ul> <li>A. Maintain, retain, and control all District records in accordance with the Texas State Library and Archives Commission-approved District Records Retention Schedule to allow for safekeeping and efficient retrieval of any and all records, and annually audit records for effective management of use, maintenance, retention, preservation and disposal of the records' life cycle as required by the Local Government Code. A summary of records requests received under the PIA, any training provided to staff or directors, or any claims of violation of the Public Information Act will be provided in the annual report.</li> <li>B. Develop, post, and distribute District Board agendas, meeting materials, and backup documentation in a timely and required manner; post select documents on the District website, and maintain official records, files, and minutes of Board meetings appropriately. A summary of training provided to staff or directors or any claims of violation of the Open Meetings Act will be provided in the annual report.</li> </ul>	Ensure elections process is conducted and documented in accordance with applicable requirements and timelines. Elections documents will be maintained on file and a summary of elections-related dates and activities will be provided in the <u>annual report</u> for years when elections occur.	TWDB GOAL 2 - Controlling and Preventing Waste of Groundwater – TWC §36.1071(a)(2))  [HCP Measures 6.2.1.2 – Controlling and Preventing Waste of Groundwater]  [ectives Performance Standards	A summary of the number and type of applications processed and approved for authorizations, permits, and permit amendments including approved use types and commensurate permit volumes for production permits and amendments will be provided in the annual report.
Develop and maintain programs that inform and educate citizens of all ages about groundwater and springflow-related matters, which affect both water supplies and salamander ecology.	Ensure responsible and effective management of District finances such that the District has the near-term and long-term financial means to support its mission.	Provide efficient administrative support and infrastructure, such that District operations are executed reliably and accurately, meet staff and local stakeholder needs, and conform to District policies and with federal and state requirements.	Manage and coordinate electoral process for Board members.	TWDB GOAL 2 [HCP Mi Management Plan Objectives (HCP Minimization Measure)	Require all newly drilled exempt and nonexempt wells, and all plugged wells to be registered and to comply with applicable District Rules, including Well Construction Standards.
1-4 (1-4)	1-5 (NA)	1-6 (NA)	1-7 (NA)	Obj. IDs Mgmt. Plan (HCP)	2-1 (2-1)

MET	MET	MET	Objective Status	MET
<ul> <li>A. Inspect all new wells for compliance with the Rules, and Well Construction Standards, and provide a summary of the number and type of inspections or investigations in the <u>annual report</u>.</li> <li>B. Provide a summary of the volume of aggregate groundwater withdrawals permitted and actually produced from permitted wells for each Management Zone and permit type in the <u>annual report</u>.</li> </ul>	<ul> <li>A. In even-numbered fiscal years, provide a summary of interim legislative activity and related District efforts in the <u>annual report</u>. In odd-numbered fiscal years, provide a legislative debrief to the Board on bills of interest to the District and provide a summary in the annual report.</li> <li>B. Provide a summary of District activity related to other land use activities affecting groundwater in the <u>annual report</u>.</li> </ul>	A summary of the number and type of applications processed and approved for authorizations, permits, and permit amendments including approved use types and commensurate permit volumes for production permits and amendments will be provided in the annual report.	TWDB GOAL 3 - Addressing Conjunctive Surface Water Management Issues – TWC §36.1071(a)(4)  [HCP Measures 6.2.1.3 – Addressing Conjunctive Surface Water Management Issues]  Objectives  Measure)	Identify available alternative water resources and supplies that may facilitate source substitution and reduce demand on the Edwards Aquifer, while increasing regional water supplies, and evaluate feasibility by considering:  1. available/proposed infrastructure, 2. financial factors, 3. logistical/engineering factors, and 4. potential secondary impacts (development density/intensity or recharge water quality).  A summary of District activity related to this objective will be provided in the <u>annual report</u> .
Ensure permitted wells and well systems are operated as intended by requiring reporting of periodic meter readings, making periodic inspections of wells, and reviewing pumpage compliance at regular intervals that are meaningful with respect to the existing aquifer conditions.	Provide leadership and technical assistance to government entities, organizations, and individuals affected by groundwater-utilizing land use activities, including support of or opposition to legislative initiatives or projects that are inconsistent with this objective.	Ensure all firm-yield production permits are evaluated with consideration given to the Reasonable Use doctrine and demand-based permitting standards including verification of beneficial use that is commensurate with reasonable non-speculative demand.	TWDB GOAL 3 - A [HCP Meas Management Plan Objectives (HCP Minimization Measure)	Assess the physical and institutional availability of existing regional surface water and alternative groundwater supplies and the feasibility of those sources as viable supplemental or substitute supplies for District groundwater users.
2-2 (2-2)	2-3 (M-5)	2-4 (NA)	Obj. IDs Mgmt. Plan (HCP)	(3-1)

NET	ops,	MET
Identify available alternative water resources and supplies that may facilitate source substitution and reduce demand on the Edwards Aquifer, while increasing regional water supplies, and evaluate feasibility by considering:  1. available/proposed infrastructure,  2. financial factors,  3. logistical/engineering factors, and  4. potential secondary impacts (development density/intensity or recharge water quality).  A summary of District activity related to this objective will be provided in the <u>annual report</u> .	<ul> <li>A. Provide summaries of associated outreach and education programs, events, workshops, and meetings in the monthly team activity reports in the publicly-available Board backup.</li> <li>B. Summarize outreach activities and estimate reach in the annual report.</li> </ul>	Regularly attend regional water planning group meetings and <u>annually report</u> on meetings attended.
Encourage and assist District permittees to diversify their water supplies by assessing the feasibility of alternative water supplies and fostering arrangements with currently available alternative water suppliers.	Demonstrate the importance of the relationship between surface water and groundwater, and the need for implementing prudent conjunctive use through educational programs with permittees and public outreach programs.	Actively participate in the regional water planning process to provide input into policies, planning elements, and activities that affect the aquifers managed by the District.
3-2 (3-2)	(3-3)	3-4 (NA)

	Objective Status	MET	ble MET
of Groundwater – TWC §36.1071(a)(5) [HCP Measures 6.2.1.4 – Addressing Natural Resource Management Issues]	Performance Standards	<ul> <li>A. Review water-level and water-quality data that are maintained by the District and/or TWDB, or other agencies, on a regular basis.</li> <li>B. Improve existing analytical or numerical models or work with other organizations on analytical or numerical models that can be applied to the aquifers in the District.</li> <li>C. A review of the data mentioned above will be assessed for significant changes and reported in the annual report.</li> </ul>	This involves evaluations of certain production permit applications for the potential to cause unreasonable impacts as defined by District rule. To evaluate the potential for unreasonable impacts, staff will:  1. Perform a technical evaluation of the application, aquifer test, and hydrogeological report;  2. Use best available science and analytical tools to estimate amount of drawdown from pumping and influence on other water resources; and  3. Recommend proposed permit conditions to the Board for avoiding unreasonable impacts if warranted.  A list of permit applications that are determined to have potential for unreasonable impacts will be provided in the <u>annual report</u> .
HCP N	Management Plan Objectives (HCP Minimization Measure)	Assess ambient conditions in District aquifers on a recurring basis by:  1. sampling and collecting groundwater data from selected wells and springs monthly;  2. conducting scientific investigations as indicated by new data and models to better determine groundwater availability for the District aquifers;  3. conducting studies as warranted to help increase understanding of the aquifers and, to the extent feasible, detect possible threats to water quality and evaluate their consequences.	Evaluate site-specific hydrogeologic data from applicable production permits to assess potential impact of withdrawals to groundwater quantity and quality, public health and welfare, contribution to waste, and unreasonable well interference.
	Obj. IDs Mgmt. Plan (HCP)	(4-1)	(4-2)

MET	MET	MET	Objective Status	MET
<ul> <li>A. Increase the understanding of District aquifers by assessing aquifer conditions, logging wells, and collecting water quality data. A summary of the number of water quality samples performed will be provided in the <u>annual report</u>.</li> <li>B. A summary of the volume of aggregate groundwater withdrawals permitted and actually produced from permitted wells for each Management Zone and permit type will be provided in the annual report.</li> </ul>	Attend at least 75% of the GMA meetings and annually report on meetings attended, GMA decisions on DFCs, and other relevant GMA business.	Prior to ITP permit issuance, a progress report summarizing activities related to the USFWS review of the ITP application will be provided in the annual report. Upon ITP issuance, the HCP annual report documenting the District's activities and compliance with ITP permit requirements will be incorporated into the annual report by reference.	TWDB GOAL 5 - Addressing Drought Conditions – TWC §36.1071(a)(6)  [HCP Measures 6.2.1.5 – Addressing Drought Conditions ]  Performance Standards	<ul> <li>A. During periods of District-declared drought, prepare a drought chart at least monthly to report the stage of drought and the conditions that indicate that stage of drought.</li> <li>During periods of non-drought, prepare the drought charts at least once every three months.</li> <li>B. A summary of the drought indicator conditions and any declared drought stages and duration will be provided in the annual report.</li> </ul>
Implement separate management zones and, as warranted, different management strategies to address more effectively the groundwater management needs for the various aquifers in the District.	Actively participate in the joint planning processes for the relevant aquifers in the District to establish and refine Desired Future Conditions (DFCs) that protect the aquifers and the Covered Species of the District HCP.	Implement the measures of the District Habitat Conservation Plan (HCP) and Incidental Take Permit (ITP) from the U.S. Fish & Wildlife Service (USFWS) for the covered species and covered activity to support the biological goals and objectives of the HCP.	lan Objectives tion Measure)	Adopt and keep updated a science-based drought trigger methodology, and frequently monitor drought stages on the basis of actual aquifer conditions, and declare drought conditions as determined by analyzing data from the District's defined drought triggers and from existing and such other new drought-declaration factors, especially the prevailing DO concentration trends at the spring outlets, as warranted.
4-3	4-4)	4-5 (4-5)	Obj. IDs Mgmt. Plan (HCP)	(5-1)

MET	MET	MET
During District-declared drought, enforce compliance with drought management rules to achieve overall monthly pumpage curtailments within 10% of the aggregate curtailment goal of the prevailing drought stage. A monthly drought compliance report for all individual permittees will be provided to the Board during District-declared drought, and a summary will be included in the annual report.	<ul> <li>A. During District-declared drought, publicize declared drought stages and associated demand reduction targets in monthly eNews bulletins and continuously on the District website.</li> <li>B. A summary of drought and water conservation related newsletter articles, press releases, and drought updates sent to Press, Permittees, Well Owners and eNews subscribers will be provided in the annual report.</li> </ul>	<ul> <li>A. Require an updated UCP/UDCP from Permittees within one year of each five-year Management Plan Adoption.</li> <li>B. Provide a summary of any activity related to permit right sizing or source substitution with alternative supplies that may reduce demand on the freshwater Edwards Aquifer in the annual report.</li> </ul>
Implement a drought management program that step-wise curtails freshwater Edwards Aquifer use to at least 50% by volume of 2014 authorized aggregate monthly use during Extreme Drought, and that designs/uses other programs that provide an incentive for additional curtailments where possible. For all other aquifers, implement a drought management program that requires mandatory monthly pumpage curtailments during District-declared drought stages.	Inform and educate permittees and other well owners about the significance of declared drought stages and the severity of drought, and encourage practices and behaviors that reduce water use by a stage-appropriate amount.	Assist and, where feasible, incentivize individual freshwater Edwards Aquifer historic-production permittees in developing drought planning strategies to comply with drought rules, including:  1. pumping curtailments by drought stage to at least 50% of the 2014 authorized use during Extreme Drought,  2. "right-sizing" authorized use over the long term to reconcile actual water demands and permitted levels, and  3. as necessary and with appropriate conditions, the source substitution with
5-2 (5-2)	(5-3)	(5-4)

e MET	(7)	Objective Status	MET	MET	MET
A summary of the volume of aggregate groundwater withdrawals permit type including the produced from permitted wells for each Management Zone and permit type including the volume reserved in the freshwater Edwards Conservation Permit for ecological flows will be provided in the annual report.	TWDB GOAL 6 - Addressing Conservation & Rainwater Harvesting where Appropriate and Cost Effective –TWC §36.1071(a)(7) [HCP Measures - 6.2.1.6 Addressing Demand Reduction through Conservation]	Performance Standards	<ul> <li>A. A summary of efforts to assist permittees in developing drought and conservation messaging strategies will be provided in <u>annual report</u>.</li> <li>B. Publicize declared drought stages and associated demand reduction targets monthly in eNews bulletins and continuously on the District website.</li> </ul>	On an annual basis, the District will provide an informational resource or reference document to all Public Water Supply permittees to serve as resources related to conservation best management strategies and conservation-oriented rate structures.	Summarize water conservation related newsletter articles, press releases, and events in the annual report. Summary will describe the preparation and dissemination of materials shared with District groundwater users and area residents that inform them about water conservation and alternate water sources.
Implement a Conservation Permit that is held by the District and accumulates and preserves withdrawals from the freshwater Edwards Aquifer that were previously authorized with historic-use status and that is retired or otherwise additionally curtailed during severe drought, for use as ecological flow at Barton Springs during Extreme Drought and thereby increase springflow for a given set of hydrologic conditions.	TWDB GOAL 6 - Addressing Coi	Management Plan Objectives (HCP Minimization Measure)	Develop and maintain programs that inform, educate, and support District permittees in their efforts to educate their end-user customers about water conservation and its benefits, and about drought-period temporary demand reduction measures.	Encourage use of conservation-oriented rate structures by water utility permittees to discourage egregious water demand by individual end-users during declared drought.	Develop and maintain programs that educate and inform District groundwater users and constituents of all ages about water conservation practices and use of alternate water sources such as rainwater harvesting, gray water, and condensate reuse.
5-5 (5-5)		Obj. IDs Mgmt. Plan (HCP)	(6-1)	(6-2)	(6-3)

TWDB GOAL 7 - Addressing Rech	sin	TWDB GOAL 7 - Addressing Recharge Enhancement where Appropriate and Cost Effective – TWC §36.1071(a)(7)	E.
[HCP Measures	Je	[HCP Measures - 6.2.1.7 Addressing Supply through Structural Enhancement]	
MP Obj	Management Plan Objectives	Performance Standards	Objective
No.	(HCP Minimization Measure)		Status
7-1 (7-1)	Improve recharge to the freshwater Edwards Aquifer by conducting studies and, as feasible and allowed by law, physically altering (cleaning, enlarging, protecting, diverting surface water to) discrete recharge features that will lead to an increase in recharge and water in storage beyond what otherwise would exist naturally.	Maintaining the functionality of the Antioch system will be the principal method for enhancing recharge to the freshwater Edwards Aquifer. Additional activities may be excavating sinkholes and caves within the District. A summary of all recharge improvement activities will be provided in the <u>annual report</u> .	MET
(7-2)	Conduct technical investigations and, as feasible, assist water-supply providers in implementing engineered enhancements to regional supply strategies, including desalination, aquifer storage and recovery, and effluent reclamation and re-use, to increase the options for water-supply substitution and reduce dependence on the Aquifer.	Assess progress toward enhancing regional water supplies in the <u>annual report</u> .	MET

