

**Alliance Regional Water Authority  
Board of Directors**

**REGULAR MEETING**



**ALLIANCE WATER**

**BOARD MEMBER PACKETS**

Wednesday, January 22, 2020 at 3:00 P.M.

San Marcos Activity Center  
501 E. Hopkins, San Marcos, TX 78666

**REGULAR MEETING**  
**Alliance Regional Water Authority Board of Directors**

**BOARD MEMBER PACKETS**

Wednesday, January 22, 2020 at 3:00 P.M.  
501 E. Hopkins, San Marcos, TX 78666

This Notice is posted pursuant to the Texas Open Meetings Act (Texas Government Code Chapter 551). The Alliance Regional Water Authority (the Authority) Board of Directors will hold a meeting at 3:00 PM, Wednesday, January 22, 2020, at the San Marcos Activity Center, 501 E. Hopkins, San Marcos, Texas. Additional information can be obtained by calling Graham Moore at (512) 294-3214.

A. CALL TO ORDER

B. ROLL CALL

C. PUBLIC COMMENT PERIOD (Note: Each person wishing to speak must submit a completed Public Comment Form to the Executive Director or his/her designee before the public comment period begins.)

D. CONSENT AGENDA

*The items included in the Consent Agenda portion of this meeting agenda can be considered and approved by the Board of Directors by one motion and vote. A Board member may request that an item included in the Consent Agenda be considered separately, in which event the Board of Directors will take action on the remaining Consent Agenda items and then consider the item removed from the Consent Agenda.*

D.1 Consider approval of minutes of the Regular Meeting held December 18, 2019.  
~ *Graham Moore, P.E., Executive Director*

D.2 Consider approval of the financial report for December 2019. ~ *Graham Moore, P.E., Executive Director*

D.3 Consider approval of the Quarterly Investment Report for the period ending December 31, 2019. ~ *Graham Moore, P.E., Executive Director*

E. PUBLIC HEARINGS / PRESENTATIONS - None

F. ITEMS FOR ACTION OR DISCUSSION/DIRECTION

F.1 Report on Technical Committee activities. ~ *Graham Moore, P.E., Executive Director*

F.2 Consider adoption of Resolution 2020-01-22-001 accepting and approving the Audit Report for the 2018-2019 Financial Audit of the Authority. ~ *Phil Vaughan, Armstrong, Vaughan & Associates*

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- F.3 Consider adoption of Resolution 2020-01-22-002 approving the Investment Policy for the Authority. ~ *Graham Moore, P.E., Executive Director*
- F.4 Update and possible direction to Staff regarding the status of the Authority's Phase 1A projects, and direction to staff and consultants. ~ *Jason Biemer, Project Coordinator*
- F.5 Consider adoption of Resolution 2020-01-22-003 approving an agreement with MLA Labs, Inc. for materials testing associated with the Phase 1A Segment B Pipeline project. ~ *Graham Moore, P.E., Executive Director*
- F.6 Update and discussion regarding the status of the Authority's Phase 1B program, and direction to staff and consultants. ~ *Ryan Sowa, P.E., Kimley-Horn & Associates*
- F.7 Consider adoption of Resolution 2020-01-22-004 approving Work Order #4 with R.W. Harden & Associates, Inc. for Construction Phase Services for the Authority's Phase 1B Well Drilling / Hydrogeology project as recommended by the Technical Committee. ~ *Ryan Sowa, P.E., Kimley-Horn & Associates*
- F.8 Consider adoption of Resolution 2020-01-22-005 approving an agreement with Hicks & Company Environmental / Archaeological Consultants for Environmental On-Call Services associated with the Authority's Phase 1B Well Drilling / Hydrogeology project as recommended by the Technical Committee. ~ *Ryan Sowa, P.E., Kimley-Horn & Associates*
- F.9 Consider adoption of Resolution 2020-01-22-006 approving Work Order #3 with Walker Partners, LLC for Design and Procurement Services for the Authority's Phase 1B Water Treatment Plant project as recommended by the Technical Committee. ~ *Ryan Sowa, P.E., Kimley-Horn & Associates*
- F.10 Consider adoption of Resolution 2020-01-22-007 approving Work Order #2 with Blanton & Associates, Inc. for additional hazardous materials testing associated with the Phase 1B Segment A project. ~ *Ryan Sowa, P.E., Kimley-Horn & Associates*
- F.11 Consider approval of the meeting schedule for the Board of Directors for 2020. ~ *Graham Moore, P.E., Executive Director*

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- F.12 Update on status of groundwater management in project target area, and Gonzales County Underground Water Conservation District, Plum Creek Conservation District, Groundwater Management Area 13, Region L Planning Group, Guadalupe-Blanco River Authority, Hays County and CAPCOG activities. ~ *Graham Moore, P.E., Executive Director*
- G. EXECUTIVE DIRECTOR AND LEGAL COUNSEL REPORTS - Update on future meeting dates, locations, status of Authority procurements, Executive Director activities, other operational activities and the status of legal issues, where no action is required. ~ *Graham Moore, P.E., Executive Director / Mike Gershon, Lloyd Gosselink Rochelle & Townsend, P.C.*
- H. BOARD MEMBER ITEMS OR FUTURE AGENDA ITEMS – Possible acknowledgement by Committee Members of future area events and/or requests for item(s) to be placed on a future agenda where no action is required.
- I. EXECUTIVE SESSION
- I.1 *Executive Session pursuant to the Government Code, Section 551.071 (Consultation with Attorney) and/or Section 551.072 (Real Property Deliberations) regarding:*
- A. *Water supply partnership options*
  - B. *Groundwater leases*
  - C. *Acquisition of real property for water supply project purposes*
- I.2 Action from Executive Session on the following matters:
- A. *Water supply partnership options*
  - B. *Groundwater leases*
  - C. *Acquisition of real property for water supply project purposes*
- J. ADJOURNMENT

**NOTE:** *The Board of Directors may meet in Executive Session to consider any item listed on this agenda if a matter is raised that is appropriate for Executive Session discussion. An announcement will be made of the basis for the Executive Session discussion. The Board of Directors may also publicly discuss any item listed on the agenda for Executive Session.*

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**A. CALL TO ORDER**

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No Backup Information for this Item.

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**B. ROLL CALL**

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<b>NAME</b>	<b>TERM ENDS</b>	<b>PRESENT</b>
Mayor Jane Hughson – Vice-Chair (San Marcos)	April 2020	
Mike Taylor (CRWA - General Manager, Crystal Clear SUD)	April 2020	
Brian Lillibridge (Kyle – Asst. Public Works Director)	April 2021	
Kenneth Williams – Treasurer (Buda – City Manager)	April 2020	
Councilmember Mark Rockeymoore (San Marcos)	April 2022	
Humberto Ramos (CRWA – Water Resources Director)	April 2021	
James Earp – Secretary (Kyle – Assistant City Manager)	April 2021	
Tom Taggart (San Marcos – Executive Director of Public Services)	April 2021	
Chris Betz – Chair (CRWA - President, County Line SUD)	April 2022	
Councilmember Tracy Scheel (Kyle)	April 2021	
Jon Clack (San Marcos – Assistant Director of Public Services)	April 2022	
Pat Allen (CRWA - General Manager, Green Valley SUD)	April 2020	
Steve Parker (San Marcos – Assistant City Manager)	April 2022	

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- C.** PUBLIC COMMENT PERIOD (Note: Each person wishing to speak must submit a completed Public Comment Form to the Executive Director or his/her designee before the public comment period begins.)
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**D. CONSENT AGENDA**

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Items D.1 through D.3 are presented as part of the consent agenda.

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**D.1** Consider approval of minutes of the Regular Meeting held December 18, 2019. ~  
*Graham Moore, P.E., Executive Director*

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Attachment(s)

- 2019 12 18 Board Meeting Minutes

**Board Decision(s) Needed:**

- Approval of minutes.



## ALLIANCE WATER

### Alliance Regional Water Authority

### BOARD MEETING

### MINUTES

**Wednesday, December 18, 2019**

The following represents the actions taken by the Board of Directors of the Alliance Regional Water Authority (ARWA) in the order they occurred during the meeting. The Board of Directors convened in a meeting on Wednesday, December 18, 2019 at the San Marcos Activity Center, 501 E. Hopkins, San Marcos, Texas.

- A. CALL TO ORDER.  
**The Alliance Water Board Meeting was called to order at 3:00p.m. by Mr. Betz.**
  
- B. ROLL CALL.
  - **Present: Taylor, Williams, Ramos, Taggart, Betz, Scheel, Clack and Parker with Lillibridge joining in Item F.2.**
  - **Absent: Hughson, Rockeymoore, Earp and Allen.**
  
- C. PUBLIC COMMENT PERIOD
  - **None.**
  
- D. CONSENT AGENDA
  - D.1 Consider approval of minutes of the Regular Meeting held November 20, 2019.
  - D.2 Consider approval of the financial report for November 2019.
    - **Motion to approve the consent agenda as presented was made by Mr. Ramos, seconded by Mr. Clack on a 8-0 vote.**
  
- E. PUBLIC HEARINGS / PRESENTATIONS
  - E.1 None.

## F. ITEMS FOR ACTION OR DISCUSSION/DIRECTION

- F.1 Report on Technical Committee activities.
- **Mr. Moore updated the Board on the November meeting.**
  - **No Action.**
- F.2 Update and discussion regarding the status of the Authority's Phase 1A projects, and direction to staff and consultants.
- **Mr. Biemer provided updates.**
  - **No Action.**
- F.3 Update and discussion regarding the status of the Authority's Phase 1B program, and direction to staff and consultants.
- **Mr. Sowa provided an update on the Phase 1B activities, including the updated Program schedule and budget.**
  - **Mr. Taggart noted that we should be careful not to sacrifice the quality of the design in order to accelerate the schedule.**
  - **Mr. Betz inquired if we expect the schedule lag to increase at all.**
  - **Mr. Sowa responded that there's a set schedule for acquisitions after initial offers are made, so this should mitigate additional delays.**
  - **No Action.**
- F.4 Consider adoption of Resolution 2019-12-18-001 approving modification to the Phase 1B Program to incorporate various cost saving measures, as recommended by the Technical Committee.
- **Mr. Taggart requested that ongoing updates be provided on cost savings.**
  - **Motion to adopt Resolutions 2019-12-18-001 approving modifications to the Phase 1B Program to incorporate various cost saving measures as recommended by the Technical Committee was made by Mr. Ramos, seconded by Mr. Taylor and approved on a 9-0 vote.**
- F.5 Consider approval of a financial contribution to the Delhi Volunteer Fire Department.
- **Mr. Moore stated that the Delhi Volunteer Fire Department requested a financial donation by Alliance Water to help them complete their fire station.**
  - **Mr. Williams inquired if it is legal for Alliance Water to donate to a volunteer fire department. He also noted that we could be approached by others to donate in the future.**
  - **Mr. Ramos asked if Alliance Water has made any similar type of donations in the past.**

- **Mr. Moore responded that this is the first time the Authority has been approached to donate funds.**
  - **Motion to approve a \$7,500 contribution to the Delhi Volunteer Fire Department was made by Mr. Ramos, seconded by Mr. Taylor with a friendly amendment motioned by Mr. Taggart and seconded by Mr. Taylor to condition the approval on legal counsel's verification that such a donation is legal; motion approved on a 9-0 vote.**
- F.6 Update on status of groundwater management in project target area, and Gonzales County Underground Water Conservation District, Plum Creek Conservation District, Groundwater Management Area 13, Region L Planning Group, Guadalupe-Blanco River Authority, Hays County and CAPCOG activities.
- **Mr. Moore provided an update on area water meetings.**
  - **No Action.**
- G. EXECUTIVE DIRECTOR AND LEGAL COUNSEL REPORTS
- **No action.**
- H. BOARD MEMBER ITEMS OR FUTURE AGENDA ITEMS
- **Mr. Williams requested that Staff develop a policy for donations to organizations.**
- I.1 Executive Session pursuant to the Government Code, Section 551.071 (Consultation with Attorney) and/or Section 551.072 (Real Property Deliberations) regarding:
- A. Water supply partnership options
  - B. Groundwater leases
  - C. Acquisition of real property for water supply project purposes
- **No Executive Session.**
- I.2 Action from Executive Session on the following matters:
- A. Water supply partnership options
  - B. Groundwater leases
  - C. Acquisition of real property for water supply project purposes.
- **No Action.**
- J. ADJOURNMENT
- **Meeting was adjourned at 3:57 p.m. based on the motion by Mr. Taylor, seconded by Mr. Ramos on a 9-0 vote.**

**APPROVED:** \_\_\_\_\_, 2020

**ATTEST:**

\_\_\_\_\_  
Chair, Board of Directors

\_\_\_\_\_  
Secretary, Board of Directors

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**Alliance Regional Water Authority Board of Directors**

**BOARD MEMBER PACKETS**  
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**D.2** Consider approval of the financial report for December 2019. ~ *Graham Moore, P.E., Executive Director*

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Background/Information

Attached is the financial report for the period ending in December 2019.

Attachment(s)

- 2019 12 31 Financial Report

**Board Decision(s) Needed:**

- Approval of the financial report for the period ending December 2019.



# **Alliance Regional Water Authority**

**Financial Statements  
(Compilation)**

**For the One Month Ended and Year-to-Date  
December 31, 2019**

## Alliance Regional Water Authority

## Balance Sheet

As of December 31, 2019

	Dec 31, 19
<b>ASSETS</b>	
<b>Current Assets</b>	
<b>Checking/Savings</b>	
1004 · Broadway Bank	
1005 · Broadway Checking (8040)	39,043.99
1010 · Broadway Savings (4415)	3,310,901.81
<b>Total 1004 · Broadway Bank</b>	<b>3,349,945.80</b>
1015 · TexStar (3310)	3,351,912.60
1050 · Broadway Bank (Reserved)	
1051 · CRWA Debt Service (2785)	377,849.57
1052 · Kyle Debt Service (2787)	14,706.99
1055 · San Marcos Debt Service (6390)	39,592.79
1056 · Buda Debt Service (6391)	18,859.85
<b>Total 1050 · Broadway Bank (Reserved)</b>	<b>451,009.20</b>
1100 · Escrow Accounts	
1105 · BOKF, Escrow, CRWA Series 2015A	332,859.04
1106 · BOKF, Escrow, Kyle Series 2015B	220,262.24
1107 · BOKF, Escrow, CRWA Series 2017A	5,239,888.38
1108 · BOKF, Escrow, Kyle Series 2017B	4,774,795.38
1109 · BOKF, Escrow, SM Series 2017C	6,116,375.48
1110 · BOKF, Escrow, Buda Series 2017D	844,629.08
1111 · BOKF, Escrow, CRWA Series 2019A	26,172,372.71
1112 · BOKF, Escrow, Kyle Series 2019B	23,867,963.62
1113 · BOKF, Escrow, SM Series 2019C	30,417,674.84
1114 · BOKF, Escrow, Buda Series 2019D	4,231,524.35
<b>Total 1100 · Escrow Accounts</b>	<b>102,218,345.12</b>
<b>Total Checking/Savings</b>	<b>109,371,212.72</b>
<b>Accounts Receivable</b>	
1201 · Accounts Receivable, GBRA	975.11
1209 · Accts receivable, City of SM	344,124.84
1210 · Accts receivable, City of Buda	48,748.92
<b>Total Accounts Receivable</b>	<b>393,848.87</b>
<b>Total Current Assets</b>	<b>109,765,061.59</b>
<b>Fixed Assets</b>	
1405 · Engineering & Construction Cost	2,402,294.20
1420 · Projects in Progress (Cash)	
1420-01 · Legal Support	54,848.53
1420-02 · Hydrogeologic Support	165,374.69
1420-03 · PCCD Permitting	105,095.16
1420-04 · Kyle Water Model	25,000.00
1420-11 · Legal Support, GBRA	45,251.01
<b>Total 1420 · Projects in Progress (Cash)</b>	<b>395,569.39</b>
1430 · Projects in Progress Eng (Cash)	
1430-02 · Engineering - Plumbing Plan	17,663.79
1430-03 · Engineering Fees-ROW	11,594.69
1430-05 · Engineering - Rate Study	34,635.00
1430-06 · DPR Study	59,880.00
1430-07 · Alignment Study	261,120.80
1430-08 · Prelim Engineering-Well Field	65,586.00
1430-09 · GCUWCD Monitoring Wells	192,607.50
1430-10 · 2017 SWIFT Funding Apps	23,107.96
1430-11 · Blanco Basin WW	41,880.00
1430-12 · Phase 1B Programming	107,761.14

## Alliance Regional Water Authority

## Balance Sheet

As of December 31, 2019

01/17/20

Accrual Basis

	<u>Dec 31, 19</u>
1430-13 · ARWA-GBRA MOU Study	15,000.00
1430-14 · Phase 1A GIS	29,222.37
<b>Total 1430 · Projects in Progress Eng (Cash)</b>	<b>860,059.25</b>
<b>1440 · Projects in Prog Eng. (Finance)</b>	
1440-01 · Engineering-Phase 1A Pipeline	489,159.71
1440-02 · Engineering-Phase 1A Pump Stat	704,174.45
1440-03 · Engineering-ROW Acquisition	326,391.23
1440-04 · Phase 1A Const Observation	446,842.16
1440-05 · Phase 1A-Construction Trailer	39,805.80
1440-06 · Phase 1A Segment A Construction	1,734,150.32
1440-07 · Phase 1A BPS Construction	4,391,264.41
1440-15 · Land Acquisition Phase 1B	4,133,873.98
1440-16 · Phase 1B-Owners Rep	3,967,583.72
1440-17 · Phase 1B Environmental	969,240.92
1440-18 · Phase 1B Segment A Design	619,388.75
1440-19 · Phase 1B Segment B Design	528,745.12
1440-20 · Phase 1B Segment C Design	488,758.55
1440-21 · Phase 1B Segment D Design	656,806.34
1440-22 · Phase 1B Segment E Design	318,552.69
1440-23 · Phase 1B Land Attorney	195,534.46
1440-24 · Phase 1B Hydrogeology	122,160.00
1440-25 · Phase 1B WTP Design	1,126,014.86
1440-26 · Raw Water Infr.	560,476.20
1440-27 · Phase 1B Program Survey	1,465,372.05
1440-28 · Phase 1B BPS Design	590,525.07
1440-29 · GVEC Construction-in-Aid	1,000,000.00
1440-30 · Phase 1B Inline Tanks	8,814.45
<b>Total 1440 · Projects in Prog Eng. (Finance)</b>	<b>24,883,635.24</b>
<b>1447 · Land &amp; Easements</b>	<b>902,215.70</b>
<b>1448 · Capitalized Interest</b>	
1448-51 · Cap Interest, CRWA Series 2015A	152,369.03
1448-52 · Cap Interest, Kyle Series 2015B	222,143.28
1448-53 · Cap Interest, CRWA Series 2017A	127,269.80
1448-54 · Cap Interest, Kyle Series 2017B	116,100.88
1448-55 · Cap Interest, SM Series 2017C	65,904.35
1448-56 · Cap Interest, Buda Series 2017D	9,576.21
<b>Total 1448 · Capitalized Interest</b>	<b>693,363.55</b>
1505 · Landowner Bonus Payments	1,043,191.83
1510 · GrWater Lease Acquisition Costs	1,004,905.76
1599 · Accumulated Amortization	-2,048,097.59
<b>Total Fixed Assets</b>	<b>30,137,137.33</b>
<b>Other Assets</b>	
1900 · Deferred Outflow	23,797.09
<b>Total Other Assets</b>	<b>23,797.09</b>
<b>TOTAL ASSETS</b>	<b>139,925,996.01</b>
<b>LIABILITIES &amp; EQUITY</b>	
<b>Liabilities</b>	
<b>Current Liabilities</b>	
Accounts Payable	
2000 · Accounts Payable	384,588.80
<b>Total Accounts Payable</b>	<b>384,588.80</b>

**Alliance Regional Water Authority**  
**Balance Sheet**  
**As of December 31, 2019**

	Dec 31, 19
<b>Other Current Liabilities</b>	
2102 · 401(a) Liability	2,315.82
2103 · Net Pension Liability	4,718.00
2104 · Pension Deferred Inflows	82.00
2106 · Accrued Vacation	29,343.80
2300 · Accrued Costs	330,643.18
2350 · Accrued Interest Payable	
2351 · Accrued Int Payable, CRWA 2015A	23,469.93
2352 · Accrued Int Payable, Kyle 2015B	32,637.15
2353 · Accrued Int Payable, CRWA 2017A	88,430.22
2354 · Accrued Int Payable, Kyle 2017B	80,638.29
2355 · Accrued Int Payable, SM 2017C	66,501.36
2356 · Accrued Int Payable, Buda 2017D	9,451.17
2357 · Accrued Int Payable, CRWA 2019A	47,412.36
2358 · Accrued Int Payable, Kyle 2019B	43,260.08
2359 · Accrued Int Payable, SM 2019C	35,706.16
2360 · Accrued Int Payable, Buda 2019D	5,064.54
<b>Total 2350 · Accrued Interest Payable</b>	<b>432,571.26</b>
<b>Total Other Current Liabilities</b>	<b>799,674.06</b>
<b>Total Current Liabilities</b>	<b>1,184,262.86</b>
<b>Long Term Liabilities</b>	
2501 · Bond Payable, CRWA Series 2015A	3,405,000.00
2502 · Bond Payable, Kyle Series 2015B	3,260,000.00
2503 · Bond Payable, CRWA Series 2017A	9,605,000.00
2504 · Bond Payable, Kyle Series 2017B	8,755,000.00
2505 · Bond Payable, SM Series 2017C	10,910,000.00
2506 · Bond Payable, Buda Series 2017D	1,550,000.00
2507 · Bond Payable, CRWA Series 2019A	26,530,000.00
2508 · Bond Payable, Kyle Series 2019B	24,200,000.00
2509 · Bond Payable, SM Series 2019C	30,800,000.00
2510 · Bond Payable, Buda Series 2019D	4,370,000.00
<b>Total Long Term Liabilities</b>	<b>123,385,000.00</b>
<b>Total Liabilities</b>	<b>124,569,262.86</b>
<b>Equity</b>	
2925 · Net Investment in Capital Asset	8,200,007.29
2950 · Retained Earnings	7,771,023.52
Net Income	-614,297.66
<b>Total Equity</b>	<b>15,356,733.15</b>
<b>TOTAL LIABILITIES &amp; EQUITY</b>	<b>139,925,996.01</b>

# Alliance Regional Water Authority Profit Loss

**For the One Month and Three Months Ended December 31, 2019**

	<u>December 2019</u>	<u>October 2019 December 2019</u>
<b>Ordinary Income/Expense</b>		
<b>Income</b>		
<b>4010 · Project Contribution</b>		
4011 · City of San Marcos	869,577.56	869,577.56
4012 · City of Kyle	0.00	0.00
4013 · City of Buda	0.00	0.00
4014 · Canyon Regional Water Authority	480,511.92	480,511.92
4015 · GBRA	0.00	0.00
<b>Total 4010 · Project Contribution</b>	<u>1,350,089.48</u>	<u>1,350,089.48</u>
<b>4200 · Shared Water</b>		
4210 · Shared Water, City of Buda	37,269.00	74,538.00
<b>Total 4200 · Shared Water</b>	<u>37,269.00</u>	<u>74,538.00</u>
4250 · Non Potable Water Sales	3,161.64	6,334.22
<b>4300 · Broadway Interest Income</b>		
4311 · City of San Marcos	367.76	745.76
4312 · City of Kyle	287.67	583.49
4313 · City of Buda	53.15	108.75
4314 · Canyon Regional Water Authority	357.98	682.29
<b>Total 4300 · Broadway Interest Income</b>	<u>1,066.56</u>	<u>2,120.29</u>
<b>4350 · Escrow Accounts Income</b>		
4351 · BOKF, CRWA Series 2015A	1,493.29	5,223.91
4352 · BOKF, Kyle Series 2015B	1,352.92	4,732.86
4353 · BOKF, CRWA Series 2017A	5,003.44	18,123.14
4354 · BOKF, Kyle Series 2017B	4,559.33	16,514.66
4355 · BOKF, SM Series 2017C	5,840.38	21,153.46
4356 · BOKF, Buda Series 2017D	806.91	2,924.62
4357 · BOKF, CRWA Series 2019A	9,075.71	9,075.71
4358 · BOKF, Kyle Series 2019B	8,276.62	8,276.62
4359 · BOKF, SM Series 2019C	10,547.84	10,547.84
4360 · BOKF, Buda Series 2019D	1,467.35	1,467.35
<b>Total 4350 · Escrow Accounts Income</b>	<u>48,423.79</u>	<u>98,040.17</u>
<b>4370 · TexStar Interest Income</b>		
4371 · City of San Marcos	1,803.48	6,914.85
4372 · City of Kyle	1,416.73	5,431.99
4373 · City of Buda	255.48	979.57
4374 · Canyon Regional Water Authority	1,553.54	5,956.51
<b>Total 4370 · TexStar Interest Income</b>	<u>5,029.23</u>	<u>19,282.92</u>
<b>Total Income</b>	<u>1,445,039.70</u>	<u>1,550,405.08</u>
<b>Expenses</b>		
6000 · Groundwater Reservation Costs	73,066.02	271,106.06
<b>6010 · Shared Water Costs</b>		
6015 · Shared Water, City of Kyle	23,457.56	46,771.67
6020 · Shared Water, City of San Marcos	13,965.00	27,930.00
<b>Total 6010 · Shared Water Costs</b>	<u>37,422.56</u>	<u>74,701.67</u>
7150 · Amortization Expense	9,801.66	43,936.64
7210 · Bank Fees	208.70	633.93
7220 · Escrow and Paying Agent Fees	0.00	1,400.00

# Alliance Regional Water Authority Profit Loss

**For the One Month and Three Months Ended December 31, 2019**

	December 2019	October 2019 December 2019
<b>7240 · Bond Issue Costs</b>		
7240-07 · Bond Issue Costs - CRWA 2019A	0.00	366,353.00
7240-08 · Bond Issue Costs - Kyle 2019B	0.00	339,963.00
7240-09 · Bond Issue Costs - SM 2019C	0.00	392,523.00
7240-10 · Bond Issue Costs - Buda 2019D	0.00	139,593.00
	0.00	1,238,432.00
<b>Total 7240 · Bond Issue Costs</b>		
<b>7250 · Interest Expense</b>		
7250-51 · Interest Expense - CRWA 2015A	5,215.54	15,646.62
7250-52 · Interest Expense - Kyle 2015B	7,252.70	21,758.10
7250-53 · Interest Expense - CRWA 2017A	19,651.16	58,953.48
7250-54 · Interest Expense - Kyle 2017B	17,919.62	53,758.86
7250-55 · Interest Expense - SM 2017C	14,778.08	44,334.24
7250-56 · Interest Expense - Buda 2017D	2,100.26	6,300.78
7250-57 · Interest Expense - CRWA 2019A	47,412.36	47,412.36
7250-58 · Interest Expense - Kyle 2019B	43,260.08	43,260.08
7250-59 · Interest Expense - SM 2019C	35,706.16	35,706.16
7250-60 · Interest Expense - Buda 2019D	5,064.54	5,064.54
	198,360.50	332,195.22
<b>Total 7250 · Interest Expense</b>		
7325 · Dues	0.00	5,030.00
7350 · Insurance - Liability, E&O	0.00	2,370.62
7400 · Legal Fees	6,050.00	12,895.00
7425 · Contract Services-Lobbyist	6,000.00	18,000.00
7450 · Permit & Fees	0.00	75,537.95
7500 · Supplies	587.53	1,935.73
7600 · Telephone, Telecommunications	225.00	675.00
7700 · Travel, Conferences & Meetings	76.88	575.92
<b>7800 · Employee Expenses</b>		
7810 · Salaries and wages	19,861.38	68,968.77
7820 · Auto Allowance	969.24	3,290.79
7830 · Payroll taxes	771.80	3,549.84
7840 · Employee Insurance	1,556.71	4,874.29
7850 · Retirement	1,322.76	4,593.31
	24,481.89	85,277.00
<b>Total 7800 · Employee Expenses</b>		
<b>Total Expenses</b>	<b>356,280.74</b>	<b>2,164,702.74</b>
<b>Net Ordinary Income</b>	<b>1,088,758.96</b>	<b>-614,297.66</b>
<b>Net Income</b>	<b>1,088,758.96</b>	<b>-614,297.66</b>

**REGULAR MEETING**  
**Alliance Regional Water Authority Board of Directors**

**BOARD MEMBER PACKETS**

Wednesday, January 22, 2020 at 3:00 P.M.

501 E. Hopkins, San Marcos, TX 78666

- D.3** Consider approval of the Quarterly Investment Report for the period ending December 31, 2019. ~ *Graham Moore, P.E., Executive Director*
- 

Background/Information

Attached is the quarterly investment report for the period ending December 31, 2019.

Attachment(s)

- 2019 12 31 Quarterly Investment Report

**Board Decision(s) Needed:**

- Approval of the Quarterly Investment Report for the period ending December 31, 2019.

# Alliance Regional Water Authority



## Quarterly Investment Report Ending as of December 31, 2019

Submitted by:

A handwritten signature in blue ink, appearing to read 'Graham Moore', is positioned above a horizontal line.

Graham Moore – Alliance Regional Water Authority Investment Officer

The following reports are submitted in accordance with the Public Funds Investment Act (Chapter 2256) and the Authority's Investment Policy. The report includes an analysis of the cash accounts and investments, an analysis versus the benchmark and rates of returns for the pooled accounts.

**Alliance Regional Water Authority  
Quarterly Investment Report  
September 30, 2019 – December 31, 2019**

**Portfolio Allocation Analysis**

Portfolio as of September 30, 2019

Beginning Book Value    \$26,082,890.83  
Beginning Market Value \$26,082,890.83  
Unrealized Gain / Loss    – 0 –

Portfolio as of December 31, 2019

Ending Book Value            \$109,407,186.72  
Ending Market Value        \$109,407,186.72  
Accrued Interest            \$119,443.38  
Change in Unrealized Gain/Loss    – 0 –

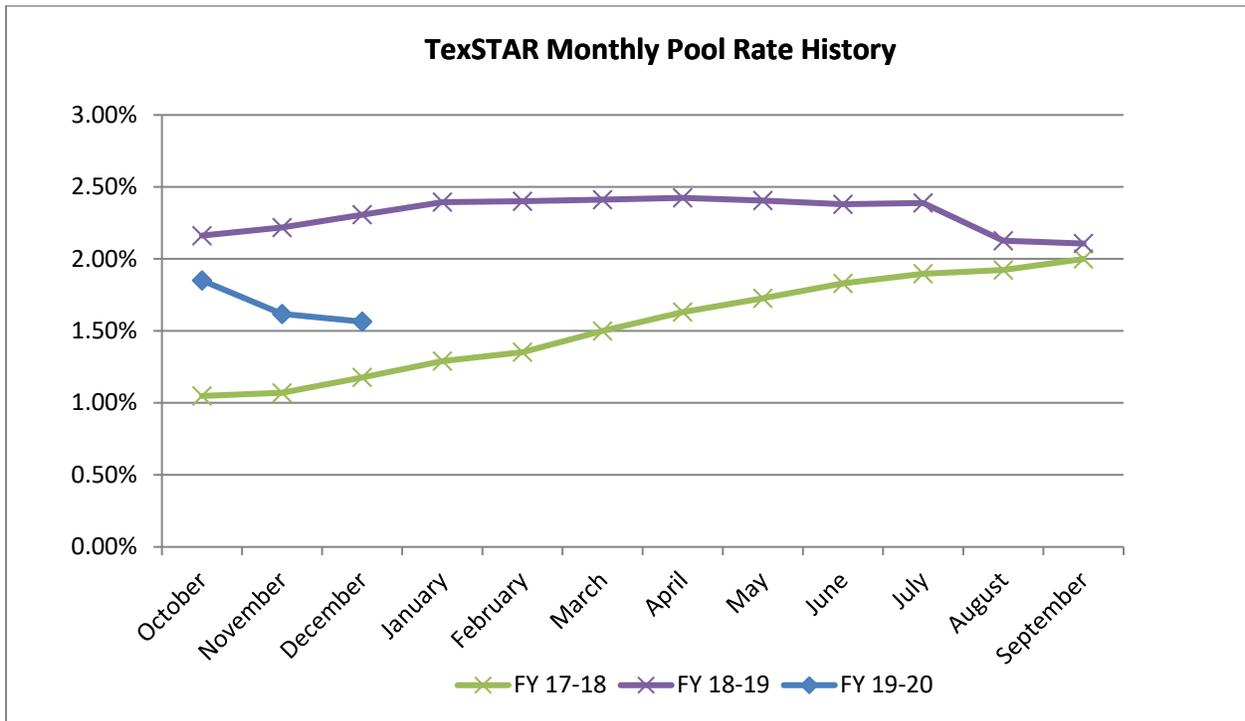
<b>Schedule of Cash Accounts and Investments</b>		
	<b>As of September 30, 2019</b>	<b>As of December 31, 2019</b>
<b>Funds in Investment Pools</b>		
TexSTAR Balance	\$5,382,629.68	\$3,351,912.60
Deposits to TexSTAR in Period	\$0.00	\$0.00
Accrued Interest	\$36,224.66	\$19,282.92
Percentage of Total Portfolio	20.6%	3.06%
<b>Funds in Checking Accounts</b>		
Broadway Balance	\$75,039.48	\$75,017.99
Deposits to Checking in Period	\$2,996,717.66	\$5,439,665.11
Percentage of Total Portfolio	0.3%	0.1%
<b>Funds in Reserve Accounts</b>		
Reserves Balance	\$30,608.42	\$451,009.20
Deposits to Reserves in Period	\$282,553.14	\$420,538.62
Percentage of Total Portfolio	0.1%	0.4%
<b>Funds in Savings Accounts</b>		
Broadway Balance	\$824,075.84	\$3,310,901.81
Deposits to Savings in Period	\$0.00	\$2,050,000.00
Accrued Interest	\$2,222.45	\$2,058.13
Percentage of Total Portfolio	3.2%	3.0%

<b>Funds in Escrow Accounts</b>		
BoKF - 2015A (CRWA)	\$1,258,255.82	\$332,859.04
BoKF - 2015B (Kyle)	\$1,139,978.15	\$220,262.24
BoKF - 2017A (CRWA)	\$5,362,416.99	\$5,239,888.38
BoKF - 2017B (Kyle)	\$4,886,547.46	\$4,774,795.38
BoKF - 2017C (San Marcos)	\$6,258,503.72	\$6,116,375.48
BoKF - 2017D (Buda)	\$864,835.27	\$844,629.08
BoKF - 2019A (CRWA)	\$0.00	\$26,172,372.71
BoKF - 2019B (Kyle)	\$0.00	\$23,867,963.62
BoKF - 2019C (San Marcos)	\$0.00	\$30,417,674.84
BoKF - 2019D (Buda)	\$0.00	\$4,231,524.35
Deposits to Escrow in Period	\$0.00	\$0.00
Accrued Interest	\$12,323.28	\$9,956.77
Percentage of Total Portfolio	75.8%	16.0%
<b>Total Investments &amp; Cash Accounts</b>	<b>\$26,082,890.83</b>	<b>\$ 109,407,186.72</b>

<b>Benchmark Analysis</b>	
Benchmark (US Treasury – Daily Bill Rates: 4 weeks)	1.594%
TexSTAR Average Monthly Rate	1.677%
Average Weighted Maturity	30.0 Days

## Schedule of TexSTAR Monthly Rate History October 1, 2016 – December 31, 2019

<u>Month</u>	<u>Average Monthly Rate (FY 16-17)</u>	<u>Average Monthly Rate (FY 17-18)</u>	<u>Average Monthly Rate (FY 18-19)</u>	<u>Average Monthly Rate (FY 19-20)</u>	<u>Average Rate Variance</u>
October	0.42%	1.05%	2.16%	1.85%	-0.31%
November	0.41%	1.07%	2.22%	1.62%	-0.60%
December	0.48%	1.18%	2.31%	1.56%	-0.74%
January	0.55%	1.29%	2.39%		
February	0.55%	1.35%	2.40%		
March	0.63%	1.50%	2.41%		
April	0.71%	1.63%	2.42%		
May	0.75%	1.73%	2.40%		
June	0.86%	1.83%	2.38%		
July	0.98%	1.90%	2.39%		
August	1.03%	1.92%	2.13%		
September	1.04%	2.00%	2.11%		



**REGULAR MEETING**  
**Alliance Regional Water Authority Board of Directors**

**BOARD MEMBER PACKETS**

Wednesday, January 22, 2020 at 3:00 P.M.  
501 E. Hopkins, San Marcos, TX 78666

**F.1** Report on Technical Committee activities. ~ *Graham Moore, P.E., Executive Director*

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Background/Information

The following items were discussed by the Committee at its 1/15 meeting:

- Received an update on the Phase 1A projects (Item F.4).
- Received an update on the Phase 1B program (Item F.6).
- Recommended approval of a work order with RW Harden & Associates for Construction Phase Services associated with the Well Drilling / Hydrogeology project. (Item F.7)
- Recommended approval of an agreement with Hicks & Company for Environmental On-Call Services associated with the Well Drilling / Hydrogeology project. (Item F.8)
- Recommended approval of a work order with Walker Partners for Final Design and Procurement Services associated with the Water Treatment Plant project. (Item F.9)
- Received an update on area water meetings (Item F.12).

**Board Decision(s) Needed:**

- None.

**REGULAR MEETING**  
**Alliance Regional Water Authority Board of Directors**

**BOARD MEMBER PACKETS**

Wednesday, January 22, 2020 at 3:00 P.M.  
501 E. Hopkins, San Marcos, TX 78666

- F.2** Consider adoption of Resolution 2020-01-22-001 accepting and approving the Audit Report for the 2018-2019 Financial Audit of the Authority. ~ *Phil Vaughan, Armstrong, Vaughan & Associates*
- 

Background/Information

Armstrong, Vaughan & Associates (AVA) was selected by the Board to provide the financial audit of the Authority. Attached is the full report and the management letter. Phil Vaughan with AVA will attend the meeting and discuss the audit. Below are the significant outcomes from the audit:

*Significant Accounting Policies:*

- No matters came to their attention that require notification to the Board.

*Significant Accounting Estimates:*

- The most sensitive accounting estimate affect the financial statements is the pension related investment return and mortality rates – AVA reviewed and found the key factors and assumptions to be reasonable.

*Financial Statement Disclosures:*

- There are no sensitive disclosures affecting the Authority's financial statements.

*Significant Difficulties Encountered during the Audit:*

- None.

*Uncorrected and Corrected Misstatements:*

- No material misstatements were found.

*Disagreements with Management:*

- None.

*Other Significant Matters, Findings or Issues:*

- None.

*Other Matters:*

- The Public Funds Investment Act requires the governing body to review its investment policy and strategies at least annually. The policy was last adopted in September 2017. The Board should add an annual review of the policy and practices to the Board calendar to be conducted annually and document in the minutes.

**REGULAR MEETING**  
**Alliance Regional Water Authority Board of Directors**

**BOARD MEMBER PACKETS**  
Wednesday, January 22, 2020 at 3:00 P.M.  
501 E. Hopkins, San Marcos, TX 78666

Attachment(s)

- Resolution 2020-01-22-001
- FY 2018-19 Audit Report

**Board Decision(s) Needed:**

- Adoption of Resolution 2020-01-22-001 accepting and approving the Audit Report for the 2018-2019 Financial Audit of the Authority.



**ALLIANCE WATER**

**RESOLUTION NO. 20200122-001**

**A RESOLUTION OF THE ALLIANCE REGIONAL WATER AUTHORITY BOARD OF DIRECTORS ACCEPTING AND APPROVING THE AUDIT REPORT PREPARED BY ARMSTRONG, VAUGHAN & ASSOCIATES, P.C. FOR THE AUTHORITY'S 2018-19 FISCAL YEAR, AND DECLARING AN EFFECTIVE DATE**

**RECITALS:**

1. The Alliance Regional Water Authority (the "Authority") engaged the independent accounting firm of Armstrong, Vaughan & Associates, P.C. of Universal City, Texas to perform an annual audit of the Authority's financial records.
2. Armstrong, Vaughan & Associates, P.C. performed an audit of the Authority's financial records for the 2018-19 fiscal year and has prepared and presented a report of the audit results to the Authority Board of Directors.
3. The Authority Board of Directors wishes to accept and approve the audit report prepared by Armstrong, Vaughan & Associates, P.C.

**BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE ALLIANCE REGIONAL WATER AUTHORITY:**

**SECTION 1.** The audit report prepared by Armstrong, Vaughan & Associates, P.C. for the Authority's 2018-19 fiscal year is accepted and approved.

**SECTION 2.** This Resolution shall be in full force and effect immediately upon its passage.

**ADOPTED: January 22, 2020.**

**ATTEST:**

\_\_\_\_\_  
Chris Betz  
Chair, Board of Directors

\_\_\_\_\_  
James Earp  
Secretary, Board of Directors



## **Communication with Those Charged with Governance**

To the Board of Trustees  
Alliance Regional Water Authority

We have audited the basic financial statements of Alliance Regional Water Authority for the year ended September 30, 2019. Professional standards require that we advise you of the following matters relating to our audit.

### **Our Responsibility in Relation to the Financial Statement Audit**

As communicated in our engagement letter dated June 19, 2019, our responsibility, as described by professional standards, is to form and express an opinion about whether the financial statements that have been prepared by management with your oversight are presented fairly, in all material respects, in conformity with accounting principles generally accepted in the United States of America. Our audit of the financial statements does not relieve you or management of your respective responsibilities.

Our responsibility, as prescribed by professional standards, is to plan and perform our audit to obtain reasonable, rather than absolute, assurance about whether the financial statements are free of material misstatement. An audit of financial statements includes consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control over financial reporting. Accordingly, as part of our audit, we considered the internal control of Alliance Regional Water Authority solely for the purpose of determining our audit procedures and not to provide any assurance concerning such internal control.

