Alliance Regional Water Authority Board of Directors

REGULAR MEETING



BOARD MEMBER PACKETS

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

Conference Call Number: 1-903-405-2572 Code: 925 453 055#

BOARD MEMBER PACKETS

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In accordance with Governor Abbott's Executive Order, declaration of the COVID-19 public health threat, and action to temporarily suspend certain provisions of the Texas Open Meetings Act, a quorum of Alliance Regional Water Authority's (the Authority's) Board of Directors will hold a meeting by telephonic conference call at 3:00 PM, Wednesday, April 22, 2020. The public may participate in this meeting by calling the following number and code:

Conference Call Number: 1-903-405-2572 Code: 925 453 055#

Members of the public wishing to make public comment during the meeting must register by emailing info@alliancewater.org prior to 3:00 p.m. on March 25, 2020. This meeting will be recorded and the audio recording will be available on the Authority's website after the meeting. A copy of the agenda packet will be available on the Authority's website at the time of the meeting. 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 register with the Executive Director at <u>info@alliancewater.org</u> before 3:00 p.m.)

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 March 25, 2020. ~ *Graham Moore, P.E., Executive Director*
- D.2 Consider approval of the financial report for March 2020. ~ *Graham Moore, P.E., Executive Director*
- D.3 Consider approval of the quarterly investment report for the period ending March 31, 2020. ~ *Graham Moore, P.E., Executive Director*
- E. PUBLIC HEARINGS / PRESENTATIONS None

BOARD MEMBER PACKETS

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F. ITEMS FOR DISCUSSION NOT REQUIRING ACTION

- F.1 Report on Technical Committee activities. ~ *Graham Moore, P.E., Executive Director*
- F.2 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.3 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.4 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. ITEMS FOR ACTION OR DISCUSSION/DIRECTION
 - H.1 Consider adoption of Resolution 2020-04-22-001 approving Work Authorization #5 with BGE, Inc. for Final Design and Procurement Services for the Authority's Phase 1B Segment C Project as recommended by the Technical Committee. ~ *Ryan Sowa, P.E., Kimley-Horn & Associates*
 - H.2 Consider adoption of Resolution 2020-04-22-002 approving Supplemental Amendment #1 to Work Order #3 with Walker Partners, LLC for Surge and Transient Analysis of the High Service Pump Station at the Phase 1B Water Treatment Plant. ~ *Ryan Sowa, P.E., Kimley-Horn & Associates*

BOARD MEMBER PACKETS

Wednesday, April 22, 2020 at 3:00 P.M. Conference Call Number: 1-903-405-2572; Code: 925 453 055#

- H.3 Consider adoption of Resolution 2020-04-22-003 awarding a construction contract to Hydro Resources Mid-Continent, Inc. for the Phase 1B Well Construction Project, contingent upon approval of the award by the Texas Water Development Board. ~ *Ryan Sowa, P.E., Kimley-Horn & Associates*
- H.4 Update, discussion and possible direction to Staff regarding the Authority's request to the Texas Water Development Board for additional SWIFT Funding. ~ *Graham Moore, P.E., Executive Director*
- H.5 Consider adoption of resolution requesting financial assistance from the Texas Water Development Board and Contractor's Act of Assurance Resolution for the Authority's Phase 1B projects; authorizing the filing of an application for assistance; and making certain findings in connection herewith. ~ *Graham Moore, P.E., Executive Director*
- H.6 Consider adoption of Resolution 2020-04-22-004 approving a Policy on Contributions to Outside Entities. ~ *Graham Moore, P.E., Executive Director*
- H.7 Consider adoption of Resolution 2020-04-22-005 authorizing the issuance of a debit card to Jason Biemer. ~ *Graham Moore, P.E., Executive Director*
- H.8 Consider appointment of a Temporary Committee to review and score submissions to the Authority's Request for Qualifications for Public Relations Services and possibly to recommend the selection of a respondent. ~ *Graham Moore, P.E., Executive Director*
- H.9 Consider adoption of Resolution 2020-04-22-006 approving a Groundwater Development Agreement with Denny and Tammy Winkler. ~ *Graham Moore, P.E., Executive Director*
- I. 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.