	Objective Status	MET  WET  I by  I ow  I ow	t by d
.2.1.8 Quantitatively Addressing Established Desired Future Conditions]	Performance Standards	A summary of the volume of aggregate groundwater withdrawals permitted and actually produced from permitted wells for each Management Zone and permit type will be provided in the annual report.  Upon ITP issuance, the HCP annual report documenting the District's activities and compliance with ITP permit requirements will be incorporated into the annual report by reference.  Upon ITP issuance, compile a summary of aquifer data including: 1) the frequency and duration of District-declared drought, 2) levels of the Aquifer as measured by springflow and indicator wells (including temporal and spatial variations), and 3) total annual and daily discharge from Barton Springs will be provided in the annual report.	A summary of the volume of aggregate groundwater withdrawals permitted and actually produced from permitted wells for each Management Zone and permit type will be provided in the <u>annual report</u> .  Upon ITP issuance, the <u>HCP annual report</u> documenting the District's activities and compliance with ITP permit requirements will be incorporated into the <u>annual report</u> by reference.  Upon ITP issuance, compile a summary of aquifer data including: 1) the frequency and duration of District-declared drought, 2) levels of the Aquifer as measured by springflow and indicator wells (including temporal and spatial variations), and 3) total annual and daily discharge from Barton Springs will be provided in the <u>annual report</u> .
9 - S		A B C	<u>й</u> й ў
[HCP Measures - 6.2.1	Management Plan Objectives (HCP Minimization Measure)	Freshwater Edwards Aquifer All-Conditions DFC: Adopt rules that restrict, to the greatest extent practicable, the total amount of groundwater authorized to be withdrawn annually from the Aquifer to an amount that will not substantially accelerate the onset of drought conditions in the Aquifer; this is established as a running seven-year average springflow at Barton Springs of no less than 49.7 cfs during average recharge conditions.	Freshwater Edwards Aquifer Extreme Drought DFC: Adopt rules that restrict, to the greatest extent practicable and as legally possible, the total amount of groundwater withdrawn monthly from the Aquifer during Extreme Drought conditions in order to minimize take and avoid jeopardy of the Covered Species as a result of the Covered Activities, as established by the best science available. This is established as a limitation on actual withdrawals from the Aquifer to a total of no more than 5.2 cfs on an average annual (curtailed) basis during Extreme Drought, which will produce a minimum springflow of not less than 6.5 cfs during a recurrence of the drought of record (DOR).
	Obj. IDs Mgmt. Plan (HCP)	8-1 (8-1)	(8-2)

		MET				
Develop and implement a cost-effective method for evaluating and demonstrating	compliance with the DFCs of the relevant aquifers in the District, in collaboration with other	GCDs in the GMAs. Prior to method implementation, provide a summary of activities related	to method development in the annual report. Once developed, provide a summary of data	for each District-adopted DFC for each relevant aquifer indicating aquifer conditions relative	to the DFC and provide in the annual report.	
Implement appropriate rules and	measures to ensure compliance with	District-adopted DFCs for each relevant	aquifer or aquifer subdivision in the	District.		
8-3	(8-3)					THE REAL PROPERTY.

### Item 5

# **Board Discussions and Possible Actions**

c. Discussion and update on the Education & Outreach programmatic activities.

### FY21 STRATEGIC EDUCATION AND OUTREACH PLAN

Ms. Jackie Vay serves full-time as the Outreach Specialist of the Education and Community Outreach Team. In January 2018 Ms. Jackie Vay joined the team half-time then transitioned to full-time in September 2019. This team collaborates regularly with other members of the staff and the Board to maintain a diverse and effective Education and Outreach program.

### EDUCATION AND COMMUNITY OUTREACH TEAM OBJECTIVE

### Begin with the objective in mind.

'21 Annual Goal: Develop education and outreach initiatives to raise awareness with all audiences - with a focus on the average citizen - about the District, its mission, key programs, water resources, sensitive areas, and critical habitat using innovative technologies, traditional techniques, and other creative strategies. Continue developing a communication strategy with consistent messaging, which helps build mutually beneficial relationships between local organizations and governments and their publics and helps inform the District of current events and opportunities.

### 2 EXECUTIVE SUMMARY

### A concise summary of the key aspects of the Strategic Education and Outreach Plan.

The Education and Community Outreach Team constantly seeks to maintain and create new partnerships with like-minded local entities to more efficiently and effectively carry out the District's mission. Through these partnerships, staff members augment their knowledge base and contribute to efforts that reach larger and more diverse audiences.

The District continues its active, multi-dimensional educational program that emphasizes awareness of the finite and fragile aspects of the groundwater resources in the District. To increase awareness of District programs and roles, staff applies a multi-faceted approach using a combination of programs and events, presentations, newsletters, publications, website, and social media to reach target audiences.

### EDUCATION AND OUTREACH TEAM SITUATION ANALYSIS **ASSETS AND ISSUES** SWOT Analysis (strengths, weaknesses, opportunities, and threat factors) ı Strengths Weaknesses/Challenges n t Established programs, working relationships Loss of senior/experienced staff • Proven history of making science accessible e Limited staff time & relevant COVID closures and impacts to all In-house experience, expertise n programs a Strong internal and external collaboration • Strong, creative programs 0 • Diverse communication platform (events, r publications, programs, web/social media) g

n		
ExternalOrigi	Opportunities  Cave Sim, and Explorer's Guide Projects Augmented Reality Drone video, You Tube Technology making monitoring/info more accessible GW studies embraced by community New well owners (first time GW users)	Controversial permits     Overlapping jurisdictions     Complex messaging (other agencies share similar but different drought stages)     Hydro illogical Cycle     Groundwater as occult (difficult to visualize)     Changing communication channels (platforms, social media)     Population growth (increased demand)     Waste behavior (irrigation popularity)
n	Helpful	Harmful

### IDENTIFY SMART (specific, measurable, realistic, and timely) METRICS

Website traffic
Social media engagement
Program participation
eNews opens, number of subscribers

	STAKEHOLDER & TARGET AUDIENCES
A prioritized list of tar	get groups and their subgroups of key influencers, as well as those you want to influence with your plan.
Residents / Genero	ıl Public
Well Owners, Grou	ndwater Users
Teachers and stude	ents
Colleagues, collabo	orators, stakeholders

As Identified and are required to be implemented through our Management Plan	EDUCATION AND OUTREACH KEY MESSAGES
(Charl t ALD Objectives included for reference at the and of this decument)	As Identified and are required to be implemented through our Management Plan
(Chair a mr Objectives included for felerance of the end of this docoment).	(Charl & MP Objectives included for reference at the end of this document).
	If you are targeting multiple audiences that require differentiated messages, you will need to create a list of three to-five-statements based on each audience.

### Residents (Focus)

- 1. Surface water and groundwater are connected.
- 2. Groundwater supplies are drought-prone
- 3. People and wildlife (including endangered salamanders) depend on groundwater supplies
- 4. Water conservation and alternate supplies protect groundwater availability

5. Good land stewardship helps protect water quality

### Well Owners, Groundwater Users

- 1. Groundwater is a shared resource.
- 2. Coordinated conservation preserves water availability (drought stages, UDCP)
- 3. Well owners are responsible for ensuring that their water is safe for use.
- 4. Alternate supplies can replace/reduce/extend groundwater use.

### Teachers and students

- 1. Surface water and groundwater are connected
- 2. Groundwater supplies are drought-prone
- 3. People and wildlife (including endangered salamanders) depend on groundwater supplies
- 4. Water conservation and alternate supplies protect groundwater availability
- 5. Good land stewardship helps protect water quality

### Colleagues, collaborators, stakeholders

- 1. Groundwater drought declarations and mandatory curtailments
- 2. Habitat Conservation Plan
- 3. Programs
- 4. Monitoring and research

### **EDUCATION AND OUTREACH PROGRAMS, TOOLS & TACTICS**

The programs, tools, and tactics that we currently implement to communicate key messages appropriate to reach target audiences

### **Residents**

6

- 1. Austin Cave Festival
- 2. WFC Nature Nights
- 3. Interpretive signage (Wildflower Center, Hays Co. Parks, SH45, Goat Cave Preserve))
- 4. Explorer's Guide to the Hill Country
- 5. Rainwater Revival
- 6. College scholarship essay contest
- 7. Aquatic Science Adventure Camp summer camp scholarships
- 8. Library or group information sessions
- 9. eNews, social media, website resources, maps

### Well Owners, Groundwater Users

- 1. Drought reminders and resources
- 2. Well Water Checkup
- 3. Neighborhood Site Visits
- 4. Water Conservation Symposium
- 5. Rainwater Revival
- 6. Well Owner's Guide
- 7. Library or group information sessions
- 8. eNews, social media, website resources, maps

### Teachers and students

- 1. Groundwater to the Gulf: A Summer Institute for Educators
- 2. Loaner educational kits
- 3. Teacher wish list supplies (including augmented reality salamander/water quality game; virtual reality)
- 4. College scholarship essay contest
- 5. Aquatic Science Adventure Camp summer camp scholarships
- 6. Barton Springs University
- 7. Classroom visits, field trip activities
- 8. eNews, social media, website resources, maps

### Colleagues, collaborators, stakeholders

- 1. Groundwater to the Gulf: A Summer Institute for Educators
- 2. HCP Management Advisory Committee
- 3. Kent Butler Symposium
- 4. Water Conservation Symposium and CTWEN Meetings
- 5. Policy Guide
- 6. eNews, social media, website resources, maps
- 7. Board of Directors

# 7 EDUCATION AND OUTREACH PROJECT PLAN & SCHEDULES (Working)

Calendar year schedule of key programs, their description, and collaborating groups.

PROGRAMS, EVENTS	DATE DUE	DESCRIPTION
Water Conservation Symposium	January /Feb	Target: policy leaders, water operators, and conservation managers.  District is a member and sponsor of the Central Texas Water Efficiency Network—the group that hosts the symposium. (2021 virtual planned for April)
Austin Cave Festival	February <del>(2021)</del>	Target: families & residents.  District hosts and sponsors Cave Festival at the Wildflower Center with City of Austin Wildlands, Watershed Protection, and Parks and Rec.
Groundwater Awareness Week	March	Target: All residents District helps promote the National Groundwater Association Groundwater Awareness campaign.
Fix-A-Leak Week	March	Target: Well owners and groundwater users District helps promote the US EPA Water Sense awareness campaign.
Camp scholarships due & chosen	March <del>(2021)</del>	Target: students ages 9-15. District collaborates with permittees funds the program. Promotion starts at the beginning of the calendar year.
College scholarship essay contest	March (push to April 2021)	Target: high school juniors, seniors, and immediate grads in the 8 school districts that cross the District's boundary.  Kent Butler Groundwater Stewardship Scholarship as an essay contest. Promotion starts at the beginning of the calendar year.
Hill Country Living + Rainwater Revival Fest	April	Target: residents, well owners & groundwater users District sponsors and attends this alternate water supply focused educational event.
Kent Butler Summit	April/May (even yrs)	Target: policy leaders, conservation groups, and researchers.  The District is an organizer and sponsor of the Summit. It aims to encourage open discussions about current challenges and issues related to groundwater protection.
Well Water Checkup	April (2021 TBD)	Target: well owners  Well owners can bring in a water sample and have it analyzed for TDS, Nitrate, pH, and bacteria for free.
Endangered Species Day	May	Target: all residents District helps promote US FWS Endangered Species day.
Water Conservation Period	May	Target: well owners and groundwater users Runs from May 1 to Sept 31 when the District is not in Drought. Voluntary 10% reduction in pumpage.

Neighborhood Site Visits	May (2021	Target: well owners in selected neighborhoods. Staff measure water levels (if possible), basic field		
	TBD)	parameters, and nitrate for free.		
National Cave and Karst Day	June	Target: all residents		
	30.10	District highlights role of caves and karst.		
		Target: teachers and informal educators.		
Groundwater to the Gulf	June(2021 TBD)	District is a lead organizer for the training and		
	30110(2021 100)	coordinates with 13 other agencies to put on the		
		training.		
		Target: residents and families		
WFC Nature Nights	June	The District participates in the WFC program with an		
		activity.		
		Target: All residents, well owners & groundwater		
Protect Your Groundwater Day	September	users		
Trolect 1001 Gloonawaler bay		District promotes the National Groundwater		
		Association's awareness campaign,		
		Target: All residents		
	September	City of Austin event where parking spaces		
Park(ing) Day ATX		downtown are turned into temporary parks and		
		green spaces to spark conversations on urban green		
ADUAN S	SV2.5	space and conservation.		
		Target: All residents		
		National awareness media campaign to remind		
Imagine a Day Without Water	October	everyone to think about how important water is to		
		our everyday lives and consider what it would be like		
		to not have access to clean, reliable drinking water.		

### EDUCATION AND OUTREACH TEAM PARTNERSHIPS AND COLLABORATION

Groups, agencies, and organizations that the Education and Outreach team collaborates with regularly.

Austin Youth River Watch

Austin Nature & Science Center

Central Texas Water Efficiency Network (CTWEN)

Texas Master Naturalists (Capitol area and Hays County)

Capitol Area Council of Governments

Cave Sim

Children in Nature Collaborative of Austin

City of Austin Wildlands

City of Austin Watershed Protection

City of Austin Parks and Recreation

City of Sunset Valley

Colorado River Alliance

**EcoRise** 

**Edwards Aquifer Authority** 

**Expedition School** 

Texas State Edwards Aquifer Research and Data Center

**Girl Scouts** 

Greater Edwards Aquiter Alliance

8

Hays County & Hays County Parks

Hays Trinity Groundwater Conservation District

Hill Country Alliance

Hill Country Conservancy

Jacobs Well Natural Area

Keep Austin Beautiful

Lady Bird Johnson Wildflower Center

Lower Colorado River Authority (LCRA)

Natural Bridge Caverns

Texas State Meadows Center

Travis County

Save Barton Creek Association (SBCA)

Shield Ranch and El Ranchito

Southwest Travis County Groundwater Conservation District

Splash! Exhibit

Texas Cave Management Association

Texas Parks and Wildlife Department (TPWD)

Texas River School

Texas Water Development Board (TWDB)

University of Texas's Bureau of Economic Geology

University of Texas Jackson School of Geosciences

Westcave Outdoor Discovery Center

### **Management Plan Objectives**

General Mgmt	Administration	Education & Outreach	Aquifer Sci	Reg. Compliance
(9 objectives)	(3 objectives)	[6 objectives]	(8 objectives)	(B objectived)

Goal 1	Goal 2	Goal 3	Gosl 4	Goal 5	Goal 6	Goal 7	Goal 8
Objectives	Objectives	Objectives	Objectives	Objectives	Objectives	Ocjectives	Objectives
1.1	2-1	3-1	4-1	5-1	5.1	7-1	8-1
1-2	2-2	3-2	4-2	5-2	5-2	7-2	8-2
1-3	2-3	3-3	4.3	5-3	6-3		8-3
14	2-4	3-4	44	5-4	/F/1010		
1.5			4-5	5.5			
1-6							
1-7							

**Objective 1-4.** Develop and maintain programs that inform and educate citizens of all ages about groundwater and springflow-related matters, which affect both water supplies and salamander ecology.