We are also responsible for communicating significant matters related to the audit that are, in our professional judgment, relevant to your responsibilities in overseeing the financial reporting process. However, we are not required to design procedures for the purpose of identifying other matters to communicate to you.

### **Planned Scope and Timing of the Audit**

We conducted our audit consistent with the planned scope and timing we previously communicated to you.

### **Compliance with All Ethics Requirements Regarding Independence**

The engagement team and others in our firm, as appropriate, have complied with all relevant ethical requirements regarding independence.

## **Qualitative Aspects of the Entity's Significant Accounting Practices**

### *Significant Accounting Policies*

Management has the responsibility to select and use appropriate accounting policies. A summary of the significant accounting policies adopted by Alliance Regional Water Authority is included in Note A to the financial statements. There have been no initial selections of accounting policies and no changes in significant accounting policies or their application during 2019 except for the following:

As of October 1, 2018, the Authority implemented GASB Statement No. 89 regarding the capitalization of interest costs during the construction period. Previously interest was added to capital asset balances. In 2019 and going forward, interest will be expensed as incurred.

No matters have come to our attention that would require us, under professional standards, to inform you about (1) the methods used to account for significant unusual transactions and (2) the effect of significant accounting policies in controversial or emerging areas for which there is a lack of authoritative guidance or consensus.

### *Significant Accounting Estimates*

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's current judgments. Those judgments are normally based on knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ markedly from management's current judgments.

The most sensitive accounting estimate affecting the financial statements is:

1. Pension related investment return and mortality rates

We evaluated the key factors and assumptions used to develop the estimate and determined that it is reasonable in relation to the basic financial statements taken as a whole.

### *Financial Statement Disclosures*

Certain financial statement disclosures involve significant judgment and are particularly sensitive because of their significance to financial statement users. There are no sensitive disclosures affecting Alliance Regional Water Authority's financial statements.

## **Significant Difficulties Encountered during the Audit**

We encountered no difficulties in dealing with management relating to the performance of the audit.

## **Uncorrected and Corrected Misstatements**

For purposes of this communication, professional standards require us to accumulate all known and likely misstatements identified during the audit, other than those that we believe are trivial, and communicate them to the appropriate level of management. Further, professional standards require us to also communicate the effect of uncorrected misstatements related to prior periods on the relevant classes of transactions, account balances or disclosures, and the financial statement as a whole. Management has corrected all identified misstatements.

In addition, professional standards require us to communicate to you all material, corrected misstatements that were brought to the attention of management as a result of our audit procedures. None of the misstatements identified by us as a result of our audit procedures and corrected by management were material, either individually or in the aggregate, to the financial statements taken as a whole or applicable opinion units. However, we did assist management with entries to impact the timing of groundwater lease expenses and participating government contributions.

### **Disagreements with Management**

For purposes of this letter, professional standards define a disagreement with management as a matter, whether or not resolved to our satisfaction, concerning a financial accounting, reporting, or auditing matter, which could be significant to Alliance Regional Water Authority's financial statements or the auditor's report. No such disagreements arose during the course of the audit.

### **Representations Requested from Management**

We have requested certain written representations from management in a separate letter dated January 3, 2020.

### **Management's Consultations with Other Accountants**

In some cases, management may decide to consult with other accountants about auditing and accounting matters. Management informed us that, and to our knowledge, there were no consultations with other accountants regarding auditing and accounting matters.

### **Other Significant Matters, Findings, or Issues**

In the normal course of our professional association with Alliance Regional Water Authority, we generally discuss a variety of matters, including the application of accounting principles and auditing standards, operating and regulatory conditions affecting the entity, and operational plans and strategies that may affect the risks of material misstatement. None of the matters discussed resulted in a condition to our retention as Alliance Regional Water Authority's auditors.

### **Other Information in Documents Containing Audited Financial Statements**

Pursuant to professional standards, our responsibility as auditors for other information in documents containing Alliance Regional Water Authority's audited financial statements does not extend beyond the financial information identified in the audit report, and we are not required to perform any procedures to corroborate such other information. However, in accordance with such standards, we have read the information and considered whether such information, or the manner of its presentation, was materially consistent with its presentation in the financial statements.

Our responsibility also includes communicating to you any information which we believe is a material misstatement of fact. Nothing came to our attention that caused us to believe that such information, or its manner of presentation, is materially inconsistent with the information, or manner of its presentation, appearing in the financial statements.

With respect to the supplementary information accompanying the financial statements, we made certain inquiries of management and evaluated the form, content, and methods of preparing the information to determine that the information complies with accounting principles generally accepted in the United States of America, the method of preparing it has not changed from the prior period, and the information is appropriate and complete in relation to our audit of the financial statements. We compared and reconciled the supplementary information to the underlying accounting records used to prepare the financial statements or to the financial statements themselves.

## Other Matters

We generally discuss a variety of matters, including the application of accounting principles and auditing standards, with management each year prior to retention as the Authority's auditors. However, these discussions occurred in the normal course of our professional relationship and our responses were not a condition to our retention.

In planning and performing our audit of the financial statements for the current year we became aware of an opportunity to strengthen the Organization's operations with the following suggestion:

The Public Funds Investment Act requires the governing body to review its investment policy and strategies at least annually. The policy was last adopted in September 2017. The Board should add an annual review of the policy and practices to the Board calendar to be conducted annually and documented in the minutes.

This information is intended solely for the information and use of the Board of Trustees and management of Alliance Regional Water Authority and is not intended to be and should not be used by anyone other than these specified parties.

Respectfully,

A handwritten signature in cursive script that reads "Armstrong, Vaughan & Associates, P.C.".

Armstrong, Vaughan & Associates, P.C.

January 3, 2020



January 3, 2020

Armstrong, Vaughan & Associates, P.C.  
Certified Public Accountants  
941 W. Byrd Road Suite 101  
Universal City, Texas 78148

This representation letter is provided in connection with your audit of the basic financial statements of Alliance Regional Water Authority as of September 30, 2019 and for the year then ended, and the related notes to the financial statements, for the purpose of expressing opinions on whether the basic financial statements present fairly, in all material respects, the financial position, results of operations, and cash flows Alliance Regional Water Authority in conformity with accounting principles generally accepted in the United States of America (U.S. GAAP).

Certain representations in this letter are described as being limited to matters that are material. Items are considered material, regardless of size, if they involve an omission or misstatement of accounting information that, in the light of surrounding circumstances, makes it probable that the judgment of a reasonable person relying on the information would be changed or influenced by the omission or misstatement.

We confirm that, to the best of our knowledge and belief, having made such inquiries as we considered necessary for the purpose of appropriately informing ourselves as of January 3, 2020.

### **Financial Statements**

- We have fulfilled our responsibilities, as set out in the terms of the audit engagement dated June 19, 2019, for the preparation and fair presentation of the financial statements of the various opinion units referred to above in accordance with U.S. GAAP.
- We acknowledge our responsibility for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.
- We acknowledge our responsibility for the design, implementation, and maintenance of internal control to prevent and detect fraud.
- Significant assumptions used by us in making accounting estimates, including those measured at fair value, are reasonable.
- Related party relationships and transactions have been appropriately accounted for and disclosed in accordance with the requirements of U.S. GAAP.
- All events subsequent to the date of the financial statements and for which U.S. GAAP requires adjustment or disclosure have been adjusted or disclosed.
- The effects of all known actual or possible litigation and claims have been accounted for and disclosed in accordance with U.S. GAAP.

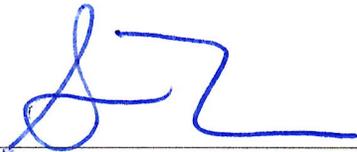
- All component units, as well as joint ventures with an equity interest, are included and other joint ventures and related organizations are properly disclosed.
- All funds and activities are properly classified.
- All net assets components and fund balance classifications have been properly reported.
- All revenues within the statement of activities have been properly classified as program revenues, general revenues, contributions to term or permanent endowments, or contributions to permanent fund principal.
- All interfund and intra-entity transactions and balances have been properly classified and reported.
- Special items and extraordinary items have been properly classified and reported.
- Deposit and investment risks have been properly and fully disclosed.
- Capital assets, including infrastructure assets, are properly capitalized, reported, and if applicable, depreciated.
- All required supplementary information is measured and presented within the prescribed guidelines.
- With regard to investments and other instruments reported at fair value:
  - The underlying assumptions are reasonable and they appropriately reflect management’s intent and ability to carry out its stated courses of action.
  - The measurement methods and related assumptions used in determining fair value are appropriate in the circumstances and have been consistently applied.
  - The disclosures related to fair values are complete, adequate, and in conformity with U.S. GAAP.
  - There are no subsequent events that require adjustments to the fair value measurements and disclosures included in the financial statements.
- We have designated an individual, Graham Moore, who has suitable skill, knowledge, or experience to oversee your services and have made all management decisions and performed all management functions including accepting responsibility for the following services.
  - Financial statement preparation
  - Proposed adjusting entries

### **Information Provided**

- We have provided you with:
  - Access to all information, of which we are aware that is relevant to the preparation and fair presentation of the financial statements of the various opinion units referred to above, such as records, documentation, meeting minutes, and other matters;
  - Additional information that you have requested from us for the purpose of the audit; and
  - Unrestricted access to persons within the entity from whom you determined it necessary to obtain audit evidence.
- All transactions have been recorded in the accounting records and are reflected in the financial statements.
- We have disclosed to you the results of our assessment of the risk that the financial statements may be materially misstated as a result of fraud.
- We have no knowledge of any fraud or suspected fraud that affects the entity and involves:
  - Management;
  - Employees who have significant roles in internal control; or
  - Others where the fraud could have a material effect on the financial statements.

- We have no knowledge of any allegations of fraud, or suspected fraud, affecting the entity's financial statements communicated by employees, former employees, vendors, regulators, or others.
- We are not aware of any pending or threatened litigation and claims whose effects should be considered when preparing the financial statements and we have not consulted legal counsel concerning litigation or claims.
- We have disclosed to you the identity of the entity's related parties and all the related party relationships and transactions of which we are aware.
- There have been no communications from regulatory agencies concerning noncompliance with or deficiencies in accounting, internal control, or financial reporting practices.
- Alliance Regional Water Authority has no plans or intentions that may materially affect the carrying value or classification of assets and liabilities.
- We have disclosed to you all guarantees, whether written or oral, under which Alliance Regional Water Authority is contingently liable.
- We have disclosed to you all significant estimates and material concentrations known to management that are required to be disclosed in accordance with GASB Statement No. 62 (GASB-62), *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements*. Significant estimates are estimates at the balance sheet date that could change materially within the next year. Concentrations refer to volumes of business, revenues, available sources of supply, or markets or geographic areas for which events could occur that would significantly disrupt normal finances within the next year.
- We have identified and disclosed to you the laws, regulations, and provisions of contracts and grant agreements that could have a direct and material effect on financial statement amounts, including legal and contractual provisions for reporting specific activities in separate funds.
- There are no:
  - Violations or possible violations of laws or regulations, or provisions of contracts or grant agreements whose effects should be considered for disclosure in the financial statements or as a basis for recording a loss contingency, including applicable budget laws and regulations.
  - Unasserted claims or assessments that our lawyer has advised are probable of assertion and must be disclosed in accordance with GASB-62.
  - Other liabilities or gain or loss contingencies that are required to be accrued or disclosed by GASB-62
- Alliance Regional Water Authority has satisfactory title to all owned assets, and there are no liens or encumbrances on such assets nor has any asset or future revenue been pledged as collateral, except as disclosed to you.
- We have complied with all aspects of grant agreements and other contractual agreements that would have a material effect on the financial statements in the event of noncompliance.
- With respect to the required supplementary information accompanying the financial statements:
  - We acknowledge our responsibility for the presentation of the required supplementary information in accordance with accounting principles generally accepted in the United States of America.
  - We believe the required supplementary information, including its form and content, is measured and fairly presented in accordance with accounting principles generally accepted in the United States of America.
  - The methods of measurement or presentation have not changed from those used in the prior period.
  - We believe the significant assumptions or interpretations underlying the measurement or presentation of the required supplementary information, and the basis for our assumptions and interpretations, are reasonable and appropriate in the circumstances.

- With respect to the supplementary information (required information of the Texas Commission on Environmental Quality (TCEQ)) accompanying the financial statements:
  - We acknowledge our responsibility for the presentation of the supplementary information in accordance with accounting principles generally accepted in the United States of America and the requirements of the TCEQ.
  - We believe the supplementary information, including its form and content, is measured and fairly presented in accordance with accounting principles generally accepted in the United States of America and that of TCEQ.
  - The methods of measurement or presentation have not changed from those used in the prior period.
  - We believe the significant assumptions or interpretations underlying the measurement or presentation of the supplementary information, and the basis for our assumptions and interpretations, are reasonable and appropriate in the circumstances.
  - When the supplementary information is not presented with the audited financial statements, management will make the audited financial statements readily available to the intended users of the supplementary information no later than the date of issuance by the entity of the supplementary information and the auditor's report thereon.
  - We acknowledge our responsibility to include the auditor's report on the supplementary information in any document containing the supplementary information and that indicates the auditor reported on such supplementary information.
  - We acknowledge our responsibility to present the supplementary information with the audited financial statements or, if the supplementary information will not be presented with the audited financial statements, to make the audited financial statements readily available to the intended users of the supplementary information no later than the date of issuance by the entity of the supplementary information and the auditor's report thereon



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Graham Moore, Executive Director



# **ALLIANCE WATER**

**ANNUAL FINANCIAL REPORT**

**FISCAL YEAR ENDED  
SEPTEMBER 30, 2019 AND 2018**

ALLIANCE REGIONAL WATER AUTHORITY  
 ANNUAL FINANCIAL REPORT  
 FOR THE YEAR ENDED SEPTEMBER 30, 2019

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ANNUAL FILING AFFIDAVIT

STATE OF TEXAS }  
COUNTY OF \_\_\_\_\_ }

I, \_\_\_\_\_ of the  
(Name of Duly Authorized District Representative)

\_\_\_\_\_  
(Name of District)

hereby swear, or affirm, that the District above has reviewed and approved at a meeting of the District's Board of Directors on the \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, its annual audit report for the fiscal period ended \_\_\_\_\_ and that copies of the annual audit report have been filed in the District's office, located at \_\_\_\_\_  
\_\_\_\_\_  
(Address of the District's Office)

This filing affidavit and the attached copy of the audit report will be submitted to the Texas Commission on Environmental Quality to satisfy the annual filing requirements of Texas Water Code Section 49.194.

Date: \_\_\_\_\_ By: \_\_\_\_\_  
(Signature of District Representative)

\_\_\_\_\_  
(Typed Name and Title of District Representative)

Sworn to and subscribed to before me this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_

(SEAL) \_\_\_\_\_  
(Signature of Notary)

My Commission Expires On: \_\_\_\_\_  
Notary Public in the State of Texas.



## INDEPENDENT AUDITOR'S REPORT

To the Board of Trustees  
Alliance Regional Water Authority  
San Marcos, TX

### **Report on the Financial Statements**

We have audited the accompanying financial statements of the Alliance Regional Water Authority as of and for the years ended September 30, 2019 and 2018, and the related notes to the financial statements, which collectively comprise Alliance Regional Water Authority's basic financial statements as listed in the table of contents.

#### ***Management's Responsibility for the Financial Statements***

Alliance Regional Water Authority's management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

#### ***Auditor's Responsibility***

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

## ***Opinion***

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of Alliance Regional Water Authority, as of September 30, 2019 and 2018, and the respective changes in financial position and cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

## ***Emphasis of Matter***

As discussed in Note A15 to the financial statements, the Authority implemented Governmental Accounting Standards Board Statement No 89 on October 1, 2018. This resulted in interest costs incurred during the construction period to change from part of the capital asset to a period expense. This change is being made prospectively. Our opinion is not modified with respect to this matter.

## ***Other Matters***

### *Required Supplementary Information*

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, budgetary comparison schedule, schedule of changes in net pension liability and schedule of employer pensions contributions as listed in the table of contents be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

### *Supplementary Information*

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise Alliance Regional Water Authority's basic financial statements. The supplementary information required by the Texas Commission on Environmental Quality is presented for purposes of additional analysis and is not a required part of the basic financial statements. The supplementary information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supplementary information required by the Texas Commission on Environmental Quality is fairly stated, in all material respects, in relation to the basic financial statements as a whole.



Armstrong, Vaughan & Associates, P.C.  
January 3, 2020

## MANAGEMENT'S DISCUSSION AND ANALYSIS

This section of Alliance Regional Water Authority's annual financial report presents our discussion and analysis of the Authority's financial performance during the fiscal year ended September 30, 2019. Please read it in conjunction with the Authority's financial statements, which follow this section.

### FINANCIAL HIGHLIGHTS

- The Authority's total net position was \$16.0 million at September 30, 2019.
- During the year, the Authority's operating expenses increased 5.8%. Participating government contributions increased \$2.2 million in support of capital projects and debt service. Overall, net position increased \$8.1 million.
- The Authority received a financing commitment from the Texas Water Development Board for \$213.4 million to fund construction projects. In 2017, the Authority issued \$31.9 million of this commitment. No additional amounts were issued in the 2019 fiscal year.

### AUTHORITY HIGHLIGHTS

- The Authority's goal is to secure and develop a long-term water supply for the participating government's communities.
- The Authority has acquired leases for 17,534 surface acres of water. The Authority has also been approved for the production of 10,300 and 4,700 acre feet per year from the Gonzales Underground Water Conservation District and the Plum Creek Conservation District, respectively.
- The Authority has continued working on Phase 1A (an interconnect between Kyle and Buda water systems) and Phase 1B (wells, raw water collection system, water treatment plant, pipelines, booster pump and delivery points for all participating governments).
- The Authority entered into a Water Treatment and Transmission Agreement with the Guadalupe-Blanco River Authority (GBRA) in June 2018. The agreement provides that the Authority will own and size the infrastructure (water treatment plant, pipelines and booster pump station) to treat and deliver the Authority's water along with GBRA's separate Carrizo rights, with GBRA owning capacity in the shared infrastructure. The agreement increases the economies of scale of the overall project and saves the Authority and GBRA significant capital costs.

### OVERVIEW OF THE FINANCIAL STATEMENTS

This annual report consists of three parts—*management's discussion and analysis* (this section), *the basic financial statements* and *required supplementary information*. The basic financial statements consist of the following statements:

- The *Statement of Net Position* shows the financial standing of the authority as of the end of the year, including all assets and liabilities.
- The *Statement of Revenues, Expenses and Changes in Net Position* provides information about the activity of the Authority during the fiscal year. It reports revenues when incurred, regardless of when they are received, and expenses when incurred, regardless of when they are paid.
- The *Statement of Cash Flows* reports the sources and uses of cash during the fiscal year.

The financial statements also include notes that explain a few of the information in the financial statements and provide more detailed data. The statements are followed by a section of *required supplementary information* that further explains and supports the information in the financial statements.

## FINANCIAL ANALYSIS OF THE AUTHORITY

Net position—the difference between the Authority’s assets and liabilities—is one way to measure the Authority’s financial health or *position*. Over time, increases or decreases in the Authority’s net position is an indicator of whether its financial health is improving or deteriorating, respectively.

The Authority’s net position was \$16.0 million at September 30, 2019. Of this amount, \$7.8 million is unrestricted, representing resources available to fund the operations of the Authority next year. (See Table A-1).

**Table A-1**  
Authority's Net Position

	2019	2018	2017
<i>Assets:</i>			
Cash and Investments	\$ 6,102,140	\$ 5,316,477	\$ 1,629,659
Other Current Assets	2,167,672	953,614	72,428
Other Assets	19,863,930	29,224,764	6,609,324
Capital Assets (Net)	28,893,015	12,399,088	5,166,818
<i>Total Assets</i>	<u>57,026,757</u>	<u>47,893,943</u>	<u>13,478,229</u>
<i>Deferred Outflows</i>	<u>23,797</u>	<u>12,741</u>	<u>7,521</u>
<i>Liabilities:</i>			
Current	4,989,723	2,536,393	604,468
Long Term	36,089,718	37,485,167	7,217,801
<i>Total Liabilities</i>	<u>41,079,441</u>	<u>40,021,560</u>	<u>7,822,269</u>
<i>Deferred Inflows</i>	<u>82</u>	<u>707</u>	<u>-</u>
<i>Net Position:</i>			
Net Investment in Capital Assets	8,200,007	2,335,322	4,093,630
Unrestricted	7,771,024	5,549,095	1,569,851
<i>Total Net Position</i>	<u>\$ 15,971,031</u>	<u>\$ 7,884,417</u>	<u>\$ 5,663,481</u>

The Authority’s total operating expenses were \$2.1 million, an increase of 5.8%. Operating revenues will begin once the Authority completes construction of the project and begins wholesaling water. Until that time, the participating governments are supporting the operations. (See Table A-2)

**Table A-2**  
Changes in Authority Net Position

	2019	2018	2017
Operating Revenues	\$ 28,526	\$ -	\$ -
Operating Expenses	<u>(2,062,963)</u>	<u>(1,950,656)</u>	<u>(1,911,867)</u>
Operating Income (Loss)	(2,034,437)	(1,950,656)	(1,911,867)
Nonoperating Income	<u>10,121,051</u>	<u>4,171,588</u>	<u>2,211,782</u>
Change in Net Position	<u>\$ 8,086,614</u>	<u>\$ 2,220,932</u>	<u>\$ 299,915</u>

## CAPITAL ASSETS AND DEBT ADMINISTRATION

### Capital Assets

As of September 30, 2019, the Authority had invested \$28.9 million in land and construction of water infrastructure. Because these projects are not complete and in service yet, no depreciation has been recorded. (See Table A-3) More detailed information about the Authority's capital assets is presented in the notes to the financial statements.

**Table A-3**  
Authority's Capital Assets  
(In thousands of dollars)

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Land and Easements	\$ 5,212	\$ 3,509	\$ 660
Construction in Progress	<u>23,681</u>	<u>8,890</u>	<u>4,507</u>
Totals at Historical Cost	<u>\$ 28,893</u>	<u>\$ 12,399</u>	<u>\$ 5,167</u>

### Long-Term Debt

At year-end, the Authority had \$37.5 million in principal outstanding on bonded debt, a decrease of \$1.4 million. The participating governments have pledged to contribute amounts to the Authority sufficient to service these debts. More detailed information about the Authority's debt is presented in the notes to the financial statements.

**Table A-4**  
Authority's Long Term Debt  
(In thousands of dollars)

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Bonds Payable	<u>\$ 37,485</u>	<u>\$ 38,875</u>	<u>\$ 7,215</u>

## ECONOMIC FACTORS AND NEXT YEAR'S BUDGETS AND RATES

For the fiscal year ending September 30, 2020, the Authority continues to fund the construction in progress. An additional bond issuance from the approved amount from the Texas Water Development Board is expected. Operations are not expected to change appreciably as wholesale water operations will not commence in fiscal year 2020.

## CONTACTING THE AUTHORITY'S FINANCIAL MANAGEMENT

This financial report is designed to provide a general overview of the Authority's finances and to demonstrate the Authority's accountability for the money it receives. If you have questions about this report or need additional financial information, contact the Graham Moore by mail at Alliance Regional Water Authority, 630 East Hopkins, San Marcos, Texas 78666, phone at (512) 294-3214, or email at [gmoore@alliancewater.org](mailto:gmoore@alliancewater.org).

## BASIC FINANCIAL STATEMENTS

The basic financial statements include:

- Statement of Net Position
- Statement of Revenues, Expenses and Changes in Net Position
- Statement of Cash Flows

In addition, the notes to the financial statements are included to provide information that is essential to a user's understanding of the basic financial statements.

ALLIANCE REGIONAL WATER AUTHORITY  
STATEMENTS OF NET POSITION  
SEPTEMBER 30, 2019 AND 2018

	2019	2018
<b>ASSETS</b>		
<i>Current Assets:</i>		
Cash and Cash Equivalents	\$ 6,102,140	\$ 5,316,477
Receivables - Participating Governments	768,655	148,090
Receivables - Transmission and Treatment Agreement	1,320,319	736,853
Receivables - Other	3,160	-
Prepaid Expense	75,538	68,671
<i>Total Current Assets</i>	8,269,812	6,270,091
<i>Other Assets:</i>		
Restricted Cash for Construction	19,770,537	28,897,715
Restricted Cash for Debt Service	49,456	78,302
Groundwater Lease Acquisition Costs (net)	43,937	248,747
Capital Assets	28,893,015	12,399,088
<i>Total Other Assets</i>	48,756,945	41,623,852
<b>TOTAL ASSETS</b>	<b>57,026,757</b>	<b>47,893,943</b>
<b>DEFERRED OUTFLOWS OF RESOURCES</b>		
Deferred Pension Related Outflows	23,797	12,741
<b>LIABILITIES</b>		
<i>Current Liabilities:</i>		
Accounts Payable	3,129,360	596,647
Accrued Groundwater Reservation Payments	330,643	448,141
Accrued Interest, Payable from Restricted Assets	100,376	101,605
Accrued Compensated Absences	29,344	-
Bonds Payable - Current	1,400,000	1,390,000
<i>Total Current Liabilities</i>	4,989,723	2,536,393
<i>Long-term Liabilities:</i>		
Bonds Payable	36,085,000	37,485,000
Net Pension Liability	4,718	167
<i>Total Long-term Liabilities</i>	36,089,718	37,485,167
<b>TOTAL LIABILITIES</b>	<b>41,079,441</b>	<b>40,021,560</b>
<b>DEFERRED INFLOWS OF RESOURCES</b>		
Deferred Pension Related Inflows	82	707
<b>NET POSITION</b>		
Net Investment in Capital Assets	8,200,007	2,335,322
Unrestricted	7,771,024	5,549,095
<b>TOTAL NET POSITION</b>	<b>\$ 15,971,031</b>	<b>\$ 7,884,417</b>

See accompanying notes to basic financial statements.

ALLIANCE REGIONAL WATER AUTHORITY  
 STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION  
 FOR THE YEARS ENDED SEPTEMBER 30, 2019 AND 2018

	<u>2019</u>	<u>2018</u>
<b>Operating Revenues:</b>		
Water Sales	\$ 28,526	\$ -
<b>Total Operating Revenues</b>	<u>28,526</u>	<u>-</u>
<b>Operating Expenses:</b>		
Groundwater Reservation Leases	1,192,172	1,240,976
Amortization of Reservation Lease Acquisition Costs	204,810	204,810
Professional Fees	230,066	220,963
Personnel Costs	332,814	194,334
Permits and Fees	71,311	62,878
Administrative Expenses	31,790	26,695
<b>Total Operating Expenses</b>	<u>2,062,963</u>	<u>1,950,656</u>
<b>Operating Income (Loss)</b>	(2,034,437)	(1,950,656)
<b>Non-Operating Revenues (Expenses):</b>		
Participating Government Contributions	6,476,552	4,221,926
Transmission and Treatment Agreement	3,887,232	736,853
Interest Income	568,877	4,579
Miscellaneous Income	-	6,500
Bond Issue Costs	-	(798,270)
Interest Expense	(811,610)	-
<b>Total Non-Operating Revenues (Expenses)</b>	<u>10,121,051</u>	<u>4,171,588</u>
<b>Change in Net Assets</b>	8,086,614	2,220,932
Net Position at Beginning of Year	<u>7,884,417</u>	<u>5,663,485</u>
Net Position at End of Year	<u>\$ 15,971,031</u>	<u>\$ 7,884,417</u>

ALLIANCE REGIONAL WATER AUTHORITY  
STATEMENTS OF CASH FLOWS  
FOR THE YEARS ENDED SEPTEMBER 30, 2019 AND 2018

	2019	2018
<b>Cash Flows from Operating Activities</b>		
Cash Received from Customers	\$ 25,366	\$ -
Cash Payments to Suppliers for Goods and Services	883,009	(1,098,253)
Cash Payments to Employees for Services	(310,600)	(201,481)
<b>Net Cash Provided (Used) by Operating Activities</b>	597,775	(1,299,734)
 <b>Cash Flows from Capital and Related Financing Activities</b>		
Bond Principal Payments	(1,390,000)	(275,000)
Proceeds from Bonds Issued	-	31,935,000
Contributions from Participating Governments	5,855,987	4,083,836
Contributions from Interlocal Agreements	3,303,766	-
Bond Issuance Costs	-	(798,270)
Cash Paid for Interest (Capitalized)	(812,839)	(636,346)
Purchase of Capital Assets	(16,493,927)	(6,826,266)
<b>Net Cash Provided (Used) by Capital Financing Activities</b>	(9,537,013)	27,482,954
 <b>Cash Flows from Investing Activities</b>		
Other Cash Receipts	-	6,500
Interest and Investment Income	568,877	317,346
<b>Net Cash Provided (Used) by Investing Activities</b>	568,877	323,846
 Net Increase (Decrease) in Cash and Cash Equivalents	(8,370,361)	26,507,066
 <b>Beginning Cash</b>		
Cash and Cash Equivalents	\$ 5,316,477	\$ 1,629,660
Restricted Cash	28,976,017	6,155,768
	34,292,494	7,785,428
 <b>Ending Cash</b>		
Cash and Cash Equivalents	6,102,140	5,316,477
Restricted Cash	19,819,993	28,976,017
	\$ 25,922,133	\$ 34,292,494

See accompanying notes to basic financial statements.

ALLIANCE REGIONAL WATER AUTHORITY  
STATEMENTS OF CASH FLOWS (CONT.)  
FOR THE YEARS ENDED SEPTEMBER 30, 2019 AND 2018

	2019	2018
<b>Reconciliation of Operating Income to Net Cash Provided (Used) by Operating Activities</b>		
Operating Income (Loss)	\$ (2,034,437)	\$ (1,950,656)
Adjustments to Reconcile Income from Operations to Net Cash Provided by Operating Activities:		
Amortization	204,810	204,810
Change in Assets and Liabilities:		
(Increase) Decrease in Other Receivables	(3,160)	-
(Increase) Decrease in Prepaid Expenses	(6,867)	(6,232)
(Increase) Decrease in Pension Deferred Outflows	(11,056)	(5,220)
Increase (Decrease) in Accounts Payable	2,532,713	389,299
Increase (Decrease) in Accrued Groundwater Leases	(117,498)	70,192
Increase (Decrease) in Accrued Compensated Absences	29,344	-
Increase (Decrease) in Net Pension Liability	4,551	(2,634)
Increase (Decrease) in Pension Deferred Inflows	(625)	707
<b>Net Cash Provided (Used) by Operating Activities</b>	<b>\$ 597,775</b>	<b>\$ (1,299,734)</b>

ALLIANCE REGIONAL WATER AUTHORITY  
NOTES TO BASIC FINANCIAL STATEMENTS  
SEPTEMBER 30, 2019 AND 2018

**NOTE A -- SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

The Hays Caldwell Public Utility Agency (the HCPUA) was incorporated January 2007 pursuant to the provisions of Chapter 572, Texas Local Government Code, Public Utility Agencies for Provision of Water or Sewer Service. In 2017, the HCPUA was formally converted to the Alliance Regional Water Authority (the Authority). The conversion assigned all assets, liabilities, and all other rights and obligations of the HCPUA to the Authority. The Authority was organized to aid, assist, and act on behalf of the organizing participants, collectively and individually, to achieve economies of scale in providing essential water and sewage systems to the public, and provide environmentally sound protection of the State's future water and wastewater needs.

The organizing sponsors (the Sponsors) are the City of San Marcos, City of Buda, City of Kyle and Canyon Regional Water Authority.

The Authority meets the criteria of a joint venture between the Sponsors with an ongoing financial responsibility. The Sponsors have pledged revenues from existing water utility systems to finance the operations and long-term debt of the Authority, either through purchasing water from the Authority or subsidizing through direct payments (reflected as "Contributions from Participating Governments"). The Authority is actively pursuing the development of alternate water sources. The financial statements of the Authority have been prepared in conformity with generally accepted accounting principles (GAAP) as applied to government units. The Governmental Accounting Standards Board (GASB) is the accepted standard setting body for establishing governmental accounting and financial reporting principles. The more significant of the Authority's accounting policies are described below:

**1. REPORTING ENTITY**

In evaluating how to define the government for financial purposes, management has considered all potential component units. The decision to include a potential component unit in the reporting entity was made by applying the criteria set forth in GASB Statement 14, "The Financial Reporting Entity" and GASB Statement 39 "Determining Whether Certain Organizations are Component Units". The definition of the reporting entity is based primarily on the concept of financial accountability. A primary government is financially accountable for the organizations that make up its legal entity. It is also financially accountable for legally separate organizations if its officials appoint a voting majority of an organization's governing body and either it is able to impose its will on that organization or there is a potential for the organization to provide specific financial benefits to, or to impose specific financial burdens on, the primary government. The Authority has no component units.

**2. ENTERPRISE FUND**

The Authority is an enterprise fund. Enterprise funds are proprietary funds used to account for business-type activities provided to the general public or other governmental entities. The activities are financed by charges to member entities and the measurement of financial activity focuses on net income similar to the private sector. Revenues are recognized when earned, and expenses are recognized when incurred.

ALLIANCE REGIONAL WATER AUTHORITY  
NOTES TO BASIC FINANCIAL STATEMENTS (CONTINUED)  
SEPTEMBER 30, 2019

**NOTE A -- SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

**3. MEASUREMENT FOCUS, BASIS OF ACCOUNTING, AND FINANCIAL STATEMENT PRESENTATION**

Revenues are classified as *operating* and *non-operating*. Operating revenues include charges to member entities for water pumpage pursuant to their contractual agreements. Non-operating revenues are expense reimbursements from member entities, interest income, and other revenues not related to the sale of wholesale water.

When both restricted and unrestricted resources are available for use, it is the Authority's policy to use restricted resources first, then unrestricted resources as they are needed.

**4. CASH AND INVESTMENTS**

State statutes authorize the Authority to invest in (a) obligations of the United States or its agencies, and instrumentalities; (b) direct obligations of the State of Texas or its agencies; (c) other obligations, the principal and interest of which are unconditionally guaranteed or insured by the State of Texas or the United States; (d) obligations of states, agencies, counties, cities, and other political subdivisions of any state having been rated as to investment quality by a nationally recognized investment rating firm and having received a rating of not less than A or its equivalent; (e) certificates of deposit by state and national banks domiciled in this state that are (i) guaranteed or insured by the Federal Deposit Insurance Corporation, or its successor; or, (ii) secured by obligations that are described by (a) – (e). Statutes also allow investing in local government investment pools organized and rated in accordance with the Interlocal Cooperation Act, whose assets consist exclusively of the obligations of the United States or its agencies and instrumentalities and repurchase assessments involving those same obligations.

Investments are stated at fair value (plus accrued interest) except for money market investments and participating interest-earning investment contracts (U.S. Treasuries) that have a remaining maturity at time of purchase of one year or less. Those investments are stated at amortized cost, which approximates fair value.

The Authority reports investments at fair value based on the hierarchy established by generally accepted accounting principles. The fair value hierarchy, which has three levels, is based on the valuation inputs used to measure an asset's fair value: Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs.

The Authority's investments in pools and money market funds are reported at an amount determined by the fair value per share of the pool's underlying portfolio, unless the pool is 2a7-like, in which case they are reported at share value. A 2a7-like pool is one which is not registered with the Securities and Exchange Commission as an investment company, but nevertheless has a policy that it will, and does, operate in a manner consistent with the SEC's Rule 2a7 of the Investment Company Act of 1940.

The Authority considers cash and cash equivalents to be amounts in checking accounts, savings accounts, money market accounts, local government investment pools and certificates of deposit with a maturity date within three months or less from the date of purchase.

ALLIANCE REGIONAL WATER AUTHORITY  
NOTES TO BASIC FINANCIAL STATEMENTS (CONTINUED)  
SEPTEMBER 30, 2019

**NOTE A -- SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

5. ACCOUNTS RECEIVABLE

Accounts receivable consists of amounts due from member entities. Participating governments are billed a flat amount each year based on budgeting operating costs plus a provision for either debt service or cash requirements of construction projects. Any budgeted amounts unpaid at year end are recorded as a receivable on the statement of net position. Interlocal agreements with other governments are treated similarly.

6. PREPAID EXPENSES

Expenses paid during the year that have a benefit beyond the current fiscal year are recorded on the balance sheet as prepaid expenses.

7. GROUNDWATER LEASE ACQUISITION COSTS

Costs incurred to purchase or reserve groundwater (leases) for future consumption are capitalized. Those costs consist of incentive payments to landowners and professional fees for contract negotiations. The costs are being amortized over an estimated 10-year minimum lease term.

8. CAPITAL ASSETS

The Authority is in the process of constructing assets to develop potable water sources. All costs related to the projects are capitalized. Once placed in service, the assets will be depreciated. Donated capital assets are recorded at estimated fair market value at the date of donation.

The Costs of normal maintenance and repairs that do not add to the value of the asset or materially extend assets' lives are not capitalized. Purchases in excess of \$5,000 with a useful life in excess of one year are capitalized and depreciated using the straight-line method. Lives have not been estimated as they have not yet been placed in service.

9. DEFERRED INFLOWS AND OUTFLOWS

A deferred outflow of resources is a consumption of net position that is applicable to a future reporting period while a deferred inflow of resources is an acquisition of net position. These items are presented in separate sections following assets (deferred outflows) or liabilities (deferred inflows) on the statement of net position.

10. LONG-TERM OBLIGATIONS

Bonds, notes and capital leases are recorded as liabilities on the statement of net position. Bond issue costs are expensed in the period they are incurred. Bonds payable are reported net of the applicable bond premium or discount.

ALLIANCE REGIONAL WATER AUTHORITY  
NOTES TO BASIC FINANCIAL STATEMENTS (CONTINUED)  
SEPTEMBER 30, 2019

**NOTE A -- SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

**11. PENSIONS**

The net pension liability, deferred inflows, and outflows of resources related to pensions, and pension expense, information about the fiduciary net position of the Texas County District Retirement System (TCDRS), and additions to and deductions from TCERS's fiduciary net position have been determined on the same basis as they are reported by TCERS. For this purpose, benefit payments (including refund of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

**12. NET POSITION**

Net position represents the difference between assets and liabilities. Net investment in capital assets consists of capital assets, net of accumulated depreciation, reduced by the outstanding balances of any borrowing used for the acquisition, construction or improvements of those assets, and adding back unspent proceeds. Net position is reported as restricted when there are limitations imposed on their use either through the enabling legislation adopted by the Authority or through external restrictions imposed by creditors, grantors, or laws or regulations of other governments. When expenses qualify for restricted and unrestricted resources, the Authority's policy is to use restricted resources first.

**13. USE OF ESTIMATES**

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

**14. RECLASSIFICATIONS**

Certain transactions are classified differently on the September 30, 2019 financial statements than previous fiscal years. These reclassifications had no effect on net income.

**15. CHANGE IN ACCOUNTING PRINCIPLE**

As of October 1, 2018, the Authority implemented GASB Statement No 89. Prior to that date, interest costs incurred during the construction period were capitalized as part of the capital asset. Thereafter, interest costs will be expensed as incurred.

ALLIANCE REGIONAL WATER AUTHORITY  
NOTES TO BASIC FINANCIAL STATEMENTS (CONTINUED)  
SEPTEMBER 30, 2019

**NOTE B -- CASH AND INVESTMENTS**

1. Cash and Cash Equivalents

The Authority's funds are deposited and invested under the terms of a depository contract. The depository bank deposits for safekeeping and trust with the Authority's agent bank approved pledge securities in an amount sufficient to protect Authority funds on a day-to-day basis during the period of the contract. The pledge of approved securities is waived only to the extent of the depository bank's dollar amount of Federal Deposit Insurance Corporation ("FDIC") insurance. At September 30, 2019, the Authority's bank deposits were fully covered by a combination of federal deposit insurance and pledged securities.

2. Investments

The Authority had the following investments included in cash and cash equivalents:

	Balances at		Rating
	9/30/19	9/30/18	
TexStar Local Government Pool	\$ 5,382,630	\$ 111,073	AAAm
Money Market Funds	19,770,537	28,897,715	AAAm
	\$ 25,153,167	\$ 29,008,788	

Both TexStar and the money market funds report in a manner consistent with Rule 2a7. Therefore, the investments are reported at \$1 per share, which approximates fair value. These investments are reported in cash and cash equivalents. The Authority was not exposed to significant investment rate, credit, or custodial credit risks.

**NOTE C -- CAPITAL ASSETS**

Capital asset activity for the year ended September 30, 2019 was as follows:

	Balances at 10/1/18	Additions	Transfers/ Disposals	Balances at 9/30/2019
	Land and Easements	\$ 3,509,073	\$ 1,703,344	\$ -
Construction in Progress	8,890,015	14,790,583	-	23,680,598
Capital Assets, Net	\$ 12,399,088	\$ 16,493,927	\$ -	\$ 28,893,015

	Balances at 10/1/17	Additions	Transfers/ Disposals	Balances at 9/30/18
	Land and Easements	\$ 660,219	\$ 2,848,854	\$ -
Construction in Progress	4,506,599	4,383,416	-	8,890,015
Capital Assets, Net	\$ 5,166,818	\$ 7,232,270	\$ -	\$ 12,399,088

Land and Construction in Progress are not depreciated.

ALLIANCE REGIONAL WATER AUTHORITY  
NOTES TO BASIC FINANCIAL STATEMENTS (CONTINUED)  
SEPTEMBER 30, 2019

**NOTE D -- LONG-TERM DEBT**

The Authority's long-term debt consists of bonds with interest payable on February 15 and interest and principal payable on August 15 of each year.

Series Name	Original Issue		Interest Rate	Maturity Date
	Amount	Date		
<i>2015 Contract Revenue Bonds</i>				
2015A Canyon Regional Water Authority	\$ 3,960,000	11/15/2015	0.38-2.41%	2035
2015B City of Kyle	3,530,000	11/15/2015	0.45-3.21%	2045
<i>2017 Contract Revenue Bonds</i>				
2017A Canyon Regional Water Authority	9,865,000	11/22/2017	0.77-3.08%	2047
2017B City of Kyle	8,995,000	11/22/2017	0.77-3.08%	2047
2017C City of San Marcos	11,450,000	11/22/2017	0.63-2.29%	2037
2017D City of Buda	1,625,000	11/22/2017	0.63-2.29%	2037

All of the Authority's bonds are private placements without subjective acceleration clauses or significant events of default with finance related consequences.

In addition, the Texas Water Development Board has committed to \$213 million in bonds. The 2017 Bonds were from that commitment, leaving \$181 million remaining in the commitment.

The annual requirements to amortize all debt outstanding as of September 30, 2019, including interest payments, are as follows:

Year End September 30,	Principal Payments	Interest Payments	Total
2020	\$ 1,400,000	\$ 803,010	\$ 2,203,010
2021	1,420,000	791,823	2,211,823
2022	1,430,000	778,983	2,208,983
2023	1,440,000	764,122	2,204,122
2024	1,460,000	747,349	2,207,349
2025-2029	7,610,000	3,420,724	11,030,724
2030-2034	8,390,000	2,660,195	11,050,195
2035-2039	6,745,000	1,649,118	8,394,118
2040-2044	4,750,000	887,135	5,637,135
2045-2047	2,840,000	171,260	3,011,260
Total	<u>\$ 37,485,000</u>	<u>\$ 12,673,719</u>	<u>\$ 50,158,719</u>

ALLIANCE REGIONAL WATER AUTHORITY  
NOTES TO BASIC FINANCIAL STATEMENTS (CONTINUED)  
SEPTEMBER 30, 2019

**NOTE D -- LONG-TERM DEBT (Continued)**

The Authority's long-term debt activity as of and for the year ending September 30, 2019 is as follows:

Bond Series	Balance			Balance	
	Outstanding 10/1/2018	Additions	Retirements	Outstanding 9/30/2019	Due Within One Year
2015A	\$ 3,590,000	\$ -	\$ (185,000)	\$ 3,405,000	\$ 185,000
2015B	3,350,000	-	(90,000)	3,260,000	90,000
2017A	9,865,000	-	(260,000)	9,605,000	265,000
2017B	8,995,000	-	(240,000)	8,755,000	240,000
2017C	11,450,000	-	(540,000)	10,910,000	545,000
2017D	1,625,000	-	(75,000)	1,550,000	75,000
Totals	<u>\$ 38,875,000</u>	<u>\$ -</u>	<u>\$ (1,390,000)</u>	<u>\$ 37,485,000</u>	<u>\$ 1,400,000</u>

**NOTE E -- GROUNDWATER LEASES**

The Authority has contracted to purchase water from several landowners. Each contract stipulates an initial term with extensions for as long as the Authority makes the lease payments. Initial costs to acquire these leases are amortized over the initial term. The Authority intends to maintain these leases in perpetuity. Future minimum lease payments under current conditions are \$1,259,879 per year.

**NOTE F -- SPONSORING GOVERNMENTS**

The sponsoring governments have pledged revenues to support the budgeted operating costs and debt service of the Authority based on their anticipated usage of the resulting water produced from the project. Because the Authority is still constructing its plant, no water has been sold other than non-potable water. Contributions from the sponsoring governments are broken down as follows:

<u>Sponsoring Government</u>	<u>Share</u>
City of San Marcos	35.86%
Canyon Regional Water Authority	30.89%
City of Kyle	28.17%
City of Buda	<u>5.08%</u>
Total	<u>100%</u>

**NOTE G -- TRANSMISSION AND TREATMENT INTERLOCAL AGREEMENT**

In 2018, the Authority reached an agreement with Guadalupe Blanco River Authority (GBRA) for the use of Authority plant pipelines and treatment facilities. The agreement involves increasing the capacity of the Authority's system to treat and transmit GBRA water. In exchange, GBRA has agreed to fund a portion of the construction costs and ongoing operational costs once in production. A portion of the plant capacity will be reserved for GBRA's use. GBRA is billed their pro-rata share of agreed upon costs as they are incurred.

ALLIANCE REGIONAL WATER AUTHORITY  
NOTES TO BASIC FINANCIAL STATEMENTS (CONTINUED)  
SEPTEMBER 30, 2019

**NOTE H -- TEXAS COUNTY AND DISTRICT RETIREMENT SYSTEM**

Plan Description

The Authority participates as one of 780 plans in the nontraditional, defined benefit pension plan in the statewide Texas County and District Retirement System (TCDRS). TCDRS is an agency created by the state of Texas and administered in accordance with the TCDRS Act as an agent multiple-employer retirement system for County and District employees in the State of Texas. The Board of Trustees of TCDRS is responsible for the administration and management of the system. TCDRS in the aggregate issues a comprehensive annual financial report (CAFR) on a calendar year basis. The CAFR is available upon written request from the TCDRS Board of Trustees at PO Box 2034, Austin, Texas 78768-2034.

The plan provisions are adopted by the governing body of the Authority, within the options available in the state statutes governing TCDRS. Members can retire at age 60 and above with 8 or more years of service or with 30 years regardless of age or when the sum of their age and years of service equals 75 or more. A member is vested after 8 years but must leave his accumulated contributions in the plan. Members who withdraw their personal contributions in a partial lump sum are entitled to any amounts contributed by the employer.

Benefit amounts are determined by the sum of the employee's contributions to the plan, with interest, and employer-financed monetary credits. The level of these monetary credits is adopted by the governing body of the Authority within the actuarial constraints imposed by the TCDRS Act so the resulting benefits can be expected to be adequately financed by the employer's commitment to contribute. At retirement, death or disability, the benefit is calculated by converting the sum of the employee's accumulated contributions and the employer-financed monetary credits to a monthly annuity using annuity purchase rates prescribed by the TCDRS Act.

Contributions

The Authority has elected the annually determined contribution rate plan provisions of the TCDRS Act. The plan is funded by monthly contributions from both employee members and the employer based on the covered payroll of employee members. Under the TCDRS Act, the contribution rate of the Authority is actuarially determined annually. The Authority contributed using the actuarially determined rate of 6.66% for the calendar years of 2018 and 2019.

The contribution rate payable by the employee members is 5% as adopted by the governing body of the Authority. The employee deposit rate and the employer contribution rate may be changed by the governing body of the employer within the options available in the TCDRS Act.

Benefits Provided

TCDRS provides retirement, disability, and death benefits. Benefit provisions are adopted by the governing body of the Authority, within the options available in the state statutes governing TCDRS. At retirement, the benefit is calculated as if the sum of the employee's contributions, with interest, and the Authority-financed monetary credits with interest were used to purchase an annuity. Members may choose to receive their retirement benefit in one of seven payment options. Members may choose to receive a portion of their benefit as a Partial Lump Sum Distribution in an amount equal to 12, 24, or 36 monthly payments, which cannot exceed 75% of the member's deposits and interest.

ALLIANCE REGIONAL WATER AUTHORITY  
 NOTES TO BASIC FINANCIAL STATEMENTS (CONTINUED)  
 SEPTEMBER 30, 2019

**NOTE H -- TEXAS COUNTY AND DISTRICT RETIREMENT SYSTEM (Cont.)**

At the December 31, 2018 valuation and measurement date, the following employees were covered by the benefit terms:

	12/31/2018
Inactive Employees Receiving Benefits	0
Inactive Employees	0
Active Employees	2
	2

Net Pension Liability

The Authority's Net Pension Liability (NPL) was measured as of December 31, 2018, and the Total Pension Liability (TPL) used to calculate the Net Pension Liability was determined by an actuarial valuation as of that date.

Actuarial Assumptions

The Total Pension Liability in the December 31, 2018 actuarial valuation was determined using the following actuarial assumptions:

Real rate of return	5.25%
Inflation	2.75%
Long-term Investment return	8.00%

The long-term expected rate of return on TCDRS assets is determined by adding expected inflation to expected long-term real returns, and reflecting expected volatility and correlation. The long-term expected rate of return on pension plan investments is 8.00%. The pension plan's policy in regard to the allocation of invested assets is established and may be amended by the TCDRS Board of Trustees. Plan assets are managed on a total return basis with an emphasis on both capital appreciation as well as the production of income, in order to satisfy the short-term and long-term funding needs of TCDRS.

ALLIANCE REGIONAL WATER AUTHORITY  
NOTES TO BASIC FINANCIAL STATEMENTS (CONTINUED)  
SEPTEMBER 30, 2019

**NOTE H -- TEXAS COUNTY AND DISTRICT RETIREMENT SYSTEM (Cont.)**

The target allocation and best estimates of arithmetic real rates of return for each major asset class are summarized in the following table:

Asset Class	Target Allocation	Expected Real Rate of Return (Geometric)
US Equities	10.50%	5.40%
Private Equity	18.00%	8.40%
Global Equities	2.50%	5.70%
International Equities - Developed	10.00%	5.40%
International Equities - Emerging	7.00%	5.90%
Investment-Grade Bonds	3.00%	1.60%
Strategic Credit	12.00%	4.39%
Direct Lending	11.00%	7.95%
Distressed Debt	2.00%	7.20%
REIT Equities	2.00%	4.15%
Master Limited Partnerships (MLPs)	3.00%	5.35%
Private Real Estate Partnerships	6.00%	6.30%
Hedge Funds	13.00%	3.90%
	<u>100.00%</u>	

Discount Rate

The discount rate used to measure the Total Pension Liability was 8.10%. The projection of cash flows used to determine the discount rate assumed that employee and employer contributions will be made at the rates specified in statute. Based on that assumption, the pension plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability.

The following presents the net pension liability of the Authority, calculated using the discount rate of 8.10%, as well as what the Authority's net pension liability would be if it were calculated using a discount rate that is 1-percentage point lower (7.10%) or 1-percentage point higher (9.10%) than the current rate:

	Discount Rate 7.10%	Discount Rate 8.10%	Discount Rate 9.10%
Net Pension Liability (Asset)	\$ 22,401	\$ 4,718	\$ (9,694)

ALLIANCE REGIONAL WATER AUTHORITY  
NOTES TO BASIC FINANCIAL STATEMENTS (CONTINUED)  
SEPTEMBER 30, 2019

**NOTE H -- TEXAS COUNTY AND DISTRICT RETIREMENT SYSTEM (Cont.)**

Changes in Net Pension Liability

The below schedule presents the changes in the Net Pension Liability as of December 31, 2018:

	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
Balance at December 31, 2017	\$ 56,430	\$ 56,263	\$ 167
Changes for the year:			
Service Cost	16,759	-	16,759
Interest on total pension liability	5,928	-	5,928
Change of Benefit Terms	-	-	-
Economic/Demographic gains or losses	2,867	-	2,867
Changes of Assumptions	-	-	-
Refund of Contributions	-	-	-
Benefit Payments	-	-	-
Administrative Expense	-	(62)	62
Member Contributions	-	9,107	(9,107)
Net Investment Income	-	(811)	811
Employer Contributions	-	12,131	(12,131)
Other	-	638	(638)
Net Changes	<u>25,554</u>	<u>21,003</u>	<u>4,551</u>
Balance at December 31, 2018	<u>\$ 81,984</u>	<u>\$ 77,266</u>	<u>\$ 4,718</u>

Plan Fiduciary Net Position

Detailed information about the pension plan's Fiduciary Net Position is available in a separately-issued TCDRS financial report. That report may be obtained at [www.tcdrs.com](http://www.tcdrs.com).

ALLIANCE REGIONAL WATER AUTHORITY  
NOTES TO BASIC FINANCIAL STATEMENTS (CONTINUED)  
SEPTEMBER 30, 2019

**NOTE H -- TEXAS COUNTY AND DISTRICT RETIREMENT SYSTEM (Cont.)**

Pension Expense and Deferred Outflows/Inflows of Resources Related to Pensions

For the year ended September 30, 2019, the Authority recognized pension expense of \$9,207. Also as of September 30, 2019, the Authority reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows Outflows of of Resources	Deferred Inflows Inflows of of Resources
Differences between Expected and Actual Economic Experience	\$ 7,389	\$ 31
Changes in Actuarial Assumptions	85	51
Net difference between projected and Actual Earnings	4,385	-
Contributions Subsequent to the Measurement Date	11,938	-
	\$ 23,797	\$ 82

Deferred outflows of resources in the amount of \$11,938 result from contributions subsequent to the measurement date, and will be recognized as a reduction of the net pension liability for the plan year ending December 31, 2019. Other amounts reported as deferred outflows and inflows of resources related to pensions will be recognized in pension expense as follows:

For the Year ended December 31,	
2019	\$ 1,611
2020	1,426
2021	1,289
2022	1,643
2023	396
Thereafter	5,412
	\$ 11,777

**NOTE I -- LITIGATION**

The Authority acquires a significant amount of easements and real property to support pipelines. The Authority is subject to legal proceedings over the rightful owner of certain tracts of land. However, management and legal counsel do not believe pending litigation (if any) will have a material effect on the Authority's financial position.

ALLIANCE REGIONAL WATER AUTHORITY  
 NOTES TO BASIC FINANCIAL STATEMENTS (CONTINUED)  
 SEPTEMBER 30, 2019

**NOTE J -- COMMITMENTS**

As of September 30, 2019, the Authority had several contracts in place as follows:

	Total Commitment	Expended to Date	Estimated Remaining
Engineering & Right of Way	\$ 21,342,548	\$ 9,514,453	\$ 11,828,095
Construction	5,075,595	4,139,769	935,826
	\$ 26,418,143	\$ 13,654,222	\$ 12,763,921

In addition, in July 2019, the Authority agreed to share the costs of construction of electric facilities with Guadalupe Valley Electric Cooperative (GVEC) that will be used to provide power Authority facilities. ARWA's share of the estimated construction costs is \$1,740,200. Of this amount, \$1,000,000 was paid in fiscal year 2019, leaving an estimated commitment of \$740,200.

**NOTE K -- SUBSEQUENT EVENT**

In November 2019, the Authority issued Series 2019 (A-D) Contract Revenue Bonds in the aggregate amount of \$85.9 million. The four participating sponsors have pledged revenues to support the debt service. The bonds bear interest in amounts ranging from 0.84% to 1.94% and mature serially through 2039 for San Marcos and Buda shares and 2049 for Canyon Regional and Kyle shares. The bonds were privately placed with the Texas Water Development Board as part of the previously approved available amounts to issue.

REQUIRED SUPPLEMENTARY INFORMATION

ALLIANCE REGIONAL WATER AUTHORITY  
 BUDGETARY COMPARISON SCHEDULE  
 FOR THE YEAR ENDED SEPTEMBER 30, 2019

	<u>Budget Amounts</u>		Actual Results	Variance With Final Budget-
	<u>Original</u>	<u>Final</u>	(Budgetary Basis)	Positive (Negative)
<b>Operating Revenues:</b>				
Water Sales	\$ -	\$ -	\$ 28,526	\$ 28,526
<b>Total Operating Revenues</b>	<u>-</u>	<u>-</u>	<u>28,526</u>	<u>28,526</u>
<b>Operating Expenses:</b>				
Groundwater Reservation Leases	1,350,000	1,329,000	1,192,172	136,828
Professional Fees	237,000	267,000	230,066	36,934
Personnel Costs	301,480	316,480	303,470	13,010
Permits and Fees	69,200	71,700	71,311	389
Administrative Expenses	32,700	36,200	31,790	4,410
<b>Total Operating Expenses</b>	<u>1,990,380</u>	<u>2,020,380</u>	<u>1,828,809</u>	<u>191,571</u>
<b>Operating Income (Loss)</b>	<u>(1,990,380)</u>	<u>(2,020,380)</u>	<u>(1,800,283)</u>	<u>220,097</u>
<b>Non-Operating Revenues (Expenses)</b>				
Participating Government Contributions	4,552,843	4,552,843	6,476,552	1,923,709
Transmission and Treatment Agreement	-	-	3,887,232	3,887,232
Interest Income	2,637	2,637	568,877	566,240
Miscellaneous Income	6,500	6,500	-	(6,500)
<b>Non-Operating Revenues</b>	<u>4,561,980</u>	<u>4,561,980</u>	<u>10,932,661</u>	<u>6,370,681</u>
<b>Net Income (Budgetary Basis)</b>	<u>\$ 2,571,600</u>	<u>\$ 2,541,600</u>	9,132,378	<u>\$ 6,590,778</u>
Change in Compensated Absences Accrual			(29,344)	
Interest Expense			(811,610)	
Amortization of Lease Bonuses			<u>(204,810)</u>	
<b>Net Income (GAAP Basis)</b>			<u>\$ 8,086,614</u>	

NOTES TO BUDGETARY COMPARISON SCHEDULE

The Authority does not budget for amortization of lease bonus payments. Thus, that amount is presented as a reconciling item between the budgetary comparison schedule and the statement of revenues, expenses and changes in net position.

ALLIANCE REGIONAL WATER AUTHORITY  
SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS  
LAST FIVE CALENDAR YEARS

	Total Pension Liability				
	2014	2015	2016	2017	2018
Service Cost	\$ 1,883	\$ 12,694	\$ 14,034	\$ 15,763	\$ 16,759
Interest (on the Total Pension Liability)	75	624	1,903	4,235	5,928
Changes of Benefit Terms	-	(1,079)	793	-	-
Difference between Expected and Actual Experience	2	1,923	3,569	(35)	-
Change of Assumptions	-	102	-	(56)	2,867
Benefit Payments, Including Refunds of Employee Contributions	-	-	-	-	-
Net Change in Total Pension Liability	1,960	14,264	20,299	19,907	25,554
Total Pension Liability - Beginning	-	1,960	16,224	36,523	56,430
Total Pension Liability - Ending	<u>\$ 1,960</u>	<u>\$ 16,224</u>	<u>\$ 36,523</u>	<u>\$ 56,430</u>	<u>\$ 81,984</u>
	Plan Fiduciary Net Position				
	2014	2015	2016	2017	2018
Contributions - Employer	\$ 1,132	\$ 7,763	\$ 7,697	\$ 9,785	\$ 12,131
Contributions - Employee	1,038	7,123	7,088	7,366	9,107
Net Investment Income	9	(151)	1,291	5,198	(811)
Benefit Payments, Including Refunds of Employee Contributions	-	-	-	-	-
Administrative Expense	(1)	(7)	(15)	(37)	(62)
Other	-	(1)	756	229	638
Net Change	2,178	14,727	16,817	22,541	21,003
Beginning Plan Fiduciary Net Postion	-	2,178	16,905	33,722	56,263
Ending Plan Fiduciary Net Position	<u>\$ 2,178</u>	<u>\$ 16,905</u>	<u>\$ 33,722</u>	<u>\$ 56,263</u>	<u>\$ 77,266</u>
Net Pension Liability - Ending	\$ (218)	\$ (681)	\$ 2,801	\$ 167	\$ 4,718
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	111.12%	104.20%	92.33%	99.70%	94.25%
Covered Payroll	\$ 124,618	\$ 142,452	\$ 141,750	\$ 147,311	\$ 182,150
Net Pension Liability as a Percentage of Covered Payroll	-0.17%	-0.48%	1.98%	0.11%	2.59%

Information in this schedule is being accumulated until ten years are presented.  
See Independent Auditor's Report.

ALLIANCE REGIONAL WATER AUTHORITY  
SCHEDULE OF EMPLOYER CONTRIBUTIONS – PENSION PLAN-  
LAST FIVE FISCAL YEARS

Fiscal Year Ending September 30,	Actuarially Determined Contribution	Actual Contributions	Contribution Deficiency (Excess)	Covered Payroll	Contributions As Percent of Payroll
2019	\$ 16,336	\$ 16,336	\$ -	\$ 245,291	6.66%
2018	10,369	10,372	(3)	155,797	6.66%
2017	9,260	9,260	-	145,921	6.35%
2016	7,714	7,714	-	141,926	5.44%
2015	6,954	6,954	-	127,609	5.45%

**Valuation Timing:**

Actuarially determined contribution rates are calculated as of December 31, two years prior to the end of the fiscal year in which the contributions are reported.

**Methods and Assumptions Used to Determine Contribution Rates:**

Actuarial Cost Method	Entry Age
Amortization Method	Level Percentage of Payroll, Closed
Remaining Amortization Period	18.7 years (based on contribution rate calculated in 12/31/18 valuation)
Asset Valuation Method	5 Year Smoothed Market
Inflation	2.75%
Salary Increases	Varies by age and service. 4.9% average over career including inflation.
Investment Rate of Return	8.00%, net of investment expenses, including inflation
Retirement Age	Members who are eligible for service retirement are assumed to commence receiving benefit payments based on age. The average age at service retirement for recent retirees is 61.
Mortality	130% of the RP-2014 Healthy Annuitant Mortality Table for males and 110% of the RP-2014 Health Annuitant Mortality Table for females, both projected with 110% of the MP-2014 Ultimate Scale after 2014.
Changes in Assumptions	2015: New inflation, mortality and other assumptions 2017: New mortality assumptions were reflected
Changes in Plan Provisions	2017: Employer contributions reflect that the current service matching rate was increased to 200% for future benefits. Also, new Annuity Purchase Rates were reflected for benefits earned after 2017.

Information in this schedule is being accumulated until ten years are presented.  
See Independent Auditor's Report.

SUPPLEMENTARY INFORMATION

ALLIANCE REGIONAL WATER AUTHORITY  
TSI-1 SERVICES AND RATES  
YEAR ENDING SEPTEMBER 30, 2019

1. Services Provided by the District during the Fiscal Year

Not Yet in Production

2. Retail Service Providers

Not Applicable

3. Total Water Consumption during the Fiscal Year

Not Yet in Production

4. Standby Fees

Not Applicable

5. Location of District

Counties: Hays, Guadalupe, Caldwell, Comal

Cities: Buda, Kyle, San Marcos, Cibolo, Converse, Niederwald, Staples,  
Uhland, Martindale

Board Members Board members are appointed by each participating government  
(City of San Marcos, City of Kyle, City of Buda, Canyon Regional  
Water Authority)

ALLIANCE REGIONAL WATER AUTHORITY  
 TSI-2 EXPENSES  
 FOR THE YEAR ENDING SEPTEMBER 30, 2019

<b>Personnel Expenditures</b> (including benefits)	\$	332,814
<b>Professional Fees:</b>		
Legal		108,030
Accounting and Audit		10,505
Other		111,531
<b>Water and Transmission Costs</b>		1,192,172
<b>Administrative Expenses</b>		103,101
<b>Depreciation and Amortization</b>		204,810
<b>Interest and Debt Related Costs</b>		<u>811,610</u>
<b>Total Expenses</b>	<b>\$</b>	<b><u>2,874,573</u></b>
Total number of persons employed by the District	Full-Time	<u>2</u>
	Part-Time	<u>0</u>

TSI-3 TEMPORARY INVESTMENTS  
 TSI-4 TAXES LEVIED AND RECEIVABLE

OMITTED AS NOT APPLICABLE  
 OMITTED AS NOT APPLICABLE

ALLIANCE REGIONAL WATER AUTHORITY  
TSI-5 LONG-TERM BONDED DEBT

Contract Revenue Bonds 2015A			
Fiscal Year Ending September 30,	Principal Due Each Year	Interest Due Each Year	Total
2020	\$ 185,000	\$ 62,587	\$ 247,587
2021	190,000	60,977	250,977
2022	190,000	59,058	249,058
2023	195,000	56,854	251,854
2024	195,000	54,319	249,319
2025	200,000	51,609	251,609
2026	205,000	48,669	253,669
2027	210,000	45,307	255,307
2028	210,000	41,506	251,506
2029	215,000	37,390	252,390
2030	220,000	32,875	252,875
2031	225,000	28,035	253,035
2032	230,000	22,905	252,905
2033	240,000	17,569	257,569
2034	245,000	11,881	256,881
2035	250,000	6,025	256,025
	\$ 3,405,000	\$ 637,566	\$ 4,042,566

ALLIANCE REGIONAL WATER AUTHORITY  
TSI-5 LONG-TERM BONDED DEBT (CONTINUED)

Contract Revenue Bonds 2015B			
Fiscal Year Ending September 30,	Principal Due Each Year	Interest Due Each Year	Total
2020	\$ 90,000	\$ 87,033	\$ 177,033
2021	95,000	86,088	181,088
2022	95,000	84,929	179,929
2023	95,000	83,607	178,607
2024	100,000	82,117	182,117
2025	100,000	80,437	180,437
2026	100,000	78,677	178,677
2027	105,000	76,707	181,707
2028	105,000	74,407	179,407
2029	110,000	71,929	181,929
2030	110,000	69,135	179,135
2031	115,000	66,220	181,220
2032	120,000	63,058	183,058
2033	120,000	59,698	179,698
2034	125,000	56,266	181,266
2035	130,000	52,666	182,666
2036	135,000	48,883	183,883
2037	140,000	44,684	184,684
2038	140,000	40,330	180,330
2039	145,000	35,976	180,976
2040	150,000	31,452	181,452
2041	155,000	26,772	181,772
2042	160,000	21,812	181,812
2043	165,000	16,692	181,692
2044	175,000	11,396	186,396
2045	180,000	5,778	185,778
	\$ 3,260,000	\$ 1,456,749	\$ 4,716,749

ALLIANCE REGIONAL WATER AUTHORITY  
TSI-5 LONG-TERM BONDED DEBT (CONTINUED)

Contract Revenue Bonds 2017A			
Fiscal Year Ending September 30,	Principal Due Each Year	Interest Due Each Year	Total
2020	\$ 265,000	\$ 235,814	\$ 500,814
2021	265,000	233,562	498,562
2022	270,000	231,018	501,018
2023	270,000	228,048	498,048
2024	275,000	224,727	499,727
2025	275,000	221,042	496,042
2026	280,000	216,972	496,972
2027	285,000	212,548	497,548
2028	290,000	207,760	497,760
2029	295,000	202,395	497,395
2030	300,000	196,318	496,318
2031	310,000	189,568	499,568
2032	315,000	182,035	497,035
2033	325,000	174,065	499,065
2034	330,000	165,583	495,583
2035	340,000	156,739	496,739
2036	350,000	147,457	497,457
2037	360,000	137,762	497,762
2038	370,000	127,646	497,646
2039	380,000	117,064	497,064
2040	390,000	105,702	495,702
2041	400,000	93,963	493,963
2042	415,000	81,923	496,923
2043	425,000	69,431	494,431
2044	435,000	56,299	491,299
2045	450,000	42,857	492,857
2046	465,000	28,952	493,952
2047	475,000	14,630	489,630
	\$ 9,605,000	\$ 4,301,880	\$ 13,906,880

ALLIANCE REGIONAL WATER AUTHORITY  
TSI-5 LONG-TERM BONDED DEBT (CONTINUED)

Contract Revenue Bonds 2017B			
Fiscal Year Ending September 30,	Principal Due Each Year	Interest Due Each Year	Total
2020	\$ 240,000	\$ 215,036	\$ 455,036
2021	240,000	212,996	452,996
2022	245,000	210,692	455,692
2023	245,000	207,997	452,997
2024	250,000	204,983	454,983
2025	250,000	201,633	451,633
2026	255,000	197,933	452,933
2027	260,000	193,904	453,904
2028	265,000	189,536	454,536
2029	270,000	184,634	454,634
2030	275,000	179,072	454,072
2031	280,000	172,884	452,884
2032	290,000	166,080	456,080
2033	295,000	158,743	453,743
2034	305,000	151,044	456,044
2035	310,000	142,870	452,870
2036	320,000	134,407	454,407
2037	330,000	125,543	455,543
2038	335,000	116,270	451,270
2039	345,000	106,689	451,689
2040	355,000	96,373	451,373
2041	365,000	85,688	450,688
2042	375,000	74,701	449,701
2043	385,000	63,414	448,414
2044	400,000	51,517	451,517
2045	410,000	39,157	449,157
2046	425,000	26,488	451,488
2047	435,000	13,398	448,398
	\$ 8,755,000	\$ 3,923,682	\$ 12,678,682

ALLIANCE REGIONAL WATER AUTHORITY  
TSI-5 LONG-TERM BONDED DEBT (CONTINUED)

Contract Revenue Bonds 2017C			
Fiscal Year Ending September 30,	Principal Due Each Year	Interest Due Each Year	Total
2020	\$ 545,000	\$ 177,337	\$ 722,337
2021	550,000	173,522	723,522
2022	550,000	169,232	719,232
2023	555,000	164,282	719,282
2024	560,000	158,677	718,677
2025	570,000	152,517	722,517
2026	575,000	145,620	720,620
2027	580,000	138,202	718,202
2028	590,000	130,256	720,256
2029	600,000	121,347	721,347
2030	610,000	111,267	721,267
2031	620,000	100,104	720,104
2032	630,000	87,828	717,828
2033	645,000	74,850	719,850
2034	660,000	61,112	721,112
2035	675,000	46,724	721,724
2036	690,000	31,739	721,739
2037	705,000	16,145	721,145
	\$ 10,910,000	\$ 2,060,761	\$ 12,970,761

ALLIANCE REGIONAL WATER AUTHORITY  
TSI-5 LONG-TERM BONDED DEBT (CONTINUED)

Contract Revenue Bonds 2017D			
Fiscal Year Ending September 30,	Principal Due Each Year	Interest Due Each Year	Total
2020	\$ 75,000	\$ 25,203	\$ 100,203
2021	80,000	24,678	104,678
2022	80,000	24,054	104,054
2023	80,000	23,334	103,334
2024	80,000	22,526	102,526
2025	80,000	21,646	101,646
2026	80,000	20,678	100,678
2027	80,000	19,646	99,646
2028	85,000	18,550	103,550
2029	85,000	17,267	102,267
2030	85,000	15,839	100,839
2031	90,000	14,283	104,283
2032	90,000	12,501	102,501
2033	90,000	10,647	100,647
2034	95,000	8,730	103,730
2035	95,000	6,659	101,659
2036	100,000	4,550	104,550
2037	100,000	2,290	102,290
	\$ 1,550,000	\$ 293,081	\$ 1,843,081

ALLIANCE REGIONAL WATER AUTHORITY  
TSI-5 LONG-TERM BONDED DEBT (CONTINUED)

Total Requirements for All Series			
Fiscal Year Ending September 30,	Principal Due Each Year	Interest Due Each Year	Total
2020	\$ 1,400,000	\$ 803,010	\$ 2,203,010
2021	1,420,000	791,823	2,211,823
2022	1,430,000	778,983	2,208,983
2023	1,440,000	764,122	2,204,122
2024	1,460,000	747,349	2,207,349
2025	1,475,000	728,884	2,203,884
2026	1,495,000	708,549	2,203,549
2027	1,520,000	686,314	2,206,314
2028	1,545,000	662,015	2,207,015
2029	1,575,000	634,962	2,209,962
2030	1,600,000	604,506	2,204,506
2031	1,640,000	571,094	2,211,094
2032	1,675,000	534,407	2,209,407
2033	1,715,000	495,572	2,210,572
2034	1,760,000	454,616	2,214,616
2035	1,800,000	411,683	2,211,683
2036	1,595,000	367,036	1,962,036
2037	1,635,000	326,424	1,961,424
2038	845,000	284,246	1,129,246
2039	870,000	259,729	1,129,729
2040	895,000	233,527	1,128,527
2041	920,000	206,423	1,126,423
2042	950,000	178,436	1,128,436
2043	975,000	149,537	1,124,537
2044	1,010,000	119,212	1,129,212
2045	1,040,000	87,792	1,127,792
2046	890,000	55,440	945,440
2047	910,000	28,028	938,028
	\$ 37,485,000	\$ 12,673,719	\$ 50,158,719

ALLIANCE REGIONAL WATER AUTHORITY  
TSI-6 CHANGES IN LONG-TERM BONDED DEBT

	Contract Revenue Bonds Series 2015A	Contract Revenue Bonds Series 2015B	Contract Revenue Bonds Series 2017A	Contract Revenue Bonds Series 2017B	Contract Revenue Bonds Series 2017C	Contract Revenue Bonds Series 2017D	Total
Interest Rate	0.38-2.41%	0.45-3.21%	0.77-3.08%	0.77-3.08%	0.63-2.29%	0.63-2.29%	
Dates Interest Payable	Feb 15, Aug 15	Feb 15, Aug 15	Feb 15, Aug 15	Feb 15, Aug 15	Feb 15, Aug 15	Feb 15, Aug 15	
Maturity Dates	August 2035	August 2045	August 2047	August 2047	August 2037	August 2037	
Beginning Bonds							
Outstanding	\$ 3,590,000	\$ 3,350,000	\$ 9,865,000	\$ 8,995,000	\$ 11,450,000	\$ 1,625,000	\$ 38,875,000
Bonds Sold During The Fiscal Year	-	-	-	-	-	-	-
Bonds Retired During The Fiscal Year	(185,000)	(90,000)	(260,000)	(240,000)	(540,000)	(75,000)	(1,390,000)
Ending Bonds							
Outstanding	<u>\$ 3,405,000</u>	<u>\$ 3,260,000</u>	<u>\$ 9,605,000</u>	<u>\$ 8,755,000</u>	<u>\$ 10,910,000</u>	<u>\$ 1,550,000</u>	<u>\$ 37,485,000</u>
Interest Paid During The Fiscal Year	<u>\$ 63,919</u>	<u>\$ 87,807</u>	<u>\$ 237,816</u>	<u>\$ 216,884</u>	<u>\$ 180,739</u>	<u>\$ 25,676</u>	<u>\$ 812,841</u>
Paying Agent's Name and City	BOKF, NA Dallas, TX	BOKF, NA Dallas, TX	BOKF, NA Dallas, TX	BOKF, NA Dallas, TX	BOKF, NA Dallas, TX	BOKF, NA Dallas, TX	
<i>Bond Authority</i>							
Amount Authorized by The Board of Trustees	\$ 3,775,000	\$ 3,440,000	\$ 65,924,210	\$ 60,110,316	\$ 76,516,189	\$ 10,859,285	\$ 220,625,000
Amount Issued	<u>3,775,000</u>	<u>3,440,000</u>	<u>9,865,000</u>	<u>8,995,000</u>	<u>11,450,000</u>	<u>1,625,000</u>	<u>39,150,000</u>
Remaining to be Issued	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 56,059,210</u>	<u>\$ 51,115,316</u>	<u>\$ 65,066,189</u>	<u>\$ 9,234,285</u>	<u>\$ 181,475,000</u>
Debt Service Fund Cash and Temporary Investments as of September 30							<u>\$ 49,456</u>
Average Annual Debt Service payment (principal & interest) for remaining term of debt							<u>\$ 1,791,383</u>

See Independent Auditor's Report.

ALLIANCE REGIONAL WATER AUTHORITY  
 TSI-7 COMPARATIVE SCHEDULE OF REVENUES, EXPENSES AND CHANGES IN NET POSITION  
 FOR THE YEAR ENDING SEPTEMBER 30

	2018	2019
Operating Revenues:		
Water Sales	\$ -	\$ 28,526
Total Operating Revenues	-	28,526
Operating Expenses:		
Groundwater Reservation Leases	1,240,976	1,192,172
Amortization of Reservation Lease Acquis	204,810	204,810
Professional Fees	220,963	230,066
Personnel Costs	194,334	332,814
Permits and Fees	62,878	71,311
Administrative Expenses	26,695	31,790
Total Operating Expenses	1,950,656	2,062,963
Operating Income (Loss)	(1,950,656)	(2,034,437)
Non-Operating Revenues (Expenses)		
Participating Government Contributions	4,221,926	6,476,552
Transmission and Treatment Agreement	736,853	3,887,232
Interest Income	4,579	568,877
Miscellaneous Income	6,500	-
Bond Issue Costs	(798,270)	-
Interest Expense	-	(811,610)
Total Non-Operating Revenues (Expenses)	4,171,588	10,121,051
Change in Net Position	\$ 2,220,932	\$ 8,086,614

The year ending September 30, 2018 was the first full fiscal year of the Authority. Information is being accumulated for this schedule until five years are presented.

See Independent Auditor's Report.

ALLIANCE REGIONAL WATER AUTHORITY  
TSI-8 BOARD MEMBERS, KEY PERSONNEL AND CONSULTANTS  
FOR THE YEAR ENDING SEPTEMBER 30, 2019

Names:	Term of Office (Elected or Appointed) or Date Hired	Fees of Office Paid 9/30/19	Expense Reimbursements 9/30/19	Title at Year End
<b>Board of Trustees:</b>				
Jane Hughson	6/17-4/20	---	---	Vice-Chair
Mike Taylor	6/17-4/20	---	---	Director
Daphne Tenorio	4/19-4/21	---	---	Director
Kenneth Williams	6/17-4/20	---	---	Treasurer
Tracy Scheel	4/19-4/21	---	---	Director
Humberto Ramos	6/17-4/21	---	---	Director
James Earp	6/17-4/21	---	---	Secretary
Tom Taggart	6/17-4/21	---	---	Director
Chris Betz	6/17-4/22	---	---	Chair
Mark Rockeymoore	4/19-4/22	---	---	Director
Jon Clack	6/17-4/22	---	---	Director
Pat Allen	6/17-4/20	---	---	Director
Steve Parker	6/17-4/22	---	---	Director
<b>Key Administrative Personnel:</b>				
Graham Moore	6/15/2017	\$ 162,591	\$ 2,054	Exec. Director
<b>Consultants:</b>				
Kimley-Horn & Associates		\$ 2,402,401		Engineer
CP&Y		\$ 1,149,842		Surveyor
Walker Partners		\$ 990,855		Engineer
Blanton & Associates		\$ 792,676		Engineer
Freese & Nichols		\$ 792,122		Engineer
Lockwood, Andrews & Newnam		\$ 698,902		Engineer
LNV, Inc.		\$ 606,657		Engineer
K Friese & Associates		\$ 414,463		Engineer
BGE, Inc.		\$ 368,408		Engineer
R.W. Harden & Associates, Inc.		\$ 159,408		Hydrogeology
Mark Taylor		\$ 110,215		Attorney
Davidson, Trooilo, Ream & Garza		\$ 109,109		Attorney
Texas Solutions Group		\$ 72,000		Lobbyist
GAP Strategies		\$ 29,265		Public Relations
Armstrong, Vaughan & Associates, P.C.		\$ 10,505		Auditor
Carls, McDonald & Dalrymple, LLP		\$ 9,073		Attorney
Kent Sick		\$ 8,906		Attorney
CBRE		\$ 6,500		Appraiser

See Independent Auditor's Report.



**ALLIANCE WATER**

**REGULAR MEETING**  
**Alliance Regional Water Authority Board of Directors**

**BOARD MEMBER PACKETS**

Wednesday, January 22, 2020 at 3:00 P.M.  
501 E. Hopkins, San Marcos, TX 78666

- F.3** Consider adoption of Resolution 2020-01-22-002 approving the Investment Policy for the Authority. ~ *Graham Moore, P.E., Executive Director*
- 

Background/Information

The Authority's Investment Policy was last approved in September 2017. Staff and general legal counsel reviewed the prior version and has suggested some updates to the Policy to ensure full compliance with both the Public Finance Investment Act and the Public Funds Collateral Act.

Attached are clean and red-lined versions of the Policy so that the Board can readily determine the proposed updates. Staff is now scheduling the review and approval of the Investment Act to occur every January.

Attachment(s)

- Resolution 2020-01-22-002
- Investment Policy – Clean
- Investment Policy – Edits

**Board Decision(s) Needed:**

- Adoption of Resolution 2020-01-22-002 approving the Investment Policy for the Authority.



# ALLIANCE WATER

## RESOLUTION NO. 20200122-002

### A RESOLUTION OF THE ALLIANCE REGIONAL WATER AUTHORITY BOARD OF DIRECTORS APPROVING AN INVESTMENT POLICY, AND DECLARING AN EFFECTIVE DATE

#### RECITALS:

1. The Hays Caldwell Public Utility Agency (the "Agency"), the predecessor to the Alliance Regional Water Authority (the "Authority"), originally approved an investment policy for the Agency, along with other financial policies, in Resolution No. 20071128-001 adopted on November 28, 2007.
2. The Agency Board of Directors approved an amended version of the investment policy in Resolution No. 20120222-001 adopted on February 22, 2012 and re-approved the policy in Resolution No. 20140326-003 adopted on March 26, 2014.
3. The Alliance Regional Water Authority (the "Authority") Board of Directors approved the investment policy in Resolution 20170927-008 adopted on September 27, 2017.
4. The attached Investment Policy has been updated to reflect the current requirements of the Public Funds Investment Act and the Public Funds Collateral Act along with other minor updates.

#### BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE ALLIANCE REGIONAL WATER AUTHORITY:

**PART 1.** The attached Investment Policy is approved and adopted as the investment policy for the Authority.

**PART 2.** This Resolution shall be in full force and effect immediately upon its passage.

**ADOPTED:** January 22, 2020

#### ATTEST:

\_\_\_\_\_  
Chris Betz  
Chair, Board of Directors

\_\_\_\_\_  
James Earp  
Secretary, Board of Directors



## **Alliance Regional Water Authority Investment Policy**

The Alliance Regional Water Authority is subject to the state Public Funds Investment Act and Public Funds Collateral Act, which require local governments to adopt rules governing their investment practices and security of funds and to define the authority of their investment officers. This Investment Policy addresses the methods, procedures, and practices to be used to ensure prudent, effective fiscal management of the Authority's funds.

### **Article 1. In General**

**Section 1.1. Definitions.** In this Policy:

**1.1.1. Authority** means the Alliance Regional Water Authority.

**1.1.2. Authority Board** means the Board of Directors of the Authority.

**1.1.3. Executive Director** means the person responsible for managing day-to-day administrative services for the Authority.

**1.1.4. Technical Committee** means the Technical Committee of the Board of Directors of the Authority.

**1.1.5. General Counsel** means the person engaged by the Authority Board to provide general legal counsel services for the Authority.

**1.1.6. Investment Officer** means the person designated in Section 4.1 of this Policy as the Authority's investment officer.

**1.1.7. PFIA** means the state Public Funds Investment Act (Chapter 2256, Texas Government Code, as amended).

**1.1.8. PFCA** means the state Public Funds Collateral Act (Chapter 2257, Texas Government Code, as amended).

**1.1.8. Sponsor** means one of the following: the City of Buda, the Canyon Regional Water Authority, the City of Kyle, and the City of San Marcos or any other local government or private entity added to the Authority.