- A. Publicize District drought trigger status (Barton Springs 10-day average discharge and Lovelady Monitor Well water level) in monthly eNews bulletins and continuously on the District website.
- B. Provide summaries of associated outreach and education programs, events, workshops, and meetings in the monthly team activity reports in the publicly-available Board backup.
- C. A summary of outreach activities and estimated reach will be provided in the annual report.

**Objective 3-3.** Demonstrate the importance of the relationship between surface water and groundwater, and the need for implementing prudent conjunctive use through educational programs with permittees and public outreach programs.

- A. Provide summaries of associated outreach and education programs, events, workshops, and meetings in the monthly team activity reports in the publicly-available Board backup.
- B. Summarize outreach activities and estimate reach in the annual report.

**Objective 5-3.** Inform and educate permittees and other well owners about the significance of declared drought stages and the severity of drought, and encourage practices and behaviors that reduce water use by a stage-appropriate amount.

- A. During District-declared drought, publicize declared drought stages and associated demand reduction targets in monthly eNews bulletins and continuously on the District website.
- B. A summary of drought and water conservation related newsletter articles, press releases, and drought updates sent to Press, Permittees, Well Owners and eNews subscribers will be provided in the annual report.

**Objective 6-1.** Develop and maintain programs that inform, educate, and support District permittees in their efforts to educate their end-user customers about water conservation and its benefits, and about drought-period temporary demand reduction measures.

- A. A summary of efforts to assist permittees in developing drought and conservation messaging strategies will be provided in annual report.
- B. Publicize declared drought stages and associated demand reduction targets monthly in eNews bulletins and continuously on the District website.

**Objective 6-2.** Encourage use of conservation-oriented rate structures by water utility permittees to discourage egregious water demand by individual end-users during declared drought.

A. On an annual basis, the District will provide an informational resource or reference document to all Public Water Supply permittees to serve as resources related to conservation best management strategies and conservation-oriented rate structures.

**Objective 6-3.** Develop and maintain programs that educate and inform District groundwater users and constituents of all ages about water conservation practices and the use of alternate water sources such as rainwater harvesting, gray water, and condensate reuse.

A. Summarize water conservation related newsletter articles, press releases, and events in the annual report. Summary will describe the preparation and dissemination of materials shared with District groundwater users and area residents that inform them about water conservation and alternate water sources.

### Item 5

# **Board Discussions and Possible Actions**

d. Discussion and possible action on approval of the draft US Fish & Wildlife ITP Annual Report.

# Annual Report for FY 2020 Period (September 2019 - August 2020) Permit # TE 10607- 0

Endangered Species Act Section I0(a)(1)(B) Permit for the Incidental Take of the Barton Springs Salamander (Eurycea sosorum) and Austin Blind Salamander (Eurycea waterlooensis) for Managed Groundwater Withdrawals from the Barton Springs Segment of the Edwards Aquifer

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- Appendix A Validation Monitoring Protocol
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- Appendix C Assessment of Progress on HCP Minimization Measures (Management Plan Annual Report FY 2020 Appendix B)
- Appendix D Meeting Minutes (1/26/2021) of Management Advisory Committee

### 1.0 Introduction and Background

The Barton Springs/Edwards Aquifer Conservation District's ("District") Habitat Conservation Plan (HCP) and Incidental Take Permit (ITP) require the District to report annually on the status of the District's program implementation and achievement of conservation measures and objectives. This document is the Annual Report for Fiscal Year 2020, covering the period September 1, 2019 – August 31, 2020.

According to the Incidental Take Permit, the Annual Report shall cover:

- 1. Descriptions of the Covered Activities undertaken;
- 2. Reported groundwater withdrawals from permitted wells;
- Reference well levels;
- Springflow at Barton Springs;
- 5. Total Aquifer discharge, measured for permitted wells, estimated for exempt wells, gaged/measured for Barton Springs, and estimated for Cold & Deep Eddy Springs;
- 6. Drought-stage management reductions;
- 7. Estimated actual take, if any, for the annual reporting period, and total cumulative take for the ITP term;
- 8. Minimization measures and actions taken during the prior year;
- 9. Mitigation actions taken during the year and updates on any ongoing mitigation actions:
- 10. An evaluation of the effectiveness of the avoidance, minimization, and conservation measures:
- 11. Adaptive management activities undertaken during the year or indicated as prudent by outcomes of the conservation program;
- 12. Expenditures by BSEACD on implementation activities:
- 13. Any species-specific or aquifer research compiled or completed during the prior year;
- 14. Proposed activities for the next year;
- 15. Recommendations for improvement; and
- 16. Any other appropriate information documenting Permittee's compliance with the Permit.

This introduction section provides an overview of the District's application of the authority provided to manage the groundwater resources within the District and the fundamental management concepts and strategies that embody the District's regulatory and permitting program. Included as part of the introduction is a background and an overview of the following:

- 1.1 General Information about the District
- 1.2 Management of Groundwater Resources in the District
- 1.3 Implementation of Management Plan and Habitat Conservation Plan
- 1.4 Background on District's Incidental Take Permit (ITP)

Other major report sections that follow include a summary of the District's minimization measures and mitigation actions taken during the reporting year, a review of the drought management activities, a review of the aquifer status, and an outlook for planned activities.

Additionally, included as Appendix D of this annual report, is a summary of the meeting discussion and comments received from the HCP Management Advisory Committee (MAC). The District has established an HCP MAC to advise and assist the Board in the coordination of conservation activities affecting Covered Species at Barton Springs, and in monitoring and helping the Board improve the implementation of the District HCP for the District. This MAC is an additional measure to ensure continued improvement of the HCP and compliance with the ITP as well as to ensure the Board is aware of any stakeholder concerns regarding the execution of the HCP and revisions to the HCP. The primary purpose of the MAC is to review and comment on the District's HCP annual reports or on selected aspects of those reports, in its continuing improvement role. At the Board's discretion, the MAC may also be requested to:

- Provide a forum for exchange of information relative to Covered Species,
- Provide ad hoc advice on Covered Species management activities,
- · Advise the District on priorities for conservation actions, as warranted, and
- Provide input and recommendations, as warranted, on the development and implementation of actions through the adaptive management program.

The MAC was appointed by the District Board in early 2013 and includes independent, volunteer representatives with biological or natural-resource management responsibilities from designated interest groups. MAC composition focused on perspectives useful to the active management of the Aquifer and the habitat of Covered Species at Barton Springs. The U.S. Fish and Wildlife Service (Service) was also requested to provide a non-voting representative to be liaison between the District, the Service, and the MAC. The MAC will convene in some manner appropriate to the purpose of each meeting and no less frequently than annually, and at such other times as they decide or as requested by the Board.

### 1.1 General Information about the District

### Background.

Since 1904, the legal framework applied to groundwater resources in Texas has been the common law "Rule of Capture." Although the Rule of Capture remains in effect today, groundwater conservation districts (GCDs) such as the District have been established across the state and authorized to modify how the Rule of Capture is to be applied within their boundaries, as part of a comprehensive, approved groundwater management plan.

In 1997, the Texas Legislature codified the commitment to GCDs in Chapter 36, Section 36.0015 of the Texas Water Code (TWC) by designating GCDs as the preferred method of groundwater management. This section of Chapter 36 also establishes that GCDs will manage groundwater resources in order to protect property rights, balance the

conservation and development of groundwater to meet the needs of this state, and use the best available science through rules developed, adopted, and promulgated in accordance with the Chapter 36. As the overarching statute governing GCDs, Chapter 36 gives specific directives to GCDs and the statutory authority to carry out such directives. It provides the so-called "tool box" that enables GCDs to promulgate the appropriate rules needed to protect and manage the groundwater resources within their boundaries given consideration to the conditions and factors unique to each GCD.

In addition to Chapter 36 authority, the District has the powers expressly granted by Chapter 8802 of the Special District Local Laws Code ("the District Enabling Legislation"). Applied together, these statutes provide the District with the authority to serve the statutory purpose to provide for the conservation, preservation, protection, recharging, and prevention of waste of groundwater, and of groundwater reservoirs or their subdivisions, and to control subsidence caused by withdrawal of water from those groundwater reservoirs or their subdivisions.

### Authority and Purpose

The District was created in 1987 by the 70<sup>th</sup> Texas Legislature, under Senate Bill 988. Its statutory authorities include Chapter 52 (later revised to TWC, Chapter 36), applicable to all GCDs in the state, and the District's enabling legislation, now codified as Chapter 8802, Special District Local Laws Code. The District's legislative mandate is to conserve, protect, and enhance the groundwater resources located within the District boundaries. The District has the power and authority to undertake various studies, assess fees on groundwater pumpage and transport, and to implement structural facilities and non-structural programs to achieve its statutory mandate. The District has rulemaking authority to implement its policies and procedures and to help ensure the management of groundwater resources as directed by the Board. The District is not a taxing authority. Its only sources of income are groundwater production fees, the annual City of Austin water use fee, export fees, administrative fees, and occasional grants from various local, state, and federal programs for special projects.

### Jurisdictional Area

Upon creation in 1987, the District's jurisdictional area encompassed approximately 255 square miles including parts of four counties: northwestern Caldwell, northeastern Hays, southeastern Travis Counties, and a small territory in western Bastrop County (in 2011, that small part of Bastrop County was de-annexed from the District and is now in Lost Pines GCD's sole jurisdiction). The jurisdictional area was generally defined to include all the area within the Barton Springs segment of the Edwards Aquifer with an extended area to the east to incorporate the service areas of the Creedmoor-Maha Water Supply Corporation, Goforth Special Utility District, and Monarch Utilities. In this area, designated as the "Exclusive Territory," the District has authority over all groundwater resources.

In 2015, the 84<sup>th</sup> Texas Legislature (House Bill 3405) expanded the District's jurisdictional area to include the portion of Hays County located within the boundaries of the Edwards Aquifer Authority (EAA) excluding the overlapping area in the Plum Creek Conservation District as show in Figure 1. The newly annexed area, designated as "Shared Territory,"

excludes the Edwards Aquifer and includes all other aquifers, including the underlying Trinity Aquifer. The District's jurisdictional area including the Shared Territory encompasses approximately 420 square miles and includes both urban and rural areas. The District shares boundaries with adjacent GCDs to the west, south, and east including the Hays Trinity GCD, Comal Trinity GCD, EAA, Plum Creek GCD, and Lost Pines GCD respectively. The District participates in joint-regional planning with these and other GCDs in Groundwater Management Areas (GMAs) 9 and 10 which are configured generally to encompass the Trinity and Edwards Aquifers respectively.

#### Aquifers and Uses

Water from the Barton Springs segment of the Edwards Aquifer serves as the primary water source for public water supply, industrial, and commercial purposes in the District and is a major source of high-quality base flow to the Colorado River via discharge through the Barton Springs complex. The Barton Springs complex provides habitat for the Barton Springs salamander (*Eurycea sosorum*) and Austin blind salamander (*Eurycea waterlooensis*) which are both federally listed Endangered Species under the Endangered Species Act requiring all activities that would or could adversely affect the species to represent optimal conservation efforts. The Trinity Aquifer, underlying the Edwards, is an important primary water resource in some parts of the District and is increasingly being developed in both the Exclusive and Shared Territory. Some wells in the District also produce water from the Taylor and Austin Chalk formations as well as various alluvial deposits along river and stream banks.

The area has a long history of farming, ranching, and rural domestic use of groundwater, but over time the region has become more urban in areas of south Austin, Buda, Kyle, and San Marcos. Groundwater use in the area is now primarily utilized for domestic and public water supply purposes, with lesser amounts also being utilized for commercial, irrigation, and industrial use. See Figure 2 for a general breakdown of the types of wells in the District and percentage of permitted production for each classification category.

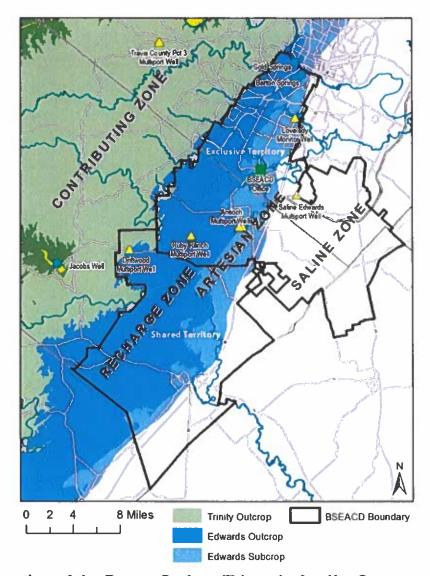


Figure 1. Location of the Barton Springs/Edwards Aquifer Conservation District

This map displays the District's boundaries, major aquifers, hydrogeologic zones, key springs, and sentinel monitoring wells.

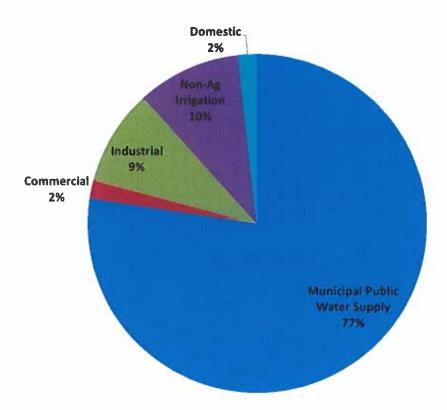


Figure 2. Types of Groundwater Use and Their Percent of Authorized Use for Permitted Wells in the District

#### 1.2 Management of Groundwater Resources in the District

Since its creation in 1987, the District has honored the established precedent of developing policy and management strategies on the basis of statutory compliance, sound science, and stakeholder input. The District established a precedent for developing the governing policies and rules through an initial data-driven evaluation of the science to characterize the District's aquifers followed by a thorough vetting by affected stakeholders and the public. This process has served to inform the Board's direction and policy decisions resulting in the current regulatory program that has evolved to address challenges unique to the District. This evolution has been marked by key milestones, producing management strategies that are now integrated within the current regulatory approach. The evolution of the District's policies and strategies has produced a regulatory program that is fair, innovative, and customized to objectively address the challenges and management objectives unique to the District. The District's management approach evolved from an initial focus on permitting for historical use from 1987 until the completion of the sustainable yield study in 2004. On the basis of that study, the District began preparation for management under an HCP to protect the endangered salamanders at Barton Springs.