**Section 1.2. General Policy Statement.** Effective cash management is essential to good fiscal management. After providing for anticipated cash-flow requirements and recognizing that investment interest is a source of revenue to the Authority, it is the policy of the Authority to invest public funds in a manner that will ensure maximum security while providing high investment return, meeting the cash flow demands of the Authority, and conforming to all federal and state laws governing the investment of public funds.

**Section 1.3. Application.** This investment policy applies to all funds held by the Authority. These funds include:

- 1.3.1. Funds in general operations and maintenance accounts;
- 1.3.2. Funds in debt service accounts;
- 1.3.3. Funds in capital improvement project accounts;
- 1.3.4. Special revenue funds;
- 1.3.5. Trust and agency funds, to the extent not required by law or existing contract to be kept segregated and managed separately; and
- 1.3.6. Funds in other Authority accounts established with the approval of the Authority Board.

The Authority will consolidate cash balances from all funds to maximize investment earnings. Investment income will be allocated to the various funds based on their respective participation and in accordance with generally accepted accounting principles.

This investment policy shall apply to all transactions involving the financial assets and related activity for all the foregoing funds. However, this policy does not apply to any assets administered for the benefit of the Authority by outside agencies under deferred compensation programs.

## **Article 2. Standard of Care**

**Section 2.1. “Prudent Person” Standard.** The standard of care to be used by Authority investment officers will be the “prudent person” standard, applied in the context of managing an overall portfolio. This means that investments will be made with the judgment and care, under circumstances then prevailing, which persons of prudence, discretion and intelligence exercise in the management of their own affairs, not for speculation, but for investment, considering the probable safety of their capital as well as the probable income to be derived.

**Section 2.2. Non-Liability of Investment Officer.** If the Investment Officer acts in accordance with this Investment Policy, exercises due diligence, reports deviations from expectations in a timely fashion, and takes appropriate action to control adverse developments, the officer will not have personal responsibility for credit risks or market price changes associated with the Authority’s investments.

## **Article 3. Investment Objectives and Strategies**

**Section 3.1. Objectives.** Investments shall be made with the primary objectives of:

- 3.1.1. Safety and preservation of principal;
- 3.1.2. Maintenance of sufficient **liquidity** to meet operating needs;
- 3.1.3. Maximization of **yield** on the portfolio; and
- 3.1.4. **Public trust** from prudent investment activities.

**Section 3.2. General Strategies.** The Authority will maintain a pooled investment portfolio that utilizes specific investment strategy considerations designed to address the unique characteristics of the fund groups represented in the portfolio. In order to minimize risk of loss due to interest rate fluctuations, investment maturities will not exceed the anticipated cash flow requirements of the funds. The composite portfolio will have a dollar weighted average maturity of 365 days or less. This dollar weighted average maturity will be calculated using the stated final maturity dates of each security.

**Section 3.3. Strategies – Operating Funds.** Investment strategies for operating funds have as their primary objective to assure that anticipated cash flows are matched with adequate investment liquidity. The secondary objective is to create a portfolio structure that will experience minimal volatility during economic cycles. This may be accomplished by purchasing high quality, short- to medium-term securities that will complement each other in a laddered structure.

**Section 3.4. Strategies – Debt Service Funds.** Investment strategies for debt service funds shall have as the primary objective the assurance of investment liquidity adequate to cover the debt service obligations on the required payment date. Securities purchased shall not have a stated final maturity date which exceeds the debt service payment date, or funds shall be maintained in an investment pool or money market mutual fund to be available for debt service payments.

**Section 3.5. Strategies – Capital Improvement Project Funds and Debt Service Reserve Funds.** Investment strategies for capital improvement project funds and for debt service reserve funds shall have as the primary objective the ability to generate a dependable revenue source to the appropriate fund from securities with a low degree of volatility. Except as may be required by the bond resolution specific to an individual issue, securities should be of high quality, with short to medium term maturities.

**Section 3.6. Matching Maturities with Cash Flow.** To the maximum extent possible, the Authority will attempt to match its investments with anticipated cash flow requirements. The Investment Officer will develop and maintain a cash flow forecasting process to monitor and forecast cash positions for investment purposes. The process will include researching historical data and trends, monitoring of specific cash flow items, payables and receivables, and overall cash position and patterns.

**Section 3.7. Crediting of Interest.** Unless otherwise determined by the Authority Board, interest on Authority investments will be credited to the fund upon which the interest is earned.

**Section 3.8. Performance Benchmark.** It is the policy of the Authority to purchase investments with maturity dates coinciding with cash flow needs. Through this strategy, the Authority attempts to purchase the highest yielding allowable investments available on the market at that time. Market value will be calculated on a quarterly basis on all securities owned and compared to current book value of those securities to determine portfolio performance during that period of time. The Authority's portfolio shall be designed with the objective of regularly meeting or exceeding the average rate of return on U.S. Treasury Bills at a maturity level comparable to the Authority's weighted average maturity in days.

## **Article 4. Delegation of Investment Authority**

**Section 4.1. Investment Officer.** The Executive Director is designated as the Authority's Investment Officer to manage the Authority's investments.

**Section 4.2. Investment Committee.** An Investment Committee is formed consisting of the Investment Officer, the Authority Board Treasurer, and a representative of a firm engaged by the Authority Board to provide financial advisory services. The Investment Committee will be responsible for selecting eligible broker/dealers, monitoring investment reports, and reviewing and updating this Investment Policy annually. All Investment Committee members shall seek to act responsibly as custodians of the public trust.

**Section 4.3. Investment Officer Training.** The Investment Officer will:

**4.3.1.** Attend at least one training session within 12 months of assuming duties *and* containing not less than 10 hours of instruction from an independent source approved by the governing board or a designated investment committee;

**4.3.1.** Receive training which includes education in investment controls, security risks, strategy risks, market risks, diversification of the investment portfolio, and compliance with the PFIA; and

**4.3.1.** Attend a training session once every two years and receive not less than 10 hours of training from an independent source approved by the governing board or a designated investment committee; however, as long as the Authority has fewer than five full-time employees and has contracted with an investment management firm under Section 2256.003(b) of the PFIA, this training requirement is met by attending four hours of appropriate instruction in a two-year period that begins on the first day of the fiscal year.

## **Article 5. Authorized Financial Dealers and Institutions**

**Section 5.1. Authorized Financial Institutions and Security Brokers/Dealers.** The Investment Committee will develop and maintain a list of financial institutions authorized to provide investment services for the Authority. The Investment Committee will also develop and maintain a list of approved security brokers/dealers, selected by credit-worthiness, who are authorized to provide investment services in the State of Texas. These may include “primary” or regional dealers that qualify under SEC rule 15C3-1. No public deposit shall be made except in a qualified public depository as established by state laws. The Board shall not be required to advertise or solicit bids in selecting its depositories. Authority funds, other than those transmitted to a bank for payment of bonds issued by the Authority, shall be deposited as received with the bank and shall remain on deposit, but this does not limit the power of the Board to place a portion of the Authority’s funds on time deposit or to purchase Certificates of Deposit. To the extent that funds in the depository are not insured by the Federal Deposit Insurance Corporation (FDIC), they shall be secured in the manner provided by law for the security of funds by the Public Funds Collateral Act, Chapter 2257 of the Texas Government Code.

**Section 5.2. Questionnaire.** All financial institutions and brokers/dealers who desire to become qualified bidders for Authority investment transactions must supply the Investment Officer with a completed Broker/Dealer Questionnaire and Certification which shall include the following:

**5.2.1.** An audited financial statement for the most recent period.

**5.2.2.** Proof of certification by the National Association of Securities Dealers (NASD).

**5.2.3.** Proof of current registration with the State Securities Board.

**5.2.4.** A certification that all of the information provided is true and correct, that the firm has read and understands the Authority’s Investment Policy, and that reasonable procedures and controls have been implemented to preclude investment transactions that are not authorized by the Authority’s policy.

**Section 5.3.** The Investment Committee will perform an annual review of the financial condition and registrations of qualified bidders.

**Section 5.4.** A current audited financial statement is required to be on file for each financial institution and broker/dealer with which the Authority invests.

## Article 6. Authorized Investments

**Section 6.1.** Acceptable investments under this policy shall be limited to the instruments described in Subchapter A of the PFIA, which include:

- 6.1.1. Obligations of the United States Government, its agencies and instrumentalities as described in PFIA Section 2256.009.
- 6.1.2. Direct obligations of this state or its agencies and instrumentalities as described in PFIA Section 2256.009.
- 6.1.3. Certificates of deposit as described in PFIA Section 2256.010.
- 6.1.4. Repurchase agreements and reverse repurchase agreements as described in PFIA Section 2256.011.
- 6.1.5. Commercial paper as described in PFIA Section 2256.013.
- 6.1.6. Mutual funds as described in PFIA Section 2256.014.
- 6.1.7. Guaranteed investment contracts as described in PFIA Section 2256.015.
- 6.1.8. Investment pools as described in PFIA Section 2256.016.

**Section 6.2. Diversification.** With the exception of U.S. Treasury securities, authorized pools, accounts or certificates of deposit that are federally insured, and accounts or certificates of deposit that are collateralized in accordance with Article 8, no more than 30% of the Authority's total investment portfolio will be invested in a single security type or with a single financial institution. Federal Agency securities will not exceed 70% of the total portfolio.

## Article 7. Security Purchases/Trades

**Section 7.1. Investment Procedures.** The Investment Committee will establish written procedures for the operation of the investment program consistent with this Investment Policy.

**Section 7.2. Bidding Required.** Securities will be purchased or sold after three (3) offers/bids are taken to verify that the Authority is receiving fair market value/price for the investment. New securities still in syndicate and priced at par may be purchased without competitive offers.

**Section 7.3. Delivery vs. Payment.** All security transactions, including collateral for repurchase agreements, entered into by the Authority shall be conducted on a Delivery-Versus-Payment (DVP) basis, with the exception of investment pool funds and mutual funds. Securities will be held by a third-party custodian designated by the Investment Officer and evidenced by safekeeping receipts.

## Article 8. Collateralization

**Section 8.1. When Required.** Collateralization will be required on three types of investments: certificates of deposit to the extent they exceed federal insurance limits, bank accounts to the extent they exceed federal insurance limits, and repurchase (and reverse repurchase) agreements. In order to anticipate market changes and provide a level of security for all funds, the collateralization level will be 102% of market value of principal and accrued interest.

**Section 8.2. Authorized Collateral.** The Authority chooses to limit collateral to obligations of the United States government, its agencies and instrumentalities.

**Section 8.3. Third Party Holding of Collateral.** Collateral will always be held by an independent third party with whom the Authority has a current custodial agreement. A clearly marked evidence of ownership (safekeeping receipt) must be supplied to the Authority and retained.

**Section 8.4. The Authority shall accept only the following types of collateral:**

**8.4.1.** Obligations of the United States or its agencies and instrumentalities.

**8.4.2.** Direct obligations of the state of Texas or its agencies and instrumentalities.

**8.4.3.** Collateralized mortgage obligations directly issued by a federal agency or instrumentality of the United States, the underlying security for which is guaranteed by an agency or instrumentality of the United States.

**8.4.4.** Obligations of states, agencies, counties, cities, and other political subdivisions of any state rated as to investment quality by a nationally recognized rating firm not less than A or its equivalent with a remaining maturity of ten (10) years or less.

**8.4.5.** A surety bond issued by an insurance company rated as to investment quality by a nationally recognized rating firm not less than A.

**8.4.6.** A letter of credit issued to the Authority by the Federal Home Loan Bank.

**Section 8.4. Collateral Substitution.** The right of collateral substitution is granted.

## **Article 9. Internal Controls**

**Section 9.1. Internal Controls.** The Investment Officer will establish and maintain an internal control structure designed to ensure that the investment assets of the Authority are protected from loss, theft, or misuse. The internal control structure shall be designed to provide reasonable assurance that these objectives are met. The internal controls will address, at a minimum, the following points:

**9.1.1.** Separation of duties from accounting and recordkeeping.

**9.1.2.** Custodial safekeeping.

**9.1.3.** Avoidance of physical delivery securities.

**9.1.4.** Oversight control of supervisors to subordinate staff members.

**9.1.5.** Written confirmations for telephone (voice) transactions for investment purchases and wire transfers.

**9.1.6.** Development of a wire transfer agreement with the depository bank or third-party custodian.

**9.1.7.** Control of collusion.

**Section 9.2. Review of Internal Controls.** The Investment Officer will establish a process for annual independent review of the internal controls by an external auditor to assure compliance with this Policy.

## **Article 10. Performance Standards**

**Section 10.1. Portfolio Design.** The investment portfolio shall be designed with the objective of obtaining a rate of return throughout budgetary and economic cycles, commensurate with the investment risk constraints and cash flow needs.

**Section 10.2. Benchmark.** Given the passive investment strategy of the Authority, the benchmark to be used by the Investment Officer to determine whether market yields are being achieved shall be the U.S. Treasury with a maturity that most closely matches the portfolios dollar-weighted average maturity.

## **Article 11. Reporting**

**Section 11.1. Quarterly Investment Reports.** The Investment Officer will prepare an investment report on a quarterly basis and present the report to the Investment Committee and the Authority Board. The report will summarize investment strategies employed in the quarter, will describe the portfolio in terms of investment securities and maturities, and will explain the total investment return for the quarter. The report will include a summary statement of investment activity prepared in compliance with generally accepted accounting principles, and in a manner which will allow the Authority to ascertain whether investment activities have conformed to this Investment Policy. The report will include the following:

**Section 11.1.1.** A listing of individual securities held at the end of the reporting period.

**Section 11.1.2.** Unrealized gains or losses resulting from appreciation or depreciation by listing the beginning and ending book and market value of securities for the period.

**Section 11.1.3.** Additions and changes to the market value during the period.

**Section 11.1.4.** Average weighted yield to maturity of portfolio as compared to applicable benchmark.

**Section 11.1.5.** Listing of investments by maturity date.

**Section 11.1.6.** Fully accrued interest for the reporting period

**Section 11.1.7.** The percentage of the total portfolio which each type of investment represents.

**Section 11.1.8.** Statement of compliance of the Authority's investment portfolio with state law and the investment strategy and policy approved by the Authority Board.

**Section 11.1.9.** The book and market value of each separately invested asset at the end of the reporting period by type of asset and fund type invested.

**Section 11.2. Audit of Reports.** An independent auditor will perform a formal annual review of the quarterly reports with the results reported to the governing body.

## **Article 12. Ethics and Conflicts of Interest**

**Section 12.1. Conflicting Personal Activities.** All persons involved in Authority investment activities shall refrain from personal business activities that could conflict with proper execution of the Authority's investment program, or which could impair their ability to make impartial investment decisions.

**Section 12.2. Disclosure.** Each Investment Committee member shall submit an annual written disclosure to the Authority of any material financial interest the member has in financial institutions that conduct business in the area of the Authority.



## Alliance Regional Water Authority Investment Policy

The Alliance Regional Water Authority is subject to the state Public Funds Investment Act and Public Funds Collateral Act, which requires local governments to adopt rules governing their investment practices and security of funds and to define the authority of their investment officers. This Investment Policy addresses the methods, procedures, and practices to be used to ensure prudent, effective fiscal management of the Authority's funds.

### Article 1. In General

**Section 1.1. Definitions.** In this Policy:

**1.1.1. Authority** means the Alliance Regional Water Authority.

**1.1.2. Authority Board** means the Board of Directors of the Authority.

**1.1.3. Executive Director** means the person responsible for managing day-to-day administrative services for the Authority.

**1.1.4. ~~Executive-Technical~~ Committee** means the Executive-Technical Committee of the Board of Directors of the Authority.

**1.1.5. General Counsel** means the person engaged by the Authority Board to provide general legal counsel services for the Authority.

**1.1.6. Investment Officer** means the person designated in Section 4.1 of this Policy as the Authority's investment officer.

**1.1.7. PFIA** means the state Public Funds Investment Act (Chapter 2256, Texas Government Code, as amended).

**1.1.8. PFCA** means the state Public Funds Collateral Act (Chapter 2257, Texas Government Code, as amended).

**1.1.8. Sponsor** means one of the following: the City of Buda, the Canyon Regional Water Authority, the City of Kyle, and the City of San Marcos or any other local government or private entity added to the Authority.

**Section 1.2. General Policy Statement.** Effective cash management is essential to good fiscal management. After providing for anticipated cash-flow requirements and recognizing that investment interest is a source of revenue to the Authority, it is the policy of the Authority to invest public funds in a manner which-that will ensure maximum security while providing high investment return, meeting the cash flow demands of the Authority, and conforming to all federal and state laws governing the investment of public funds.

**Section 1.3. Application.** This investment policy applies to all funds held by the Authority. These funds include:

- 1.3.1. Funds in general operations and maintenance accounts;
- 1.3.2. Funds in debt service accounts;
- 1.3.3. Funds in capital improvement project accounts;
- 1.3.4. Special revenue funds;
- 1.3.5. Trust and agency funds, to the extent not required by law or existing contract to be kept segregated and managed separately; and
- 1.3.6. Funds in other Authority accounts established with the approval of the Authority Board.

The Authority will consolidate cash balances from all funds to maximize investment earnings. Investment income will be allocated to the various funds based on their respective participation and in accordance with generally accepted accounting principles.

This investment policy shall apply to all transactions involving the financial assets and related activity for all the foregoing funds. However, this policy does not apply to any assets administered for the benefit of the Authority by outside agencies under deferred compensation programs.

## **Article 2. Standard of Care**

**Section 2.1. “Prudent Person” Standard.** The standard of care to be used by Authority investment officers will be the “prudent person” standard, applied in the context of managing an overall portfolio. This means that investments will be made with the judgment and care, under circumstances then prevailing, which persons of prudence, discretion and intelligence exercise in the management of their own affairs, not for speculation, but for investment, considering the probable safety of their capital as well as the probable income to be derived.

**Section 2.2. Non-Liability of Investment Officer.** If the Investment Officer acts in accordance with this Investment Policy, exercises due diligence, reports deviations from expectations in a timely fashion, and takes appropriate action to control adverse developments, the officer will not have personal responsibility for credit risks or market price changes associated with the Authority’s investments.

## **Article 3. Investment Objectives and Strategies**

**Section 3.1. Objectives.** Investments shall be made with the primary objectives of:

- 3.1.1. Safety and preservation of principal;
- 3.1.2. Maintenance of sufficient **liquidity** to meet operating needs;
- 3.1.3. Maximization of **yield** on the portfolio; and
- 3.1.4. **Public trust** from prudent investment activities.

**Section 3.2. General Strategies.** The Authority will maintain a pooled investment portfolio that utilizes specific investment strategy considerations designed to address the unique characteristics of the fund groups represented in the portfolio. In order to minimize risk of loss due to interest rate fluctuations, investment maturities will not exceed the anticipated cash flow requirements of the funds. The composite portfolio will have a dollar weighted average maturity of 365 days or less. This dollar weighted average maturity will be calculated using the stated final maturity dates of each security.

**Section 3.3. Strategies – Operating Funds.** Investment strategies for operating funds have as their primary objective to assure that anticipated cash flows are matched with adequate investment liquidity. The secondary objective is to create a portfolio structure that will experience minimal volatility during economic cycles. This may be accomplished by purchasing high quality, short- to medium-term securities that will complement each other in a ladder structure.

**Section 3.4. Strategies – Debt Service Funds.** Investment strategies for debt service funds shall have as the primary objective the assurance of investment liquidity adequate to cover the debt service obligations on the required payment date. Securities purchased shall not have a stated final maturity date which exceeds the debt service payment date, or funds shall be maintained in an investment pool or money market mutual fund to be available for debt service payments.

**Section 3.5. Strategies – Capital Improvement Project Funds and Debt Service Reserve Funds.** Investment strategies for capital improvement project funds and for debt service reserve funds shall have as the primary objective the ability to generate a dependable revenue source to the appropriate fund from securities with a low degree of volatility. Except as may be required by the bond resolution specific to an individual issue, securities should be of high quality, with short to medium term maturities.

**Section 3.6. Matching Maturities with Cash Flow.** To the maximum extent possible, the Authority will attempt to match its investments with anticipated cash flow requirements. The Investment Officer will develop and maintain a cash flow forecasting process to monitor and forecast cash positions for investment purposes. The process will include researching historical data and trends, monitoring of specific cash flow items, payables and receivables, and overall cash position and patterns.

**Section 3.7. Crediting of Interest.** Unless otherwise determined by the Authority Board, interest on Authority investments will be credited to the fund upon which the interest is earned.

**Section 3.8. Performance Benchmark.** It is the policy of the Authority to purchase investments with maturity dates coinciding with cash flow needs. Through this strategy, the Authority attempts to purchase the highest yielding allowable investments available on the market at that time. Market value will be calculated on a quarterly basis on all securities owned and compared to current book value of those securities to determine portfolio performance during that period of time. The Authority's portfolio shall be designed with the objective of regularly meeting or exceeding the average rate of return on U.S. Treasury Bills at a maturity level comparable to the Authority's weighted average maturity in days.

## **Article 4. Delegation of Investment Authority**

**Section 4.1. Investment Officer.** The Executive Director is designated as the Authority's Investment Officer to manage the Authority's investments.

**Section 4.2. Investment Committee.** An Investment Committee is formed consisting of the Investment Officer, the Authority Board Treasurer, and a representative of a firm engaged by the Authority Board to provide financial advisory services. The Investment Committee will be responsible for selecting eligible broker/dealers, monitoring investment reports, and reviewing and updating this Investment Policy annually. All Investment Committee members shall seek to act responsibly as custodians of the public trust.

**Section 4.3. Investment Officer Training.** The Investment Officer will:

4.3.1. Attend at least one training session within 12 months of assuming duties *and* containing not less than 10 hours of instruction from an independent source approved by the governing board or a designated investment committee;

4.3.1. Receive training which includes education in investment controls, security risks, strategy risks, market risks, diversification of the investment portfolio, and compliance with the PFIA; and

4.3.1. Attend a training session once every two years and receive not less than 10 hours of training from an independent source approved by the governing board or a designated investment committee; however, as long as the Authority has fewer than five full-time employees and has contracted with an investment management firm under Section 2256.003(b) of the PFIA, this training requirement is met by attending four hours of appropriate instruction in a two-year period that begins on the first day of the fiscal year.

## Article 5. Authorized Financial Dealers and Institutions

**Section 5.1. Authorized Financial Institutions and Security Brokers/Dealers.** The Investment Committee will develop and maintain a list of financial institutions authorized to provide investment services for the Authority. The Investment Committee will also develop and maintain a list of approved security brokers/dealers, selected by credit-worthiness, who are authorized to provide investment services in the State of Texas. These may include “primary” or regional dealers that qualify under SEC rule 15C3-1. No public deposit shall be made except in a qualified public depository as established by state laws. The Board shall not be required to advertise or solicit bids in selecting its depositories. Authority funds, other than those transmitted to a bank for payment of bonds issued by the Authority, shall be deposited as received with the bank and shall remain on deposit, but this does not limit the power of the Board to place a portion of the Authority’s funds on time deposit or to purchase Certificates of Deposit. To the extent that funds in the depository are not insured by the Federal Deposit Insurance Corporation (FDIC), they shall be secured in the manner provided by law for the security of funds by the Public Funds Collateral Act, Chapter 2257 of the Texas Government Code.

**Section 5.2. Questionnaire.** All financial institutions and brokers/dealers who desire to become qualified bidders for Authority investment transactions must supply the Investment Officer with a completed Broker/Dealer Questionnaire and Certification which shall include the following:

5.2.1. An audited financial statement for the most recent period.

5.2.2. Proof of certification by the National Association of Securities Dealers (NASD).

5.2.3. Proof of current registration with the State Securities Board.

5.2.4. A certification that all of the information provided is true and correct, ~~and~~ that the firm has read and understands the Authority’s Investment Policy, and that reasonable procedures and controls have been implemented to preclude investment transactions that are not authorized by the Authority’s policy.

**Section 5.3.** The Investment Committee will perform an annual review of the financial condition and registrations of qualified bidders.

**Section 5.4.** A current audited financial statement is required to be on file for each financial institution and broker/dealer with which the Authority invests.

## Article 6. Authorized Investments

**Section 6.1.** Acceptable investments under this policy shall be limited to the instruments described in Subchapter A of the PFIA, which include:

- 6.1.1. Obligations of the United States Government, its agencies and instrumentalities as described in PFIA Section 2256.009.
- 6.1.2. Direct obligations of this state or its agencies and instrumentalities as described in PFIA Section 2256.009.
- 6.1.3. Certificates of deposit as described in PFIA Section 2256.010.
- 6.1.4. Repurchase agreements and reverse repurchase agreements as described in PFIA Section 2256.011.
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**Section 6.2. Diversification.** With the exception of U.S. Treasury securities, authorized pools, accounts or certificates of deposit that are federally insured, and accounts or certificates of deposit that are collateralized in accordance with Article 8, no more than 30% of the Authority's total investment portfolio will be invested in a single security type or with a single financial institution. Federal Agency securities will not exceed 70% of the total portfolio.

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**Section 8.4. The Authority shall accept only the following types of collateral:**

**8.4.1. Obligations of the United States or its agencies and instrumentalities.**

**8.4.2. Direct obligations of the state of Texas or its agencies and instrumentalities.**

**8.4.3. Collateralized mortgage obligations directly issued by a federal agency or instrumentality of the United States, the underlying security for which is guaranteed by an agency or instrumentality of the United States.**

**8.4.4. Obligations of states, agencies, counties, cities, and other political subdivisions of any state rated as to investment quality by a nationally recognized rating firm not less than A or its equivalent with a remaining maturity of ten (10) years or less.**

**8.4.5. A surety bond issued by an insurance company rated as to investment quality by a nationally recognized rating firm not less than A.**

**8.4.6. A letter of credit issued to the Authority by the Federal Home Loan Bank.**

**Section 8.4. Collateral Substitution.** The right of collateral substitution is granted.

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**9.1.1.** Separation of duties from accounting and recordkeeping.

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**Section 10.1. Portfolio Design.** The investment portfolio shall be designed with the objective of obtaining a rate of return throughout budgetary and economic cycles, commensurate with the investment risk constraints and cash flow needs.

**Section 10.2. Benchmark.** Given the passive investment strategy of the Authority, the benchmark to be used by the Investment Officer to determine whether market yields are being achieved shall be the U.S. Treasury with a maturity that most closely matches the portfolios dollar-weighted average maturity.

## Article 11. Reporting

**Section 11.1. Quarterly Investment Reports.** The Investment Officer will prepare an investment report on a quarterly basis and present the report to the Investment Committee and the Authority Board. The report will summarize investment strategies employed in the quarter, will describe the portfolio in terms of investment securities and maturities, and will explain the total investment return for the quarter. The report will include a summary statement of investment activity prepared in compliance with generally accepted accounting principles, and in a manner which will allow the Authority to ascertain whether investment activities have conformed to this Investment Policy. The report will include the following:

**Section 11.1.1.** A listing of individual securities held at the end of the reporting period.

**Section 11.1.2.** Unrealized gains or losses resulting from appreciation or depreciation by listing the beginning and ending book and market value of securities for the period.

**Section 11.1.3.** Additions and changes to the market value during the period.

**Section 11.1.4.** Average weighted yield to maturity of portfolio as compared to applicable benchmark.

**Section 11.1.5.** Listing of investments by maturity date.

**Section 11.1.6.** Fully accrued interest for the reporting period

**Section 11.1.7.** The percentage of the total portfolio which each type of investment represents.

**Section 11.1.8.** Statement of compliance of the Authority's investment portfolio with state law and the investment strategy and policy approved by the Authority Board.

**Section 11.1.9.** The book and market value of each separately invested asset at the end of the reporting period by type of asset and fund type invested.

**Section 11.2. Audit of Reports.** An independent auditor will perform a formal annual review of the quarterly reports with the results reported to the governing body.

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**Section 12.1. Conflicting Personal Activities.** All persons involved in Authority investment activities shall refrain from personal business activities that could conflict with proper execution of the Authority's investment program, or which could impair their ability to make impartial investment decisions.

**Section 12.2. Disclosure.** Each Investment Committee member shall submit an annual written disclosure to the Authority of any material financial interest the member has in financial institutions that conduct business in the area of the Authority.

**REGULAR MEETING**  
**Alliance Regional Water Authority Board of Directors**

**BOARD MEMBER PACKETS**

Wednesday, January 22, 2020 at 3:00 P.M.  
501 E. Hopkins, San Marcos, TX 78666

- F.4** Update and discussion regarding the status of the Authority's Phase 1A projects, and direction to staff and consultants. ~ *Jason Biemer, Project Coordinator*
- 

Background/Information

Below are brief updates on the Phase 1A projects.

Segment B Pipeline:

- Notice to proceed received 12/5/2019.
- Pre-Con was held 12/17/2019.
  - Clearing underway.
  - Stormwater protection systems being installed.
- No major issues identified by contractor or staff at this time.

Pump Station:

- Pump station construction proceeding. See attached slides.
- Revised substantial completion March 3, 2020
- 30-day acceptance and testing follow completion date.

Attachment(s)

- 1A Booster Pump Station Presentation

**Board Decision(s) Needed:**

- Approval of minutes.

## Phase 1A Booster Pump Station

- Status Update
- December 15, 2019



## General Updates



Road work on site nearing completion



PEC on site this week



Building structures up – internal painting completed.



Wiring and major electrical components nearing completion.



SCADA server system arriving on site this week



## Facility Structures - *Interior*

- HVAC system installation completed.
- Chemical feed system ready to test.
- Chemical leak safety system installation complete.
- Ventilation system installation completing.
- Awaiting integration into SCADA system where required.



## Facility Structures – *Landscaping and Exterior*

- Gates and fence installation underway.
- Security gates, security lights in final installation phase.
- Vegetation establishing
- Irrigation system installation completing soon.



## Phase 1A

### *Buda Delivery Point*

- Canopy completed.
- Underground plumbing completed.
- SCADA and electrical systems in final installation phase.

**REGULAR MEETING**  
**Alliance Regional Water Authority Board of Directors**

**BOARD MEMBER PACKETS**

Wednesday, January 22, 2020 at 3:00 P.M.  
501 E. Hopkins, San Marcos, TX 78666

- F.5** Consider adoption of Resolution 2020-01-22-003 approving an agreement with MLA Labs, Inc. for materials testing associated with the Phase 1A Segment B Pipeline project. ~ *Graham Moore, P.E., Executive Director*
- 

Background/Information

The Authority needs the services of a materials testing firm to ensure that the backfill for the Phase 1A Segment B Pipeline project meets the contract requirements. On behalf of the Authority, Jim Tolles requested proposals from three testing firms in accordance with the “Informal Bid Process” outlined in the Authority’s Purchasing Policies. Below are the results of the proposals received.

ITEM	FUGRO	MLA
FIELD TESTING - EARTHWORK	12,500	5,086
LAB TESTING - EARTHWORK	2,190	8,032
<b>TOTAL</b>	<b>\$14,690</b>	<b>\$13,118</b>

Attached is the proposal. Jim Tolles, the construction observer, will coordinate all of the materials testing activities. The Authority entered into a similar agreement with MLA Labs, Inc, in September 2018 for the materials testing for the Phase 1A Pump Station project – the terms of the attached agreement are the same as those in the previously approved agreement.

Fee Schedule

The work authorization is proposed on a time and material basis not-to-exceed \$13,118. The proposal is within the budget allocated for this effort.

Executive Director Recommendation

The Executive Director recommends the approval of the agreement with MLA Labs, Inc.

Attachment(s)

- MLA Labs, Inc. Proposal Letter dated August 30, 2018.

**Board Decision(s) Needed:**

- Adoption of Resolution 2020-01-22-003 approving an agreement with MLA Labs, Inc. for materials testing services on the Authority’s Phase 1A Segment B Pipeline Project.



**ALLIANCE WATER**

**RESOLUTION NO. 20200122-003**

**A RESOLUTION OF THE ALLIANCE REGIONAL WATER AUTHORITY BOARD OF DIRECTORS APPROVING AN AGREEMENT WITH MLA LABS, INC. FOR MATERIALS TESTING FOR THE PHASE 1A SEGMENT B PIPELINE PROJECT; AUTHORIZING THE CHAIR OF THE BOARD TO EXECUTE CONTRACT DOCUMENTS AND DECLARING AN EFFECTIVE DATE**

**RECITALS:**

1. The Alliance Regional Water Authority ("Alliance Water") sought bids for the materials testing associated with the Phase 1A Segment B Pipeline Project (the "Project") in accordance with Alliance Water's purchasing policies.
2. Alliance Water received two bids, with MLA Labs, Inc. being deemed the lowest, responsible bidder.

**BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE ALLIANCE REGIONAL WATER AUTHORITY:**

**SECTION 1.** An Agreement for Material Testing Services for the Phase 1A Segment B Project with a maximum not-to-exceed fee of \$13,118.00 between Alliance Water and MLA Labs, Inc. is approved.

**SECTION 2.** Alliance Water's Executive Director, Graham Moore, is authorized to execute the Agreement on behalf of Alliance Water.

**SECTION 3.** This Resolution shall be in full force and effect immediately upon its passage.

**ADOPTED:** January 22, 2020

**ATTEST:**

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Chris Betz  
Chair, Board of Directors

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James Earp  
Secretary, Board of Directors



January 8, 2020

TBPE Firm # F-2684

**Alliance Regional Water Authority**  
630 E. Hopkins  
San Marcos, Texas 78666  
Attn.: Mr. Graham Moore

**E-Mail: gmoore@alliancewater.org**

**Re: Construction Materials Testing and Observation Services Proposal**  
**ARWA Phase 1A Pipeline Segment B, Buda, Texas**  
**Proposal No. 20107100.008**

Dear Mr. Graham Moore:

MLA Geotechnical is pleased to submit this proposal for the construction materials testing and observation services for the above referenced project. We propose to provide qualified and trained personnel to perform field laboratory tests in general accordance with the project requirements.

Please be advised that the work described herein, if accepted, will be provided at the Time and Expense Rates as described within this proposal. The total budget quantities and estimate are determined by plans, specifications, and local construction codes as approved by the city or county of jurisdiction for this project based upon plans by Lockwood Engineers, Travis Michel, P.E., dated March 21, 2019. Any addenda to the original plans and specifications may change the anticipated scope of work. The actual quantity of tests and/or inspections will be in direct response to our coordination with the project manager for the general contractor. Should any additional inspections or tests be requested that are not part of the project requirements MLA Geotechnical will perform the requested testing at the current Time and Expense price schedule. Prices for requested testing not included in this proposal are available upon request.

The work included in this proposal will be governed by our Agreement for Engineering Services found within this document. If this proposal meets your approval, please indicate your authorization by initialing each page where designated and signing the attached Agreement for Engineering Services for our records. Even if this contract is not signed, by use of the product, information or property, Client agrees to all terms and conditions set forth in this contract. We appreciate the opportunity to be of service and look forward to proceeding as soon as authorized. If you have any questions please do not hesitate to contact us at (512) 873-8899. Thank You.

Sincerely,

**MLA Geotechnical** TBPE FIRM # F-2684  
**Geotechnical Engineering and Construction Materials Testing**  
*"put us to the test"*

Client Initials: \_\_\_\_\_

**UNIT RATE FEE ESTIMATE – New Construction Materials Testing**  
**ARWA Phase 1A Pipeline Segment B**  
**Buda, Texas**  
 Proposal No. 20107100.008

<u>Description of Testing and Inspections</u>	<u>Estimated Quantity</u>	<u>Unit Rate</u>	<u>Amount</u>
<b>Laboratory Testing of Soils</b>			
Moisture Density Relationship (ASTM D 698, TEX 113E)	15	\$195.00	\$2,925.00
Atterberg Limits	15	\$65.00	\$975.00
Gradations	15	\$40.00	\$600.00
Material Qualification	15	\$125.00	\$1,875.00
Proctor Pick-Up Report	15	\$0.00	\$0.00
Technician Time	12	\$41.00	\$492.00
Report Review	45	\$25.00	\$1,125.00
Trip Charge	4	\$10.00	\$40.00
		<b>Subtotal</b>	<b>\$8,032.00</b>
<b>Moisture Density Field Testing</b>			
Field Density Tests-Utilities	108	\$16.00	\$1,728.00
Field Density Tests-Bore Pit	42	\$16.00	\$672.00
Technician Time	51	\$41.00	\$2,091.00
Report Review	17	\$25.00	\$425.00
Trip Charge	17	\$10.00	\$170.00
		<b>Subtotal</b>	<b>\$5,086.00</b>
		<b>Total</b>	<b>\$13,118.00</b>

<b><i>Estimated Budget</i></b>	<b>\$13,118.00</b>
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Hourly fees are charged portal to portal. An overtime multiplier of 1.50 will be added for all times before 7am and after 5pm on weekdays, over 8 hours per day on weekdays, and/or Saturday, Sunday and Holidays.

Upon your acceptance of this agreement, we recommend a meeting with the general contractor and you, the client, to discuss the anticipated construction schedule, areas of potential testing efficiencies and savings, and construction sequencing to refine this budget.

Client Initials: \_\_\_\_\_

**AGREEMENT FOR ENGINEERING SERVICES**

This Agreement is made as of January 8, 2020, between **Client:** Alliance Regional Water Authority and **Engineer:** MLA Geotechnical for the following Project:

Construction Materials Testing and Observation Services Proposal  
ARWA Phase 1A Pipeline Segment B  
Buda, Texas  
Proposal No. 20107100.008

**Client and Engineer** agree as follows:

**BASIC SERVICES of ENGINEER.** Engineer agrees to provide professional engineering services for the **ARWA Phase 1A Pipeline Segment B Project** as follows: As referenced above in proposal letter #20107100.008 dated January 8, 2020.

**ADDITIONAL SERVICES.** Engineer will provide additional services to Client as follows: As requested by Client.

**CLIENT'S RESPONSIBILITIES.** Client agrees to provide Engineer with full information about the Project including Client's objectives, specifications, constraints, the legal boundaries of the Project site, the location of any underground utilities or easements and any other existing information applicable to the Project. Engineer shall be entitled to rely on the accuracy and completeness of this information. Client shall arrange for Engineer's access to the Project site as required to perform its services under the Agreement.

**PAYMENTS to ENGINEER.** Engineer shall invoice Client weekly for services rendered and for reimbursable expenses incurred. Invoices are due and payable upon receipt by Client. Amounts unpaid thirty days after the date of Engineer's invoice shall bear interest thereafter at the rate of 1.5% per month. If Client's account becomes more than forty-five days past due, Engineer may suspend all services under this Agreement until Engineer has been paid in full all amounts due for services, expenses and other charges.

**FOR BASIC SERVICES,** Client agrees to pay Engineer a fee based on the time and expense rates (page 4 incorporated herein by reference) of the Engineer's personnel assigned to the Project. The applicable hourly billable rates for each person assigned to the Project are as follows:

Principal Engineer / Consultant	\$175/hr
Senior Technician	\$48/hr
Technical Assistant / Engineering Technician	\$41/hr

A rate is established for each employee within his/her functional classification, based on a person's individual qualifications and experience. These rates may be modified periodically at the discretion of Engineer. Engineer's travel time will be billed at the hourly rates, up to a maximum of 8 hours per day per person.

**FOR ADDITIONAL SERVICES,** Client shall pay Engineer on an hourly basis as described above.

**FOR REIMBURSABLE EXPENSES,** Client agrees to pay the Engineer's reasonable Project expenses at cost plus a 15% charge. These expenses include: transportation and living expenses for out of town travel; long distance charges; materials; equipment; outside laboratory tests; outside consultants; computer charges, printing and reproduction; photographs; videotape, shipping charges; special fees; extra insurance; standby charges and any other expense reasonably related to providing services for the Project. Automotive travel will be billed at \$0.565 per mile, without markup.

**OWNERSHIP of DOCUMENTS.** Client agrees that all documents prepared by Engineer for the Project are instruments of Engineer's service and shall remain the property of Engineer. Client may use the documents in connection with this Project only. The documents are not intended for use by any third party other than required governmental permits processing, Client's contractor or other consultants on this Project.

**COMPLETION TIME.** Project completion dates are estimations and Engineer makes no guarantee or warranty as to completion date. Such dates may be subject to extensions due to weather, acts of God, site inaccessibility or other causes.

**ESTIMATES OF PROBABLE CONSTRUCTION COST.** Any estimates or statements concerning construction costs or expected bids, for the Project are the Engineer's best professional opinion and actual costs may vary due to bid climate, site variables, or other factors. Engineer makes no guarantee or warranty as to actual Project costs.

**CONSTRUCTION PHASE SERVICES.** Inspection and testing, if part of this contract, will conform to job specifications as applicable, or to industry standards if specifications are not available. Engineer's personnel and job representatives are not to function in a supervisory capacity with regard to contractor's work, but are only to observe, sample and test to ascertain specifications compliance.

**CHOICE of LAW and VENUE.** This Agreement will be construed under Texas law and is performable in Travis County, Texas. Venue for any dispute arising hereunder shall lie exclusively in Travis County, Texas.

**PROHIBITION of ASSIGNMENT.** Neither Client nor Engineer shall assign or transfer any rights, obligations or interests involving this Agreement without the written consent of the other party. Nothing in this paragraph shall prohibit Engineer from employing independent professional associates or consultants that Engineer deems appropriate to assist in the performance of Engineer's services under this Agreement.

**MERGER CLAUSE.** This Agreement represents the entire and integrated agreement between Client and Engineer and supersedes all prior negotiations, representation or agreements, written or oral.

**NO THIRD-PARTY BENEFICIARIES.** This Agreement between Client and Engineer confers no rights or benefits on anyone other than Client and Engineer and has no third-party beneficiaries.

**LIMITATION of LIABILITY.** Client hereby expressly agrees that engineer's total liability to client for any and all injuries, claims, losses, expenses or damages whatsoever arising out of or related to the project or this agreement from any cause, including engineer's negligence, errors, omissions, breach of contract or breach of warranty shall be limited to the total compensation received by the engineer under this agreement, or the amount of ten thousand dollars (10,000.00), whichever is lesser.

**ARBITRATION CLAUSE.** Client and Engineer agree that any dispute, controversy, demand, or claim arising out of or relating to this Agreement or the services provided by Engineer, whether arising in tort, contract, or by statute, shall be settled by mandatory binding arbitration in accordance with the Texas General Arbitration Act (TGAA). Client and Engineer expressly waive trial by jury. The provisions of the Federal Arbitration Act and the application of federal law are hereby waived. Client and Engineer shall mutually agree on the selection of one (1) certified arbitrator having specialized knowledge of the engineering and/or construction industry with at least five (5) years of professional arbitration experience. If no agreement can be reached, the arbitrator shall be selected in accordance with the TGAA by a court of competent jurisdiction. Any arbitration proceeding shall be held in Travis County, Texas. Client and Engineer shall share equally in the costs of the arbitrator, subject to the arbitrator's right to award such costs to the prevailing party. Judgment upon the award rendered in such arbitration may be entered by any court having jurisdiction thereof, and the judgment shall be entered unless the award is vacated, modified or corrected as provided by law.

**NO REPRESENTATIONS or WARRANTIES.** The parties recognize that the services provided by the Engineer under this Agreement involve the exercise of professional judgment and the rendering of professional opinions, about which reasonable engineers may differ. Consequently, and notwithstanding any other provision in this Agreement, nothing contained herein shall be construed: 1) to constitute a guarantee, warranty or assurance, either express or implied, that Engineer's services will yield or accomplish a specific result; 2) to obligate the Engineer to exercise professional skill or judgment greater than that which can reasonably be expected from other Engineers under like circumstances; or 3) as an assumption by the Engineer of the liability of any other person.

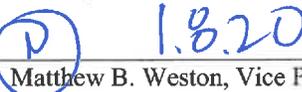
**CLIENT(s)**  
**ALLIANCE REGIONAL WATER AUTHORITY**

**ENGINEER**  
**MLA GEOTECHNICAL**

X  
\_\_\_\_\_  
Mr. Graham Moore or Assignee

\_\_\_\_\_  
Timothy R. Weston, P.E., President

\_\_\_\_\_  
Print Name

  
\_\_\_\_\_  
Matthew B. Weston, Vice President

\_\_\_\_\_  
Date

Address for Giving Notices & Correspondence:  
630 E. Hopkins  
San Marcos, Texas 78666

Address for Giving Notices & Correspondence:  
2800 Longhorn Boulevard, Suite 104  
Austin, Texas 78758

Contact Person: Mr. Graham Moore  
Telephone: 512-784-7909  
Fax:  
Email: gmoore@alliancewater.org  
Acct Receivable:  
AR Email:

Contact Person: Matthew B. Weston, Vice President  
Telephone: 512-873-8899  
Fax: 512-835-5114  
Email: mbweston@mlalabs.com

**DISTRIBUTION**

This list indicates who will receive copies of testing reports.

Unless otherwise noted on this form reports will only be distributed to the client. In an effort to go paperless, please include an email address as the form of contact when available.

Job No.: 20107100.008  
Project Name: ARWA Phase 1A Pipeline Segment B-Buda, Texas

OWNER: \_\_\_\_\_  
Attn.: \_\_\_\_\_  
Address: \_\_\_\_\_  
City/State/Zip: \_\_\_\_\_  
Phone: \_\_\_\_\_ E-mail: \_\_\_\_\_

ARCHITECT: \_\_\_\_\_  
Attn.: \_\_\_\_\_  
Phone: \_\_\_\_\_ E-mail: \_\_\_\_\_

CIV. ENGINEER: Lockwood Engineers  
Attn.: Travis Michel, P.E.  
Phone: 512-396-4040 E-mail: \_\_\_\_\_

STRUCT. ENG.: \_\_\_\_\_  
Attn.: \_\_\_\_\_  
Phone: \_\_\_\_\_ E-mail: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_  
Attn.: \_\_\_\_\_  
Phone: \_\_\_\_\_ E-mail: \_\_\_\_\_

MATERIAL SUPPLIER: \_\_\_\_\_  
Attn.: \_\_\_\_\_  
Phone: \_\_\_\_\_ E-mail: \_\_\_\_\_

INVOICE DISTRIBUTION: \_\_\_\_\_  
Attn.: \_\_\_\_\_  
Phone: \_\_\_\_\_ E-mail: \_\_\_\_\_

INVOICE DISTRIBUTION: \_\_\_\_\_  
Attn.: \_\_\_\_\_  
Phone: \_\_\_\_\_ E-mail: \_\_\_\_\_

INVOICE DISTRIBUTION: \_\_\_\_\_  
Attn.: \_\_\_\_\_  
Phone: \_\_\_\_\_ E-mail: \_\_\_\_\_

**REGULAR MEETING**  
**Alliance Regional Water Authority Board of Directors**

**BOARD MEMBER PACKETS**

Wednesday, January 22, 2020 at 3:00 P.M.

501 E. Hopkins, San Marcos, TX 78666

- F.6** Update and discussion regarding the status of the Authority's Phase 1B program, and direction to staff and consultants. ~ *Ryan Sowa, P.E., Kimley-Horn & Associates*
- 

Background/Information

Ryan Sowa with Kimley-Horn will update the Committee on their recent activities associated with the Phase 1B program.

Graham Moore will update the Committee on the status of providing permanent power to the Water Treatment Plant.

Attachment(s)

- Phase 1B Program Update – January 15, 2020
- Kimley-Horn Monthly Summary of Activities for December 2019

**Board Decision(s) Needed:**

- None.



## Phase 1B Program Update

Technical Committee Meeting  
January 15, 2020

Kimley»Horn

### Agenda

#### Ongoing Progress

Well Drilling – Construction Phase Services (RW Harden)

Well Drilling – Construction Phase Services (Hicks & Company)

Water Treatment Plant – Final Design/Procurement Contract  
(Walker Partners)



Kimley»Horn

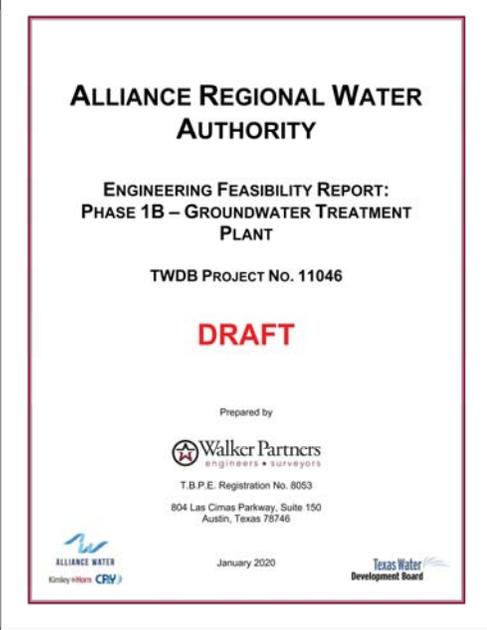
# Ongoing Progress

## Consultant Contracting Update

- Well Drilling
  - Construction Phase Contract (January)
- Water Treatment Plant
  - Final Design Phase Contract (January)
- Booster Pump Station & Delivery Points
  - Final Design Phase Contract (February)
- Pipeline Segment C
  - Final Design Phase Contract (March)
- Pipeline Segment E
  - Final Design Phase Contract (March)

## Design Milestone Reviews

- Water Treatment Plant
  - Final Engineering Feasibility Report (January)
- Booster Pump Station & Delivery Points
  - Final Engineering Feasibility Report (January)
- Raw Water Infrastructure
  - Final Engineering Feasibility Report (January)



Kimley»Horn

# Ongoing Progress

## Design Standards Update

- Transmission Pipelines Design Standards – Updated
- Construction Specifications & Details – Final Draft Under Review
- Instrumentation & Controls Guidelines – Final
- Cathodic Protection – Draft

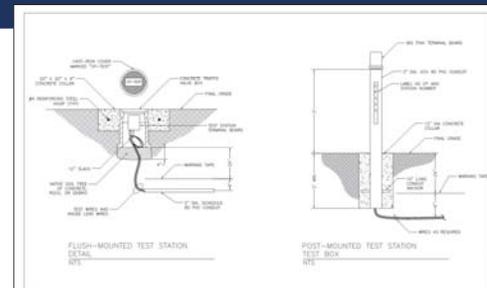


Figure 6 Flush Mounted and Post Mounted Test Station Standard Details.

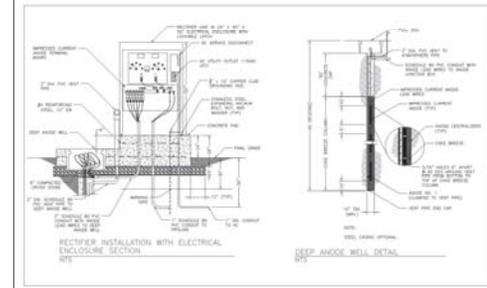


Figure 7 Rectifier Installation and Deep Anode Well Standard Details.



Kimley»Horn

## Pipeline Route Analyses & Rights of Entry

Pipeline Segment	Number of Right-of-Entry Requests	Right-of-Entry Received or Access Granted (No. of Parcels)	Right-of-Entry Received or Access Granted (%)	Alignment Confirmed (%)
A	38	38	100%	100%
B	46	46	100%	85%
D	68	68	100%	87%
C	88	71	81%	0%
E	35	30	86%	6%
Wellfield	15	8	53%	0%
<b>Total</b>	<b>290</b>	<b>261</b>		



Kimley»Horn

## Pipeline Easement Acquisition Status

Pipeline Segment	Number of Parcels	Appraisals Prepared	Initial Offer Letter Delivered	Purchase Agreement Signed / Easement Closed
A	38	34	25	5
B	46	10	5	1
D	68	1	0	0
C	88	0	0	0
E	35	0	0	0
Wellfield	15	0	0	0
<b>Total</b>	<b>290</b>	<b>45</b>	<b>30</b>	<b>6</b>



Kimley»Horn



Questions?



Kimley»Horn



Consulting Services



Kimley»Horn

## Well Drilling – Design Consultant Construction Phase Services

Design Consultant – RW Harden

Scope to include (Time & Materials):

- Project Management
- TCEQ Submittals
- Well Construction Observation
- Construction Contract Administration

Maximum Not-to-Exceed Fee = \$384,200.00



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## Well Drilling – Environmental Consultant Construction Phase Services

Environmental Consultant – Hicks & Company

Scope to include (Time & Materials on an As-Needed Basis):

- Migratory Bird Nesting Survey
- Active Nest Monitoring
- Threatened & Endangered Species Encounters
- Cultural Resources Encounters

Maximum Not-to-Exceed Fee = \$23,938.75



Kimley»Horn

# Water Treatment Plant

Design Consultant – Walker Partners

## Design Capacity

- Initial Capacity (Phase 1B + GBRA) – 19.5 MGD
- Phase 1 Total Capacity – 33.5 MGD

## Infrastructure Summary

- Raw Water Tanks
- Treatment Processes
- Treated Water Tank & High Service Pump Station
- Admin & Maintenance Buildings
- Roadway Improvements



Kimley»Horn

# Water Treatment Plant

## Scope to include (Lump Sum):

- 60%, 90%, and 100% Design, Procurement
- Site Civil, Mechanical, Electrical, Instrumentation, HVAC, Architectural, Structural, Roadway Design, & Geotechnical Services
- Agency Coordination / Permitting – Caldwell County, TxDOT, TCEQ
- Does not include Construction Phase Services



Kimley»Horn

# Water Treatment Plant

## Supplemental Services:

- Additional Geotechnical & Survey Services
- TCEQ Variance Approvals
- High Service Pump Station Surge & Transient Analyses
- General Engineering Design
- Procurement Phase Services (Time & Materials)

Total Basic Services Lump Sum Fee = \$2,900,402.00

Total Supplemental Services Budget = \$633,388.00

Maximum Not-to-Exceed Fee = \$3,533,790.00



Kimley»Horn

# Questions?



Kimley»Horn

January 13, 2020

## **Project Monthly Summary**

### **December 2019 Tasks Performed:**

- Task 2 – Stakeholder Coordination
  - Coordination and/or meetings with entities including: Caldwell County, Guadalupe County, Bluebonnet Electric Coop, TxDOT, TCEQ, and TWDB.
  - Continued weekly task coordination with Alliance Water.
  - Prepared for Project Advisory Committee Meeting Update.
  - Prepared and presented Technical Committee Meeting Update.
  - Prepared and presented Board Meeting Update.
  - Prepared for and held Monthly Status Meeting with Alliance Water.
  
- Task 3 – Budgeting
  - Prepared Program Budget Update for Technical Committee and Board Presentations.
  - Provided additional cost data in support of the program cost analysis process.
  - Continued updates to Budget Workbook to include monthly tracking of actual costs for ARWA review.
  
- Task 4 – Schedule
  - Prepared Program Schedule Update for Technical Committee and Board Presentations.
  - Coordinated with Program team to integrate each project schedule into overall Program schedule.
  
- Task 6 – Data Management
  - Developed a process for integrating consultant geotechnical data into GIS.
  - Ongoing maintenance of Microsoft SharePoint Online program.
  - Continued updating of web-based GIS for right-of-entry process and alignment changes.
  
- Task 7 – Environmental Management
  - Reviewed Segment A Hazardous Materials study prepared by the Program Environmental Consultant.
  - Performed coordination between Program Environmental Consultant and Land Acquisition Consultant to clarify environmental field work to be done on properties as part of right-of-entry process.
  - Monthly progress meeting and ongoing coordination with Program Environmental Consultant.

**Alliance Water – Phase 1B Infrastructure – Owner’s Representative**

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- Continued coordination between Program Environmental Consultant and Design Engineers.
- Reviewed Program Environmental invoices, schedule, and risk log.
  
- Task 8 – Land Acquisition Management
  - Attended Temporary Injunction Hearings for multiple parcels where the Program is seeking a ROE.
  - Coordinated the appraisal process for Segment A and Segment B parcels.
  - Coordinated with Program Survey Consultant, Program Environmental Consultant, and Land Acquisition team to address questions that arise as part of the field work coordination process.
  - Performed weekly QC of parcel files in SharePoint, provided comments to Land Acquisition team.
  - Weekly coordination meeting with land agents to discuss status of rights-of-entry and to provide Program clarification on any questions/requests that have come from landowners.
  - Reviewed Program Land Acquisition team, Program Legal, and Program Survey invoices.
  - Continued field work coordination to notify landowners of upcoming field work by consultants.
  
- Task 9 – Texas Water Development Board Management
  - Continue coordination with TWDB Staff to track all EFRs, environmental reports, and bid documents currently under review.
  - Assisted with TWDB budget revisions for loan submittal.
  
- Task 10 – Design Standards
  - Finalized the updated Pipeline Construction Standards and provided to ARWA for review.
  - Continued coordinating with ARWA for the continued development of standards for fiber and SCADA.
  - Continued development of Draft Cathodic Protection Program Standards.
  
- Task 11 – Engineering Design Management
  - Pipelines:
    - Segment A
      - Continued coordination with design consultant for final design field work.
      - Coordinated with design consultant to finalize EFR.
    - Segment B
      - Continued coordination with design consultant for final design field work.
      - Coordinated with design consultant to finalize EFR.
    - Segment C

**Alliance Water – Phase 1B Infrastructure – Owner’s Representative**

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- Continued coordination with design consultant regarding ongoing field work and pipeline alignment considerations as part of right-of-entry process and EFR development.
      - Began scoping process coordination for final design phase.
    - Segment D
      - Coordination with design consultant for alignment confirmation.
      - Coordination with design consultant for beginning final design.
    - Segment E
      - Continued coordination with design consultant regarding ongoing field work as part of right-of-entry process and EFR development.
      - Began scoping process coordination for final design phase.
  - Wellfield:
    - Continued coordination regarding bidding of Wells 6-9.
    - Continued review of scope and fee for construction phase services.
  - Raw Water Infrastructure:
    - Reviewed and commented on draft 30% Design Report.
    - Continued coordination with design consultant for 30% design development.
  - Water Treatment Plant:
    - Reviewed and commented on draft 30% Design Report.
    - Continued coordination with design consultant for 30% design development.
    - Began scoping process coordination for final design phase.
  - Booster Pump Station:
    - Began scoping process coordination for final design phase.
    - Began review of 30% Design Report.
  - Inline Elevated Storage Tanks:
    - Coordinated with design consultant concerning for 30% design development and potential site selection.
  - Other:
    - Monthly progress meetings with all design consultants (pipelines, water treatment plant, raw water infrastructure, wellfield, booster pump station).
    - Review invoices, schedules, and risk logs for consultants.
- Task 13 – Electrical Power Planning
    - Continued coordinated with ARWA concerning emergency power needs and service options for the water treatment plant and wellfield.
    - Continued coordination with GVEC and BBEC regarding electric service to the WTP and wellfield.
  - Task 14 – Permit Coordination/Tracking

**Alliance Water – Phase 1B Infrastructure – Owner’s Representative**

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- Continued Permit coordination with Pipeline consultants.
  - Continued coordination with Caldwell County concerning variance request for the Site Development Permit.
  - Continued General Coordination with TxDOT.
  - Continued General Coordination with GVEC and BBEC.
  - On-going Permit Tracking Log Updates.
- Task 17 – Other Services
    - Prepared and submitted a draft solar field feasibility analysis and memorandum to ARWA for the WTP site.

**January 2020 Projection:**

- Task 2 – Stakeholder Coordination
  - Coordination and/or meetings with entities including: Caldwell County, Guadalupe County, GVEC, Bluebonnet Electric Coop, TxDOT, TCEQ, and TWDB.
  - Continue weekly task coordination with Alliance Water.
  - Prepare and present Project Advisory Committee Meeting Update.
  - Prepare and present Technical Committee Meeting Update.
  - Prepare and present Board Meeting Update.
  - Prepare for and hold Monthly Status Meeting with Alliance Water.
  - Prepare for and attend the Operations Workshop.
- Task 3 – Budgeting
  - Finalize updates to Budget Workbook to include monthly tracking of actual costs for ARWA review.
- Task 4 – Schedule
  - Coordinate with Program team to integrate each project schedule into overall Program schedule.
- Task 6 – Data Management
  - Ongoing maintenance of Microsoft SharePoint Online program.
  - Continued updating of web-based GIS for right-of-entry process and alignment changes.
- Task 7 – Environmental Management
  - Coordination with the Program Environmental Consultant regarding additional hazmat studies for Segment A.
  - Continued review of Segment A environmental reports prepared by the Program Environmental Consultant.
  - Perform coordination between Program Environmental Consultant and Land Acquisition Consultant to clarify environmental field work to be done on properties as part of right-of-entry process.

**Alliance Water – Phase 1B Infrastructure – Owner’s Representative**

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- Monthly progress meeting and ongoing coordination with Program Environmental Consultant.
- Continue coordination between Program Environmental Consultant and Design Engineers.
- Review Program Environmental invoices, schedule, and risk log.
  
- Task 8 – Land Acquisition Management
  - Attended Temporary Injunction Hearings for multiple parcels where the Program is seeking a ROE.
  - Coordinate the appraisal process for Segment A and Segment B parcels.
  - Coordinate with Program Survey Consultant, Program Environmental Consultant, and Land Acquisition team to address questions that arise as part of the field work coordination process.
  - Perform weekly QC of parcel files in SharePoint, provide comments to Land Acquisition team.
  - Weekly coordination meeting with land agents to discuss status of rights-of-entry and to provide Program clarification on any questions/requests that have come from landowners.
  - Review Program Land Acquisition team, Program Legal, and Program Survey invoices.
  - Continue field work coordination to notify landowners of upcoming field work by consultants.
  
- Task 9 – Texas Water Development Board Management
  - Continue coordination with TWDB Staff to track all EFRs, environmental reports, and bid documents currently under review.
  - Provide assistance with the TWDB Abridged Application and budget revisions for loan submittal where needed.
  
- Task 10 – Design Standards
  - Finalize and send out the Pipeline Construction Standards for Manufacturer review.
  - Finalize and provide the Final SCADA Package and Division 40 Specifications for review.
  - Submit draft of Cathodic Protection Program Standards for ARWA review.
  
- Task 11 – Engineering Design Management
  - Pipelines:
    - Segment A
      - Continue coordination with design consultant to finalize EFR.
      - Continue coordination with design consultant for final design.
    - Segment B
      - Continue coordination with design consultant to finalize EFR.
      - Continue coordination with design consultant regarding for final design.

**Alliance Water – Phase 1B Infrastructure – Owner’s Representative**

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- Segment C
    - Continue coordination with design consultant regarding ongoing field work and pipeline alignment considerations as part of right-of-entry process and EFR development.
    - Continue coordination and review of scope and fee for final design phase.
  - Segment D
    - Continue coordination with design consultant for final design.
  - Segment E
    - Continue coordination with design consultant regarding ongoing field work as part of right-of-entry process and EFR development.
    - Continue coordination and review of scope and fee for final design phase.
- Wellfield:
  - Continue coordination regarding bidding of Wells 6-9.
  - Continued review of scope and fee for construction phase.
- Raw Water Infrastructure:
  - Review and comment on 30% Design Report.
  - Continue coordination with design consultant for 30% design development.
- Water Treatment Plant:
  - Review and comment on 30% Design Report.
  - Continue coordination with design consultant for 30% design development.
  - Continue coordination and review of scope and fee for final design phase.
- Booster Pump Station:
  - Review of 30% Design Report submitted by the design consultant.
  - Continue coordination and review of scope and fee for final design phase.
- Inline Elevated Storage Tanks:
  - Coordination with design consultant for 30% design development.
  - Review and comment on 30% Design Report.
- Other:
  - Monthly progress meetings with all design consultants (pipelines, water treatment plant, raw water infrastructure, wellfield).
  - Review invoices, schedules, and risk logs for consultants
- Task 13 – Electrical Power Planning
  - Continue coordination with ARWA concerning emergency power needs and service options for the water treatment plant and wellfield.
  - Coordination with GVEC regarding electric service to the WTP and wellfield.
  - Prepare for and attend the GVEC & BBEC Power Service Coordination Meeting.

**Alliance Water – Phase 1B Infrastructure – Owner’s Representative**

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- Task 14 – Permit Coordination/Tracking
  - Continue Permit coordination with Pipeline consultants
  - Continue Coordination with Caldwell County for variance request for the Site Development Permit.
  - General Coordination with TxDOT
  - General Coordination with GVEC and BBEC
  - Prepare for and attend coordination meeting with GVEC.
  - Permit Tracking Log Updates
  
- Task 17 – Other Services
  - Finalize and submit the City of San Marcos Watershed Protection Plan for the Booster Pump Station Plat.
  - Finalize solar feasibility memorandum and submit to ARWA.

**Scope Elements Added/Removed:**

None at this time.

**Outstanding Issues/Concerns:**

None at this time.

**REGULAR MEETING**  
**Alliance Regional Water Authority Board of Directors**

**BOARD MEMBER PACKETS**

Wednesday, January 22, 2020 at 3:00 P.M.  
501 E. Hopkins, San Marcos, TX 78666

- F.7** Consider adoption of Resolution 2020-01-22-004 approving Work Order #4 with R.W. Harden & Associates, Inc. for Construction Phase Services for the Authority's Phase 1B Well Drilling / Hydrogeology project as recommended by the Technical Committee. ~ *Ryan Sowa, P.E., Kimley-Horn & Associates*
- 

Background/Information

Alliance Water entered into a Work Order in September 2018 with RW Harden & Associates, Inc. (RW Harden) to provide design and procurement services for Alliance Water's four Phase 1B Carrizo water wells. The design is almost complete, with the Texas Water Development Board anticipated to approve all aspects of the project for bidding by the end of January. The effort included in the proposed work order is for construction administration services to include: project management, submittals to TCEQ to achieve interim use approvals for the wells, observation of the well construction and contract management including responses to contract questions, contractor meetings, walkthroughs, etc.

Below are some of the key facts regarding the Phase 1B Well Drilling / Hydrogeology Construction Phaser Services proposal:

**Firm:** RW Harden & Associates, Inc.  
**Fee:** \$384,200  
**Work Order Type:** Hourly, Not-to-Exceed  
**Anticipated Duration:** 14 months  
**Project Manager:** James Bene, P.G.

Staff is requesting that the Committee recommend Board approval of a Work Order with a fee not-to-exceed \$384,200.

Attachment(s)

- RW Harden proposal for Construction Phase Services for Phase 1B Well Drilling & Hydrogeology project.

Technical Committee Recommendation(s)

- Technical Committee unanimously recommended approval of a work order with RW Harden & Associates as presented.

**REGULAR MEETING**  
**Alliance Regional Water Authority Board of Directors**

**BOARD MEMBER PACKETS**  
Wednesday, January 22, 2020 at 3:00 P.M.  
501 E. Hopkins, San Marcos, TX 78666

**Board Decision(s) Needed:**

- Adoption of Resolution 2020-01-22-004 approving Work Order #4 with R.W. Harden & Associates, Inc. for Construction Phase Services for the Authority's Phase 1B Well Drilling / Hydrogeology project as recommended by the Technical Committee.



**ALLIANCE WATER**

**RESOLUTION NO. 20200122-004**

**A RESOLUTION OF THE ALLIANCE REGIONAL WATER AUTHORITY BOARD OF DIRECTORS APPROVING WORK ORDER #4 BETWEEN THE AUTHORITY AND RW HARDEN & ASSOCIATES, INC. FOR CONSTRUCTION PHASE SERVICES RELATED TO THE PHASE 1B WELL DRILLING / HYDROGEOLOGY PROJECT AND RELATED MATTERS, AND DECLARING AN EFFECTIVE DATE**

**RECITALS:**

1. Alliance Regional Water Authority (the "Authority") entered into a master agreement with RW Harden & Associates, Inc. ("RWH&A") for professional services and related matters in September 2018.
2. The Authority hired Kimley-Horn & Associates to serve as the Owner's Representative for the Authority's Phase 1B Program. The Owner's Representative role is to assist the Authority with development of the Phase 1B Program as a whole, including coordination with all design firms after selection through completion of the Program.
3. The Authority entered into a work order with RWH&A for design services for the Authority's Phase 1B Well Drilling Project (the "Project") in September 2018.
4. The Authority is in need of construction phase services for the Project.
5. The scope of services and fee for the attached work order was negotiated by the Executive Director and the Owner's Representative on behalf of the Authority. The attached work order references terms and conditions in the approved Master Agreement between the Authority and RWH&A.

**BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE ALLIANCE REGIONAL WATER AUTHORITY:**

**SECTION 1.** The attached work order for construction phase services between the Authority and RWH&A is approved with a fee not-to-exceed \$384,200.

**SECTION 2.** The Authority's Executive Director, Graham Moore, is authorized to execute the attached agreement on behalf of the Authority.

**SECTION 3.** This Resolution shall be in full force and effect immediately upon its passage.

**ADOPTED:** January 22, 2020.

**ATTEST:**

\_\_\_\_\_  
Chris Betz  
Chair, Board of Directors

\_\_\_\_\_  
James Earp  
Secretary, Board of Directors

**Work Order No. 004**

Pursuant and subject to the Master Service Agreement between the Alliance Regional Water Authority (Alliance Water) and R.W. Harden & Associates, Inc (Consultant), dated September 26, 2018 Alliance Water requests the Consultant to perform the services described below:

Work Site: <u>Caldwell County</u>
Work to Be Performed: <u>Professional Services associated with construction administration of Alliance Water's Phase 1B Well Drilling / Hydrogeology Project, as noted in the attached scope of services, Exhibits A &amp; B.</u>
Date to Commence: <u>January 23, 2020</u>
Date to Complete: <u>March 31, 2021.</u>
Cost Proposal to be: <u>Time and Material Not-to-Exceed \$384,200.</u>
Other Information/Requirements: <u>None.</u>

**Acceptance:**

Alliance Regional Water Authority

R.W. Harden & Associates, Inc.

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

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

Signature

Signature

Graham Moore, Executive Director

James Bene, Vice President

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

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

EXHIBIT A  
R.W. HARDEN & ASSOCIATES, INC.

SCOPE OF WORK ASSOCIATED WITH CONSTRUCTION OF PUBLIC SUPPLY  
PRODUCTION WELLS

R.W. Harden & Associates, Inc. (RWH&A) is providing herein a description of the anticipated tasks, schedule, and budget (collectively, the Scope of Work) associated with performing hydrogeologic services for Alliance Regional Water Authority (ARWA). Specifically, this Scope of Work pertains to construction of four (4) public supply production wells in Caldwell County, Texas. Within this document, the term “Client” refers to Alliance Regional Water Authority (ARWA).

General tasks to be performed by RWH&A include:

- 1) **Project Management** – Preparation of monthly progress reports and invoices, development of various plans, communications and coordination with the Client, and ongoing meeting attendance.
- 2) **TCEQ Submittals** – Preparation of submittals associated with obtaining Texas Commission on Environmental Quality (TCEQ) approval for interim use of four (4) new public supply wells.
- 3) **Well Construction Observation** – Field observation of the methods and materials used by the drilling contractor during construction and testing of four (4) production wells
- 4) **Construction Contract Management** – Administration of the production well construction contract, contractor meetings, preparation of RFI responses and change orders, performance of completion walkthroughs and punch lists, and generation of well completion reports.

The following sections provide detailed descriptions of the work to be conducted.

### TASK 1 – PROJECT MANAGEMENT

RWH&A will perform various services associated with general management of the project including: 1) preparation of monthly progress reports and invoices, 2) implementation of the QA/QC Plan developed during previous project phases, 3) implementation of the Project Management Plan developed during previous project phases, 4) preparation and routine updating of project completion schedules, 5) performance of monthly updates to the Project Risk Register, 6) coordination and communication with the Client, 7) attend project kickoff meeting, and 8) coordinate and perform monthly contractor progress meetings.

### TASK 2 – TCEQ SUBMITTALS

Where all system infrastructure and water quality comply with TCEQ standards, obtaining approval for a new public water supply well is a two-step process:

1. Before construction begins, TCEQ approval is obtained to establish a new public water system and construct wells. Data packets detailing the methods and materials to be used during well construction were submitted to the TCEQ during earlier phases of the project. Approvals to construct the ARWA production wells were obtained from the TCEQ in February 2019.
2. Following construction, approval to use the wells (“interim approval”) must be obtained from the TCEQ. The typical TCEQ review period for this submittal is approximately 60 days.

### 2.1 - Interim Use Approval

Upon completion of well drilling, acceptance testing, and selection of permanent pumping equipment, RWH&A will prepare a document package required to obtain TCEQ interim approval (which represents the final approval needed) for use of the wells as public water supplies. These documents will include geophysical and driller’s logs, final material settings, steel mill certificates of well casing and screen, casing cementing certificate, aquifer test results, chemical analysis of the water, and pumping equipment specifications. For clarification with respect to well testing, RWH&A will oversee the performance of a 36-hour pumping aquifer test on each of the four production wells and will analyze and submit the results of these tests to the TCEQ for review. No other tests are necessary to obtain TCEQ approval to use the wells as public supplies.

It should be noted that the document package will be submitted to the TCEQ after well testing has been completed using temporary pumping equipment. In RWH&A’s experience, most TCEQ reviewers will grant approval to use a well as a public supply source prior to installation of permanent pumping equipment, which, in ARWA’s case, will not occur until 2022. However, we have encountered one TCEQ reviewer who would not grant approval to use a well until after testing and sampling was completed with the permanent pumping equipment. While delaying TCEQ approvals until 2022 doesn’t represent a major setback to the project, it is desirable with respect to the logistics associated with wellfield startup to obtain approvals as early as possible. If interim approval is delayed until permanent pumping equipment is installed and tested, the added effort associated with retesting the well and resubmitting the packet documents to the TCEQ can be performed by RWH&A for an additional fee to be agreed upon by the Client and RWH&A at a later date.

## **TASK 3 – WELL CONSTRUCTION OBSERVATION**

As part of this Task, RWH&A will provide experienced on-site personnel at key points in the pilot hole drilling and well construction process to endeavor to ascertain whether the methods and materials used by the drilling Contractor are in accordance with the technical specifications and the needs of the Project. Specifically, RWH&A will provide on-site personnel to observe: 1) drilling operations during penetration of aquifer zones and collection of cuttings samples during drilling of the pilot hole, 2) geophysical logging of the pilot hole, 3) performance of an alignment survey of the reamed borehole, 4) inspection of the surface casing, 5) setting and cementing of surface casing, 6) performance of a caliper survey of the under-reamed hole, 7) inspection of the screen and liner assembly, 8) setting and graveling of screen and liner, 7) acceptance testing to verify that well

performance guarantees included in the specifications are met, and 8) providing assistance and field guidance during well start-up.

## TASK 4 – CONSTRUCTION CONTRACT MANAGEMENT

RWH&A will assist the Client in administering the production well construction contract. Work associated with this task will include planning, contractor communications, and generation of appropriate change orders. RWH&A will attend periodic construction-phase meetings, interpret contract documents, prepare material settings authorization letters, respond to contractor inquiries/RFIs, review shop drawings and samples, review contractor payment applications. Following testing of the wells, RWH&A will attend substantial and final completion walkthroughs and prepare final completion punch lists. RWH&A will work with the contractor to compile a comprehensive report of each well’s final material settings and testing/sampling results.

## BUDGET

The estimated costs to perform the work described above are:

- 1) Task 1: Project Management – \$50,480
- 2) Task 2: TCEQ Submittals (Four Wells) – \$23,200
- 3) Task 3: Well Construction Observation (Four Wells) – \$250,800
- 4) Task 4: Contract Administration – 59,720

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Total Estimated Budget: \$384,200

Please note that the proposed budget represents a maximum “not to exceed unless authorized” amount for the tasks described herein. The costs include only RWH&A professional engineering services and expenses. Costs associated with surveying, laboratory services, and well contractor costs are not included. We work on projects of this nature in accordance with the actual man-hours involved plus direct out-of-pocket expenses in accordance with the contract and fee schedule (Exhibit B). These budgets assume that the drilling contractor performs the work in an efficient and skillful manner and that the tasks associated with this scope will be completed within approximately 14 months. If significant delays result from inclement weather, contractor performance or contractor equipment failure, RWH&A requests the opportunity to discuss how these may affect project costs.

**EXHIBIT B**  
**STANDARD FEES FOR TECHNICAL SERVICES**  
**BY R.W. HARDEN & ASSOCIATES, INC.**

- 1) Fees for professional services are based on the actual time of personnel directly involved with the project at the following hourly rates:

Senior Principal	\$240
Principal	\$220
Technical Staff 8	\$180
Technical Staff 7	\$160
Technical Staff 6	\$140
Technical Staff 5	\$130
Technical Staff 4	\$120
Technical Staff 3	\$110
Technical Staff 2	\$100
Technical Staff 1	\$90
Graphics Staff	\$100
Administrative Staff	\$70
Clerical Staff	\$60

- 2) External expenses, including but not limited to: reproduction, transportation, meals and lodging, parking and taxi fares, geophysical logs, printing, maps and photographs, field supplies, equipment rental, shipping, test drilling, well construction, and test laboratories, are charged at actual invoice cost plus 10 percent service fee.
- 3) R.W. Harden and Associates, Inc. equipment and services, including but not limited to: company vehicles, generators, reproduction, computer time, GPS equipment, pressure transducers/data logger, field equipment, calipers, pumps, cameras, pH meters, conductivity meter, turbidity meters, water level meters are charged at rates competitive with commercial rates.
- 4) The above fees for professional services are applicable to work conducted through December 31, 2020. RWH&A may revise their standard rates yearly any time after December 31, 2020.

<b>Alliance Water Phase 1B Program</b>																	<b>Project Fee Summary</b>		
<b>Well Field Construction</b>																	<b>Basic Effort</b>	\$	384,200
<b>Detailed Overall RW Harden &amp; Assoc., Inc. Cost Breakdown</b>																	<b>Supplemental</b>	\$	-
																	<b>Total Effort</b>	\$	384,200

Task	Employee Project Role	Principal	Project Mgr.	Geologist 3	Geologist 2	Geologist 1	Engineer 3	Engineer 2	Engineer 1	Graphics	Admin	Total Hours	Total Labor Effort	Total Expense Effort	Subconsultant Cost	Total Effort	Assumptions
		Hourly Bill Rate	\$240.00	\$180.00	\$160.00	\$140.00	\$120.00	\$180.00	\$160.00	\$140.00	\$100.00						
<b>Basic Services</b>																	
<b>Task 1 - Project Management</b>																	
1.1	Prepare Monthly Summary Reports/Invoicing	16	16							2	16	50	\$ 50,480	\$ -	\$ -	\$ 50,480	
1.2	PMP and QA/QC Plan Implementation	12	8	4	4	4	4					36	\$ 8,040	\$ -	\$ -	\$ 8,040	
1.3	Risk Register & Schedule Development and Monthly Updates	12	8							2		22	\$ 6,720	\$ -	\$ -	\$ 6,720	
1.4	Risk Register & Schedule Development and Monthly Updates	12	8							2		22	\$ 4,520	\$ -	\$ -	\$ 4,520	
1.4	Client Communication, Coordination, and Meetings	80	20	20			20			16		156	\$ 31,200	\$ -	\$ -	\$ 31,200	
<b>Task 2 - TCEQ Submittals</b>																	
2.1	Prepare Interim Approval Packets	2	4	32			8			16		62	\$ 23,200	\$ -	\$ -	\$ 23,200	
2.2	TCEQ Communications	16	8	24			24			4		76	\$ 9,360	\$ -	\$ -	\$ 9,360	
<b>Task 3 - Well Construction Observation</b>																	
3.1	Task Coordination and Data Analysis	20	80	120								220	\$ 13,840	\$ -	\$ -	\$ 13,840	
3.2	Pilot Hole Drilling and Logging	8	40	288								336	\$ 39,840	\$ -	\$ -	\$ 39,840	
3.3	Reaming, Casing Inspection and Setting	8	40	192								240	\$ 39,840	\$ -	\$ -	\$ 39,840	
3.4	Inspection and Setting Screen/Liner/Gravel Assembly	8	40	192								240	\$ 21,920	\$ -	\$ -	\$ 21,920	
3.5	Development and Pre-Testing Tasks	8	40	80								128	\$ 55,600	\$ -	\$ -	\$ 55,600	
3.6	Acceptance Testing	8	40	288						4		340	\$ -	\$ -	\$ -	\$ -	
<b>Task 4 - Contract Administration and Management</b>																	
4.1	Work Planning and Contractor Coordination	8	32									40	\$ 7,680	\$ -	\$ -	\$ 7,680	
4.2	RFIs, Shop Drawings, Change Orders and Material Settings	20	16	8			20			40	4	108	\$ 16,840	\$ -	\$ -	\$ 16,840	
4.3	Meetings and Correspondence	12	40	20			16					88	\$ 16,160	\$ -	\$ -	\$ 16,160	
4.4	Completion Walkthroughs and Punchlists	4	16	16			16					52	\$ 9,280	\$ -	\$ -	\$ 9,280	
4.5	Well Completion and Testing/Sampling Reports	2	16	40								58	\$ 9,760	\$ -	\$ -	\$ 9,760	
<b>Supplemental Services</b>																	
<b>Supplemental Services</b>																	
A												0	\$ -	\$ -	\$ -	\$ -	
												0	\$ -	\$ -	\$ -	\$ -	
												<b>Grand Total</b>	\$ 384,200	\$ -	\$ -	\$ 384,200	

**REGULAR MEETING**  
**Alliance Regional Water Authority Board of Directors**

**BOARD MEMBER PACKETS**

Wednesday, January 22, 2020 at 3:00 P.M.  
501 E. Hopkins, San Marcos, TX 78666

- F.8** Consider adoption of Resolution 2020-01-22-005 approving an agreement with Hicks & Company Environmental / Archaeological Consultants for Environmental On-Call Services associated with the Authority's Phase 1B Well Drilling / Hydrogeology project as recommended by the Technical Committee. ~ *Ryan Sowa, P.E., Kimley-Horn & Associates*
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Background/Information

Hicks & Company provided the environmental investigation for the Well Drilling / Hydrogeology & Raw Water Infrastructure as a subconsultant to LNV, Inc. A standard requirement of environmental approvals from the Texas Water Development Board is to have environmental professionals on-call to survey any areas to be cleared for migratory bird nests during the peak season of March to September. In addition the clearance requires Alliance Water to have a consultant on-call should the contractor identify any of the threatened and/or endangered species outlined in the Texas Parks & Wildlife Department guidelines.

Staff negotiated the attached scope and fee with Hicks & Company for these services, should they be required. The contract will be billed on an hourly basis based on actual time spent, not-to-exceed \$23,938.75.

Attachment(s)

- Proposal dated October 16, 2019 from Hicks & Company for Phase 1B Environmental On-Call Services for Construction

Technical Committee Recommendation(s)

- Technical Committee unanimously recommended approval of an agreement with Hicks & Company as presented.

**Board Decision(s) Needed:**

- Adoption of Resolution 2020-01-22-005 approving an agreement with Hicks & Company Environmental / Archaeological Consultants for Environmental On-Call Services associated with the Authority's Phase 1B Well Drilling / Hydrogeology project as recommended by the Technical Committee.



## ALLIANCE WATER

### RESOLUTION NO. 20200122-005

**A RESOLUTION OF THE ALLIANCE REGIONAL WATER AUTHORITY BOARD OF DIRECTORS APPROVING AN AGREEMENT WITH HICKS & COMPANY ENVIRONMENTAL / ARCHAEOLOGICAL CONSULTANTS FOR ENVIRONMENTAL ON-CALL SERVICES ASSOCIATED WITH THE AUTHORITY'S PHASE 1B WELL DRILLING / HYDROGEOLOGY PROJECT; AUTHORIZING THE CHAIR OF THE BOARD TO EXECUTE CONTRACT DOCUMENTS AND DECLARING AN EFFECTIVE DATE**

#### **RECITALS:**

1. The Alliance Regional Water Authority ("Alliance Water") entered into an agreement with LNV, Inc. for design of the Phase 1B Raw Water Infrastructure Project in October 2018 through the approval of Resolution 2081024-001. Their environmental subconsultant on the project was Hicks & Company Environmental / Archaeological Consultants ("Hicks & Co.").