After the passage of HB 3405 in 2015, the District's attention then broadened to include the management of the Trinity Aquifer and other non-Edwards aquifers in the Shared Territory, the development of a permitting program with a refined interest in managing to avoid unreasonable impacts, and an updated definition of sustainable yield. The integration of these strategies collectively produced a program formed on the basis of demand-based permitting coupled with an evaluation of the potential for localized and regional unreasonable impacts. This permitting approach is bolstered by an active drought management program to abate groundwater depletion during District-declared drought. The current permitting and drought management programs are further described below.

Permitting. The current permitting program in place and supported by the District's Management Plan (MP) applies a three-part evaluation to affirm beneficial use in accordance with demand-based permitting standards, and to evaluate the full range of potential impacts for each production permit request. The three-part permit evaluation involves an assessment of reasonable non-speculative demand, local scale evaluations, and aquifer scale evaluations. The extent of the evaluation scales with the magnitude of the requested production volume, with the more comprehensive evaluations reserved for the more complex, larger-scale projects that show greater potential to cause unreasonable impacts. More information on the District's permitting program can be found on the District's website here: <a href="https://bseacd.org/regulatory/permit-process/">https://bseacd.org/regulatory/permit-process/</a>

Drought Management. One of the principal responsibilities central to the District's mission is to manage groundwater production during drought conditions when the aquifers are most stressed. After District creation in 1987 and until 2004, the District put into place its initial permitting program and drought management program with a network of drought indicator wells and curtailments linked to percentiles of monthly flow at Barton Springs.

With a burgeoning regional population and increasing demand on the District's aquifers coupled with the findings of the sustainable yield study, the District recognized a need to improve the drought management program. Significant droughts in 2006, 2008–09, and 2011 provided further impetus for a series of amendments that implemented a more effective science-based drought trigger methodology, and expanded permit-based drought rules and enforcement protocol. The amendments produced milestones in the District's regulatory approach (e.g., conditional permitting, Extreme Drought Withdrawal Limits, the Ecological Flow Reserve, and Management Zones) that were the product of numerous scientific studies conducted by the District's hydrogeologists, vetted through technical consultants and advisors, reviewed and commented on by stakeholders and the public, and approved by the Board.

The current drought management program in place and supported by the District's MP is implemented through User Drought Contingency Plans (UDCPs) that are an integral component required of each production permit. Drought declarations involve continuous evaluation of the aquifer conditions measured at the drought indicators for the Edwards Aquifer that also serve as surrogates indicative of regional drought conditions for all District aquifers. When the designated aquifer conditions are met, permittees are required to implement the prescribed measures of the UDCPs requiring mandatory curtailments of permitted groundwater production based on permit type and aquifer management zones.

Curtailments are implemented on a monthly basis during District-declared drought and increase with drought severity with maximum curtailments reserved for an Emergency Response Period as shown in Table 1. The curtailments are derived on the basis of a pumping profile representing the average monthly distribution of the demand-based annual permit volume for each groundwater use type, and are calculated as a percentage reduction off of the monthly baseline amount as shown in the example drought target chart in Figure 3. Authorized permit volumes based on reasonable non-speculative demand, monthly reporting of actual groundwater production by permittees, and active enforcement of monthly curtailments are integral to effective drought management in order to ensure the more immediate and consistent relief in actual pumping pressure needed to sustain spring flows and existing water supplies during District-declared drought until the drought conditions recede and the aquifers recover.

## **Table 1. Mandatory Drought Curtailments.**

Curtailments established for different well permit types, aquifers, and drought conditions. (Curtailment expressed as percentage of authorized monthly groundwater production in designated drought stage. For example, freshwater Edwards Aquifer historical permittees would be required to curtail their authorized monthly withdrawal by 30% during Stage III Critical Drought.)

	Aquifer		Ed	wards /	Aquifer				<b>Trinity</b>	Aquif	er
M	anagement Zone	East	ern/We	stern F	reshwa	ter	Saline	aline Lower Middle Upper			Outcro
	Permit Type	Historical	Class A	Condi Class B	tional Class C	Class D	Hist.	Hist.	Hist.	Hist.	Hist.
	No Drought	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
ges	Water Conservation (Voluntary)	10%	10%	10%	10%	10%	0%	10%	10%	10%	10%
t Stages	Stage II Alarm	20%	20%	50%	100%	100%	0%	20%	20%	20%	20%
Drought	Stage III Critical	30%	30%	75%	100%	100%	0%	30%	30%	30%	30%
Dro	Stage IV Exceptional	40%	50%¹	100%	100%	100%	0%	30%	30%	30%	30%
	Emergency Response Period	50%³	>50%²	100%	100%	100%	0%	30%	30%	30%	30%

<sup>1</sup> Only applicable to LPPs and existing unpermitted nonexempt wells after A to B reclassification triggered by Exceptional Stage declaration.

<sup>2</sup> Curtailment > 50% subject to Board discretion.

<sup>3</sup> ERP (50%) curtailments become effective October 11, 2015. ERP curtailments to be measured as rolling 90-day average after first three months of declared ER

Historic Edwards Production F	within .						
		Permittee					
Water Use: Public Water Su	,,,						
Permitted Pumpage (GPY):	20,000,000				UDCP Appr	oved in Fiscal Year	FY 2020
				Franh Fo	Iwards Managen	ent Zone	
						g Drought Stage:	
		No Drought	Stage !	Stage 2	Stage III	Stage IV	Emergency*
	Monthly	Baseline	Water Con. Period	Alarm	Critical	Exceptional	Response Perlor
	Volume Allocation		(Voluntary)	(Mandalory)	(Mandatory)	(Mandatory)	(Mandatory)
Fiscal Year		No Reduction	10% Reduction	20% Reduction	30% Reduction	40% Reduction	50% Reduction*
September	10.00%	2,000,000	1,800,000	1,600,000	1,400,000	1,200,000	1,000,000
October	8 30%	1,660,000	1,494,000	1,328,000	1,182,000	996,000	830,000
November	7.00%	1,400,000	1,260,000	1,120,000	980,000	840,000	700,000
December	6.30%	1,260,000	1,134,000	1,008,000	882,000	756,000	630,000
January	6.30%	1,260,000	1,134,000	1,008,000	882,000	756,000	630,000
February	6.50%	1,300,000	1,170,000	1,040,000	910,000	780,000	650,000
March	6.60%	1,320,000	1,188,000	1.056.000	924,000	792,000	660,000
April	7.40%	1,480,000	1,332,000	1.184,000	1,038,000	888,000	740,000
May	8.00%	1,600,000	1,440,000	1,280,000	1,120,000	960,000	000,000
June	9.50%	1,900,000	1,710,000	1,520,000	1,330,000	1,140,000	950,000
July	12.10%	2,420,000	2,178,000	1,936,000	1,694,000	1,452,000	1,210,000
August	12.00%	2,400,000	2,160,000	1,920,000	1,680,000	1,440,000	1,200,000
Annual Totals:	100.00%	20,000,000	18,000,000	16,000,000	14,000,000	12,000,000	10,000,000

Figure 3. Example Permittee Drought Target Chart

## 1.3 Implementation of Management Plan and Habitat Conservation Plan

The provisions of the District's MP and HCP will be implemented by the District and will be used by the District as a guide for determining the direction or priority for all District activities. All operations of the District, all agreements entered into by the District, all District policies and programs, and any additional planning efforts in which the District may participate will be consistent with the provisions of the District's MP and HCP. The District will encourage cooperation and coordination with relevant entities in the implementation of these plans.

The District has adopted and implemented rules necessary to support the District's mission including rules related to the permitting of wells, the production and transport of groundwater, and drought management. The rules and policies established by the District are consistent with the provisions of these plans and are adopted on the basis of the best available science, public and stakeholder input, and recommendations of competent professionals. Further, the rules comply with TWC Chapter 36 and the District's enabling legislation. All rules are enforced in a manner that is fair and objective. A copy of the Rules can be found on the District's website here: <a href="http://bseacd.org/about-us/governing-documents/">http://bseacd.org/about-us/governing-documents/</a>.

In order to achieve the goals, management objectives, and performance standards adopted in these plans, the District continually works to develop, maintain, review, and

update rules, policies, and procedures for the various programs and activities described within the MP and HCP. As a means to monitor performance, the District implements various goals, management objectives, and performance standards adopted in these plans. On an annual basis, the District develops annual reports for the MP and HCP that document progress made towards implementation and achievement of the goals and objectives.

All specific activities undertaken by the District in this FY 2020 reporting period, whether considered as direct or indirect management of the Aquifer are described in more detail in the latest "FY 2020 Management Plan Annual Report," which can be viewed and downloaded at:

https://bseacd.org/uploads/12.10.2020-Annual-Report-with-App-A-and-B.pdf

## 1.4 Background on District's Incidental Take Permit (ITP)

The District is charged with the management of the Barton Springs segment of the Edwards Aquifer ("Aquifer"), which is the primary water supply for more than 60,000 people in the region and the source water for the Barton Springs complex. The District manages this resource by a production permit-based regulatory program for larger, non-exempt wells, and these regulatory program elements constitute the Covered Activities described in the HCP. The overarching strategic purpose of the District is to optimize the sustainable uses of groundwater for these users and other community interests.

However, it is well established that during drought conditions large amounts of groundwater withdrawals (pumping) will contribute to diminished flow through the Aquifer and smaller springflow rates at Barton Springs and associated adverse effects to some Aquifer users. The 2004 Sustainable Yield of the Barton Springs Segment report can be viewed at <a href="https://bseacd.org/uploads/HR\_SustYield\_BSEACD\_report\_2004\_web.pdf">https://bseacd.org/uploads/HR\_SustYield\_BSEACD\_report\_2004\_web.pdf</a>. The Aquifer and its associated spring outlets are the sole habitat of the federally-protected Barton Springs salamander (BSS) and Austin blind salamander (ABS). The federal Endangered Species Act prohibits the harassment or harm of the salamanders (termed "take") that may incidentally occur as a result of the effect of pumping on decreasing water levels and springflows unless exempted under a federal ITP.

The District's activities that create the need for an HCP and an ITP relate to the District's following programmatic functions for managing groundwater production:

- Adopt, implement, and enforce regulations and management programs that protect existing groundwater supplies, improve aquifer demand management, provide Aquifer and springflow protection during droughts, promote and improve aquifer recharge, and carry out other beneficial management strategies; and
- Avoid, or minimize, and mitigate negative impacts upon federally listed species dependent upon springflow from Barton Springs through adoption and implementation of regulations, management programs, scientific research programs, conservation education programs, and collaborative efforts with other governmental entities.

These activities directly and indirectly affect withdrawals (groundwater production) from the Aquifer. In turn, as a result of the hydrology of the groundwater system, such withdrawals lower the water levels in the Aquifer, which consequently reduces the discharge (springflow, or flow) at Barton Springs. There is a well-established relationship, within the observed data range, between the flow issuing from the outlets of Barton Springs and the chemistry of the water. As flow decreases, the dissolved oxygen (DO) concentration of the water, which is required by the Covered Species for survival, decreases, and the concentration of dissolved solids increases. This natural variation in water chemistry derives from the physical system of the Aquifer, and it occurs regardless of whether Aquifer water-levels and springflow decreases are due to drought, withdrawals by wells, or both.

During normal and high-flow conditions in the Aquifer, the combined flow of the natural outlets at Barton Springs are minimally affected by the total amount of water that is being withdrawn by wells in the Aquifer. Under these conditions, the District's program elements principally address the long-term sustainability of the Aquifer as a water supply. Under these high-flow conditions, the amount of water withdrawn from the Aquifer by pumping wells and the provisions of the District's regulatory program are believed to have essentially no effect on the chemistry of the springflow. This is because the physical and chemical characteristics of the springflow are mostly attributable to meteorologically-induced stormflows and seasonal factors, and from time to time, other external factors.

Accordingly, essentially no incidental take is attributable to the Covered Activities (lawfully conducted withdrawals from District permitted wells, see HCP Section 4.1, Proposed Covered Activities) when water levels in the Aquifer are above a certain elevation, which determines the flow at the Aquifer's major outlet, Barton Springs.

But during drought, and especially prolonged severe or Extreme Drought, the amount of water naturally discharging from the springs complex (the natural spring outlets taken together) is much smaller, similar in magnitude to the amount of water withdrawn from wells. During these drought conditions, the District's groundwater drought management program is key to preserving groundwater levels in the Aquifer and springflow. The joint and regional water planning conducted by the State, with which the District's MP is integrated, uses a recurrence of the drought of record in the 1950s (DOR) as the planning objective, and the DOR is also the framework for the District's drought management program. The District's integrated regulatory program is designed to protect the water supply of Aquifer users who are most vulnerable to supply interruption during periods of Extreme Drought and to conserve the flows at Barton Springs for both ecological and recreational purposes.

During drought periods with low recharge rates, groundwater pumping contributes to diminished rates of springflow at Barton Springs. It is during these drought periods that groundwater levels and springflows decline sufficiently to create conditions in which District-managed activities may create incidental take and the programmatic need for the HCP and the ITP. The circumstances that give rise to such incidental take are discussed

in detail in HCP Section 5.2.2, Spatial and Temporal Extent of Take, and HCP Section 5.2.3, Consideration of Take and Jeopardy.

The cumulative withdrawals of all operating wells in the Aquifer can have significant impact on springflow during drought conditions and can increase the likelihood of low-flow conditions. Since June 2008, despite increased demand for water supplies in the District, withdrawals generally have been reduced as a result of groundwater management policies and regulations of the District and of responses by its permittees to projected shortfalls during severe droughts. As the demand for groundwater has increased, the District has gradually changed its drought management and regulatory program to improve the effectiveness of Aquifer and springflow protection, supported in no small part by the studies and planning for the ongoing HCP development.

The HCP specifies the District commitments to a set of conservation (avoidance, minimization, and mitigation) measures that are consistent with statutory authorities of the District and that are based on sound science and effective groundwater management practices. The District HCP has been formulated and framed in collaboration with other conservation efforts affecting the Covered Species and their respective habitats; that is, the HCP of the City of Austin (COA) for operation and maintenance at Barton Springs Pool and surrounding area, including particularly the individual spring outlets (Barton Springs Pool HCP). The well owners and users, especially the District's permittees (the regulated groundwater community), and all citizens who consider Barton Springs an ecological, recreational, and aesthetic resource, are the key additional stakeholders for this HCP.

## 2.0 Descriptions of the Covered Activities Undertaken

The District's ITP allows for continued managed pumping (the covered activity) of the Aquifer by District permittees, provided the proposed HCP measures minimize and mitigate the incidental take and avoids jeopardy of salamanders. Ultimately, the HCP measures safeguard the continued sustainable use of the Aquifer and survival of the endangered salamanders.