2. As part of the approval of the environmental data form by the Texas Water Development Board (the "TWDB"), the TWDB requires that the project Owner have on-call environmental services should any endangered or threatened species or cultural resources be identified during construction. In addition, the TWDB requires that nesting bird surveys occur if clearing occurs between March and September.

3. Due to their familiarity the property and project, Alliance Water Staff requested a scope and fee proposal from Hicks & Co. for the on-call environmental services work.

#### **BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE ALLIANCE REGIONAL WATER AUTHORITY:**

**SECTION 1.** An Agreement for On-Call Environmental Services for the Phase 1B Well Drilling / Hydrogeology Project with a maximum not-to-exceed fee of \$23,938.75 between Alliance Water and Hicks & Co. is approved, contingent upon the approval of the terms of the agreement by the Alliance Water's general legal counsel, Mike Gershon.

**SECTION 2.** Alliance Water's Executive Director, Graham Moore, is authorized to execute the Agreement on behalf of Alliance Water.

**SECTION 3.** This Resolution shall be in full force and effect immediately upon its passage.

Resolution 20200122-005  
Phase 1B On-Call Environmental Services

**ADOPTED:** January 22, 2020

**ATTEST:**

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Chris Betz  
Chair, Board of Directors

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James Earp  
Secretary, Board of Directors

October 16, 2019

Amy Esguerra  
CP&Y  
One Countryside Place  
12500 San Pedro, Ste. 450  
San Antonio, Texas 78126

RE: Scope of Services and Fee Estimate; ARWA Phase 1B Environmental On-call Services for Construction; Caldwell County, Texas

Dear Ms. Esguerra:

In response to your email request of October 3, 2019, this transmits a proposal for environmental on-call services for construction of portions of the Alliance Regional Water Authority's Phase 1B Raw Water Infrastructure Project located in Caldwell County, Texas.

This proposal follows your email instructions involving the performance migratory bird nest surveys prior to clearing if scheduled clearing falls within the nesting season period; as well as being on-call in the event the drilling/construction team identifies any of the threatened and endangered species outlined in the coordination with Texas Parks & Wildlife Department (TPWD); and coordination/consultation should cultural resources be encountered. Assumptions for expenditure of time also follows instructions provided in your email. Please see the attached Scope of Services and fee estimate for details.

Hicks & Company appreciates the opportunity to provide environmental services if needed for the project. If you have any questions or need further assistance, please contact me at (512) 478-0858 or [rfrye@hicksenv.com](mailto:rfrye@hicksenv.com).

Sincerely,  
Roy G. Frye

Senior Project Manager  
Hicks & Company Environmental/Archeological Consultants

Attachments

Scope of Services  
Fee Estimate  
Location Map

**SCOPE OF SERVICES**  
**ARWA Phase 1B – Environmental On-call Services for Construction**  
**October 16, 2019**

**PROJECT DESCRIPTION AND UNDERSTANDING**

This Scope of Services responds to an email request by Amy Esguerra, CP&Y, on October 3, 2019. The request was made on behalf of Alliance Regional Water Authority (ARWA) to provide a proposal to conduct environmental services to ensure compliance with the federal Migratory Bird Treaty Act (MBTA). The services will consist of completing migratory bird nest surveys prior to clearing if scheduled clearing falls within the nesting season period; as well as being on-call in the event the drilling/construction team identifies any of the threatened and endangered species outlined in the coordination with Texas Parks & Wildlife Department (TPWD); and coordination/consultation should cultural resources be encountered. Assumptions for expenditure of time have been established by guidance provided by CP&Y. If additional time is required due to unforeseen circumstances and upon approval by ARWA, such services can be provided under a supplemental scope of services and associated fee. A detailed description of proposed tasks follows.

**Task 1. Survey for Nesting Migratory Birds**

If construction occurs during the TPWD-specified nesting period, between March 15 and September 15 (TPWD coordination letter dated May 3, 2019), pre-construction nesting surveys will be performed. Such surveys are intended to identify and avoid active nests in advance of construction activities to achieve compliance with the MBTA. For this project, it is assumed that construction schedules will not be able to completely avoid the nesting period and that nesting surveys will be required. These nesting surveys will be performed according to the following protocol.

*Coordination and Scheduling of Surveys with Construction Supervisor(s)*

Construction is anticipated to begin in 2020 and last for approximately 10 months. If the planned construction schedule overlaps with the established nesting period between March 15 and September 15, CP&Y will coordinate a meeting to be attended by the designated construction supervisor(s) and Hicks & Company staff including the Project Manager (PM), to identify construction schedules, associated construction locations, and personnel contacts. It will be critical to the success of this Task that the nesting surveys for specific corridor segments will be scheduled as close to the occurring construction activities as possible, but not earlier than one week before clearing and grubbing or other construction disturbance will actually occur. Survey dates will coincide with established clearing and grubbing dates to ensure timely survey immediately prior to vegetation clearing activities. Prior to the initiation of the nesting survey(s), Hicks & Company will be provided with the latest digital shapefiles showing the location of the road and collection pipeline alignments and well sites (including test well locations). At the beginning of the day that a nesting survey will occur, the Hicks & Company PM will contact the appropriate construction supervisor to confirm where the clearing and grubbing activities are occurring, location of construction access points, and where the nesting surveys will be conducted.

After the nesting survey has been completed, the Hicks & Company PM will immediately notify the construction supervisor as to the findings of the survey. This will include information concerning whether active nests have been located, location of the active nests, and types and extent of buffer protection zones.

### Survey Methodology

The survey schedules will be coordinated with construction schedules for specific parcels with the goal of being completed within seven days before clearing, grubbing, or other disturbance begins.

The nesting surveys will consist of a 100 percent pedestrian survey by two investigators that will walk along and within proposed road and pipeline clearing corridors to identify and locate active nests within 30 feet of each side of the alignment and within well pad site locations that will comprise 250 square feet (pursuant to CP&Y email of October 3, 2019). Vegetation within the road and pipeline corridors and four well pad sites (that may also include an unknown number of test well locations) will be scrutinized for the presence of nests and/or nesting cavities that appear to be in use. Avian behavior will be assessed for obvious signs of nesting, brood rearing, and breeding. All avian species detected will be noted. The location of active nests will be recorded by a hand held GPS unit and marked on aerial photography. Identification of active nests will trigger immediate coordination with designated construction supervisors to establish protection zones and implement procedures for periodically monitoring nest activities and determining when nesting activities are completed. Results of the nesting surveys will be documented in a report that will be submitted to ARWA.

### Establishment of Protection Buffer Zones Around Active Nests

If an active nest is discovered during the survey, the TPWD coordination letter of May 3, 2019, recommends the establishment of a protective buffer of 150 feet surrounding the nest. This protective buffer will be considered; however, previous experience with construction projects has shown disturbance tolerance of some nesting birds can be much lower than 150 feet. The size of the buffer zone will be established based on the species of bird involved, specific location of the nest with respect to the anticipated construction activity, and previous experience with nesting avoidance buffers on other projects. Construction buffers typically involve a protection zone marked with continuous colored flagging surrounding the active nest staked within a specified radius distance. Such distances may vary according to type and behavior of the nesting species but have ranged from as little as six feet to as much as 300 feet on previous projects. Buffers would remain in effect around the active nest until the young have fledged or the nest is abandoned. For the purposes of accomplishing this Task and based on guidance provided by CP&Y email on October 3, 2019, it is assumed that the nest surveys will require five trips by two ecologists, with each trip requiring eight hours to complete, including travel time (80 hours total).

### **Task 2. Monitoring of Active Nests**

Detection of active nests will require on-going protection and subsequent weekly field visits to determine when young birds fledge and the nest becomes inactive. If eggs are present in the nest, then

protection zones will be established and maintained, and weekly follow-up visits will be conducted for approximately 28 days (to allow time for incubation and fledging according to the nesting species) or until the nest becomes empty. Monitoring of active nests may be performed while on site before or after surveys are completed for other portions of the road/pipeline corridors. It is assumed that if the monitoring of active nests exceeds the amount of approved time and budget, such services can be completed under a supplement scope of services or alternatively, that the required monitoring activities will be completed by others.

### **Task 3. On-Call Services for T&E Species and Cultural Resources**

#### *Threatened and Endangered Species*

On-call services will be provided as needed or required in the event any threatened or endangered species are encountered by construction workers during the construction period. Species noted by the TPWD coordination letter of May 3, 2019, include the state-listed wood stork (*Mycteria americana*), Texas horned lizard (*Phrynosoma cornutum*), and timber rattlesnake (*Crotalus horridus*). Because these species are protected by state law, it is unlawful to collect, transport, or possess them without a permit issued by TPWD. In the event these species are encountered, injured, or otherwise need to be relocated, a qualified permitted biologist with Hicks & Company, or under the supervision of Hicks & Company, will be available to perform these services.

Prior to construction, CP&Y will coordinate contact information between ARWA construction supervisors and Hicks & Company to ensure that timely notification and consultation follow-up occurs. Upon notification by the ARWA construction supervisor or other designated representative, a Hicks & Company ecologist will assess the situation, determine the need for on-site inspection or assistance, and complete any necessary field inspection, consultation, or coordination that is required.

Consultation and assistance will be provided if other state or federally listed species are encountered. Although not expected to occur, if federally listed species are encountered as determined by consultation with Hicks & Company, the U.S Fish and Wildlife Service Field Office in Austin, Texas will be immediately notified.

#### *Cultural resources*

In the unlikely event that cultural resources are encountered or excavation reveals sites of potential cultural importance, unmarked graves, or human remains, Hicks & Company will be contacted and an archeologist will assess the situation, conduct a site visit if needed or required, determine the need for further investigation, and complete disposition of any identified features. If cultural resource features are encountered, the Texas Historical Commission (THC) will be contacted for further consultation and guidance as to the need for further investigations or surveys. These services do not include an archeological survey. If such a survey is required, it could be provided under a supplemental scope of services and fee.

For the purposes of accomplishing this Task and based on guidance provided by CP&Y email on October 3, 2019, it is assumed that 10 on-call trips, each requiring four hours of staff time for threatened and endangered species or cultural resources will be required by one staff person (40 hours total).

## **DELIVERABLES**

This Scope of Services includes the following deliverables:

- A brief summary of any found nests or T&E species (or lack there-of) will be reported via email the same day as the surveys (**Task 1**).
- A letter report will be prepared to document results of the migratory bird nesting survey and submitted to ARWA (**Task 1**).
- Active nest protection zones will be established by staked and flagged marker(s) (**Task 2**).
- A summary report detailing the results of any consultation, field visits or other coordination that is required concerning any threatened/endangered species or cultural resources (**Task 3**).

## **SCHEDULE**

Work will be completed, and deliverables will be prepared and submitted, according to construction schedules established by ARWA. Performance of all tasks listed in this proposal will require close coordination with ARWA for schedule updates and any changes in project construction activities.

## **COSTS**

The proposed not-to-exceed cost to complete this Scope of Services is **\$23,938.75**. An itemized fee estimate based on current hourly billing rates is attached.

## **OVERALL ASSUMPTIONS**

This Scope of Services and fee estimate has been prepared as accurately as possible with the current level of knowledge of the project and based on the assumptions included in the above described Tasks.

If substantial changes occur in the project corridor boundaries or infrastructure footprint locations, or later design modifications require reevaluations, such additional reevaluations will be supplemental to those performed under this Scope of Services.

**HICKS & COMPANY ENVIRONMENTAL/ARCHEOLOGICAL CONSULTANTS**  
**FEE ESTIMATE - ARWA Phase 1B On-Call Environmental Services for Construction - October 16, 2019**

<b>LABOR</b>	<b>Sr. Program Mgr</b>	<b>Sr. Env'l Scientist II</b>	<b>Sr. Env'l Scientist I</b>	<b>Env'l Scientist II</b>	<b>Env'l Prof III</b>	<b>Env'l Prof II</b>	<b>Env'l Prof I</b>	<b>Env'l Staff I</b>	<b>Env'l Tech I</b>	<b>TOTAL</b>
	\$196.94	\$151.50	\$130.29	\$121.20	\$106.05	\$96.96	\$86.35	\$69.69	\$54.54	
<b>TASK 1 -</b>										
MBTA Field Surveys and Monitoring		40		40						80.0
Report Preparation		8		4						12.0
GIS Support				6						6.0
Project Management & Coordination		8								8.0
Task 1 Labor Hours	0.0	56.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	<b>106.0</b>
<b>Task 1 Subtotal</b>	\$ -	\$ 8,484.00	\$ -	\$ 6,060.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ <b>14,544.00</b>
<b>TASK 2 -</b>										
Monitoring Active Nests										0.0
Assumes monitoring will be completed as part of nest Surveys in Task 1 or be completed by others										0.0
Task 2 Labor Hours	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	<b>0.0</b>
<b>Task 2 Subtotal</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>TASK 3 -</b>										
On-call Services for T/E and Cultural Resources		32		8						40.0
Report Preparation		8		2						10.0
GIS Support					3					3.0
Project Management & Coordination		3			2					5.0
Task 3 Labor Hours	0.0	43.0	0.0	10.0	5.0	0.0	0.0	0.0	0.0	<b>58.0</b>
<b>Task 3 Subtotal</b>	\$ -	\$ 6,514.50	\$ -	\$ 1,212.00	\$ 530.25	\$ -	\$ -	\$ -	\$ -	\$ <b>8,256.75</b>
<b>TOTAL LABOR</b>										\$ <b>22,800.75</b>
<b>DIRECT EXPENSES</b>										
	<b>Unit</b>	<b>Rate</b>	<b>Quantity</b>							<b>TOTAL</b>
Research materials	report									\$ -
Mileage	mile	\$0.58	1,850							\$ 1,073.00
Hotel	night									\$ -
Field supplies	bundle	\$65.00	1							\$ 65.00
<b>TOTAL DIRECT EXPENSES</b>										\$ <b>1,138.00</b>
<b>TOTAL COST</b>										\$ <b>23,938.75</b>

**REGULAR MEETING**  
**Alliance Regional Water Authority Board of Directors**

**BOARD MEMBER PACKETS**

Wednesday, January 22, 2020 at 3:00 P.M.  
501 E. Hopkins, San Marcos, TX 78666

- F.9** Consider adoption of Resolution 2020-01-22-006 approving Work Order #3 with Walker Partners, LLC for Design and Procurement Services for the Authority's Phase 1B Water Treatment Plant project as recommended by the Technical Committee. ~ *Ryan Sowa, P.E., Kimley-Horn & Associates*
- 

Background/Information

Alliance Water entered into a Work Order in October 2018 with Walker Partners, LLC to provide preliminary engineering services for the Phase 1B Water Treatment Plant project. The preliminary design is almost complete and in order to maintain progress, Staff has negotiated a scope and fee with Walker Partners to provide final design and procurement services for the Water Treatment Plant project. Construction phase services will be negotiated at a later date and will be authorized via a separate work order.

Below are some of the key facts regarding the Phase 1B Water Treatment Plant proposal:

**Firm:** Walker Partners, LLC

**Fee:** \$3,533,790

**Work Order Type:** Lump Sum

**Anticipated Duration:** 15 months

**Project Manager:** Joe Jenkins, P.E.

**Key Subconsultants:** LNV (Arch, Structural & Raw Water), S. Kanetzky (Electrical Design), & Holt (Geotechnical)

Staff is requesting Board approval of a Work Order with a fee for the basic services of \$2,900,402 and a fee for supplemental effort in an amount not-to-exceed \$633,388 for a total fee of \$3,533,790.

Attachment(s)

- Proposal for Design and Procurement for Phase 1B Water Treatment Plant Project dated January 13, 2020 (sub-consultant information not provided for brevity).

Technical Committee Recommendation(s)

- Technical Committee unanimously recommended approval of a work order with Walker Partners as presented with an additional requirement that the authorization of any supplemental services in excess of \$50,000 must be approved by the Board of Directors.

**REGULAR MEETING**  
**Alliance Regional Water Authority Board of Directors**

**BOARD MEMBER PACKETS**  
Wednesday, January 22, 2020 at 3:00 P.M.  
501 E. Hopkins, San Marcos, TX 78666

**Board Decision(s) Needed:**

- Consider adoption of Resolution 2020-01-22-006 approving Work Order #3 with Walker Partners, LLC for Design and Procurement Services for the Authority's Phase 1B Water Treatment Plant project as recommended by the Technical Committee.



## ALLIANCE WATER

### RESOLUTION NO. 20200122-006

**A RESOLUTION OF THE ALLIANCE REGIONAL WATER AUTHORITY BOARD OF DIRECTORS APPROVING WORK ORDER #3 BETWEEN THE AUTHORITY AND WALKER PARTNERS, LLC FOR FINAL DESIGN AND PROCUREMENT PHASE SERVICES RELATED TO THE AUTHORITY'S PHASE 1B WATER TREATMENT PLANT PROJECT AND RELATED MATTERS, AND DECLARING AN EFFECTIVE DATE**

#### **RECITALS:**

1. Alliance Regional Water Authority (the "Authority") entered into a master agreement with Walker Partners, LLC ("Walker Partners") for professional engineering services and related matters in September 2018.

2. The Authority hired Kimley-Horn & Associates to serve as the Owner's Representative for the Authority's Phase 1B Program. The Owner's Representative role is to assist the Authority with development of the Phase 1B Program as a whole, including coordination with all design firms after selection through completion of the Program.

3. The Authority entered into a work order with Walker Partners for preliminary design services for the Authority's Phase 1B Water Treatment Plant Project (the "Project") in October 2018.

4. The preliminary design for the Project is almost complete and the Authority needs to progress the effort through final design and procurement.

5. The scope of services and fee for the attached work order was negotiated by the Executive Director and the Owner's Representative on behalf of the Authority. The work order references terms and conditions in the approved Master Agreement between the Authority and Walker Partners.

#### **BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE ALLIANCE REGIONAL WATER AUTHORITY:**

**SECTION 1.** The attached work order for Final Engineering Design and Procurement Services for the Project between the Authority and Walker Partners is approved with a total fee of \$2,900,402.

**SECTION 2.** The Authority's Executive Director, Graham Moore, is authorized to execute the attached agreement on behalf of the Authority.

**SECTION 3.** The Authority's Executive Director is authorized to issue supplemental work orders not to exceed, \$50,000. Any supplemental amendments above \$50,000 must be brought to the Authority's Board of Directors for approval.

**SECTION 4.** This Resolution shall be in full force and effect immediately upon its passage.

Resolution 20200122-006  
Phase 1B WTP Final Design & Procurement

**ADOPTED:** January 22, 2020.

**ATTEST:**

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Chris Betz  
Chair, Board of Directors

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James Earp  
Secretary, Board of Directors

**Work Order No. 003**

Pursuant and subject to the Master Service Agreement between the Alliance Regional Water Authority (Alliance Water) and Walker Partners, LLC (Engineer), Alliance Water requests the Engineer to perform the services described below:

Work Site: <u>Caldwell County</u>
Work to Be Performed: <u>Final Engineering Design and Procurement Phase Services for the Phase 1B Water Treatment Plant project, as noted in the attached scope of services letter dated January 13, 2020.</u>
_____
_____
Date to Commence: <u>January 23, 2020</u>
Date to Complete: <u>June 30, 2021.</u>
Cost Proposal to be: <u>Fixed Fee of \$2,900,402</u>
Other Information/Requirements: <u>Supplemental services must be authorized by a separate work order, should the need arise.</u>
_____
_____

**Acceptance:**

Alliance Regional Water Authority

Walker Partners, LLC

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

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

Signature

Signature

Graham Moore, Executive Director

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

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

January 13, 2020

Graham Moore, PE  
 Executive Director  
 Alliance Regional Water Authority  
 630 E. Hopkins  
 San Marcos, TX 78666

Re: Phase 1B – Ground Water Treatment Plant – Proposal for Final Design and Procurement Services

Dear Mr. Moore:

Walker Partners, LLC (Engineer) appreciates this opportunity to submit this Proposal to provide professional surveying and engineering services to Alliance Regional Water Authority (Owner) in connection with the Phase 1B – Ground Water Treatment Plant (Project).

The scope of services, schedule, assumptions and exclusions are outlined in the attached Scope. The associated lump sum fees that Walker Partners proposes to provide for Engineering Basic Services are based on the assumptions in the Scope and the level of effort estimated in the Detail Cost Breakdown (see attached). Table 1, below, includes an itemized breakdown of proposed task fees for an overall lump sum fee for Engineering Basic Services:

**Table 1: Task Fee Breakdown for Lump Sum Basic Engineering Services**

<b>Task</b>	<b>Description</b>	<b>Lump Sum Fee</b>
1	Project Management	\$ 223,568.00
2	Review of Cathodic Protection Standards	\$ 7,979.00
3	Environmental Coordination	\$ 2,595.00
4	Regulatory Agency Coordination	\$ 31,092.00
5	Public and Private Utility Coordination	\$ 8,259.00
6	High Service Pump Station Hydraulics and Surge/Transient Analysis	\$ 26,380.00
7	Design Consultant Coordination	\$ 6,964.00
8	Subsurface Investigations	\$ 135,076.00
9	60% Design Phase	\$ 1,183,661.00
10	90% Complete Design Phase	\$ 1,065,203.00
11	100% Complete Design Phase	\$ 209,625.00
<b>TOTAL BASIC SERVICES LUMP SUM FEE</b>		<b>\$ 2,900,402.00</b>

We understand that Walker Partners may also provide Supplemental Services for this Project as shown on Table 2, below, and described in the attached scope document. The estimated budgets in Table 2 and the Detail Cost Breakdown are budgetary placeholders for the final design Work Order Supplemental Services. These proposed services will be negotiated and authorized on a case-by-case basis.

**Table 2: Estimated Supplemental Services Budget**

<b>Task</b>	<b>Description</b>	
12.1	Additional Survey	\$ 15,000.00
12.2	Additional Geotechnical Boring and Piezometers	\$ 11,000.00
12.3	General Engineering Design	\$ 141,500.00
12.4	Environmental Coordination Based on Necessary Additional Environmental Investigations	\$ 10,000.00
12.5	Supplemental SCADA Design	\$ 70,114.00
12.6	Attend Public Meetings (2 meetings)	\$ 16,000.00
12.7	Attend Additional Meetings in the Project Vicinity	\$ 10,000.00
12.8	TCEQ - Exceptions and Variance Development Coordination	\$ 10,000.00
12.9	Alternative Bidding of Combined Packages	\$ 20,000.00
12.10	Transportation (County Road Improvements)	\$ 25,000.00
12.11	Surge and Transient Analysis	\$ 125,203.00
12.12	Site Facility Rendering	\$ 23,100.00
12.13	Procurement (Time & Materials, Hourly Not to Exceed)	\$ 156,471.00
<b>TOTAL ESTIMATED SUPPLEMENTAL SERVICES BUDGET</b>		<b>\$ 633,388.00</b>

Our team looks forward to developing this project to the next phase – final design and procurement of a construction contractor. Please let us know if the proposal review team has any questions or comments.

Sincerely,



George E. "Jed" Walker, Jr., P.E.  
Project Principal

#### **Attachments**

Alliance Regional Water Authority – Phase 1B Final Design and Procurement of a Construction Contractor for the Groundwater Treatment Plant and Pump Station with integration of the Well Field Piping Project Scope

#### Appendices

Appendix A – Total Fee Breakdown

Appendix B – Anticipated Design Drawings

Appendix C – Schedule

#### Subconsultant Proposals

Attachment 1 – Northwest Hydraulics

Attachment 2 – Holt Engineering

Attachment 3 – Elk Engineering

Attachment 4 – LNV Engineering

Attachment 5 – S. Kanetzky Engineering

Attachment 6 – Burrier Engineering

# Alliance Regional Water Authority - Groundwater Treatment Plant

## Final Design and Bidding Support Services

### **BACKGROUND**

This scope of work encompasses our design team's efforts to complete the final design and provide support during bidding of the project for the new Alliance Regional Water Authority's (ARWA's) Groundwater Treatment Plant. This scope builds on our previous preliminary engineering and schematic (30% design effort) engineering services. The preliminary engineering is captured in the Basis of Design Report (BODR) dated July 2019, and the schematic design (30% design completion) will be submitted and finalized in January 2020. The overall fee is provided in Appendix A.

This water treatment plant (WTP) has been planned to treat Carrizo aquifer groundwater from ARWA wells and from Guadalupe-Blanco River Authority (GBRA) wells. The plant's initial design capacity this contract will be 19.51 million gallons per day (MGD) with planning and accommodation of a final Phase 1 capacity of 33.47 MGD (future). The design will include analysis and sizing for Phase 1B – 1D design.

As described in the BODR, the treatment is based upon water quality data from similar existing wells in the general area. The planned treatment plant includes the following main facilities:

- ARWA and GBRA inlet flow metering
- Two (2) 1-million-gallon, prestressed concrete, raw water balancing and blending tanks
- Master flow controller to control gravity flow through the plant
- Carbon dioxide and lime feed systems to increase alkalinity and pH for stabilization of the water related to corrosion control
- Sodium permanganate and sodium hypochlorite chemical feed systems for oxidation and precipitation of iron and manganese
- Rapid mix facility to effectively mix the chemicals into the groundwater
- Dual-media gravity filters, housed in a filter building, to remove oxidized iron, manganese, and any undissolved lime
- Post-filter disinfection with sodium hypochlorite, with provisions for future chemical additions
- One (1) 2-million-gallon baffled prestressed concrete clearwell
- Backwash pump station
- Plant water pump station
- High-service pump station
- Backwash waste handling through a plate settler and sand drying beds with clarified water recycled to the front of the plant through a recycle pump station
- Administrative and maintenance buildings

The current Opinion of Probable Construction Cost (OPCC) is approximately \$63.5 million as documented in the 30% design report.

## **SCOPE OF WORK**

### **1. PROJECT MANAGEMENT**

- 1.1. Update Project Management Plan.
- 1.2. Prepare Monthly Summary Reports and Invoices, as identified in the ARWA Phase 1B Program Management Plan (15 reports and invoices).
- 1.3. Schedule development and monthly updates. Schedule shall cover final design phase, bidding phase, and permitting.
  - 1.3.1. Schedule shall be in Microsoft Project format.
- 1.4. Risk Register development and monthly updates.
  - 1.4.1. Risk Register shall be in Microsoft Excel format.
  - 1.4.2. Compile an initial or preliminary risk register for the project and submit the risk register to the Owner's Representative for review and comment.
  - 1.4.3. Incorporate review comments into the risk register upon the receipt of review comments from the Owner's Representative. The risk register will be a living document updated throughout the project.
  - 1.4.4. Update the Risk Register monthly for submittal with the monthly status reports.
- 1.5. Meetings:
  - 1.5.1. Conduct Progress Meetings with Owner's Representative over the phone or internet conference (15 meetings).
  - 1.5.2. Conduct half-day coordination workshops (3 workshops).
  - 1.5.3. Prepare and distribute meeting notes and minutes.
  - 1.5.4. Quality control audit (2 workshops).
    - 1.5.4.1. The Consultant Estimates a total of 2 audits per calendar year of the preliminary and detailed design phases.
    - 1.5.4.2. Quality Assurance Audits The Project Auditor will provide the Consultant an agenda and schedule the meeting to be held in the Consultant's office. This allows the Consultant to have materials and staff readily available for questions during the audit process. The Consultant will ensure all requested documents (electronic and hard copies) are readily available upon request.
    - 1.5.4.3. Prior to the audit meeting, the Auditor will ask the Consultant to verify the project stage, the location of electronic files, and provide previous audit documentation.
    - 1.5.4.4. Elements to include during the Quality Assurance Audit:
      - 1.5.4.4.1. Audit agenda and form (developed by the Auditor)
      - 1.5.4.4.2. Consultant's QA/QC plan
      - 1.5.4.4.3. Previous Audit reports
      - 1.5.4.4.4. Examination of the files and completed tasks to verify conformance with the QA/QC plan
      - 1.5.4.4.5. Discussion on corrective actions for both current audit and previous audit reports.
  - 1.5.4.5. Milestone Reviews

1.5.4.5.1. The Consultant will perform internal quality reviews in accordance with the approved QA/QC plan and submit the documentation with each submittal milestone (30%, 60%, 90%, and Final) at a minimum.

1.5.4.5.2. The Consultant prepare all documentation required by the approved QA/QC plan for each milestone and will submit necessary documentation to the Owner's Representative for Quality Assurance review.

## **2. REVIEW OF CATHODIC PROTECTION STANDARDS**

2.1. Review and provide comments on Cathodic Protection Standards prepared by Owner's Representative (Elk). Comments on Cathodic Protection Standards shall be in Adobe PDF format.

2.2. Meetings:

2.2.1. Attend one (1) half-day workshop to discuss comments on Cathodic Protection Standards.

## **3. ENVIRONMENTAL COORDINATION**

3.1. Review Final Environmental Report (by others) and develop Construction Documents based on findings.

3.1.1. Incorporate recommendations from Final Environmental Report into Contract Documents.

## **4. REGULATORY AGENCY COORDINATION**

Develop and submit permit applications. The Owner's Representative will assist in submitting to, and coordinating with, Caldwell County, Texas Department of Transportation (TXDOT), Texas Commission on Environmental Quality (TCEQ), and Texas Water Development Board (TWDB). Project Schedule is to include applicable permits, permit application submittal dates, and estimated review period (including addressing comments and resubmitting for approval).

4.1. Caldwell County - Road Improvements Approval, Driveway Permit, Floodplain Permit, Site Construction Permit, On-Site Septic System Permit. As part of the required application information, the scope includes the development of exhibits.

4.1.1. Submittal of permit during 90% Design Phase milestone.

4.1.2. Address comments and resubmit permit during 90% Design Phase milestone.

4.1.3. Coordination meetings (1 meeting).

4.2. TXDOT - Road Crossing Permit and Connecting Road Improvements Approval. As part of the required application information, the scope includes the development of exhibits.

4.2.1. Permit preparation during 90% Design Phase milestone.

4.2.2. Submittal of permit during 90% Design Phase milestone.

4.2.3. Address comments and resubmit permit during 90% Design Phase milestone.

- 4.2.4. Coordination meetings (2 meetings).
- 4.3. TCEQ - Submittal and Approval.
  - 4.3.1. Coordination Meeting (1 meeting).
  - 4.3.2. Plan submittal and address review comments.
- 4.4. TWDB Approval on Contract Documents.
  - 4.4.1. Plan submittal and review
  - 4.4.2. Review by the TWDB includes the plans, front end documents, and specifications . This task does not include environmental submittals and review. Those tasks are included in ENVIRONMENTAL.

## **5. PUBLIC AND PRIVATE UTILITY COORDINATION**

- 5.1. Guadalupe-Blanco River Authority (GBRA)
  - 5.1.1. Obtain and compare GBRA well water quality data with initial water quality assumptions.

## **6. HIGH-SERVICE PUMP STATION SURGE/TRANSIENT ANALYSIS**

Northwest Hydraulic Consultants' (NHC) review of Booster Pump Station (BPS) Design Consultant distribution model and surge transient recommendations. This item includes the WTP design team internal discussion and coordination with respect to on-site design considerations for the high service pump station and discharge pipeline.

- 6.1. Provide review comments and coordination of distribution model from Booster Pump Station design consultant (Freese & Nichols). Extract relevant information from distribution model from Booster Pump Station design consultant and incorporate in NHC hydraulic transient analysis.
- 6.2. Provide review comments and coordination of surge transient recommendations from Booster Pump Station design consultant. Extract relevant information from surge transient recommendations from Booster Pump Station design consultant and incorporate in NHC hydraulic transient analysis.
- 6.3. Coordinate with Booster Pump Station design consultant (Freese & Nichols) on the pipeline surge/transient design (e.g., pressure class, location of ARV's, defining negative pressure).
- 6.4. Address review comments from Booster Pump Station design consultant (Freese & Nichols) and Program prior to finalizing technical memorandum. We have budgeted for up to two (2) rounds of review comments.
- 6.5. Coordinate with Segment A Transmission Main Design Consultant to confirm final tie-in location to WTP site (1 meeting).

Scope for additional surge/transient modeling efforts has been included in supplemental services in the event it is deemed necessary.

## **7. DESIGN CONSULTANT COORDINATION**

This item is associated with combining the water treatment plant (WTP) and raw water infrastructure (RWI) design packages into a single design package and applies to 60%, 90%, and Final Design. This Scope of Work assumes that the WTP Consultant will be the lead firm for Design and Bid Phase services as the Phase 1B WTP construction cost is expected to be substantially higher than the Phase 1B RWI construction cost. Coordination of common project elements between consultants of the same discipline under two separate contracts including:

- Technical Specifications
  - A) Civil
  - B) Mechanical
  - C) Electrical
- Plan legends, general notes,
  - A) Civil
  - B) Mechanical
  - C) Electrical
- Bid Form including quantities and item descriptions
  - A) Civil
  - B) Mechanical
  - C) Electrical
- General Coordination Between two design teams
  - A) Coordination of sheet numbers and total number of sheets between two prime consultants and all associated sub consultants.
  - B) Coordination of Statement of Experience Requirements for Contractors
  - C) Coordination and Organization of CAD resources, standards, and external reference (XREF) files between disciplines and consultants.

7.1. Wellfield Piping Design Consultant.

7.1.1. Coordinate incorporation of 30% Complete Wellfield Piping Drawings into WTP Drawing Set as one Construction Drawing Set.

## **8. SUBSURFACE INVESTIGATIONS**

8.1. Geotechnical Investigation (Holt Engineering, Inc.)

Final Geotechnical Investigation to determine subsurface soil conditions at the proposed Alliance Groundwater Treatment Plant Site to provide final foundation.

- 8.1.1. Two (2) site visits will be made to assess rig access and layout borings. Holt will coordinate with Texas 811 ONE-CALL to locate all existing utilities and obtain all necessary permits prior to drilling in the roadway.
- 8.1.2. Provide all necessary manpower, equipment, and materials for drilling, logging, and sampling 17 additional soil borings to depths of 10 feet to 40 feet each. Maximum total vertical boring length is to be 680 feet. All bore holes will be auger drilled and sampled using either Shelby tubes or split-spoon samplers where appropriate. No Texas Cone Penetrometer will be used.
- 8.1.3. If groundwater is encountered during drilling, the groundwater levels within the open bore holes will be plugged with bentonite chips upon completion of the drilling operation and no further water levels will be obtained.
- 8.1.4. In-house laboratory testing will be conducted consisting of conventional geotechnical tests such as soil classifications, moisture contents, Atterberg limits, grain size analyses, minus 200 sieves, unit weights, sulfate/sulfite, and unconfined compression testing for soil. Corrosion tests will also be run on selected samples. All samples will be retained for a maximum of 12 months. All testing will be in accordance of ASTM testing standards.
- 8.1.5. A Final Geotechnical Report will be issued that will include the following:
  - 8.1.5.1. Description of Field Investigation Program
  - 8.1.5.2. Description of Laboratory Investigation Program
  - 8.1.5.3. Geologic Map of the Area
  - 8.1.5.4. Generalized Boring Location Plan
  - 8.1.5.5. Boring Logs
  - 8.1.5.6. Laboratory and Field Test Results including corrosion/cathodic design
  - 8.1.5.7. Subsurface Characterization
  - 8.1.5.8. Foundation Recommendations including retaining wall design criteria and bedding and backfill specifications for pipe trenches and pavement thickness design recommendations.
- 8.2. Corrosion and Cathodic Investigation, Data Collection, and Design Support (Elk Engineering Associates, Inc.)

All work shall be under the direction of a "Corrosion Expert" that is a Texas PE with NACE International accreditation as a Corrosion and Cathodic Protection Specialist.

- 8.2.1. Soil data provided Holt Engineering Inc. will be evaluated by the Engineer for use in preliminary design and shall include the following:
  - 8.2.1.1. Four pin soil resistance data as required
  - 8.2.1.2. Site boring logs
  - 8.2.1.3. Soil pH data
  - 8.2.1.4. Local water well boring logs
- 8.2.2. The data and documentation listed above will be used to provide a design for cathodic protection (CP) of the underground utilities as required.
- 8.2.3. Review of the following coating systems:
  - 8.2.3.1. Pipes – Internal Coating
  - 8.2.3.2. Pipes – External Coating
  - 8.2.3.3. Concrete Chemical Containment Area Coating

- 8.2.3.4. Slab Sealants/Coating
- 8.2.3.5. Prestressed Concrete Tank Coating
- 8.2.3.6. Filters (Carbon Steel Tanks with Epoxy Coating)
- 8.2.3.7. Paint and Coating Specifications
- 8.2.4. Review of Grounding

## 9. 60% DESIGN PHASE

- 9.1. Civil and Site Development
  - 9.1.1. Yard Piping
    - 9.1.1.1. Components
      - 9.1.1.1.1. Ground Water (GW) Piping
      - 9.1.1.1.2. Two (2) Raw Water Storage Tanks (RWST)
      - 9.1.1.1.3. Chemical Pre-Treatment Piping
      - 9.1.1.1.4. Filter Influent (FI) Piping
      - 9.1.1.1.5. Filtered Water (FW) Piping
      - 9.1.1.1.6. One (1) Clearwell
      - 9.1.1.1.7. Potable Water (PW) piping
      - 9.1.1.1.8. Backwash Supply (BWS) piping
      - 9.1.1.1.9. Backwash Waste (BWW) piping
      - 9.1.1.1.10. Filter to Waste (FTW) piping
      - 9.1.1.1.11. Sludge Underdrain (SL) piping
      - 9.1.1.1.12. Recycle Water (RCY) piping
      - 9.1.1.1.13. Small-diameter yard piping
      - 9.1.1.1.14. Miscellaneous meter and valve assemblies
    - 9.1.1.2. Tasks
      - 9.1.1.2.1. Pipe Sizing (based on flows provided by Walker Partners)
      - 9.1.1.2.2. Pipe Material Selections
      - 9.1.1.2.3. Fitting Material Selections
      - 9.1.1.2.4. Valve Type and Material Selections
      - 9.1.1.2.5. Selection of piping appurtenances
        - 9.1.1.2.5.1. Meters
        - 9.1.1.2.5.2. Restrained Joints
        - 9.1.1.2.5.3. Specialty Fittings
        - 9.1.1.2.5.4. Expansion Joints
        - 9.1.1.2.5.5. Flexible Couplings
      - 9.1.1.2.6. Finalize horizontal alignment
      - 9.1.1.2.7. Develop vertical alignment
      - 9.1.1.2.8. Develop standard details
        - 9.1.1.2.8.1. Bedding & Backfill
        - 9.1.1.2.8.2. Thrust Blocking
      - 9.1.1.2.9. Develop Special Piping Arrangements
        - 9.1.1.2.9.1. Below grade meter vault piping arrangements

- 9.1.1.2.9.2. Below grade vertical alignment changes to avoid conflicts
    - 9.1.1.2.10. Prepare first draft of technical specifications.
    - 9.1.1.2.11. Meetings
    - 9.1.1.2.12. Complete quality control reviews.
  - 9.1.2. Structures, road, and major site element horizontal locations are finalized. Structure floor/control levels, and finished grades are finalized.
  - 9.1.3. County Road and SH304 tie-in topographic survey, including contours and utilities.
  - 9.1.4. Define demolition requirements and limits.
  - 9.1.5. Define contractor staging, storage, access, and off-site access corridors.
  - 9.1.6. Set final building and structure elevations.
  - 9.1.7. Show storm water control concepts (swales, curb, and gutter) on the drawings.
  - 9.1.8. Provide traffic flow and parking. Lay out road access to all buildings and structures. Coordinate handicap requirements with architectural discipline and local site plan regulations.
  - 9.1.9. Prepare first draft of Technical Specifications.
- 9.2. Transportation (County Road Improvements)
  - Necessary pavement and drainage improvements to Wolf Run Road (County Road Cross Section only, up to but excluding TXDOT Pavement Cross Section).
  - 9.2.1. Planning and design includes utility coordination, support for widening ROW for Wolf Run Road into the Alliance owned frontage only (platting and boundary survey performed by others), support of coordination with TXDOT for load zone permitting, traffic coordination for Wolf Run Road as required for improvements to Wolf Run Road inside TXDOT ROW up to but excluding TXDOT pavement cross section. Includes support of coordination with County engineer for Wolf Run Road load zone permitting, ESAL calculations, pavement section design, standard drainage design requirements and determination. Excludes traffic impact analysis and safety study at the intersection with SH304.
- 9.3. Architectural
  - 9.3.1. Components
    - 9.3.1.1. Filter Building
    - 9.3.1.2. Administration Building
    - 9.3.1.3. Maintenance Building
    - 9.3.1.4. Lime System Building
  - 9.3.2. Tasks
    - 9.3.2.1. Develop building floor plans and elevations for all buildings.
    - 9.3.2.2. Coordinate with I&C and electrical disciplines to size and locate electrical and control rooms.
    - 9.3.2.3. Coordinate with the mechanical discipline to select the type of HVAC equipment, locate HVAC equipment rooms, determine space requirements and routing for ductwork if required, and establish design R-values for all exterior walls.
    - 9.3.2.4. Coordinate with structural engineer to define the structural design concepts for the facilities.
    - 9.3.2.5. Complete building and fire code analysis.
    - 9.3.2.6. Prepare first draft of technical specifications.

- 9.3.2.7. Meetings
- 9.3.2.8. Complete quality control reviews.
- 9.4. Structural
  - 9.4.1. Components
    - 9.4.1.1. Filter Building Foundation for Pre-Engineered Metal Building (PEMB).
    - 9.4.1.2. Administration Building including:
      - 9.4.1.2.1. Roof Framing
      - 9.4.1.2.2. CMU Walls
      - 9.4.1.2.3. Foundation
    - 9.4.1.3. Maintenance Building Foundation for PEMB
    - 9.4.1.4. Lime System Building Foundation for PEMB
    - 9.4.1.5. High Service Pump Station Foundation with PEMB Electrical Room Enclosure
    - 9.4.1.6. Rapid Mix Structure
    - 9.4.1.7. Rapid Mix Meter Vault
    - 9.4.1.8. CO2 Injection Vault
    - 9.4.1.9. CO2 Storage Pad
    - 9.4.1.10. Polymer Storage Pad
    - 9.4.1.11. NaMnO<sub>4</sub> Day Tank foundation with containment
    - 9.4.1.12. San Drying Bed with containment
    - 9.4.1.13. (2) Generator Foundations
    - 9.4.1.14. Plate Settler Foundation
    - 9.4.1.15. Inline Mixer Vault
    - 9.4.1.16. Recycle Pump Station Wet Well
    - 9.4.1.17. Raw Water meter and valve assembly pads (2)
    - 9.4.1.18. Pipe Supports and associated foundations
    - 9.4.1.19. Cable Tray supports and associated foundations
  - 9.4.2. Tasks
    - 9.4.2.1. Coordinate with geotechnical engineer to establish foundation design criteria for proposed facilities. Review geotechnical report and discuss foundation design approach with geotechnical engineer and senior structural reviewer
    - 9.4.2.2. Document structural design concept for each structure. Finalize materials of construction (cast-in-place versus precast concrete, roof structures, etc.).
    - 9.4.2.3. Preliminary framing plan for buildings and other structures.
    - 9.4.2.4. Prepare preliminary floor plan for all major structures.
    - 9.4.2.5. Set final building and structure elevations.
    - 9.4.2.6. Determination of Loading
    - 9.4.2.7. Structural Analysis to determine member sizing
    - 9.4.2.8. Perform framing/wall Design of the following buildings:
      - 9.4.2.8.1. Administration building
    - 9.4.2.9. Perform concrete design for the following below grade structure walls and roof slabs (as needed):
      - 9.4.2.9.1. Rapid mix meter vault
      - 9.4.2.9.2. Rapid mix basin
      - 9.4.2.9.3. CO<sub>2</sub> injection vault

- 9.4.2.9.4. Recycle pump station wet well
    - 9.4.2.9.5. Inline mixer vault
  - 9.4.2.10. Perform steel framing design for the following miscellaneous structures:
    - 9.4.2.10.1. Pipe Supports (as needed)
    - 9.4.2.10.2. Cable Tray Supports (as needed)
  - 9.4.2.11. Prepare and submit preliminary drawings to include plans, sections and details to depict the work to be performed. Drawings will be prepared using AutoCAD 2018.
  - 9.4.2.12. Structural Layout
  - 9.4.2.13. Structural Connections
  - 9.4.2.14. Coordination with other disciplines
  - 9.4.2.15. Meetings
  - 9.4.2.16. Complete quality control reviews.
- 9.5. Process
  - 9.5.1. Provide major equipment sizing calculations.
  - 9.5.2. Provide the hydraulic profile for all major gravity process pipelines and hydraulic structures. Establish maximum and minimum water surface elevations for all process tanks.
  - 9.5.3. Coordinate with I&CS on completion of P&IDs.
  - 9.5.4. Coordinate with I&CS on development of process control narratives.
- 9.6. Mechanical
  - 9.6.1. Prepare building and structure layouts (plans and major section(s)).
  - 9.6.2. Assemble catalog cuts for all major process equipment. Complete equipment data sheets or equipment list on all major equipment items.
  - 9.6.3. Coordinate with I&CS on completion of P&IDs.
  - 9.6.4. Provide ancillary equipment sizing and line sizing calculations.
  - 9.6.5. Finalize equipment selection (type, size, weight, arrangement).
  - 9.6.6. Select piping materials.
  - 9.6.7. Prepare first draft of technical specifications.
- 9.7. HVAC / Plumbing
  - 9.7.1. Piping system plans:
    - 9.7.1.1. Mains and main branches
    - 9.7.1.2. Locations of risers
  - 9.7.2. Schematic system diagrams
  - 9.7.3. Ductwork system plans:
    - 9.7.3.1. Supply, return and exhaust
    - 9.7.3.2. Mains and main branches
  - 9.7.4. Location of risers
  - 9.7.5. Schematic system diagrams
  - 9.7.6. HVAC Controls
    - 9.7.6.1. Controls Narrative
    - 9.7.6.2. Control Sequence
    - 9.7.6.3. Controls Points List
    - 9.7.6.4. Controls Schematics
  - 9.7.7. Equipment Plans:

- 9.7.7.1. Preliminary equipment layouts.
  - 9.7.7.2. Housekeeping pads – size and location.
- 9.7.8. Louver sizes and locations.
- 9.7.9. Plumbing fixtures.
- 9.7.10. Typical Details
- 9.7.11. Preliminary Equipment Schedule
  - 9.7.11.1. Capacity, type and weight
  - 9.7.11.2. Electrical requirements.
- 9.8. Instrumentation and Control
  - 9.8.1. Implement Program’s design criteria for instrumentation and controls, fiber, and security.
  - 9.8.2. Coordinate with booster pump station consultant to develop high service pump station operational criteria.
  - 9.8.3. Coordination with design team to prepare a process flow drawing (PFD) for each treatment process. Information to be included on each PFD includes: process configuration, flow streams, valve and gate locations (manual and powered), chemical additions points/types, process equipment location/type including packaged control panels and adjustable-speed drives, flow meters and other process control devices.
  - 9.8.4. Equipment/instrument tag numbering, naming, and abbreviation conventions.
  - 9.8.5. Control system configuration (local control panels, PLC-based controls, or DCS-based controls) with input from owner.
  - 9.8.6. Coordination with the design team to prepare written operational description of each major process.
  - 9.8.7. Overall control philosophy including remote well field telemetry and control, treatment plant control, blending control; local control; level of automation, supervisory control; and reliability and redundancy criteria.
  - 9.8.8. I/O count.
  - 9.8.9. Major process instrument schedule and cut sheets.
  - 9.8.10. Control system block diagram drawing.
  - 9.8.11. Implement Program’s design criteria for SCADA.
  - 9.8.12. Coordinate with booster pump station consultant to develop high service pump station operational criteria.
- 9.9. Electrical
  - 9.9.1. Implement Program design criteria for electrical and utility requirements.
  - 9.9.2. Design overall one-line diagrams for primary and secondary power distribution facilities for proposed facilities. All electrical systems shall include spare capacity for future phases and expansions.
  - 9.9.3. Fiber optic design will pick up from Segment A termination point within the WTP site and will run to the network panel within the building on-site. Coordination shall consist of man-hole locations and spacing and conduit details for SCADA fiber network cable. Fiber contractor will be responsible for pulling cable inside the conduit. Design shall be per Program standards.
  - 9.9.4. Site electrical plan.
  - 9.9.5. Load calculations.

- 9.9.6. Size electrical rooms.
- 9.9.7. A single electrical feed to be provided to facility. Coordinate location of substation and road improvements of Wolf Run Road with GVEC ((1) ½ day meeting). Coordinate location of utility poles and transformers. Submit 90% Civil and Electrical design package to GVEC for review and comment. Address any GVEC comments.
- 9.9.8. Redundancy requirements for power supplies and power distribution.
- 9.9.9. Voltage drop, demand factors, power factors, and metering design
- 9.9.10. Raceway design criteria including sizing, applications, identification, and underground raceways.
- 9.9.11. Wire and cable design including type and use, color coding, and circuit identification.
- 9.9.12. Distribution system protection design criteria including equipment protective devices switchboards, circuit breakers, and surge protection.
- 9.9.13. Adjustable speed drive controllers including AC-VFDs.
- 9.9.14. Motor protection and control center design including number, type, location, overload protection, disconnect switches, and typical control diagrams (ladder type).
- 9.9.15. MCC motor starter control schematic design.
- 9.9.16. Grounding design including general and equipment grounding.
- 9.9.17. Lighting design, lighting calculations, interior mounting heights, exterior mounting heights, circuiting and switching, and type of lighting.
- 9.9.18. Lighting protection design including low voltage protection (SPD)
- 9.9.19. Electrical equipment/rooms number, size, and location
- 9.9.20. Site security/safety features will follow Program standards such as motion detectors, intrusion alarms, closed circuit TV, and fire alarm system including the front gate and all door access control
- 9.9.21. Electrical studies including but not limited to arc flash.
- 9.10. Preparation of Project Manual
  - 9.10.1. Develop Table of Contents; incorporate all ARWA Phase 1B Program standard specifications (provided by Owner's Representative), and project-specific specifications (provided by the Design Consultants).
- 9.11. Opinion of Probable Construction Cost
  - 9.11.1. Update 30% Design Phase cost estimate. Estimate will be a Budget Level (Class 2 - AACE) cost estimate. Estimate will have an accuracy of +20%/-15%.
- 9.12. Submit plans and specifications for QC review.
- 9.13. 60% Design Workshop
  - 9.13.1. Conduct a design workshop to review the work products with the Owner's personnel and other key project staff. Final workshop minutes, documenting the key decisions, and the work products produced through subtasks above, will be submitted to the Owner.
  - 9.13.2. Prepare and distribute meeting notes.
- 9.14. 60% Design Phase Deliverables
  - 9.14.1. Plans and specifications
  - 9.14.2. Draft Geotechnical Report
  - 9.14.3. Updated list of permits required for the project
  - 9.14.4. Updated Risk Register
  - 9.14.5. Updated Project Schedule

- 9.14.6. Corrosion Protection Report
- 9.14.7. Surge/Transient Analysis Report
- 9.14.8. Design Review Workshop and meeting notes
- 9.14.9. Opinion of Probable Construction Cost (OPCC)
- 9.15. Weekly design team conference calls and periodic design team workshops.
- 9.16. Incorporation of 60% review comments.

## **10. 90% COMPLETE DESIGN PHASE**

The purpose of this task is to develop the final contract drawings, specifications, and schedules for competitive bidding. Key activities during this phase will include:

- 10.1. Project Manual:
  - 10.1.1. Finalize bid form.
  - 10.1.2. Owner input is required at this point to determine construction contract and insurance requirements.
  - 10.1.3. Coordinate with Owner on advertising and bidding process.
- 10.2. Prepare final Construction Drawings.
- 10.3. Prepare final calculations.
- 10.4. Complete On-Site Septic System Design and Permitting for the Administration Building (Burrier Engineering) at the Alliance Groundwater Treatment Plant Facility, which shall consist of the following:
  - 10.4.1. Test holes
  - 10.4.2. Soil evaluation
  - 10.4.3. OSSF Design
  - 10.4.4. OSSF Permitting
  - 10.4.5. Caldwell County Fees
- 10.5. 90% Opinion of Probable Construction Cost.
  - 10.5.1. Update 60% Design Phase cost estimate. Estimate will be a Definitive Level estimate (Class 2 - AACE). Estimate will have an accuracy of +15%/-15%.
- 10.6. Submit package for QC reviews.
- 10.7. 90% Design Workshop:
  - 10.7.1. Conduct 90% Design Workshop to review the 90% Design Submittal.
  - 10.7.2. Prepare and distribute meeting notes.
  - 10.7.3. Submit 90% Design Phase plans and specifications for regulatory review - TXDOT, TCEQ, TWDB, and Caldwell County.
- 10.8. 90% Design Phase Deliverables
  - 10.8.1. 90% Design Deliverables (plans and specifications)
  - 10.8.2. Final Geotechnical Report
  - 10.8.3. Updated Risk Register
  - 10.8.4. Updated Project Schedule
  - 10.8.5. 90% Design Review Workshop and meeting notes

- 10.8.6. 90% Opinion of Probable Construction Cost (OPCC)
- 10.8.7. QA/QC Documentation
- 10.9. Weekly design team conference calls and periodic design team workshops.
- 10.10. Incorporation of 90% review comments.

## **11. 100% COMPLETE DESIGN PHASE**

- 11.1. Incorporation of Final Review Comments
  - 11.1.1. Modify the Contract Documents to reflect all agreed-upon Final Review Comments from the Owner, applicable regulatory agencies, and quality control review team. The final documents will then be submitted to the Owner.
- 11.2. Final Project Manual (signed and sealed)
  - 11.2.1. Contract Documents to include language for Request for Competitive Sealed Proposals
- 11.3. 100% Opinion of Probable Construction Cost (OPCC)
  - 11.3.1. Update 90% Design Phase cost estimate. Estimate will be a Definitive Level estimate (Class 1 - AACE). Estimate will have an accuracy of +10%/-10%.
- 11.4. 100% Design Phase Deliverables
  - 11.4.1. 100% Design Deliverables (plans and specifications); signed, sealed, and ready for construction.
  - 11.4.2. Updated Risk Register.
  - 11.4.3. Updated Project Schedule.
  - 11.4.4. 100% Opinion of Probable Construction Cost (OPCC) QA/QC Documentation.
- 11.5. Weekly design team conference calls and periodic design team workshops.
- 11.6. Submit Final Documents for Advertisement

## **12. SUPPLEMENTAL**

- 12.1. Additional Survey
- 12.2. Additional Geotechnical Boring and Piezometers
  - 12.2.1. At the direction of ARWA, the Consultant may be required to perform up to ten (10) additional geotechnical borings and five (5) piezometers beyond those scoped for the project, at an average depth of twenty (20) feet, and conduct surveying as required to tie-in borings into the Design Documents.
- 12.3. General Engineering Design
- 12.4. Environmental Coordination based on necessary additional environmental investigations
- 12.5. Supplemental SCADA Design
  - 12.5.1. Design monitoring and control devices to log process data and control equipment (e.g. PLCs, RTUs, and pump controllers).
  - 12.5.2. Design a communication network to send commands and return process data (e.g. fiber optics, licensed or unlicensed radios, Ethernet, cellular, landlines).

- 12.6. Attend Public Meetings (2 meetings)
- 12.7. Attend additional meetings in the vicinity of the Project or presentations to the Alliance Technical Committee and/or Board (5 meetings)
- 12.8. TCEQ Exceptions and Variance Development and Coordination. Owner's Representative will compile submittal and coordinate with the TCEQ. Design Consultant shall provide exhibits, calculations, and technical support data for each exception request.
  - 12.8.1. Filtration rates for iron and manganese removal - 30 TAC §290.42(b)(2)(A).
  - 12.8.2. Exposure of groundwater to atmosphere - 30 TAC §290.42(b)(2)(C).
  - 12.8.3. Coordination meetings (2 meetings).
- 12.9. Alternative Bidding of Combined Packages
- 12.10. Transportation County Road Improvements – Additional required studies that may include area wide drainage evaluation and traffic impact analyses.
- 12.11. Perform Surge and Transient Analysis for the WTP high service pump station (NHC).
  - 12.11.1. Obtain data necessary for the work. Extract lengths, diameters, and elevations from the alignment/plan and elevation drawings for the WTP high service pump station and the pipeline between the WTP and Maxwell. Calculate acoustic wavespeeds (based on pipe material and thickness/pressure class) and Darcy-Weisbach friction factors for the pipes. Gather data (e.g., diameters, discharge coefficients, etc.) from manufacturer literature associated with the pumps and valves at the WTP high service pump station. Develop pump characteristics for the hydraulic transient analysis computer model using manufacturers pump performance curves supplied by Walker Partners for the pumps at the WTP high service pump station. Setup a hydraulic transient analysis computer model of the WTP high service pump station, 48/42-inch diameter treated water pipelines between the WTP and Maxwell, transmission line to the Lockhart delivery point, and the storage tanks.
  - 12.11.2. Define maximum and minimum flow rates and hydraulic grade lines, as well as facilities status (e.g., operating, idle, open, closed, etc.) for the primary function of the WTP high service pump station. Establish hydraulic grade line (HGL) elevations for the pipelines under steady state operation and static conditions for the following operating conditions:
    - 12.11.2.1. Low flow operation (4 MGD)
    - 12.11.2.2. Phase 1B operation (19.5 MGD)
    - 12.11.2.3. Phase 1C operation (28.1 MGD)
    - 12.11.2.4. Phase 1D operation (33.5 MGD)
  - 12.11.3. Use initial HGL elevations to perform hydraulic transient analysis simulations for the operation of the WTP high service pump station under the following operating conditions:
    - 12.11.3.1. Low flow operation (4 MGD)
    - 12.11.3.2. Phase 1B operation (19.5 MGD)
    - 12.11.3.3. Phase 1C operation (28.1 MGD)
    - 12.11.3.4. Phase 1D operation (33.5 MGD)
    - 12.11.3.5. Transient simulations will include:
      - 12.11.3.5.1. Pump power failure
      - 12.11.3.5.2. Planned pump shutdown, and

12.11.3.5.3. Pump startup for critical operating scenarios.

Note that pump startup simulations will involve the development of safe pump start sequencing and safe pump start times (i.e., safe pump ramp up time/safe pump control valve opening time as applicable) with the surge control recommended in the task below for pump power failure in place. Similarly pump planned shutdown simulations will involve the development of safe pump stop sequencing and safe pump stop times (i.e., safe pump ramp down time/safe pump control valve closing time as applicable) with the surge control recommended in the task below for pump power failure in place.

12.11.4. Evaluate the results (i.e., predicted maximum and minimum pressures) of the transient analysis simulations and determine whether or not surge control measures are required to protect the system from adverse pressure transients (e.g., over-pressurization, vapor cavity formation, and large magnitude negative pressures) created by the loss of power, planned shutdown and startup of the pumps at the WTP high service pump station when operating under each of the following conditions:

12.11.4.1. Low flow operation (4 MGD)

12.11.4.2. Phase 1B operation (19.5 MGD)

12.11.4.3. Phase 1C operation (28.1 MGD)

12.11.4.4. Phase 1D operation (33.5 MGD)

12.11.5. If surge protection is deemed necessary for any of the above conditions, NHC will determine surge control measures (e.g., volume, dimensions and pressure rating of pressurized surge tanks, diameter and location of controlled venting vacuum relief valves, diameter and set point pressure of surge/pressure relief valves, etc.) for the WTP high service pump station and pipeline between the WTP high service pump station and the BPS GST under the following operating conditions:

12.11.5.1. Low flow operation (4 MGD)

12.11.5.2. Phase 1B operation (19.5 MGD)

12.11.5.3. Phase 1C operation (28.1 MGD)

12.11.5.4. Phase 1D operation (33.5 MGD)

The surge control measures will be designed to ensure that the maximum pressures do not exceed the maximum allowable pressures for the system, and to eliminate the possibility of vapor cavity formation and large magnitude negative pressures in the pipelines following pump power failure and pump startup. The results of the hydraulic transient analyses with the recommended surge protection improvements in place will also be provided. In addition, recommendations for safely starting and stopping the pumps will be provided.

12.11.6. Draft and final technical memoranda will be prepared that will include:

12.11.6.1. A description of the hydraulic transient analysis modeling approach

12.11.6.2. A description of the physical facilities, including a schematic showing the hydraulic transient analysis model

12.11.6.3. Component data and assumptions used for the analyses

12.11.6.4. The results of the hydraulic transient analyses, including graphical plots of the maximum and minimum HGL envelopes and maximum allowable pressure along

the pipelines, and plots of pressure head at the WTP high service pump station and significant locations in the system, etc.

12.11.6.5. Recommendations for surge control, and safe startup and shutdown of the pumps for low flow, Phase 1B, Phase 1C and Phase 1D.

Movies of the pertinent hydraulic transient analysis simulations may be included at no additional cost to help illustrate the results of the analysis and effectiveness of the surge control recommendations. The draft memorandum will be provided in portable document format (PDF). Two (2) bound copies of the final technical memorandum will be provided and will include movies and an electronic version of the final technical memorandum on CDROM.

12.12. Site facility rendering.

12.12.1. The Architect will provide up to four (4) professional renderings of the proposed Water Treatment plant site. A preliminary list of individual renderings is provided below.

12.12.1.1. Full Site Elevation looking east from SH 304

12.12.1.2. Full Site Elevation looking south from Wolf Run Rd.

12.12.1.3. Elevation of Administration Building looking south from parking lot.

12.12.1.4. One Miscellaneous Rendering to be determined

12.12.2. The task list associated with the architectural renderings is provided below.

12.12.2.1. Compile list of drawings from all disciplines, including the following:

12.12.2.1.1. Developed Floor Plans.

12.12.2.1.2. Developed Site Plan.

12.12.2.1.3. Building & Equipment Elevations.

12.12.2.2. Coordination & Incorporation of elements from other disciplines.

12.12.2.2.1. (Civil, Structural, MEP).

12.12.2.3. Verification & Incorporation site conditions.

12.12.2.3.1. Topography.

12.12.2.3.2. Property Lines.

12.12.2.3.3. Easements.

12.12.2.3.4. Utilities.

12.12.2.3.5. Locations of existing trees, roads, structures.

12.12.2.4. Acquisition of site & aerial photos.

12.12.2.5. Development of perspective images.

12.12.2.6. Meetings with client.

12.12.2.7. Development of preliminary renderings.

12.12.2.7.1. Review with client.

12.12.2.8. Assembly of presentation boards.

12.13. Procurement (Request For Competitive Sealed Proposal (RFCSP)). This task is anticipated to be authorized during procurement on a time and materials basis.

12.13.1. Prepare addenda and Clarifications (assumes 3 addenda). This task is anticipated to be authorized during procurement on a time and materials basis.

12.13.2. Participate in and document Pre-Proposal Conference

12.13.3. Attend Proposal Opening

12.13.4. Review Contractors' Proposals

- 12.13.5. Perform Contractor References Check
- 12.13.6. Confirm Contractor Experience
- 12.13.7. Prepare Recommendation for Award
- 12.13.8. Prepare Conformed Contract Documents

**Level of effort for Procurement phase assumes that the competitive sealed proposal scoring workflow and panel have already been established and will be coordinated by the Owner/Owners Representative.**

## **ASSUMPTIONS**

- The design work on this Project and Owner reviews will last 11 months from Authorization to Proceed and be completed in calendar year 2020.
- Technical Specifications generated by the design team will follow 2014 Construction Specifications Institute (CSI) MasterFormat
- All meetings are to be held in the immediate vicinity of the Project (Travis, Hays, or Caldwell Counties).
- Permitting and review fees are not included.
- Advertisement fees are not included.
- Overall system hydraulics are being completed by Freese and Nichols at the Program level.
- Any investigation and remediation of possible hazardous waste, asbestos, lead paint, or other types of contamination, will be conducted as a separate contract by others.
- Complete demolition of pole barn, residential farm house, and wellfield all-weather access drive within the plant site will be accomplished as part of this contract. It is assumed that no drawings for this facility are available and that the demolition requirements will be described in the specifications only. No salvaging or relocation of materials and equipment is required.
- Landscaping will be limited to seeding or sodding.
- This scope of work assumes no pre-purchase of equipment.
- Permit and conformed documents are to be hard copy (half-size drawings). It is assumed all other deliverables will be electronic format.
- Cost estimates to be prepared for guidance in project evaluation and implementation from the information available at the time of the estimate. The final costs of the project will depend on actual labor and material costs, competitive market conditions, final project costs, implementation schedule and other variable factors. As a result, the final project costs will vary from the estimates presented.
- No improvements to State (TXDOT) facilities
- No signal design
- No easement preparation, platting, or boundary surveys
- No utility relocation design or drawings
- Design of Improvements to Wolf Run Rd. will be no more than 3,000 LF from the intersection of SH304 and Wolf Run Road
- All right of entry will be obtained by others
- Spoils from borings will be left onsite and will not be containerized for offsite disposal

- General Engineering and Alternative Bidding of Combined Packages scope and fee will be determined through supplemental agreement process and listed fee is budgetary only.
- No BIM
- No LEED
- No training
- No third party testing
- No construction phase services
- No plant start-up or commissioning
- No factory witness testing
- The following items will be provided by the Owner's representative:
  - Determine HMI software to provide operators with a graphic representation of the process.
  - Design a database of I/O points (tags) that define the objects in the system.
  - Design an alarm management system to allow operators to view and acknowledge alarms.
  - Design a notification system to disseminate alarm information to remote users via SMS text message, email, voice -to-speech, or pager.
  - Design configuration of a database of historical process information logged by the system.
  - Identify preferred trends and reporting tools to derive insight from historical data.
- Owner's representative will be the primary contact with the TWDB and will facilitate all submittals and coordination
- Owner's representative will post or otherwise distribute RFCSP addenda and clarifications.
- Owner's representative will conduct pre-bid meeting, including developing agenda, and WP will participate in the meeting as requested.
- Owner's representative will receive and distribute all Contractor questions during procurement process.
- Owner's representative will coordinate TWDB procurement approvals and construction contract execution.
- Value engineering is not included.
- Additive or deductive bid alternates are not included.
- The Owner's representative will coordinate with the GBRA regarding the Well Field Pipeline termination location and coordination of pump controls and programming.
- The Owner's representative will address 90% design submittal package review comments from the GBRA.
- Owner's representative will be responsible for project manual front end documents.

## **DRAWINGS**

A list of anticipated design drawings are provided in Appendix B.

## **SCHEDULE**

A schedule is provided in Appendix C.

# **Appendix A**

## **Total Fee Breakdown**

Alliance Water Phase 1B Program Water Treatment Plant Consultant 1/13/2020											Project Fee Summary									
Detailed Overall Consultant Cost Breakdown											Basic Effort	\$	2,900,402							
											Supplemental	\$	633,388							
											Total Effort	\$	3,533,790							

Task	Walker	Jenkins	Christensen	Miller	Canady	Garza	Support Staff III	WP Total Hours	WP Total Labor Effort	WP Total Expense Effort	LNV	Northwest Hydraulic	S. Kanetzky	Holt	Burrier	Elk	Total Sub Effort	Total Effort	Assumptions	
Project Role	Managing Principal	Manager III	Senior Engineer II	Senior Engineer I	Project Manager	Project Engineer II	Project Engineer I (EIT)	CAD Tech X	Support Staff III	Hourly Bill Rate	\$330.00	\$298.70	\$231.75	\$200.00	\$175.05	\$127.31	\$116.70	\$137.92	\$84.87	
<b>Basic Services</b>																				
<b>Task 1 - Project Management</b>	2	146	0	0	320	0	122	765	\$ 131,063	\$ 336	\$ 46,390	\$ -	\$ 37,400	\$ -	\$ -	\$ -	\$ 83,790	\$ 215,189		
1.1 Update Project Management Plan	2	4			16			22	\$ 4,656	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,656		
1.2 Prepare Monthly Summary Reports/Invoicing as identified in the ARWA Phase 1B Program Management Plan		32			55			22	\$ 21,053	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 21,053		
1.3 Schedule Development and Monthly Updates. Schedule shall cover final design phase, bidding phase, and permitting		6			16			22	\$ 4,593	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,593		
1.4 Risk Register development and monthly updates		4			20			6	\$ 5,205	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,205		
1.5 Meetings								0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
1.5.1 Conduct Progress Meetings with Owner's Representative over the phone or internet conference (15 meetings)		38			76		38	38	\$ 32,314	\$ 202	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 32,516	Mileage expense	
1.5.2 Conduct half-day coordination workshops (3 workshops)	0	24			45		18	132	\$ 21,825	\$ 134	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 21,959	Mileage expense	
1.5.3 Prepare and distribute meeting notes and minutes		30			76		38	220	\$ 34,359	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 34,359		
1.5.4 Quality Control Audit (2 workshops)		8			16			40	\$ 7,058	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,058		
<b>Task 2 - Review of Cathodic Protection Standards</b>	0	6	0	0	8	0	0	14	\$ 3,193	\$ 34	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,320	\$ 4,320	\$ 7,547		
2.1 Review and provide comments of Cathodic protection Standards prepared by Owner's Representative		2			4			6	\$ 1,298	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,298		
2.2 Meetings		4			4			8	\$ 1,895	\$ 34	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,929	Mileage expense	
<b>Task 3 - Environmental Coordination</b>	0	4	0	0	8	0	0	12	\$ 2,595	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,595		
3.1 Review Final Environmental Document for applicable project and develop Construction Documents based on findings		4			8			12	\$ 2,595	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,595		
<b>Task 4 - Regulatory Agency Coordination</b>	0	24	5	0	60	0	48	16	\$ 27,657	\$ 179	\$ 2,960	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,960	\$ 30,796		
4.1 Caldwell County - Road Improvements Approval, Driveway Permit, Floodplain Permit, Site Construction Permit, On-Site Septic System Permit		8	5		20		16	16	\$ 11,463	\$ 134	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 11,597	Mileage expense	
4.2 TXDOT - Road Crossing Permit and Connecting Road Improvements Approval		8			8		8	24	\$ 4,724	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,724		
4.3 TCEQ - Submittal and Approval		4			16		12	4	\$ 5,735	\$ 45	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,780	Mileage expense	
4.4 Texas Water Development Board - Approval on Contract Documents		4			16		12	4	\$ 5,735	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,735		
<b>Task 5 - Public and Private Utility Coordination</b>	0	8	0	0	20	0	20	0	\$ 8,225	\$ 34	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,259		
5.1 Guadalupe-Blanco River Authority (GBRA)		8			20		20	48	\$ 8,225	\$ 34	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,259	Mileage expense	
<b>Task 6 - High-Service Pump Station Hydraulics and Surge/Transient Analysis</b>	0	15	6	0	30	0	8	0	\$ 12,056	\$ 68	\$ -	\$ 12,960	\$ -	\$ -	\$ -	\$ -	\$ 12,960	\$ 25,084		
6.1 Review and Coordination of Distribution Model		4	4		16		8	32	\$ 5,856	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,856		
6.2 Submit Distribution Model & Surge/Transient Recommendations		2	2		4			8	\$ 1,761	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,761		
6.3 Coordination Meeting (1)		4			4			8	\$ 1,895	\$ 34	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,929	Mileage expense	
6.4 Address Review Comments		1			2			3	\$ 649	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 649		
6.5 Review and Coordination Meeting (1)		4			4			8	\$ 1,895	\$ 34	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,929	Mileage expense	
<b>Task 7 - Design Consultant Coordination</b>	0	8	0	0	8	0	8	16	\$ 6,930	\$ 34	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,964		
7.1 Wellfield Piping Design Consultant		8			8		8	16	\$ 6,930	\$ 34	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,964	Mileage expense	
<b>Task 8 - Subsurface Investigations</b>	0	4	0	0	16	0	16	4	\$ 6,414	\$ 15,000	\$ -	\$ -	\$ -	\$ 25,409	\$ -	\$ 77,920	\$ 103,329	\$ 124,743		
8.1 Geotechnical Investigation		2			8		8	4	\$ 3,483	\$ 15,000	\$ -	\$ -	\$ -	\$ 25,409	\$ -	\$ -	\$ 25,409	\$ 43,892	Survey for geotech and Wolf Run ROW	
8.2 Corrosion Investigation, Data Collection, and Design Support		2			8		8	18	\$ 2,931	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 77,920	\$ -	\$ 77,920	\$ 80,851		
<b>Task 9 - 60% Design Phase</b>	4	132	160	128	542	416	820	600	\$ 2,958	\$ 30,034	\$ 265,511	\$ -	\$ 380,560	\$ -	\$ -	\$ -	\$ 646,071	\$ 1,119,054		
9.1 Civil and Site Development		16			60	60	120	120	392	\$ 56,675	\$ 25,000	\$ 117,681	\$ -	\$ -	\$ -	\$ -	\$ 117,681	\$ 199,356	Survey crew	
9.2 Transportation (County Road Improvements)		20			60	60	120	80	360	\$ 53,153	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 53,153		
9.3 Architectural								0	\$ -	\$ -	\$ 59,800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 59,800		
9.4 Structural								0	\$ -	\$ -	\$ 88,030	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 88,030		
9.5 Process		8			36	36	72	36	232	\$ 31,297	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 31,297		
9.6 Mechanical		40			240	120	240	40	960	\$ 141,739	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 141,739		
9.7 HVAC / Plumbing								0	\$ -	\$ -	\$ -	\$ -	\$ 69,840	\$ -	\$ -	\$ -	\$ 69,840	\$ 69,840		
9.8 Instrumentation and Control		10			40	40	60	40	200	\$ 29,600	\$ -	\$ -	\$ -	\$ 137,920	\$ -	\$ -	\$ 137,920	\$ 167,520		
9.9 Electrical								0	\$ -	\$ -	\$ -	\$ -	\$ 110,880	\$ -	\$ -	\$ -	\$ 110,880	\$ 110,880		
9.10 Preparation of Project Manual		12			20	20	40	80	184	\$ 23,489	\$ -	\$ -	\$ -	\$ 24,480	\$ -	\$ -	\$ 24,480	\$ 47,969		
9.11 Opinion of Probable Construction Cost		14			14	50	100	228	\$ 33,770	\$ -	\$ -	\$ -	\$ -	\$ 21,600	\$ -	\$ -	\$ 21,600	\$ 55,370		
9.12 Submit plans and specifications for QC review	4		120					124	\$ 29,130	\$ -	\$ -	\$ -	\$ -	\$ 11,520	\$ -	\$ -	\$ 11,520	\$ 40,650		
9.13 60% Design Workshop		4			6		8	4	22	\$ 3,730	\$ 34	\$ -	\$ -	\$ 4,320	\$ -	\$ -	\$ 4,320	\$ 8,084		
9.14 60% Design Phase Deliverables								0	\$ -	\$ 5,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,000	Reproduction costs & mileage	
9.15 Weekly design team conference calls/periodic design team workshops								0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
9.16 Incorporation of 60% Review Comments		8	40	8	30	30	60	80	256	\$ 40,366	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 40,366		
<b>Task 10 - 90% Complete Design Phase</b>	4	108	168	112	318	318	644	576	\$ 348,374	\$ 5,034	\$ 234,286	\$ -	\$ 402,800	\$ -	\$ 10,000	\$ -	\$ 647,086	\$ 1,000,494		
10.1 Project Manual		2			12	12	24	24	76	\$ 9,463	\$ -	\$ -	\$ -	\$ 8,640	\$ -	\$ -	\$ 8,640	\$ 18,103		
10.2 Prepare Final Construction Drawings								0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
10.2.1 Civil and Site Development		24			80	80	120	120	448	\$ 66,711	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 66,711		
10.2.2 Transportation (County Road Improvements)			8		8	24	24	80	224	\$ 31,080	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 31,080		
10.2.3 Architectural								0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
10.2.4 Structural								0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
10.2.5 Process		12			24	24	48	48	168	\$ 25,463	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 25,463		
10.2.6 Mechanical		34			34	48	48	96	180	\$ 67,497	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 67,497		
10.2.7 HVAC / Plumbing								0	\$ -	\$ -	\$ -	\$ -	\$ 81,360	\$ -	\$ -	\$ -	\$ 81,360	\$ 81,360		
10.2.8 Instrumentation and Control		8			24	30	60	40	170	\$ 24,529	\$ -	\$ -	\$ -	\$ 136,760	\$ -	\$ -	\$ 136,760	\$ 161,289		
10.2.9 Electrical								0	\$ -	\$ -	\$ -	\$ -	\$ 138,600	\$ -	\$ -	\$ -	\$ 138,600	\$ 138,600		
10.3 Prepare Final Calculations		2			12	12	32	60	\$ 8,360	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,360		

<b>Alliance Water Phase 1B Program</b>																			<b>Project Fee Summary</b>	
<b>Water Treatment Plant Consultant</b>																			Basic Effort \$ 2,900,402	
<b>1/13/2020</b>																			Supplemental \$ 633,388	
<b>Detailed Overall Consultant Cost Breakdown</b>																			Total Effort \$ 3,533,790	

Task	Project Role	Walker	Jenkins	Christensen	Miller	Canady	Garza	CAD Tech X	Support Staff III	WP Total Hours	WP Total Labor Effort	WP Total Expense Effort	LNV	Northwest Hydraulic	S. Kanetzky	Holt	Burrier	Elk	Total Sub Effort	Total Effort	Assumptions	
		Managing Principal	Manager III	Senior Engineer II	Senior Engineer I	Project Manager	Project Engineer II															Project Engineer I (EIT)
Hourly Bill Rate		\$330.00	\$298.70	\$231.75	\$200.00	\$175.05	\$127.31	\$116.70	\$137.92	\$84.87												
10.4	Complete On-Site Septic System Design					8	8	16	24	8	64	\$ 8,275	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,275	
10.5	90% Opinion of Probable Construction Cost		14		14	50	50	100			228	\$ 33,770	\$ -	\$ -	\$ -	\$ 21,600	\$ -	\$ -	\$ -	\$ 21,600	\$ 55,370	
10.6	Submit package for QC reviews	4		120							124	\$ 29,130	\$ -	\$ -	\$ -	\$ 11,520	\$ -	\$ -	\$ -	\$ 11,520	\$ 40,650	
10.7	90% Design Workshop		4			6		8	4		22	\$ 3,730	\$ 34	\$ -	\$ -	\$ 4,320	\$ -	\$ -	\$ -	\$ 4,320	\$ 8,084	Mileage expense
10.8	90% Design Phase Deliverables										0	\$ -	\$ 5,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,000	Reproduction Costs
10.9	Weekly design team conference calls/periodic design team workshops										0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
10.10	Incorporation of 90% Review Comments		8	40	8	30	30	60	80		256	\$ 40,366	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 40,366	
<b>Task 11 - 100% Complete Design Phase</b>		<b>0</b>	<b>14</b>	<b>32</b>	<b>20</b>	<b>40</b>	<b>40</b>	<b>80</b>	<b>40</b>	<b>16</b>	<b>282</b>	<b>\$ 51,898</b>	<b>\$ 5,000</b>	<b>\$ 76,863</b>	<b>\$ -</b>	<b>\$ 61,980</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 138,843</b>	<b>\$ 195,741</b>	
11.1	Incorporation of Final Review Comments		4	20	4	20	20	40	40		148	\$ 22,862	\$ -	\$ -	\$ -	\$ 43,260	\$ -	\$ -	\$ -	\$ 43,260	\$ 66,122	
11.2	Final Project Manual (signed and sealed)		2	12	8	8	8	16		16	70	\$ 10,622	\$ -	\$ -	\$ -	\$ 4,320	\$ -	\$ -	\$ -	\$ 4,320	\$ 14,942	
11.3	100% Opinion of Probable Construction Cost (OPCC)		8		8	12	12	24			64	\$ 10,419	\$ -	\$ -	\$ -	\$ 11,520	\$ -	\$ -	\$ -	\$ 11,520	\$ 21,939	
11.4	100% Design Phase Deliverables										0	\$ -	\$ 5,000	\$ -	\$ -	\$ 2,880	\$ -	\$ -	\$ -	\$ 2,880	\$ 7,880	Reproduction costs
11.5	Weekly design team conference calls/periodic design team workshops										0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
11.6	Submit Final Documents for Advertisement		4			10	10	20	8	4	56	\$ 7,995	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,995	
<b>Supplemental Services</b>																						
<b>Task 12 - Supplemental</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>\$ 338,681</b>	<b>\$ 5,000</b>	<b>\$ 49,130</b>	<b>\$ 109,340</b>	<b>\$ 94,900</b>	<b>\$ 10,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 263,370</b>	<b>\$ 607,051</b>	
12.1	Additional Survey										0	\$ 15,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 15,000	
12.2	Additional Geotechnical Boring and Piezometers										0	\$ -	\$ -	\$ -	\$ -	\$ 10,000	\$ -	\$ -	\$ -	\$ 10,000	\$ 10,000	
12.3	General Engineering Design										0	\$ 125,000	\$ -	\$ -	\$ -	\$ 15,000	\$ -	\$ -	\$ -	\$ 15,000	\$ 140,000	
12.4	Environmental Coordination based on necessary additional environmental investigations										0	\$ 10,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,000	
12.5	Supplemental SCADA Design										0	\$ -	\$ -	\$ -	\$ -	\$ 63,740	\$ -	\$ -	\$ -	\$ 63,740	\$ 63,740	
12.6	Attend Public Meetings (2 meetings)										0	\$ 16,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 16,000	
12.7	Attend additional meetings in the vicinity of the Project (5 meetings)										0	\$ 10,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,000	
12.8	TCEQ - Exceptions and Variance Development Coordination										0	\$ 10,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,000	
12.9	Alternative Bidding of Combined Packages										0	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 20,000	
12.10	Transportation (County Road Improvements)										0	\$ 25,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 25,000	
12.11	Surge and Transient Analysis										0	\$ 4,929	\$ -	\$ -	\$ 109,340	\$ -	\$ -	\$ -	\$ -	\$ 109,340	\$ 114,269	
12.12	Site Facility Rendering										0	\$ -	\$ -	\$ 21,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 21,000	
12.13	Procurement										0	\$ 102,752	\$ 5,000	\$ 28,130	\$ -	\$ 16,160	\$ -	\$ -	\$ -	\$ 44,290	\$ 152,042	
Total Hours by Role:		10	469	371	260	1,370	774	1,819	1,252	338	<b>Grand Total</b>	<b>\$ 1,380,035</b>	<b>\$ 60,753</b>	<b>\$ 675,140</b>	<b>\$ 122,300</b>	<b>\$ 977,640</b>	<b>\$ 35,409</b>	<b>\$ 10,000</b>	<b>\$ 82,240</b>	<b>\$ 1,902,729</b>	<b>\$ 3,343,517</b>	

HUB Participation	
Basic	22%
Total	20%

Subconsultant Basic Services	\$ 626,010	\$ 12,960	\$ 882,740	\$ 25,409	\$ 10,000	\$ 82,240	\$ 1,639,359	
10% Markup	\$ 62,601	\$ 1,296	\$ 88,274	\$ 2,541	\$ 1,000	\$ 8,224	\$ 163,936	\$ 2,900,402 Basic Effort
Subconsultant Supplemental Services	\$ 49,130	\$ 109,340	\$ 94,900	\$ 10,000	\$ -	\$ -	\$ 263,370	
10% Markup	\$ 4,913	\$ 10,934	\$ 9,490	\$ 1,000	\$ -	\$ -	\$ 26,337	\$ 633,388 Supplemental

**REGULAR MEETING**  
**Alliance Regional Water Authority Board of Directors**

**BOARD MEMBER PACKETS**

Wednesday, January 22, 2020 at 3:00 P.M.  
501 E. Hopkins, San Marcos, TX 78666

- F.10** Consider adoption of Resolution 2020-01-22-007 approving Work Order #2 with Blanton & Associates, Inc. for additional hazardous materials testing associated with the Phase 1B Segment A project. ~ *Ryan Sowa, P.E., Kimley-Horn & Associates*
- 

Background/Information

Alliance Water entered into a Work Order in May 2018 with Blanton & Associates, Inc. for the environmental investigation for the Phase 1B projects. As a result of the initial investigations on the Segment A project, Blanton & Associates, and their subconsultant W&M, are recommending that Phase 2 Environmental Investigations proceed on seven parcels. The investigation will be conducted on a progressive basis, beginning with soil samples and progressing to monitoring wells only if groundwater is present.