The ITP identifies two categories of Covered Activities: groundwater withdrawals from the Aquifer by nonexempt permittees, and actions necessary to manage potential habitat of the Covered Species in the ITP Area.

## **Managing Groundwater Withdrawals**

Managing groundwater in its jurisdictional area is the primary purpose of a GCD, and managing withdrawals of groundwater in accord with its authorities is a primary activity of a GCD. The District employs a set of groundwater-management activities that relate directly to active management of groundwater withdrawals from the Aquifer (and from all aquifers). These active aquifer-management activities are an essential part of the District's groundwater management scheme and generally recur every year, to include:

- Renewal of existing production permits
- Processing of new permit applications
- Installation and operation of wells to monitor groundwater levels and quality
- Participation in joint groundwater planning with other GCDs in relevant groundwater management areas, and monitoring desired future condition (DFC) efficacy and compliance
- Monitoring groundwater drought status and informing the District Board of Directors of changes in drought status and need for responsive action
- Using well site inspections and actual production reports to evaluate compliance with applicable rules and need for potential enforcement actions
- Evaluating permittees' long-term actual withdrawals vis a vis their authorized amounts, and recommending award of conservation credits
- Assessing the efficacy of existing rules to protect groundwater systems, to promote conservation measures, to achieve and maintain applicable DFCs, and as warranted, recommending possible regulatory improvements for Board consideration (in the reporting period, the Rules were not required to be amended).

In addition to the recurring activities above, there are many other important activities conducted that are considered as *indirect* management of the Aquifer. Those indirect activities include:

- program-supporting scientific investigations and monitoring, educational and outreach programs, internal and external communications and coordination, and legal support actions;
- initiatives that improve the efficiency and effectiveness of other programs; and
- activities required for governance and administration of a public agency.

Generally, such activities differ in specifics from year to year. Successful groundwater management of the Aquifer under the HCP requires operation and maintenance of a fully functioning GCD in compliance with all applicable statutes and rules in its entire jurisdictional area.

All specific activities undertaken by the District during this reporting period, whether considered as direct or indirect management of the Aquifer, are described in greater detail in Appendix C of this report. Appendix C is intended to reflect the detailed progress, activities and actions implemented by the District to achieve the HCP minimization measures. Appendix C is an excerpt from the FY 2020 Management Plan Annual Report referred to as, "Appendix B - Assessment of Progress toward Management Plan Goals and Objectives."

The FY 2020 MP Annual Report comprises a supporting complement to this stand-alone "Habitat Conservation Plan Annual Report." The FY 2020 MP Annual Report can be viewed in full and downloaded at:

https://bseacd.org/uploads/12.10.2020-Annual-Report-with-App-A-and-B.pdf

#### **Managing Potential Habitat of Covered Species**

The Covered Activities related to managing groundwater withdrawals described above are, by design, also intended to protect potential habitat of the Covered Species throughout the Aquifer in an ongoing basis, but especially during critical drought periods when the endangered species are under additional stress. Covered Activities that are related more directly to the management of potential habitat by the District involve District decision-making and actions that support the general Biological Goals and the more explicit, quantitative Biological Objectives expressed in the District HCP's Section 6.1. (https://bseacd.org/uploads/BSEACD\_FinalHCPVol.1-Final-for-Submission-to-FWS-4.19.18.pdf). These measures are intended to assure that reduction in springflow is minimized and the corresponding DO concentrations in the perennial spring outlets do not fall below specified minimum values under various springflow conditions. Drought indices of Barton Springs coupled with the Lovelady monitor well are the principal method of managing pumping during drought, and thereby preserving habitat.

Both springflow and DO are measured and reported in real-time by the U.S. Geological Survey (USGS). These data can be found online at: <a href="https://waterdata.usgs.gov/tx/nwis/uv/?site\_no=08155500&agency\_cd=USGS&amp">https://waterdata.usgs.gov/tx/nwis/uv/?site\_no=08155500&agency\_cd=USGS&amp</a>

Water levels are measured and reported in real-time by the USGS. These data can be found online at:

https://waterdata.usgs.gov/tx/nwis/uv/?site\_no=301237097464801&PARAmeter\_cd=72019

Table 2 provides a summary of DO concentration measured and reported by the USGS. The results are well above the minimum concentrations specified in the Biological Objectives. Further, no unanticipated adverse effects of HCP-related activities on water chemistry were documented in the reporting year. Consequently, no extraordinary District actions, beyond those in the Covered Activities and HCP Conservation Measures, were required to actively manage the potential habitat and to comply with the Biological Goals and Objectives.

Table 2. Range of Springflow and Dissolved Oxygen (USGS 08155500)

Month	Historic Mean DO (mg/L)	FY20 DO (mg/L)	Historic Mean Flow (cfs)	FY20 Flow (cfs)
Sep-19	5.7	6.4	60	94
Oct-19	5.8	6.4	58	81
Nov-19	5.9	6.0	60	64
Dec-19	6.1	5.8	61	52
Jan-20	6.2	5.6	63	45
Feb-20	6.2	5.6	66	43
Mar-20	6.1	5.6	68	45
Apr-20	6.0	5.9	69	58
May-20	5.8	5.8	71	64
Jun-20	5.8	5.9	72	74
Jul-20	5.7	5.9	69	62
Aug-20	5.7	5.5	63	45
Mean annual		5.9		60.6

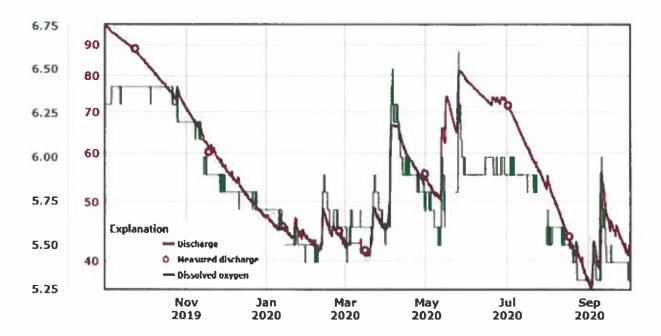


Figure 4. Hydrograph from the USGS of mean daily springflow and DO values.

In addition to considerations arising from the HCP Biological Goals and Objectives, there were two additional activities that specifically relate to management of potential habitat in the reporting period.

- The District's Validation Monitoring Protocol is used annually to determine if new information suggests that the District's take estimate methodology should be reevaluated. The results of this evaluation will be part of each HCP Annual Report, Section 16.0 Recommendations for Improvement. The current Validation Monitoring Protocol is included in this Annual Report in Appendix A.
- 2. In FY 2019, The District and COA executed an Interlocal Agreement (ILA) to facilitate data and information sharing between the parties and collaboration on activities directly related to habitat characterization and protection. The ILA enables more efficient implementation of beneficial HCP Conservation Measures, especially Mitigation Measures. The ILA is included in this Annual Report in Appendix B.

## 3.0 Reported Groundwater Withdrawals from Permitted Wells

The actual amount of groundwater withdrawn from non-exempt wells, i.e., wells with permits issued by the District, is shown in Table 3, along with the authorized permitted production amounts.

Table 3. Actual and Permitted Nonexempt Production by Management Zone

Table 3a. Individual Production Permits (Nonexempt):

FY 2020 Production	FY 2020 Production from Individual Production Permits						
Production Zone	Actual Production	Permitted Production					
Edwards	1,826,253,544	2,676,502,544					
Trinity	226,128,420	616,456,117					
Austin Chalk or Alluvial	317,490	2,500,000					
Total (Gallons)	2,052,699,454	3,295,458,661					
	(6,299.5 ac ft)	(10,113 ac ft)					

Table 3b. Limited Production Permits (Nonexempt General Permits by Rule):

FY 2020 Produc	tion from Limited Production P	ermits	
Production Zone	Actual Production*	Permitted Production	
Edwards	13,779,777	60,000,000	
Trinity	4,593,504	21,500,000	
Austin Chalk or Alluvial	0	0	
Total (Gallons)	18,373,281	81,500,000	
	(56.39 ac ft)	(250.1 ac ft)	

<sup>\*</sup>Actual production is a volume estimate calculation described in the findings and conclusions of the BSEACD Staff Report 2010. Average annual exempt well production is approximately 104,473 gpy

In this reporting period, the amount of groundwater actually withdrawn from the Aquifer was considerably below the amount permitted. In aggregate, the amount of groundwater actually withdrawn from the Edwards Aquifer by permitted wells in the reporting period was **1,840,033,321** gallons.

A summary of the <u>permitted production volumes</u> for each Management Zone is provided below in Table 4.

**Table 4. Permitted Production by Management Zone** 

FY 2020 Permitted Production by Management Zone							
Edwards MZs	gallons	cfs	acre-feet				
Historical (Individual)	2,309,082,596	9.79	7,086				
Historical (LPP)	2,500,000 0.011		8				
Total Historical	2,311,582,596	9.80	7,094				
Conditional (Individual)	367,419,948	1.56	1,128				
Conditional (LPP)	57,500,000	0.24	176				
Total Conditional	424,919,948	1.80	1,304				
Total Edwards Aquifer	2,736,502,544 gal	11.60 cfs	8,398 ac ft				

Trinity MZs	gallons	cfs	acre-feet
Historical (Individual)	616,456,117 2.61		1,892
Historical (LPP)	21,000,000	0.09	64
Total Trinity Aquifer	637,456,117 gal	2.70 cfs	1,956 ac ft

Other Aquifers MZs	gallons	cfs	acre-feet	
Historical (Individual)	2,500,000 gal	0.01 cfs	8 ac ft	
Historical (LPP)	0	0	0	
Total Other Aquifers	2,500,000 gal	0.01 cfs	8 ac ft	

Total Permitted (All Aquifers)	3,376,458,661 gal	14.31 cfs	10,362 ac ft

A summary of the <u>estimated exempt use production volumes</u> for the Edwards is provided below in Table 5.

**Table 5. Exempt Production by Management Zone** 

Edwards Aquifer - Estimated Exempt Wells Production					
Estimated Volume of Exempt Well Production (gpy)*  Estimated volume in cfs	105,618,730 0.45				
Estimated number of exempt wells	1010				

<sup>\*2010</sup> BSEACD Staff Report - Avg Exempt Well Use=104,573 gpy

#### 4.0 Reference Well Levels

The primary reference well that the District uses to gauge overall groundwater levels in the Aquifer, to determine drought stages that trigger various elements of the District's drought management program, and to estimate take of Covered Species, is the "Lovelady well," near the intersection of Stassney Lane and South First Street in South Austin. The hydrograph of this well for the reporting period is shown below.

USGS 301237097464801 YD-58-50-301 (Lovelady) depth to water level, feet below land 120 **530** NRVD 1988, 130 520 140 510 150 560 160 **3roundwater** 499 178 480 Sep Nov Sep Jan Har Hay Jul 2019 2019 วดวด 2020 2020 2020 2020 Depth to water level Period of approved data

Figure 5. Hydrograph of the Lovelady water level shown as depth to water and elevation.

Data from Barton Springs and the Lovelady well informed the drought management determinations by the District's Board. Following the Drought Trigger Methodology,

drought is declared when either Lovelady or Barton Springs reaches their respective thresholds. Non-drought conditions are declared when both Barton Springs and Lovelady well have recovered above the respective drought trigger thresholds. Section 7 describes the drought stage management for this reporting year.

## 5.0 Springflow at Barton Springs

The hydrograph of the combined springflow at Barton Springs, as indicated by the USGS gage, for the reporting period is shown in Figure 6.

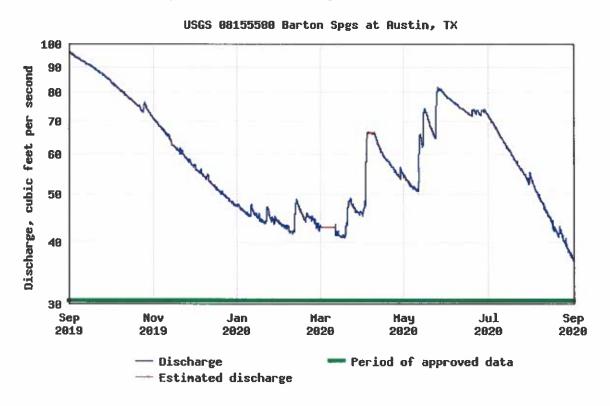


Figure 6. Hydrograph of daily mean Barton Springs flow.

Monthly mean statistics are reported in Table 2. Some other statistics concerning spring flows during the reporting period are:

Maximum daily discharge: 98.7 cfs (9/1/2019) Minimum daily discharge: 37.2 cfs (8/31/2020)

Mean daily discharge: 61.2 cfs

## 6.0 Total Aquifer Discharge

The determination of total Aquifer discharge in any reporting year requires consideration of measured (metered) discharges from permitted wells, the prevailing estimate of use by exempt wells, gaged measurements of combined discharge at Barton Springs, and an

estimate of discharge at Cold & Deep Eddy Springs. There is a large degree of uncertainty about the amount of discharge that may flow to the south into the San Antonio segment of the Edwards Aquifer during high-flow conditions. The total actual discharge from the Aquifer by source during FY 2020 is estimated in Table 2.

Table 6. Estimated total discharge from the Barton Springs segment of the Edwards Aquifer

Discharge Source	FY 2020 Actual Volume (gpy)	Equivalent Monthly Mean Flow Rate (cfs)	Comment
Individual Production Permits	1,826,253,544	7.74	Monthly meter measurements; see Section 3 above
Limited Production Permits by Rule	13,779,777	0.06	See Section 3 above
Exempt Wells	105,618,730	0.45	See Section 3 above
Discharge at Barton Springs	14,193,000,000	61	Table 2. Mean daily discharge (USGS)
Discharge at Cold & Deep Eddy Springs	3,490,000,000	15.0	Estimated Mean; cited in Hunt et al., 2019
Total Aquifer Discharge	19,628,652,051	84.3	

## 7.0 Drought-stage Management Reductions

The District implements a drought management program that requires mandatory monthly pumpage curtailments during District-declared drought stages for all non-exempt permitted wells with individual production permits. The District was in No-Drought status for the entirety of FY 2020.

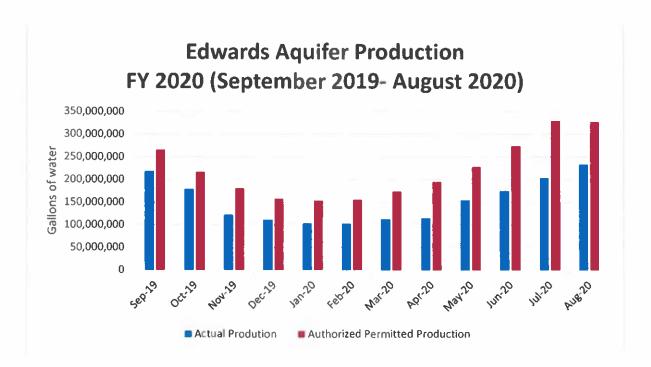


Figure 7. Hydrograph of Monthly Production Limits and Monthly Actual Use.

The District was in No-Drought status for the entirety of FY 2020. Figure 7 and Figure 8 reflect the overall trend that collectively, the permittees' actual production was on average lower than their authorized permitted production allocations even during non-drought.

It should be noted that other factors such as climatic conditions, seasonal trends, and alternative supply sources can contribute to the lower actual use trends even in non-drought. However, as stated in the HCP, the District has demonstrated effective drought curtailments and compliance that correspond to longer and more severe drought conditions, such as in 2009 and 2011.

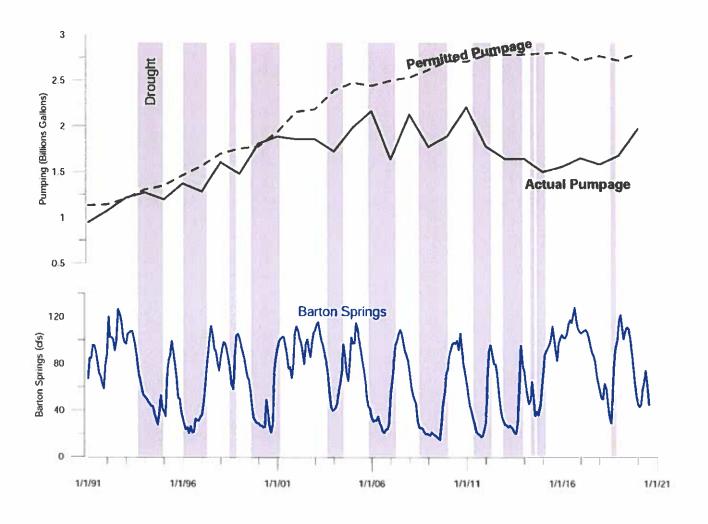


Figure 8 Hydrographs of Edwards Aquifer Production and Barton Springs Flow.

Figure 8 reflects production and spring flow since 1991. The data indicate that over the past 20 years, there has been a trend of lower total actual production than authorized production in the Edwards Aquifer. This overall trend is likely the result of the District's efforts in public awareness and drought conservation, the promotion and support, the Public Water Suppliers' diversification of source supplies, improved water use efficiencies, and key milestones in the District's science and regulatory framework. Some of those milestones include:

- 2004: Sustainable Yield Study and Conditional Production Permits
- 2005: Drought Trigger Methodology
- 2007: Extreme Drought Withdrawal Limitation (EDWL)
- 2009: Ecological Flow Reserve and Management Zones

# 8.0 Estimated Annual Take for Reporting Period (if any) and Total Cumulative Take for the ITP Term

The actual annual springflow-related take estimate to be included in the District's Annual Report to the Service involves a rather straight-forward procedure outlined in Appendix A that indicates the relative percentage of time during which springflow is below a given springflow threshold.

The hydrographs and data presented in Section 2 show that springflow was only below the 40 cfs threshold for take for 4 days (0.13 months) during FY 2020 (reporting period of September 1, 2019 - August 31, 2020). Analysis of the hydrograph only indicates take of BSS during the 4-day time period in FY 2020. Using the Validation Monitoring protocol proposed by the District and approved by the Service for evaluating take (Appendix A), the District calculates the following amounts of take for the reporting period presented in Table 8. In summary, those estimates of take are derived by:

It is estimated that take of 15 BSS occurs under category A when Barton Springs flow decreases to below 40 cfs (Table 7; Circumstance A). This is primarily due to Upper Barton Springs ceasing flow and induces negative behavioral effects. It is further estimated that additional take will occur for both species as a function of the number of months when springflow is between 20 and 30 cfs. Springflow between 20 and 30 cfs did not occur for this reporting period. Springflow below 20 cfs (Table 7; Circumstance C) did not occur for this reporting period.

**Table 7. Summary of Take** 

CIRCUMSTANCE	NO. DAYS	NO. MONTHS	BSS TAKE FACTOR	ABS TAKE FACTOR	BSS SUM TAKE	ABS SUM TAKE	COMMENT
A (<40 CFS)	4	0.13	15	0	2	0	Did Occur
B (30-20 CFS)	0	0.00	174	36.6	0	0	Did Not Occur
C (<20 CFS)	0	0.00	174	36.6	0	0	Dld Not Occur
SUM		0.13			2	0	2020 total
					20200	4260	permitted take over 20-yrs
					46	10	Previous year take
					20152	4250	Balance on permit
V					0.2%	0.2%	% of total allowed

BSS: Barton Springs salamander; ABS: Austin blind salamander

The estimated take number is derived by the number of months (0.00 months in this case) multiplied by each take factor for each species (Table 7; Circumstance B). Thus, during this reporting period take of BSS is estimated to have been 2 and take of ABS is estimated to have been 0, using the prescribed methodology. We assume that the negative effects were likely behavioral. These amounts of take are added to the previously reported cumulative take amounts, resulting in new cumulative take amounts of 48 for BSS and 10

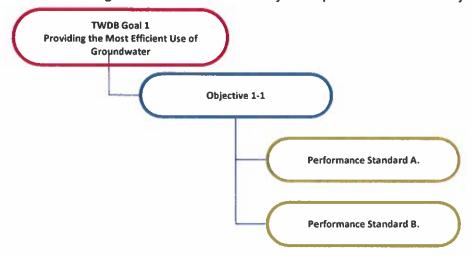
for ABS. For comparison, the authorized total cumulative take estimates for BSS and ABS during the 20-year permit term are 20,200 and 4,260, respectively. This represents 0.2% of the authorized total.

There was also no take from the DO Augmentation mitigation measure, as those activities in the field have not yet begun.

## 9.0 Minimization Measures and Action Taken During the Prior Year

Conservation measures to avoid, minimize, and mitigate take by the District are by necessity rooted in the statutory and regulatory requirements for all GCDs in Texas. The Texas Water Development Board (TWDB) has set nine over-arching goals for all GCDs, and in this District, these goals have also been designated as categories of Minimization Measures in its ITP issued by the Service.

Each GCD establishes a hierarchy of objectives and performance standards to achieve its goals that reflect local groundwater management priorities and to ensure its continuing operation as a sustainable organization. The hierarchy is depicted schematically below:



- Goals are set by the TWDB. These 9 goals are addressed in the District's Management Plan.
- Objectives are set by District Staff/Board. These objectives are the same objectives for the HCP.
- Performance Standards are set by District Staff/Board. These performance standards are the same reporting standards that have to be completed for the HCP. Many of these standards have always been reported on in previous Management Plan Annual Reports.

The GCDs' selected objectives and standards are documented in the GCDs' adopted MPs and approved by the TWDB every five years.

As a result of its HCP planning, in its current MP, the District has prioritized its objectives and performance standards such that the HCP Conservation Measures now coincide with the regular and ongoing groundwater and habitat management activities, i.e., the Covered Activities. Thus, by design and with the TWDB approval of the 2017 Management Plan, the District MP's objectives and performance standards are now aligned with and identical

to the District HCP's conservation measures and their performance standards approved by the Service.

A comprehensive, detailed description of the progress, activities and actions taken by the District in the reporting year for each of the HCP objectives and conservation Measures is included in Appendix C of this HCP Annual Report.

The FY 2020 Management Annual Report can also be viewed at: <a href="https://bseacd.org/uploads/12.10.2020-Annual-Report-with-App-A-and-B.pdf">https://bseacd.org/uploads/12.10.2020-Annual-Report-with-App-A-and-B.pdf</a>

On January 14, 2021 the District's Board of Directors determined that satisfactory progress had been made in FY 2020 toward all goals and objectives of the MP using the relevant performance standards for each. The alignment between the HCP Conservation Measures, the MP objectives and their shared performance standards are provided in Table 8 below.

Table 8. Status and Progress on Management Plan Objectives & Habitat Management Plan Objectives

Reg. Compliance (7 objectives)

Aquifer Science (8 objectives)

Education & Outreach (6 objectives)

Administration (3 objectives)

General Mgmt. (9 objectives)

Teams

	Objective Status	<b>MET</b> (Appendix C Page 2)	MET (Page 21) MET (Page 22)
TWDB GOAL 1 - Providing the Most Efficient Use of Groundwater – TWC §36.1071(a)(1) [HCP Measures 6.2.1.1 – Providing Most Efficient Use of Groundwater]	Performance Standards	<ul> <li>A. Develop, implement, and revise as necessary, the District Management Plan in accordance with state law and requirements. Each year, the Board will evaluate progress towards satisfying the District goals. A summary of the Board evaluation and any updates or revisions to the management plan will be provided in the <u>annual report</u>.</li> <li>B. Review and modify District Rules as warranted to provide and maintain a sound statutory basis for continued District operations and to ensure consistency with both District authority and programmatic needs. A summary of any rule amendments adopted in the previous fiscal year will be included in the annual report.</li> </ul>	Monitor annual withdrawals from all nonexempt wells through required monthly or annual meter reports to ensure that groundwater is used as efficiently as possible for beneficial use. A summary of the volume of aggregate groundwater withdrawals permitted and actually produced from permitted wells for each Management Zone and permit type will be provided in the annual report.  A. Provide an estimate of groundwater withdrawn by exempt wells in the District using TDLR and TWDB databases and District well records and update the estimate every five years with the District's management plan updates.  B. In the interim years between management plan updates, the most current estimates of exempt well withdrawals will be included in a summary of the volume of aggregate groundwater withdrawals permitted and actually produced from permitted wells for each Management Zone and permit type that will be provided in the annual report.
TWDB GOAI	Management Plan Objectives (HCP Minimization Measure)	Provide and maintain on an ongoing basis a sound statutory, regulatory, financial, and policy framework for continued District operations and programmatic needs.	Monitor aggregated use of various types of water wells in the District, as feasible and appropriate, to assess overall groundwater use and trends on a continuing basis.  Evaluate quantitatively at least every five years the amount of groundwater withdrawn by exempt wells in the District to ensure an accurate accounting of total withdrawals in a water budget that includes both regulated and non-regulated withdrawals, so that appropriate groundwater management actions are taken.
	Obj. IDs Mgmt. Plan (HCP ID)	1-1	1-2 (1-2) 1-3 (1-3)

1-4	Develop and maintain programs that	A. Publicize District drought trigger status (Barton Springs 10-day average discharge and	
(1-4)	inform and educate citizens of all ages	Lovelady Monitor Well water level) in monthly eNews bulletins and continuously on	MET
	about groundwater and springliow-	the Distilct Website. B. Drovide summaries of accordated outreach and education programs events	/Annendix C
	supplies and salamander ecology.		Page 4)
		available Board backup.	
		C. A summary of outreach activities and estimated reach will be provided in the annual	
		report.	
1-5	Ensure responsible and effective	A. Receive a clean financial audit each year. A copy of the auditor's report will be	
(NA)	management of District finances such	included in the <u>annual report</u> .	
	that the District has the near-term and	B. Timely develop and approve fiscal-year budgets and amendments. The dates for	MET
	long-term financial means to support its	public hearings and Board approval of the budget and any amendments will be	(Appendix C
	mission.	provided in the annual report.	Page 5)
1-6	Provide efficient administrative support	A. Maintain, retain, and control all District records in accordance with the Texas State	
(NA)	and infrastructure, such that District	Library and Archives Commission-approved District Records Retention Schedule to	
	operations are executed reliably and	allow for safekeeping and efficient retrieval of any and all records, and annually	MET
	accurately, meet staff and local	audit records for effective management of use, maintenance, retention,	(Appendix C
	stakeholder needs, and conform to	preservation and disposal of the records' life cycle as required by the Local	Page 5)
	District policies and with federal and	Government Code. A summary of records requests received under the PIA, any	
	state requirements.	training provided to staff or directors, or any claims of violation of the Public	
		Information Act will be provided in the annual report.	
		B. Develop, post, and distribute District Board agendas, meeting materials, and backup	
		documentation in a timely and required manner; post select documents on the	
		District website, and maintain official records, files, and minutes of Board meetings	
		appropriately. A summary of training provided to staff or directors or any claims of	
		violation of the Open Meetings Act will be provided in the annual report.	
1-7	Manage and coordinate electoral	Ensure elections process is conducted and documented in accordance with applicable	
(NA)	process for Board members.	requirements and timelines. Elections documents will be maintained on file and a	MET
		summary of elections-related dates and activities will be provided in the annual report	(Appendix C
		for years when elections occur.	Page 6)
	TWDB GOAL 2	TWDB GOAL 2 - Controlling and Preventing Waste of Groundwater – TWC §36.1071(a)(2))	
	M dDH]	[HCP Measures 6.2.1.2 – Controlling and Preventing Waste of Groundwater]	
Obj. IDs	Management Plan Objectives	Performance Standards	Objective
Mgmt. Plan (HCP)	(HCP Minimization Measure)		Status
2-1	Require all newly drilled exempt and	A summary of the number and type of applications processed and approved for	
(2-1)	nonexempt wells, and all plugged wells	authorizations, permits, and permit amendments including approved use types and	MET
	to be registered and to comply with	commensurate permit volumes for production permits and amendments will be	(Appendix C
	applicable District Rules, including Well	provided in the annual report.	rage //
	Construction Standards.		