Below are some of the key facts regarding the additional investigation:

**Firm:** Blanton & Associates, Inc.  
**Fee:** \$159,962  
**Work Order Type:** Time and Materials  
**Anticipated Duration:** 15 months  
**Project Manager:** Velma Danielson  
**Key Subconsultants:** W&M (HazMat)

Staff is requesting Board approval of a Work Order with a fee not-to-exceed \$159,962.

Attachment(s)

- Proposal for Additional Environmental Investigation for the Phase 1B Segment A Pipeline Project dated January 17, 2020.

**Board Decision(s) Needed:**

- Consider adoption of Resolution 2020-01-22-007 approving Work Order #2 with Blanton & Associates, Inc. for additional hazardous materials testing associated with the Phase 1B Segment A project.



## ALLIANCE WATER

### RESOLUTION NO. 20200122-007

**A RESOLUTION OF THE ALLIANCE REGIONAL WATER AUTHORITY BOARD OF DIRECTORS APPROVING WORK ORDER #2 BETWEEN THE AUTHORITY AND BLANTON & ASSOCIATES, INC. FOR ADDITIONAL HAZARDOUS MATERIALS TESTING ASSOCIATED WITH THE AUTHORITY'S PHASE 1B SEGMENT A PIPELINE PROJECT AND RELATED MATTERS, AND DECLARING AN EFFECTIVE DATE**

#### **RECITALS:**

1. Alliance Regional Water Authority (the "Authority") entered into a master agreement with Blanton & Associates, Inc. for professional environmental services and related matters in May 2018.

2. The Authority hired Kimley-Horn & Associates to serve as the Owner's Representative for the Authority's Phase 1B Program. The Owner's Representative role is to assist the Authority with development of the Phase 1B Program as a whole, including coordination with all design firms after selection through completion of the Program.

3. The Authority entered into a work order with Blanton & Associates, Inc. for environmental investigations for the Authority's Phase 1B Projects in May 2018.

4. During the course of the initial investigations, Blanton & Associates has determined that a few parcels on the Segment A Pipeline Project alignment require additional investigation.

5. The scope of services and fee for the attached work order was negotiated by the Executive Director and the Owner's Representative on behalf of the Authority. The work order references terms and conditions in the approved Master Agreement between the Authority and Walker Partners.

#### **BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE ALLIANCE REGIONAL WATER AUTHORITY:**

**SECTION 1.** The attached work order for additional Environmental Investigation between the Authority and Blanton & Associates, Inc. is approved with a fee not-to-exceed \$159,962.

**SECTION 2.** The Authority's Executive Director, Graham Moore, is authorized to execute the attached agreement on behalf of the Authority.

**SECTION 3.** This Resolution shall be in full force and effect immediately upon its passage.

Resolution 20200122-007  
Phase 1B Additional Environmental Investigation

**ADOPTED:** January 22, 2020.

**ATTEST:**

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Chris Betz  
Chair, Board of Directors

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James Earp  
Secretary, Board of Directors

**Work Order No. 002**

Pursuant and subject to the Master Service Agreement between the Alliance Regional Water Authority (Alliance Water) and Blanton & Associates, Inc. (Consultant), Alliance Water requests the Consultant to perform the services described below:

Work Site: <u>Caldwell County</u>
Work to Be Performed: <u>As noted in the attached Environmental Scope dated January 17, 2020.</u>
Date to Commence: <u>January 23, 2020.</u>
Date to Complete: <u>At conclusion of environmental clearance by the TWDB.</u>
Cost Proposal to be: <u>Time and material not-to-exceed \$159,962</u>
Other Information/Requirements: <u>Supplemental services must be authorized by a separate work order, should the need arise.</u>

**Acceptance:**

Alliance Regional Water Authority

Blanton & Associates, Inc.

By: \_\_\_\_\_  
Signature  
Graham Moore, Executive Director

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

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

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

**Blanton & Associates, Inc. - Environmental Scope for Alliance Water Phase 1B Program****Pursuant to Master Services Agreement Between Alliance Regional Water Authority and  
Blanton & Associates, Inc., Dated May 23, 2018****Work Order No. 002****January 17, 2020****WORK ORDER NO. 002 - DEFINITION AND BACKGROUND**

After various email exchanges regarding potential Limited Phase II Investigation costs, on December 27, 2019 the Owner's Representative requested Blanton & Associates, Inc. (Environmental Consultant) prepare Work Order No. 002 to conduct soil and groundwater limited Phase IIs on seven parcels along the Phase 1B Program Segment A pipeline alignment.

The Environmental Consultant Work Order No. 002 scope of work consists of the task and sub-task indicated below (that are additive to Work Order No. 001 tasks) and in an attached cost spreadsheet. Compensation for Work Order No. 002 will be on a time and materials basis.

The Environmental Consultant is not responsible, or liable, for any work performed by W&M as part of their Limited Phase II Investigation work included in Work Order No. 002 for the Phase 1B Program Projects. W&M will provide all insurance necessary for work related to the Limited Phase II Investigations for the Phase 1B Program Projects.

**SCOPE OF WORK****8. Limited Phase II Investigations – Segment A Pipeline Alignment****8.1. Project Management****8.1.1. Prepare Monthly Summary Reports/Invoicing****Assumption(s) for 8.1.1:**

- Invoice format and due date will be the same as required in the Project Management Plan (PMP) in effect at time of Task 8 approval and will not be revised for the duration of work on Work Order No. 002.

**8.1.2. Implement PMP Requirements and QA/QC Plan Requirements for Task 8.****Assumption(s) for 8.1.2:**

- QC review of one draft and one final Phase II report for all seven parcels.
- There will not be any revisions to PMP requirements related to Task 8 for the duration of work on Work Order No. 002.

**8.1.3. Schedule Development and Monthly Updates**

**Assumption(s) for 8.1.3:**

- Environmental Consultant will provide the project schedule utilizing Microsoft™ Project software for the project.
- Environmental Consultant will provide schedule updates no more than three times for the duration of Work Order No. 002 based on three planned field mobilizations.
- If more than seven field mobilizations are required resulting in additional schedule updates, additional project costs will be incurred.
- Environmental Consultant will provide abbreviated schedule updates during the monthly progress meetings.

8.1.4. Risk Register related to Limited Phase II Investigation field work.

8.1.5. Meetings

8.1.5.1. Monthly Progress Meetings with Owner's Rep Env Staff

**Assumption(s) for 8.1.5.1:**

- Attendance at these meetings will be by conference call.
- An item related to Task 8 will be added to the monthly progress meeting agenda for the duration of work on Task 8. The Environmental Consultant's sub-consultant will participate in related discussions during these meetings.

8.1.5.2. Additional Meetings – Owner's Representative/Segment A Engineer

**Assumptions(s) for 8.1.5.2:**

- Up to two in-person meetings may be held with the Owner's Representative. These meeting will be held in Austin.

8.1.5.3 Internal Environmental Consultant Team Meetings

**Assumptions(s) for 8.1.5.3:**

- Up to four meetings may be held by conference call.

8.1.6. Deliverables

8.1.6.1. Monthly Summary Reports

8.1.6.2. Schedule (and schedule updates to be provided with Item 8.1.1 as necessary)

8.1.6.3 Meeting Notes

**Assumption(s) for 8.1.6.3:**

- Owner's Representative's meeting notes template will be used.
- Environmental Consultant will be responsible for initial development, compilation of changes, and distribution of final meeting notes for each meeting.

8.2. Limited Phase II Investigations

8.2.1 Limited Phase II Investigation field work and reporting (See attached *Work Order for Professional Services Limited Phase II Investigations Alliance Water Proposed Transmission Pipeline "Segment A" Caldwell County, Texas* from W&M Environmental).

**Assumption(s) for 8.2.1:**

- Assumptions for this section are detailed in the attached W&M Work Order scope of work.

8.3. Land Acquisition Coordination for Parcel Access

**Assumption(s) for 8.3:**

- The Owner's Rep will issue NTP to the Environmental Consultant in order to begin field work.
- Receipt of NTP will be provided to the Environmental Consultant prior to field surveys being conducted, as required by the Owner's Rep's Field Work Site Visit Protocol.
- Preparation for field surveys will follow the Owner's Rep's Field Work Site Visit Protocol, original and revised, including preparation of field binders (ROE table, field checklists, survey forms, field maps, etc.) and making crew assignments and travel arrangements. B&A will submit PARFs to complete field work.
- Environmental Consultant will conduct this field work contingent upon receipt of the completed PARFs, and provided that the Program does not make changes to survey area requirements and landowners do not either revoke access or add last minute restrictions severely limiting our ability to access these parcels or prohibiting the Environmental Consultant from conducting planned field work within the four-week PARF window. Should these issues arise, the Environmental Consultant will assess any impacts to planned field work to determine whether we are able to move forward as scheduled or will need to postpone field work due to circumstances beyond either the Program's or the Environmental Consultant's control.

8.3.1. Complete one agenda and meeting with land acquisition to detail specific field tasks and requests.

8.3.2 Complete and submit property access request forms (PARFs).

8.3.3 Coordinate with landowners to arrange for property access when directed by the land acquisition agent(s).

8.3.4 Conduct additional work required to verify property access specific requirements.

8.3.5. Field work will be performed when enough property access is obtained to conduct no more than seven field mobilizations. Additional project costs will be incurred if there are more than seven field mobilizations necessary to complete the required field work.

8.3.6. Deliverables

8.3.6.1 GIS data uploads/updates including survey corridor status shapefiles and excel file with status are required to be submitted within two weeks of field survey event.

8.3.6.2 Field Checklists (required to be submitted within two weeks of field survey event)

8.3.6.3 Preliminary finding summaries to be sent by email to the Owner's Representative no later than three business days after completion of each field mobilization.



**WORK ORDER NO. 002 FOR PROFESSIONAL SERVICES  
LIMITED PHASE II INVESTIGATIONS  
ALLIANCE WATER PROPOSED TRANSMISSION PIPELINE “SEGMENT A”  
CALDWELL COUNTY, TEXAS**

This Work Order constitutes authorization by **Blanton & Associates, Inc.** (otherwise referred to as Client or B&A) for **W&M Environmental, a Division of Braun Intertec Corporation** (W&M, otherwise referred to as Consultant) to proceed with Limited Phase II Investigations of seven parcels located along Segment A of the proposed Alliance Regional Water Authority (Alliance Water) water transmission pipeline in Caldwell County, Texas. A map outlining the locations of the seven parcels is provided as **Figure 1**. W&M recently completed a Hazardous Materials Assessment Report for Segment A and identified recognized environmental conditions (RECs) on eight parcels. Additional information obtained during a landowner interview has resolved the REC identified on one of these parcels [REDACTED], leaving seven parcels that warrant additional investigation. A limited Phase II investigation is recommended at seven parcels [REDACTED] to determine if soil and/or groundwater within the excavation zone of the proposed pipeline easement has been impacted from the identified RECs. A summary of our Phase II recommendations for Segment A is attached as **Table 1**. Please note that investigation of Parcel [REDACTED] is included to resolve the REC identified on Parcel [REDACTED]. Parcel [REDACTED] is not slated for investigation in this proposal because the REC at [REDACTED] lies outside of the proposed construction easement.

W&M will work with Client representatives to gain access to the Site but will not be responsible for obtaining landowner right of entry agreements or Property Access Request Forms for the proposed activity. Because it is unlikely that access to drill at the seven parcels will be obtained for the same time period, this Work Order assumes that up to seven separate mobilizations will be necessary to complete the proposed field work. Note that two W&M staff are scoped for all field activities for safety reasons.

*B&A is not responsible, or liable, for any work performed by W&M as part of the Limited Phase II Investigation work included in Work Order No. 002 for the Phase 1B Program Projects. W&M will provide all insurance coverage necessary for work related to the Phase II Investigations for the Phase 1B Program Projects.*

**Scope of Services**

The proposed scope of services is as follows:

- 1. Soil & Groundwater Sampling (Task 8.2.1).** W&M will prepare a project specific health and safety plan, notify public utilities through Texas 811, and mark proposed drilling locations. A Texas-licensed driller will be contracted to advance up to 14 soil borings at suspected source areas. The soil borings will be advanced using a direct-push drilling rig to depths of approximately 10 to 15 feet below ground surface (bgs). The depths of the soil borings may vary slightly depending on piping depths provided by Alliance Water. The soil column from each boring will be continuously logged by a W&M field geologist and soil samples will be collected and screened with a photoionization detector (PID) at 2.5-foot intervals. Up to two soil samples from each boring will be selected for laboratory analysis of volatile organic compounds (VOCs), total petroleum hydrocarbons (TPH), Resource Conservation & Recovery Act (RCRA) metals, chlorides, and/or poly-aromatic hydrocarbons (PAH). Refer to Table 1 for sampling parameters.

Soil samples collected for the analysis of VOCs and TPH will be collected using U.S. Environmental Protection Agency (EPA) Method 5035 with dedicated Terracore samplers provided by the laboratory. Samples will be immediately stored on ice and submitted to an accredited laboratory for analysis using EPA or Texas Commission on Environmental Quality (TCEQ) approved methods. For quality assurance/quality control purposes, duplicate soil samples will be recovered at a 10% frequency, or one duplicate for every 10 samples collected. The duplicate samples will be placed on hold pending the analytical results of the parent samples. Standard turn-around times will be requested on the chain-of-custody, with results expected within 7 to 10 business days.

Temporary groundwater monitoring wells will be installed in up to 12 locations for the collection of groundwater samples. The temporary wells will be installed 5 feet into water (if groundwater is observed during the drilling

activities) or to a maximum depth of 25 feet. W&M will consider the provided excavation depths provided by Alliance Water and the possibility of a higher water table during construction to select an appropriate monitoring well depth. The temporary wells will be developed, sampled, and plugged within 48 hours of installation. Samples collected for metals analysis will be filtered in the field.

Each soil boring and temporary well location will be surveyed with a handheld GPS unit. Investigation derived waste (IDW) such as soil cuttings and purged groundwater will be containerized in 55-gallon steel drums. Two drums of IDW are anticipated to be generated at each parcel (14 drums total). Representative samples of the IDW will be collected to profile the waste. Costs to dispose of up to 14 drums as a Class 2 non-hazardous waste are included in this Work Order. Any additional costs required for proper disposal of the IDW will be addressed in a change order. IDW management and disposal also assumes that the field work will be conducted under seven separate mobilizations.

Costs for scope development, Client communication, and project management/oversight associated with field activities are included in this Task.

- 2. **Data Evaluation & Reporting (Task 8.2.2).** Preliminary results for each parcel will be provided via email correspondence within 5 days of receiving the analytical reports. W&M will present the results of the investigation in a single Limited Phase II ESA letter report. The report will detail the sampling results, conclusions, and recommendations, if needed, for a regulatory path forward. Report figures, soil boring logs, and the report itself will be reviewed and sealed by a Professional Geoscientist.

**Payment**

The fees for these professional consulting services will be billed on a time and material basis for \$135,000 based on the attached fee schedule. W&M will not exceed \$135,000 in billings without prior written consent from Client. Work shall be performed under the terms and conditions set forth in the attached Consulting Agreement. Work shall be performed under the terms and conditions set forth in the Consulting Agreement previously signed between Client and W&M.

**Schedule**

W&M will proceed immediately following a written notice-to-proceed from the Client. Because the actual dates of field work will be constrained by parcel access and driller availability, W&M will immediately contact the drilling subcontractor and the appropriate land agent to coordinate field work schedules upon receiving a written notice-to-proceed from the Client. The Phase II report is anticipated to be completed within 20 business of receiving the final analytical results.

BILLING INFORMATION:  
**BLANTON & ASSOCIATES, INC.**  
5 Lakeway Centre Court, Suite 200  
Austin, Texas 78734

REMIT PAYMENT TO:  
**W&M ENVIRONMENTAL, A DIVISION OF  
BRAUN INTERTEC CORPORATION**  
NW 7644 PO Box 1450  
Minneapolis, Minnesota 55485

Don Blanton  
(512) 264-1095  
[dblanton@blantonassociates.com](mailto:dblanton@blantonassociates.com)

PIC: Diana Rader, P.G.  
PM: Trudy Hasan, P.G.  
[thasan@braunintertec.com](mailto:thasan@braunintertec.com)  
512-721-0005 Direct

Authorized:

Accepted:

SIGNATURE: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

DATE: \_\_\_\_\_

**TABLE 1**  
**PHASE II RECOMMENDATIONS**  
**Segment A Area**  
**Caldwell County, Texas**

Parcel ID	Date visited	Findings Description	Findings ID	Location	Notes	Recommendations	Soil Borings <sup>1</sup>	Monitoring Wells <sup>2</sup>	Laboratory Analysis <sup>3</sup>
█	2/5/2019	Concrete Structures, Debris, & Leaking Drums on █	█	Partially within Segment A Area but 50 feet south of current access easement located within █	South of Rifle Road; partially within Segment A Area Concrete Buildings; leaking drums inside, debris, empty, rusted drum outside buildings	Collect GW sample from access easement located within A001C to investigate potential impact from the █ REC.	None	1, up to 25 feet deep	TPH, VOCs, pesticides, metals
█	1/23/2019	Oil and gas tank battery	█	Outside	About 20 feet south of Segment A Area The Oil & Gas (O&G) features on █ likely associated with Tier 2 registration for Rodenberg #1	Collect soil and GW samples if REC is within Segment A Area. If REC is outside, then collect only GW samples on site. Note: access easement doesn't extend south into Parcel █ in the vicinity of these four RECs. Sampling locations could be restricted to Parcel █	6, up to 10 feet deep	2, up to 25 feet deep	TPH, Cl, PAH, BTEX
	11/5/2019	Drums & AST Staining: AST Oil Well	█	Within Within Outside	No secondary containment Staining, strong odors about 75 feet south of Segment A Area				
█	1/23/2019	Oil and gas tank battery with staining Oil Well	█	Within Outside	Some Staining About 100 feet north of Segment A Area; some staining	Collect soil samples Collect GW sample from within access easement	2, up to 10 feet deep Screen soil during MW installation	1, up to 25 feet deep	TPH, Cl, PAH, BTEX
	11/5/2019	Pond	█	Outside	Adjacent east, between oil wells; appears related to O&G activities in historical aerals	Collect GW sample from within Segment A Area or access easement	Screen soil during MW installation	1, up to 25 ft deep	TPH, Cl, PAH, BTEX
█	1/24/2019	Oil well	█	Outside	About 45 feet east of Segment A Area; 120 feet east of pipeline Poor Condition, heavy staining	Collect GW sample from within access easement	Screen soil during MW installation	1, up to 25 ft deep	TPH, Cl, PAH, BTEX

**TABLE 1**  
**PHASE II RECOMMENDATIONS**  
**Segment A Area**  
**Caldwell County, Texas**

Parcel ID	Date visited	Findings Description	Findings ID	Location	Notes	Recommendations	Soil Borings <sup>1</sup>	Monitoring Wells <sup>2</sup>	Laboratory Analysis <sup>3</sup>
		Plugged Oil Well		Within	Part of Starr Vauen lease with documented oil spills; no evidence of plugged well observed	Collect soil and GW samples	Sample soil during MW installation	1, up to 25 feet deep	TPH, Cl, PAH, BTEX
	Desktop	Plugged Oil Well		Within	Part of Starr Vauen lease with documented oil spills; no evidence of plugged well observed	Collect soil and GW samples	Sample soil during MW installation	1, up to 25 feet deep	TPH, Cl, PAH, BTEX
		Plugged Oil Well		Outside	About 80 feet south of Segment A Area; Part of Starr Vauen lease with documented oil spills	Collect GW sample from within the access easement	Screen soil during MW installation	1, up to 15-20 feet deep (per borings)	TPH, Cl, PAH, BTEX
		Historical Oil & Gas Tank Battery		Within	Tank battery in historical aerials, just east of road	Collect soil and GW samples	3, up to 10 feet	1, up to 25 feet deep	TPH, Cl, PAH, BTEX
	1/24/2019	Equipment Staging and Drums, Spills		Outside	About 50 feet south of Segment A Area and 100 feet south of access easement. Three 55-Gal drums, contents unknown Agricultural equipment staging area with 25 ft <sup>2</sup> oil-like staining	If acquiring all of Segment A sample from within Segment A. Otherwise, collect GW sample from access easement.	None	1, up to 25 feet deep	TPH, VOCs, metals
	1/23/2019	Trash/Landfilling		Outside	About 300 feet north of Segment A Area but extensive landfilling upgradient	Collect GW sample from access easement/Segment A Area.	None	1, up to 25 feet deep	TPH, VOCs, metals

**Notes:**

- <sup>1</sup>Soil borings and temporary monitoring wells to be installed using a licensed well driller using direct-push rig.
  - <sup>2</sup>Groundwater samples will be collected from temporary monitoring wells using low flow methods if sufficient flow is available; otherwise, samples will be collected with a disposable bailer. Maximum depths estimated from existing geotechnical boring data.
  - <sup>3</sup>TPH=total petroleum hydrocarbons by TCEQ Method 1005. VOCs = volatile organic compounds by U.S. Environmental Protection Agency (EPA) Method 8260. Cl = chlorides by EPA Method 9056. PAH = polycyclic aromatic hydrocarbons by EPA Method 8270. Pesticides by EPA Method 8081.
- The Phase II recommendations provided in this table represent an initial scope of work to determine if soil and/or groundwater is impacted above regulatory action levels. Another round or two of sampling may be necessary at some locations to further define the nature and extent of contamination.



**W&M ENVIRONMENTAL,  
A DIVISION OF BRAUN INTERTEC**

**STANDARD FEE SCHEDULE**  
*Effective January 1, 2020 – December 31, 2020*

<b>LABOR CATEGORY</b>	<b>HOURLY RATE</b>
Principal Consultant II.....	\$245
Principal Consultant I.....	\$218
Senior Consultant II.....	\$197
Senior Consultant I.....	\$175
Project Consultant III.....	\$160
Project Consultant II.....	\$145
Project Consultant I.....	\$136
Staff Consultant III.....	\$118
Staff Consultant II.....	\$100
Staff Consultant I.....	\$90
Field Scientist IV.....	\$105
Field Scientist III.....	\$96
Field Scientist II.....	\$88
Field Scientist I.....	\$80
GIS Analyst II.....	\$100
GIS Analyst I.....	\$90
Project Coordinator.....	\$90

Charges for expert witness, emergency, litigation support related depositions, court appearances, and trial testimony will be billed at the above rates plus 100%.

**OTHER DIRECT COSTS**

Rental Equipment.....	Cost + 15%
Travel.....	Cost + 15%
Food and Lodging (Professional Staff).....	Cost + 15%
Company Vehicle.....	\$125/day (+ mileage > 50 miles)
Mileage.....	IRS Standard Mileage Rate + 15%*
W&M Field Equipment.....	project specific, on request

\* Rate may vary based on prevailing IRS Standard Mileage Rate.

**OUTSIDE PROFESSIONALS & SERVICES**

Outside services, equipment, and facilities provided by W&M will be billed at cost plus 15 percent (15%) and may include the following:

- Laboratory Testing
- Drilling and Geoprobe™ Services
- Remediation Subcontractors
- Waste Disposal and/or Transportation Subcontractors
- Other Consultants

**INVOICES**

Invoices will be generated and submitted monthly, at a minimum, and are payable upon receipt. Additional payment terms are presented in the Consulting Agreement.

Alliance Water		Work Order #2 Summary	
Pipeline Consultant 1/17/2020		Blanton W&M	\$ 24,980
Detailed Overall Env Consultant Cost Breakdown		Total W.O. #2	\$ 159,962

Task	Project Role	Hourly Bill Rate	PM	DPM	ENV Professional	ENV Tech I	Admin	Total Hours	Total Labor Effort	Total Expense Effort	W&M Labor	W&M Expense Effort	Total Sub Effort	Total Effort	Assumptions
8	Task 8 - Limited Phase II Investigations - Segment A Pipeline Alignment							196	24980	0	62180	72802	134982	159962	
8.1	Project Management														
8.1.1	Prepare Monthly Summary Reports / Invoicing		4	2		4	3	13	1,630		-	-	-	1,630	See Discussion/Assumption(s) - Task 8.1.1, Scope of Work
8.1.2	Implement PMP Requirements & QA/QC Plan Requirements		6		4	16	3	29	3,330		-	-	-	3,330	See Discussion/Assumption(s) - Task 8.1.2, Scope of Work
8.1.3	Schedule Development & Monthly Updates		4			8		12	1,440		-	-	-	1,440	See Discussion/Assumption(s) - Task 8.1.3, Scope of Work
8.1.4	Risk Register related to Limited Phase II Investigations field work		2			6		8	900		-	-	-	900	See Discussion - Task 8.1.4, Scope of Work
8.1.5	Meetings														
8.1.5.1	Attend Meetings		3			3		6	810		-	-	-	810	See Discussion/Assumption(s) - Task 8.1.5.1, Scope of Work
8.1.5.2	Additional Meetings		6			6		12	1,620		-	-	-	1,620	See Discussion/Assumption(s) - Task 8.1.5.2, Scope of Work
8.1.5.3	Internal Environmental Consultant Team Meetings		6	3		6		15	2,130		-	-	-	2,130	See Discussion/Assumption(s) - Task 8.1.5.3, Scope of Work
8.1.6	Deliverables														
8.1.6.1	Monthly Summary Reports							-	-		-	-	-	-	See Discussion - Task 8.1.6.1, Scope of Work
8.1.6.2	Schedules							-	-		-	-	-	-	See Discussion - Task 8.1.6.2, Scope of Work
8.1.6.3	Meeting Notes		6			6		12	1,620		-	-	-	1,620	See Discussion/Assumption(s) - Task 8.1.6.3, Scope of Work
8.2	Limited Phase II Investigations														
8.2.1	Field Work and reporting		8	4		16		28	3,560		62,180	72,802	134,982	138,542	See Discussion/Assumption(s) - Task 8.2.1, Scope of Work
8.3	Land Acquisition Coordination for Parcel Access														
8.3.1	Complete one agenda and meeting w/ land acquisition		4	2		6	1	13	1,670		-	-	-	1,670	See Discussion - Task 8.3.1, Scope of Work
8.3.2	Complete and submit property access request forms		3			6	9	9	1,080		-	-	-	1,080	See Discussion - Task 8.3.2, Scope of Work
8.3.3	Coordinate with landowners		2			6	8	8	900		-	-	-	900	See Discussion - Task 8.3.3, Scope of Work
8.3.4	Conduct additional work required to verify property access requirements		2			4	4	6	720		-	-	-	720	See Discussion - Task 8.3.4, Scope of Work
8.3.5	Field Work		4			4		8	1,080		-	-	-	1,080	See Discussion - Task 8.3.5, Scope of Work
8.3.6	Deliverables														
8.3.6.1	GIS data uploads / updates		3			3		3	540		-	-	-	540	See Discussion - Task 8.3.6.1, Scope of Work
8.3.6.2	Field Checklists		3			3		6	810		-	-	-	810	See Discussion - Task 8.3.6.2, Scope of Work
8.3.6.3	Preliminary finding summaries		2	3		3		8	1,140		-	-	-	1,140	See Discussion - Task 8.3.6.3, Scope of Work
								196	24,980	-	62,180	72,802	134,982	159,962	

**REGULAR MEETING**  
**Alliance Regional Water Authority Board of Directors**

**BOARD MEMBER PACKETS**  
Wednesday, January 22, 2020 at 3:00 P.M.  
501 E. Hopkins, San Marcos, TX 78666

- F.11** Consider approval of the meeting schedule for the Board of Directors for 2020. ~  
*Graham Moore, P.E., Executive Director*
- 

Background/Information

The Board is scheduled to meet the fourth Wednesday of every month. This schedule works for the first ten months of the year, but in November and December it runs into scheduled holidays. Staff is recommending that the Board meet the third Wednesday of the month in November and December which are the following days:

- Wednesday, November 18<sup>th</sup>
- Wednesday, December 16<sup>th</sup>

**Board Decision(s) Needed:**

- Adoption of the proposed Board meeting schedule for 2020.

**REGULAR MEETING**  
**Alliance Regional Water Authority Board of Directors**

**BOARD MEMBER PACKETS**

Wednesday, January 22, 2020 at 3:00 P.M.  
501 E. Hopkins, San Marcos, TX 78666

- F.12** Update on status of groundwater management in project target area, and Gonzales County Underground Water Conservation District, Plum Creek Conservation District, Groundwater Management Area 13, Region L Planning Group, Guadalupe-Blanco River Authority, Hays County and Capital Area Planning Group activities.
- 

Gonzales County Underground Water Conservation District (GCUWCD)

The GCUWCD met on January 14th. The only item of substance was their scheduling of a Public Hearing on Tuesday, March 10<sup>th</sup> to receive comments on their proposed rules revisions.

Plum Creek Conservation District (PCCD)

The PCCD is scheduled to meet on January 21st.

Groundwater Management Area 13

No update.

Region L Planning Group

The next Region L Planning Group meeting is scheduled for Thursday, January 23<sup>rd</sup> with a final meeting on Thursday, February 20<sup>th</sup>. The Initially Prepared Plan (i.e. Draft Plan) must be submitted to the Texas Water Development Board by March 2, 2020.

Guadalupe-Blanco River Authority; Hays County Activities; CAPCOG Activities

No update.

**Board Decision(s) Needed:**

- None.

**REGULAR MEETING**  
**Alliance Regional Water Authority Board of Directors**

**BOARD MEMBER PACKETS**

Wednesday, January 22, 2020 at 3:00 P.M.  
501 E. Hopkins, San Marcos, TX 78666

- G. EXECUTIVE DIRECTOR AND LEGAL COUNSEL REPORTS** - Update on future meeting dates, locations, status of Authority procurements, Executive Director activities, other operational activities and the status of legal issues, where no action is required. ~ *Graham Moore, P.E., Executive Director / Mike Gershon, Lloyd Gosselink Rochelle & Townsend, P.C.*

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**EXECUTIVE DIRECTOR**

RFQ Update

- The RFQ for the Phase 1B Construction Management & Inspection was issued in mid-December. Responses are due in mid-February.
- Staff has also drafted the RFQ for Public Relation Services with the intent of issuing it at the end of January.

Log and Calendar of Events

- Attached is the log of activities for December along with the 3-month look ahead calendar for the Executive Director.

**Executive Director  
Log of Activities**

December						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<i>1-Dec</i>	<i>2-Dec</i>	<i>3-Dec</i>	<i>4-Dec</i>	<i>5-Dec</i>	<i>6-Dec</i>	<i>7-Dec</i>
	SCADA presentation	1B Monthly Coordination Mtg	CCSUD meeting	Discuss Kyle delivery point w/ Staff	Meet w/ Rep. Cyrier	
	Kyle meeting	Raw Water EFR Review mtg	Sign ROEs	Weekly ROW Call	Lunch w/ Mark Janay	
	CUAB meeting	WTP Power mtg	Conf call re: electrical CCNs	Fiber & security design call	Discuss Enviro Amendment	
					Tech Cmte Agenda & Packet	
<i>8-Dec</i>	<i>9-Dec</i>	<i>10-Dec</i>	<i>11-Dec</i>	<i>12-Dec</i>	<i>13-Dec</i>	<i>14-Dec</i>
	Meet w/ GBRA re: cost saving	Mtg w/ Jacobs re: Operations	FY 19 Audit info	Mtg w/ Tetra Tech re: future opps	PAC mtg	
	Raw water coordination	CM&I RFQ	Tech Cmte meeting	Weekly ROW call	SCADA presentation	
	November Statement info	GCUWCD Board Mtg	Raw water easement comments	1A BPS Monthly construction mtg	Board agenda / packet	
	Board agenda	November statement info				
<i>15-Dec</i>	<i>16-Dec</i>	<i>17-Dec</i>	<i>18-Dec</i>	<i>19-Dec</i>	<i>20-Dec</i>	<i>21-Dec</i>
	Sign ROEs	1A Seg B Pipeline Kickoff Mtg	1B BPS EFR Review Mtg	Meeting with GBRA	Sign ROEs	
	1B Enviro review	Plum Creek Cons. District mtg	ARWA Board Mtg	Weekly ROW Call	Mail, filing	
	1A Seg B SWPPP	BPS Workshop Discussion		Monthly WTP conference call	Jansen Track review	
	Invoices	BPS EFR review				
<i>22-Dec</i>	<i>23-Dec</i>	<i>24-Dec</i>	<i>25-Dec</i>	<i>26-Dec</i>	<i>27-Dec</i>	<i>28-Dec</i>
	Audit information	Holiday	Holiday	PTO	Audit Follow-up Filing	
	Electronic payment					
	Appraisal approval					
	Filing					
<i>29-Dec</i>	<i>30-Dec</i>	<i>31-Dec</i>				
	PTO	Holiday				

# January 2020

January 2020							February 2020						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
			1	2	3	4							1
5	6	7	8	9	10	11	2	3	4	5	6	7	8
12	13	14	15	16	17	18	9	10	11	12	13	14	15
19	20	21	22	23	24	25	16	17	18	19	20	21	22
26	27	28	29	30	31		23	24	25	26	27	28	29

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Dec 29	30	31	Jan 1, 20 HOLIDAY	2 PTO 11:00am ARWA1B - Weekly ROW Call (Skype Meeting) - Sowa, Ryan	3 9:00am Alliance Water - Monthly Check-in (Skype Meeting) - Cobler, Nathan	4
5	6 1:30pm ARWA Phase 1B Weekly Progress Meetings (WEBEX) - 3:30pm ARWA Scope comments (MTV call GM) - Marisa Vergara	7 8:30am ARWA1BWTP - Review Meeting (Skype Meeting) - Marisa Vergara 12:00pm Sign ROEs (Kyle Starbucks)	8 10:30am Discussion on how we, GVEC and BBEC will provide service to the water wells and water treatment plant.	9 11:00am ARWA1B - Weekly ROW Call 1:30pm Phase 1A Construction 4:00pm ARWA1B - Hazmat Phase II	10 11:00am Sign ROEs (Kyle Starbucks) 2:30pm ARWA1BWTP - Scoping Comments 3:00pm ARWA1BENV - Phase II Scope and	11
12	13 1:30pm ARWA Phase 1B Weekly Progress Meetings (WEBEX) - 6:30pm CRWA Board Meeting (CRWA Offices (850 Lakeside	14 5:30pm GCUWCD Board Meeting (GCUWCD Offices)	15 3:00pm ARWA Technical Committee Meeting (Kyle Public Works) - Graham Moore	16 8:00am ARWA1B - Weekly ROW Call (Skype Meeting) - 10:00am Region L Staff Work Group Meeting (San Antonio River	17 9:00am Project Advisory Committee Meeting (Kyle Public Works)	18
19	20 Comments Due - Elevated Storage Tanks - Jason Biemer 1:30pm ARWA Phase 1B Weekly Progress Meetings (WEBEX) -	21 1:00pm PCCD Meeting (Lockhart, Texas, United States)	22 10:00am CRWA Board of Managers Meeting (CRWA Offices) 3:00pm ARWA Board Meeting (TBD)	23 9:30am Region L Meeting (San Antonio Water System (2800 11:00am ARWA1B - Weekly ROW Call (Skype Meeting) -	24 11:30am Alliance Water - Operations Workshop with 1:30pm ARWA1BWTP - Monthly Meeting (San Marcos Activity	25
26	27 1:30pm ARWA Phase 1B Weekly Progress Meetings (WEBEX) - Shore, Nichola	28	29	30 11:00am ARWA1B - Weekly ROW Call (Skype Meeting) - Sowa, Ryan	31 PTO 2:00pm ARWA Pipeline Interview (Please call WebEx number below) - Srinivasan, Jay	Feb 1

# February 2020

February 2020							March 2020							
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	
	2	3	4	5	6	7	8	1	2	3	4	5	6	7
9	10	11	12	13	14	15	16	8	9	10	11	12	13	14
16	17	18	19	20	21	22	23	15	16	17	18	19	20	21
23	24	25	26	27	28	29		22	23	24	25	26	27	28
								29	30	31				

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Jan 26	27	28	29	30	31	Feb 1
2	3 1:30pm ARWA Phase 1B Weekly Progress Meetings (WEBEX) - Shore, Nichola	4 9:00am Alliance Water - Monthly Check-in (Skype Meeting, ~TX-SNA-RM-Training Room (Trio)) - Cobler, Nathan	5	6 11:00am ARWA1B - Weekly ROW Call (Skype Meeting) - Sowa, Ryan	7 9:30am GMA-13 Meeting (Pleasanton, TX)	8
9	10 1:30pm ARWA Phase 1B Weekly Progress Meetings (WEBEX) - 6:30pm CRWA Board Meeting (CRWA Offices (850 Lakeside)	11 5:30pm GCUWCD Board Meeting (GCUWCD Offices)	12 3:00pm ARWA Technical Committee Meeting (Kyle Public Works)	13 11:00am ARWA1B - Weekly ROW Call (Skype Meeting) - 1:30pm Phase 1A Construction Meetings	14	15
16	17 1:30pm ARWA Phase 1B Weekly Progress Meetings (WEBEX) - Shore, Nichola	18 1:00pm PCCD Meeting (Lockhart, Texas, United States)	19	20 9:30am Region L Meeting (San Antonio Water System (2800 11:00am ARWA1B - Weekly ROW Call (Skype Meeting) -	21 9:00am Project Advisory Committee Meeting (Kyle Public Works)	22
23	24 1:30pm ARWA Phase 1B Weekly Progress Meetings (WEBEX) - Shore, Nichola	25	26 10:00am CRWA Board of Managers Meeting (CRWA Offices) 3:00pm ARWA Board Meeting (TBD)	27 11:00am ARWA1B - Weekly ROW Call (Skype Meeting) - Sowa, Ryan	28 10:00am GBC Meeting (NBU Downtown)	29

# March 2020

March 2020						
Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

April 2020						
Su	Mo	Tu	We	Th	Fr	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Mar 1	2 1:30pm ARWA Phase 1B Weekly Progress Meetings (WEBEX) - Shore, Nichola	3 9:00am Alliance Water - Monthly Check-in (Skype Meeting, ~TX-SNA-RM-Training Room (Trio)) - Cobler, Nathan	4	5 11:00am ARWA1B - Weekly ROW Call (Skype Meeting) - Sowa, Ryan	6	7
8	9 1:30pm ARWA Phase 1B Weekly Progress Meetings (WEBEX) - 6:30pm CRWA Board Meeting (CRWA Offices (850 Lakeside	10 5:30pm GCUWCD Board Meeting (GCUWCD Offices) 5:30pm Public Hearing on Gonzales Groundwater District	11 3:00pm ARWA Technical Committee Meeting (Kyle Public Works)	12 11:00am ARWA1B - Weekly ROW Call (Skype Meeting) - 1:30pm Phase 1A Construction Meetings	13	14
15	16 1:30pm ARWA Phase 1B Weekly Progress Meetings (WEBEX) - Shore, Nichola	17 1:00pm PCCD Meeting (Lockhart, Texas, United States)	18 SPRING BREAK	19 11:00am ARWA1B - Weekly ROW Call (Skype Meeting) - Sowa, Ryan	20 9:00am Project Advisory Committee Meeting (Kyle Public Works)	21
22	23 1:30pm ARWA Phase 1B Weekly Progress Meetings (WEBEX) - Shore, Nichola	24	25 10:00am CRWA Board of Managers Meeting (CRWA Offices) 3:00pm ARWA Board Meeting (TBD)	26 11:00am ARWA1B - Weekly ROW Call (Skype Meeting) - Sowa, Ryan	27	28
29	30 1:30pm ARWA Phase 1B Weekly Progress Meetings (WEBEX) - Shore, Nichola	31 9:00am Alliance Water - Monthly Check-in (Skype Meeting, ~TX-SNA-RM-Training Room (Trio)) - Cobler, Nathan	Apr 1	2	3	4

**REGULAR MEETING**  
**Alliance Regional Water Authority Board of Directors**

**BOARD MEMBER PACKETS**

Wednesday, January 22, 2020 at 3:00 P.M.  
501 E. Hopkins, San Marcos, TX 78666

- H. BOARD MEMBER ITEMS OR FUTURE AGENDA ITEMS – Possible acknowledgement by Committee Members of future area events and/or requests for item(s) to be placed on a future agenda where no action is required.
- 

Background/Information

The Committee Members have an opportunity to make announcements or to request that items be added to future Board or Committee agendas.

**REGULAR MEETING**  
**Alliance Regional Water Authority Board of Directors**

**BOARD MEMBER PACKETS**

Wednesday, January 22, 2020 at 3:00 P.M.  
501 E. Hopkins, San Marcos, TX 78666

- I.1 *Executive Session pursuant to the Government Code, Section 551.071 (Consultation with Attorney) and/or Section 551.072 (Real Property Deliberations) regarding:*
- A. *Water supply partnership options*
  - B. *Groundwater leases*
  - C. *Acquisition of real property for water supply project purposes*
-

**REGULAR MEETING**  
**Alliance Regional Water Authority Board of Directors**

**BOARD MEMBER PACKETS**  
Wednesday, January 22, 2020 at 3:00 P.M.  
501 E. Hopkins, San Marcos, TX 78666

**I.2** Action from Executive Session on the following matters:

- A. *Water supply partnership options*
  - B. *Groundwater leases*
  - C. *Acquisition of real property for water supply project purposes*
-

**REGULAR MEETING**  
**Alliance Regional Water Authority Board of Directors**

**BOARD MEMBER PACKETS**  
Wednesday, January 22, 2020 at 3:00 P.M.  
501 E. Hopkins, San Marcos, TX 78666

**J. ADJOURNMENT**

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