MET (Appendix C Page 8)	MET (Appendix C Page 9)	<b>MET</b> (Appendix C Page 7)	Objective Status	MET (Appendix C Page 12)
<ul> <li>A. Inspect all new wells for compliance with the Rules, and Well Construction Standards, and provide a summary of the number and type of inspections or investigations in the <u>annual report</u>.</li> <li>B. Provide a summary of the volume of aggregate groundwater withdrawals permitted and actually produced from permitted wells for each Management Zone and permit type in the <u>annual report</u>.</li> </ul>	<ul> <li>A. In even-numbered fiscal years, provide a summary of interim legislative activity and related District efforts in the <u>annual report</u>. In odd-numbered fiscal years, provide a legislative debrief to the Board on bills of interest to the District and provide a summary in the annual report.</li> <li>B. Provide a summary of District activity related to other land use activities affecting groundwater in the <u>annual report</u>.</li> </ul>	A summary of the number and type of applications processed and approved for authorizations, permits, and permit amendments including approved use types and commensurate permit volumes for production permits and amendments will be provided in the <u>annual report</u> .	TWDB GOAL 3 - Addressing Conjunctive Surface Water Management Issues – TWC §36.1071(a)(4)  [HCP Measures 6.2.1.3 – Addressing Conjunctive Surface Water Management Issues]  Objectives  **Measure**  **M	identify available alternative water resources and supplies that may facilitate source substitution and reduce demand on the Edwards Aquifer, while increasing regional water supplies, and evaluate feasibility by considering:  1. available/proposed infrastructure,  2. financial factors,  3. logistical/engineering factors, and  4. potential secondary impacts (development density/intensity or recharge water quality).  A summary of District activity related to this objective will be provided in the annual report.
Ensure permitted wells and well systems are operated as intended by requiring reporting of periodic meter readings, making periodic inspections of wells, and reviewing pumpage compliance at regular intervals that are meaningful with respect to the existing aquifer conditions.	Provide leadership and technical assistance to government entities, organizations, and individuals affected by groundwater-utilizing land use activities, including support of or opposition to legislative initiatives or projects that are inconsistent with this objective.	Ensure all firm-yield production permits are evaluated with consideration given to the Reasonable Use doctrine and demand-based permitting standards including verification of beneficial use that is commensurate with reasonable non-speculative demand.	TWDB GOAL 3 - Address [HCP Measures 6. Management Plan Objectives (HCP Minimization Measure)	Assess the physical and institutional availability of existing regional surface water and alternative groundwater supplies and the feasibility of those sources as viable supplemental or substitute supplies for District groundwater users.
2-2 (2-2)	2-3 (M-5)	2-4 (NA)	Obj. 1Ds Mgmt. Plan (HCP)	3-1

I water (Appendix C Page 12)	MET (Appendix C Page 13)	MET (Appendix C Page 13)
Identify available alternative water resources and supplies that may facilitate source substitution and reduce demand on the Edwards Aquifer, while increasing regional water supplies, and evaluate feasibility by considering:  1. available/proposed infrastructure, 2. financial factors, 3. logistical/engineering factors, and 4. potential secondary impacts (development density/intensity or recharge water quality).  A summary of District activity related to this objective will be provided in the annual report.	<ul> <li>A. Provide summaries of associated outreach and education programs, events, workshops, and meetings in the monthly team activity reports in the publicly-available Board backup.</li> <li>B. Summarize outreach activities and estimate reach in the annual report.</li> </ul>	Regularly attend regional water planning group meetings and <u>annually report</u> on meetings attended.
Encourage and assist District permittees to diversify their water supplies by assessing the feasibility of alternative water supplies and fostering arrangements with currently available alternative water suppliers.	Demonstrate the importance of the relationship between surface water and groundwater, and the need for implementing prudent conjunctive use through educational programs with permittees and public outreach programs.	Actively participate in the regional water planning process to provide input into policies, planning elements, and activities that affect the aquifers managed by the District.
3-2 (3-2)	3-3	3-4 (NA)

	TWDB GOAL 4 - Addressing Natural Reso	TWDB GOAL 4 - Addressing Natural Resource Issues which Impact the Use and Availability of Groundwater, and which are Impacted by the Use of Groundwater – TWC §36.1071(a)(5)	by the Use
A N	N dOH]	[HCP Measures 6.2.1.4 – Addressing Natural Resource Management Issues]	THE PERSON
Obj. IDs Mgmt. Plan (HCP)	Management Plan Objectives (HCP Minimization Measure)	Performance Standards	Objective Status
4-1 (4-1)	Assess ambient conditions in District aquifers on a recurring basis by:  1. sampling and collecting groundwater data from selected wells and springs monthly;  2. conducting scientific investigations as indicated by new data and models to better determine groundwater availability for the District aquifers;  3. conducting studies as warranted to help increase understanding of the aquifers and, to the extent feasible, detect possible threats to water quality and evaluate	<ul> <li>A. Review water-level and water-quality data that are maintained by the District and/or TWDB, or other agencies, on a regular basis.</li> <li>B. Improve existing analytical or numerical models or work with other organizations on analytical or numerical models that can be applied to the aquifers in the District.</li> <li>C. A review of the data mentioned above will be assessed for significant changes and reported in the annual report.</li> </ul>	MET (Appendix C Page 14)
4-2 (4-2)	their consequences.  Evaluate site-specific hydrogeologic data from applicable production permits to assess potential impact of withdrawals to groundwater quantity and quality, public health and welfare, contribution to waste, and unreasonable well interference.	This involves evaluations of certain production permit applications for the potential to cause unreasonable impacts as defined by District rule. To evaluate the potential for unreasonable impacts, staff will:  1. Perform a technical evaluation of the application, aquifer test, and hydrogeological report;  2. Use best available science and analytical tools to estimate amount of drawdown from pumping and influence on other water resources; and  3. Recommend proposed permit conditions to the Board for avoiding unreasonable impacts if warranted.  A list of permit applications that are determined to have potential for unreasonable impacts will be provided in the annual report.	MET (Appendix C Page 15)
4-3 (4-3)	Implement separate management zones and, as warranted, different management strategies to address more effectively the groundwater management needs for the various aquifers in the District.	<ul> <li>A. Increase the understanding of District aquifers by assessing aquifer conditions, logging wells, and collecting water quality data. A summary of the number of water quality samples performed will be provided in the <u>annual report</u>.</li> <li>B. A summary of the volume of aggregate groundwater withdrawals permitted and actually produced from permitted wells for each Management Zone and permit type will be provided in the <u>annual report</u>.</li> </ul>	MET (Appendix C Page 15)

4-4	Actively participate in the joint planning	Attend at least 75% of the GMA meetings and annually report on meetings attended, GMA	
(4-4)	processes for the relevant aquifers in the	decisions on DFCs, and other relevant GMA business.	
	District to establish and refine Desired		MET
	Future Conditions (DFCs) that protect the		(Appendix
	aquifers and the Covered Species of the		C Page 16)
	District HCP.		
4-5	Implement the measures of the District	Prior to ITP permit issuance, a progress report summarizing activities related to the USFWS	
(4-5)	Habitat Conservation Plan (HCP) and	review of the ITP application will be provided in the annual report. Upon ITP issuance, the	
	Incidental Take Permit (ITP) from the U.S.	HCP annual report documenting the District's activities and compliance with ITP permit	MET
	Fish & Wildlife Service (USFWS) for the	requirements will be incorporated into the annual report by reference.	(Appendix
	covered species and covered activity to		C Page 17)
	support the biological goals and		
	objectives of the HCP.		
	TWI	TWDB GOAL 5 - Addressing Drought Conditions – TWC §36.1071(a)(6)	
		[HCP Measures 6.2.1.5 – Addressing Drought Conditions ]	
Obj. IDs	Management Plan Objectives	Performance Standards	Objective
Mgmt. Plan (HCP)	(HCP Minimization Measure)		Status
5-1	Adopt and keep updated a science-based	A. During periods of District-declared drought, prepare a drought chart at least monthly to	
(5-1)	drought trigger methodology, and	report the stage of drought and the conditions that indicate that stage of drought.	
	frequently monitor drought stages on	During periods of non-drought, prepare the drought charts at least once every three	MET
	the basis of actual aquifer conditions,	months.	(Page 24
	and declare drought conditions as	B. A summary of the drought indicator conditions and any declared drought stages and	and
	determined by analyzing data from the	duration will be provided in the <u>annual report</u> .	Appendix C
	District's defined drought triggers and		rage 10)
	from existing and such other new		
	drought-declaration factors, especially		
	the prevailing DO concentration trends		
	at the spring outlets, as warranted.		

<b>MET</b> (Page 25)	MET (Appendix C Pages 19)	MET (Appendix C Page 20)
During District-declared drought, enforce compliance with drought management rules to achieve overall monthly pumpage curtailments within 10% of the aggregate curtailment goal of the prevailing drought stage. A monthly drought compliance report for all individual permittees will be provided to the Board during District-declared drought, and a summary will be included in the annual report.	<ul> <li>A. During District-declared drought, publicize declared drought stages and associated demand reduction targets in monthly eNews bulletins and continuously on the District website.</li> <li>B. A summary of drought and water conservation related newsletter articles, press releases, and drought updates sent to Press, Permittees, Well Owners and eNews subscribers will be provided in the annual report.</li> </ul>	A. Require an updated UCP/UDCP from Permittees within one year of each five-year Management Plan Adoption.  B. Provide a summary of any activity related to permit right sizing or source substitution with alternative supplies that may reduce demand on the freshwater Edwards Aquifer in the annual report.
Implement a drought management program that step-wise curtails freshwater Edwards Aquifer use to at least 50% by volume of 2014 authorized aggregate monthly use during Extreme Drought, and that designs/uses other programs that provide an incentive for additional curtailments where possible. For all other aquifers, implement a drought management program that requires mandatory monthly pumpage curtailments during District-declared drought stages.	Inform and educate permittees and other well owners about the significance of declared drought stages and the severity of drought, and encourage practices and behaviors that reduce water use by a stage-appropriate amount.	Assist and, where feasible, incentivize individual freshwater Edwards Aquifer historic-production permittees in developing drought planning strategies to comply with drought rules, including:  1. pumping curtailments by drought stage to at least 50% of the 2014 authorized use during Extreme Drought,  2. "right-sizing" authorized use over the long term to reconcile actual water demands and permitted levels, and  3. as necessary and with appropriate conditions, the source substitution with alternative supplies.
5-2 (5-2)	(5-3)	5-4 (5-4)

5-5 (5-5)	Implement a Conservation Permit that is held by the District and accumulates and	A summary of the volume of aggregate groundwater withdrawals permitted and actually produced from permitted wells for each Management Zone and permit type including the	
	freshwater Edwards Aquifer that were previously authorized with historic-use	volume reserved in the freshwater Edwards Conservation Permit for ecological flows will be provided in the <u>annual report</u> .	MET (Page 21)
	additionally curtailed during severe		
	Barton Springs during Extreme Drought		
	and thereby increase springflow for a		
	TWDB GOAL 6 - Addressing Con		7)
1	[HCP Measures	asures - 6.2.1.6 Addressing Demand Reduction through Conservation]	
Obj. IDs Mgmt. Plan (HCP)	Management Plan Objectives (HCP Minimization Measure)	Performance Standards	Objective Status
6-1	Develop and maintain programs that	A. A summary of efforts to assist permittees in developing drought and conservation	
(6-1)	inform, educate, and support District	messaging strategies will be provided in annual report.	
	permittees in their efforts to educate	B. Publicize declared drought stages and associated demand reduction targets monthly in	MET
	their end-user customers about water	eNews bulletins and continuously on the District website.	(Appendix
III	conservation and its benefits, and about		C Page 22)
	drought-period temporary demand		
	reduction measures.		
6-2	Encourage use of conservation-oriented	On an annual basis, the District will provide an informational resource or reference	
(6-2)	rate structures by water utility	document to all Public Water Supply permittees to serve as resources related to	
	permittees to discourage egregious	conservation best management strategies and conservation-oriented rate structures.	MET
N.	water demand by individual end-users		(Appendix
	during declared drought.		C Page 22)
6-3	Develop and maintain programs that	Summarize water conservation related newsletter articles, press releases, and events in	
(6-3)	educate and inform District groundwater	the annual report. Summary will describe the preparation and dissemination of materials	
	users and constituents of all ages about	shared with District groundwater users and area residents that inform them about water	MET
	water conservation practices and use of	conservation and alternate water sources.	(Appendix
	alternate water sources such as		C Page 23)
	rainwater harvesting, gray water, and		
W.	condensate reuse.		

71	TWDB GOAL 7 - Addressi	TWDB GOAL 7 - Addressing Recharge Enhancement where Appropriate and Cost Effective – TWC §36.1071(a)(7)	
1.0	HCP M	[HCP Measures - 6.2.1.7 Addressing Supply through Structural Enhancement]	
MP Obj No.	Management Plan Objectives (HCP Minimization Measure)	Performance Standards	Objective Status
7-1 (7-1)	Improve recharge to the freshwater Edwards Aquifer by conducting studies and, as feasible and allowed by law, physically aftering (cleaning, enlarging, protecting, diverting surface water to) discrete recharge features that will lead to an increase in recharge and water in storage beyond what otherwise would exist naturally.	Maintaining the functionality of the Antioch system will be the principal method for enhancing recharge to the freshwater Edwards Aquifer. Additional activities may be excavating sinkholes and caves within the District. A summary of all recharge improvement activities will be provided in the annual report.	MET (Appendix C Page 24)
7-2 (7-2)	Conduct technical investigations and, as feasible, assist water-supply providers in implementing engineered enhancements to regional supply strategies, including desalination, aquifer storage and recovery, and effluent reclamation and re-use, to increase the options for watersupply substitution and reduce dependence on the Aquifer.	Assess progress toward enhancing regional water supplies in the <u>annual report</u> .	MET (Appendix C Page 24)

:	TWDB GOAL 8 - Addressing the [HCP Measures - 6.2.	ALS - Addressing the Desired Future Conditions of the Groundwater Resources – TWC §36.1071(a)(8) (HCP Measures - 6.2.1.8 Quantitatively Addressing Established Desired Future Conditions	
Obj. IDs Mgmt. Plan (HCP)	Management Plan Objectives (HCP Minimization Measure)	Performance Standards	Objective Status
(8-1)	Freshwater Edwards Aquifer All-Conditions DFC: Adopt rules that restrict, to the greatest extent practicable, the total amount of groundwater authorized to be withdrawn annually from the Aquifer to an amount that will not substantially accelerate the onset of drought conditions in the Aquifer; this is established as a running seven-year average springflow at Barton Springs of no less than 49.7 cfs during average recharge conditions.	<ul> <li>A. A summary of the volume of aggregate groundwater withdrawals permitted and actually produced from permitted wells for each Management Zone and permit type will be provided in the <u>annual report</u>.</li> <li>B. Upon ITP issuance, the <u>HCP annual report</u> documenting the District's activities and compliance with ITP permit requirements will be incorporated into the <u>annual report</u> by reference.</li> <li>C. Upon ITP issuance, compile a summary of aquifer data including: 1) the frequency and duration of District-declared drought, 2) levels of the Aquifer as measured by springflow and indicator wells (including temporal and spatial variations), and 3) total annual and daily discharge from Barton Springs will be provided in the <u>annual report</u>.</li> </ul>	MET (Appendix C Page 25)
(8-2)	Freshwater Edwards Aquifer Extreme Drought DFC: Adopt rules that restrict, to the greatest extent practicable and as legally possible, the total amount of groundwater withdrawn monthly from the Aquifer during Extreme Drought conditions in order to minimize take and avoid jeopardy of the Covered Species as a result of the Covered Activities, as established by the best science available. This is established as a limitation on actual withdrawals from the Aquifer to a total of no more than 5.2 cfs on an average annual (curtailed) basis during Extreme Drought, which will produce a minimum springflow of not less than 6.5 cfs during a recurrence of the drought of record (DOR).	<ul> <li>A. A summary of the volume of aggregate groundwater withdrawals permitted and actually produced from permitted wells for each Management Zone and permit type will be provided in the <u>annual report</u>.</li> <li>B. Upon ITP issuance, the <u>HCP annual report</u> documenting the District's activities and compliance with ITP permit requirements will be incorporated into the <u>annual report</u> by reference.</li> <li>C. Upon ITP issuance, compile a summary of aquifer data including: 1) the frequency and duration of District-declared drought, 2) levels of the Aquifer as measured by springflow and indicator wells (including temporal and spatial variations), and 3) total annual and daily discharge from Barton Springs will be provided in the <u>annual report</u>.</li> </ul>	MET (Appendix C Page 26)

8-3	Implement appropriate rules and	Develop and implement a cost-effective method for evaluating and demonstrating	_
(8-3)	measures to ensure compliance with	compliance with the DFCs of the relevant aquifers in the District, in collaboration with	
	District-adopted DFCs for each relevant	other GCDs in the GMAs. Prior to method implementation, provide a summary of activities	MET
	aquifer or aquifer subdivision in the	related to method development in the annual report. Once developed, provide a summary	(Appendix
	District.	of data for each District-adopted DFC for each relevant aquifer indicating aquifer	C Page 26)
		conditions relative to the DFC and provide in the annual report.	

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# 10.0 Mitigation Actions Taken During the Year, and Updates on Any Ongoing Mitigation Measures

In its HCP, the District identified five mitigation measures that it intended to utilize to offset unavoidable take and to otherwise minimize take further. These are characterized in Table 9 below, along with the progress made for each, as of the end of the reporting period.

Most of these mitigation measures require concurrence and/or involvement of other parties, especially the COA.

The District and the COA finalized and executed an ILA in FY 2019. This ILA, provided in Appendix B, will be instrumental in more robustly pursuing certain aspects of the mitigation measures in the upcoming years. Several of the activities characterized in Appendix C, describing progress toward the over-arching HCP goals, also relate to preparation for mitigation actions.

Table 9. Summary of Progress on Mitigation Measures

Mo. HCP Section 6.2.2.2 Mitigation Measures  M-1 The District commits to supporting the operations of an existing refugium with facilities capable of maintaining backup populations of the Covered Species to preserve the capacity to re-establish the species in the event of the loss of population due to a catastrophic event such as an unexpected cessation of spring flow or a hazardous materials spill that decimates the species habitat. Such supplemental support would be provided through a commitment of in-kind, contracted support, and/or cash contributions that would contribute to:  a. Continuing the study of salamander physiology and/or behavior, and behavior, and b. Conserving field and captive populations.  The District, in cooperation with the City, commits to participating in conducting feasibility studies and, as warranted, pilot and implementation projects to evaluate the potential for beneficial subsurface DO augmentation of flow in the immediate vicinity of the spring outlets and improved surface DO augmentation in the outlets (only) during Extreme Drought conditions. In-kind, contracted support, and/or cash contributions, phased during the term of the permit, may be authorized for feasibility studies and, if a project is feasible, for the pilot study and implementation of the augmentation project.	
The District commits to supporting the operations of an existing refugium with facilities capable of maintaining backup populations of the Covered Species to preserve the capacity to re-establish the species in the event of the loss of population due to a catastrophic event such as an unexpected cessation of spring flow or a hazardous materials spill that decimates the species habitat. Such supplemental support would be provided through a commitment of in-kind, contracted support, and/or cash contributions that would contribute to:  a. Continuing the study of salamander physiology and/or behavior, and  b. Conserving field and captive populations.  The District, in cooperation with the City, commits to participating in conducting feasibility studies and, as warranted, pilot and implementation projects to evaluate the potential for beneficial subsurface DO augmentation of flow in the immediate vicinity of the spring outlets and improved surface DO augmentation in the outlets (only) during Extreme Drought conditions. In-kind, contracted support, and/or cash contributions, phased during the term of the permit, may be authorized for feasibility studies and, if a project is feasible, for the pilot study and implementation of the augmentation project.	gation Measures Progress or Status as of End of FY 2020
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contracted support, and/or cash contributions that would contracted support, and/or cash contributions that would contribute to:  a. Continuing the study of salamander physiology and/or behavior, and b. Conserving field and captive populations.  The District, in cooperation with the City, commits to participating in conducting feasibility studies and, as warranted, pilot and implementation projects to evaluate the potential for beneficial subsurface DO augmentation of flow in the immediate vicinity of the spring outlets and improved surface DO augmentation in the outlets (only) during Extreme Drought conditions. In-kind, contracted support, and/or cash contributions, phased during the term of the permit, may be authorized for feasibility studies and, if a project is feasible, for the pilot study and implementation of the augmentation project.	
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102 100	
2003	
	projects to evaluate title  O augmentation of flow in the reporting year.
surface DO augmentation in the outlets (only) during Extreme Drought conditions. In-kind, contracted support, and/or cash contributions, phased during the term of the permit, may be authorized for feasibility studies and, if a project is feasible, for the pilot study and implementation of the augmentation project.	-
Drought conditions. In-kind, contracted support, and/or cash contributions, phased during the term of the permit, may be authorized for feasibility studies and, if a project is feasible, for the pilot study and implementation of the augmentation project.	lets (only) during Extreme
authorized for feasibility studies and, if a project is feasible, for the pilot study and implementation of the augmentation project.	ed support, and/or cash
the pilot study and implementation of the augmentation project.	i di trie petiriit, may be , if a project is feasible, for
project.	if the augmentation

<b>№</b> -3	The District commits to extending the currently committed time period to operate the Antioch Recharge Enhancement Facility to continue after the 319(h) grant commitments (September 2014 or later), thereby improving recharge water quality and reducing nonpoint-source pollution at the outlets from runoff events during that time.	The facility continues to be operated by the District. Some upgraded controllers were recently installed to ensure more responsive operation during variable creek flow conditions.
M	The District commits to establishing a new reserve fund for plugging abandoned wells to eliminate high-risk abandoned wells as potential conduits for contaminants from the surface or adjacent formations into the aquifer, with priority given to problematic wells close to the Barton Springs outlets and/or associated with water chemistry concerns under severe drought conditions. This reserve fund, which like others under state law has restrictions on its funding and use, would be established within the first year after issuance of the ITP by closing the existing Drought Reserve Account, whose stipulated purpose has been legal defense for drought management, and then by utilizing its current balance to initially fund a new Aquifer Protection Reserve Account. The new account would be replenished after the first year with any collected enforcement penalties, any drought management fees imposed on larger nonexempt permittees that do not meet their drought curtailments, and an annual budgeted supplement at the discretion of the Board.	Implementation of key elements of this measure will require some additional rulemaking and related Board actions, which haven't yet occurred.

M-5	For the term of the ITP, the District commits to provide	The District has been actively engaged in
	leadership and technical assistance to other government	several activities that relate to this
	entities, organizations, and individuals when prospective land-	mitigation measure during the reporting
	use and groundwater management activities in those entities'	period:
	purview will, in the District's assessment, significantly affect	<ul> <li>Provided technical assistance to GMA 9</li> </ul>
	the quantity or quality of groundwater in the Aquifer. The	related to designing and deploying DFC
	District will respond actively and appropriately to legislative	monitoring networks
	initiatives or projects that affect Aquifer characteristics,	<ul> <li>Provided technical assistance to Travis</li> </ul>
	provided such actions are consistent with established District	County to study hydrogeology of
	rules, ongoing initiatives, or existing agreements.	southwestern Travis County and to
		conduct community outreach as to
		benefits of groundwater management in
		this area
		<ul> <li>Conducted hydrogeologic investigations</li> </ul>
		at Jacob's Well and served on a
		technical advisory committee to
		Wimberley Valley Watershed
		Association on efficacy of Jacob's
		Well's management zone
		<ul> <li>Performed numerous ad hoc, real-time</li> </ul>
		site inspections of karst features
		revealed by the road construction at
		major intersections along South MoPac
		expressway on the Recharge Zone

# 11.0 An Evaluation of the Effectiveness of the Avoidance, Minimization, and Other Conservation Measures

The District was in No-Drought status the entirety of FY 2020. Figure 7 and Figure 8 reflect the overall trend that collectively, the permittees' actual production is on average lower than their authorized permitted production allocations even during non-drought conditions. The sustained DO concentrations at the spring outlets have generally been similar to those expected on the basis of the spring flow volumes, which confirms the basis and expected effectiveness for the requisite pumpage reductions for the drought periods.

The City presents data in its 2020 HCP annual report showing that the salamander populations increased during this reporting period, but the increase is within the norms of variability in abundance of such as small population (City of Austin, 2020 Annual Report to Fish and Wildlife Service, January 2021).

As noted in Section 9 above, the District's Board of Directors determined that satisfactory progress was made in FY 2020 toward all HCP MP goals and objectives, using the relevant performance standards for each.

## 12.0 Adaptive Management Activities Undertaken During the Year, or Indicated as Prudent by Outcomes of the Conservation Program

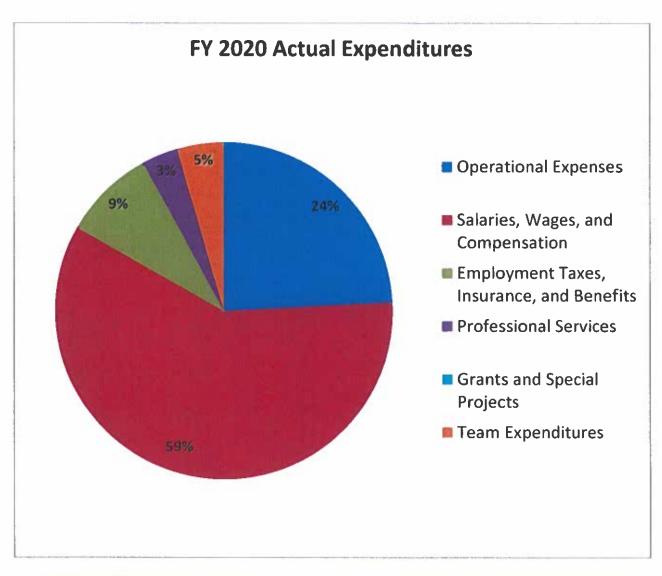
This reporting period was the second one for the District's ITP. No adaptive management activities were identified as needed, and none were undertaken.

#### 13.0 Expenditures by BSEACD on Implementation Activities

By approval of the MP Annual Report, the District's Board of Directors warrants that there were no FY 2020 expenses incurred that were not directly or indirectly related to the execution of this HCP, other than \$6,984 in reimbursable expenses that was removed from the total FY 2020 expense amount, and that reduction was accounted for and is not included in the total expenses shown on the accompanying pie chart.

Therefore, 100% of the District expenses shown on the accompanying pie chart were considered HCP expenses, and satisfies the minimum commitment funding of no less than 60% of each year's annual budget.

The District's HCP implementation, which integrates the conservation measures and the District's groundwater management program, expended a total of \$1,531,617 in FY 2020. The breakdown of these expenses is shown in Figure 9 below.



	FY 2020 ACTUAL EXPENDITURES		
A.	Operational Expenses	\$368,211	24.04%
B.	Salaries, Wages, and		
	Compensation	\$900,408	58.79%
C.	Employment Taxes, Insurance,		
	and Benefits	\$135,040	8.82%
D.	Professional Services	\$52,140	3.40%
F.	Grants and Special Projects	\$0	0.00%
E.	Team Expenditures	\$68,834	4.49%
		\$1,531,617	99.54%

Figure 9. FY 2020 Actual Expenditures.

# 14.0 Any Species-specific or Aquifer Research Compiled or Completed During the Prior Year

The District did not conduct species-specific research in the reporting period. It continues to monitor the ongoing salamander-related studies and assessments by the COA, as documented in its own HCP Annual Report. At this time, no additional cooperatively-funded, species-specific research needs have been identified.

Most of the District's hydrogeologic research in the reporting period was focused on the Trinity Aquifer and in areas outside the ITP Area. However, because the Trinity is directly or indirectly hydrologically connected to the Barton Springs segment of the Edwards and improved knowledge of the Trinity Aquifer supports decision-making for managing the Edwards, such research is relevant to the HCP. Published papers and District documents from FY 2018 through FY 2020 are listed below:

- Camp, Justin P., Hunt, Brian B., Smith, Brian A., 2020, Evaluating the Potential Groundwater Availability Within A Lower Trinity Aquifer Well Field, Balcones Fault Zone, Hays County, Central Texas: 2020 Abstracts with Programs, Geological Society of America, South-Central Meeting, March 9-10, 2020, Fort Worth, Texas.
- Cockrell, L.P., Gary, R.H., Hunt, B.B., and Smith, B.A., 2020, Data Compilation and Database Structure for the Geodatabase Accompanying the Hydrogeologic Atlas of Southwest Travis County, Central Texas: Barton Springs/Edwards Aquifer Conservation District (BSEACD) Data Series Report 2020-0721, July 2020, 15 p. + digital geodatabase.
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#### 15.0 Proposed Activities for Next Year

Activities proposed to take place next year generally relate to a continuation of those organizational activities necessary to have the District meet its ongoing obligations as a GCD and its current commitments, as well as its planned direct and indirect groundwater management initiatives. In prospect, some of these include:

- Completion of the Hays County and HTGCD ILA Projects
- Completion of Joint Planning Efforts in the GMAs to adopt DFCs
- Continuation of model development to support evaluations of the Trinity aquifer
- Continuation of Trinity Sustainable Yield Study
- Continuation of contested/legal challenges associated with controversial permit applications in Shared Territory – Electro Purification
- Completion of Intera database project
- Utilization of contractual support associated with various technical and professional services, including:
  - technical services to support prospective special projects including ASR pilot projects, continued aquifer characterization, new monitor well installation, and HCP-related projects;
  - technical and consulting services to support prospective implementation of the HCP including initial annual reporting and mitigation measures; and
  - technical and consulting services relating to rulemaking efforts.

Even if certain ones of these are not directly or indirectly related to the HCP, they will affect the financial resources that will be available to conduct special projects. However, none of these prospective activities will impede the implementation of work to comply with the HCP.

#### 16.0 Recommendations for Improvement

The District has not identified any changes needed to improve the implementation of the HCP or compliance with the ITP provisions at this time.

The Validation Monitoring Program (specified in HCP Section 6.3.1, and included in this Annual Report in Appendix A) anticipates that eventually there could be an improved take estimate protocol for future use, based on then-new information and/or analyses concerning gaged springflows, water chemistry, and salamander counts. These characteristics form the basis for

the take estimate methodology. In the current reporting period, the District has not identified any new information or analysis that would indicate that the basis of the take estimate methodology needs to be modified.

# 17.0 Any Other Appropriate Information Documenting Compliance with the Permit

None required.

Appendix A - Description of District's Validation Monitoring Protocol

Appendix B - Interlocal Agreement between the District and City of Austin

Appendix C - Assessment of Progress in FY2020 Toward Plan Goals and Objectives (Management Plan Annual Report FY 2020 – Appendix B)

Appendix D - Meeting Minutes (1/26/2021) of Management Advisory Committee

### Item 5

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

e. Discussion and possible action related a legislative update by Sledge Law Group. (6:15p)

### Item 7

## Adjournment