J. EXECUTIVE SESSION

- J.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

BOARD MEMBER PACKETS

Wednesday, April 22, 2020 at 3:00 P.M. Conference Call Number: 1-903-405-2572; Code: 925 453 055#

- J.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
- K. 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.

BOARD MEMBER PACKETS

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A. CALL TO ORDER

No Backup Information for this Item.

BOARD MEMBER PACKETS

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B. ROLL CALL

NAME	TERM ENDS	PRESENT
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	
Vacant (San Marcos)	April 2022	

BOARD MEMBER PACKETS

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C. PUBLIC COMMENT PERIOD (Note: Each person wishing to speak must register with the Executive Director at <u>info@alliancewater.org</u> before 3:00 p.m.)

BOARD MEMBER PACKETS

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D. CONSENT AGENDA

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

BOARD MEMBER PACKETS

Wednesday, April 22, 2020 at 3:00 P.M. Conference Call Number: 1-903-405-2572; Code: 925 453 055#

D.1 Consider approval of minutes of the Regular Meeting held March 25, 2020. ~ *Graham Moore, P.E., Executive Director*

Attachment(s)

• 2020 03 25 Board Meeting Minutes

Board Decision(s) Needed:

• Approval of minutes.

Meeting Minutes March 25, 2020



Alliance Regional Water Authority

BOARD MEETING

MINUTES

Wednesday, March 25, 2020

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, March 25, 2020 via conference call in accordance with Governor Abbott's Executive Order declaring the COVID-19 public health threat and temporarily suspending certain provisions of the Texas Open Meetings Act.

- A. CALL TO ORDER.
 The Alliance Water Board Meeting was called to order at 3:01p.m. by Mr. Betz.
- B. ROLL CALL.
 - Present: Taylor, Lillibridge, Williams, Ramos, Earp, Taggart, Betz, Scheel, Clack and Allen.
 - Absent: Hughson, Rockeymoore, and San Marcos's vacant seat.
- C. PUBLIC COMMENT PERIOD
 - None.
- D. CONSENT AGENDA
 - D.1 Consider approval of minutes of the Regular Meeting held February 26, 2020.
 - D.2 Consider approval of the financial report for February 2020.
 - Motion to approve the consent agenda items D.1 and D.2 as presented was made by Mr. Taylor, seconded by Mr. Ramos and approved on a 10-0 roll call vote.

Items F.1 through F.4 were not opened for discussion.

- F.1 Report on Technical Committee activities.
- F.2 Update and possible direction to Staff regarding the status of the Authority's Phase 1A projects, and direction to staff and consultants.
- F.3 Update and discussion regarding the status of the Authority's Phase 1B program, and direction to staff and consultants.
- F.4 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.

G. EXECUTIVE DIRECTOR AND LEGAL COUNSEL REPORTS • No action.

- H. ITEMS FOR ACTION OR DISCUSSION/DIRECTION
- H.1 Consider adoption of Resolution 2020-03-25-001 approving Work Order #4 with Walker Partners, LLC for Final Design and Procurement Services for the Authority's Phase 1B Segment E Project as recommended by the Technical Committee.
 - Motion to adopt Resolution 2020-03-25-001 approving Work Order #4 with Walker Partners, LLC for Final Design and Procurement Services for the Authority's Phase 1B Segment E Project as presented was made by Mr. Taylor, seconded by Mr. Taggart and approved on a 10-0 roll call vote.
- H.2 Consider adoption of Resolution 2020-03-25-002 approving Work Order #4 with Blanton & Associates, Inc. for additional hazardous materials testing associated with the Phase 1B Segment B, D and E projects.
 - Motion to adopt Resolution 2020-03-25-002 approving Work Order #4 with Blanton & Associates, Inc. for additional hazardous materials testing associated with the Phase 1B Segment, B, D and E projects as presented was made by Mr. Taylor, seconded by Mr. Williams and approved on a 10-0 roll call vote.
- I. BOARD MEMBER ITEMS OR FUTURE AGENDA ITEMS
 - Mr. Ramos inquired as to when the Sponsorship Resolution will be brought to the Board for consideration.
 - Mr. Moore responded that it was ready, but he originally thought the requestor, Mr. Williams, would not be available for this meeting, so

he did not include it on the agenda. It will be brought to the next meeting for discussion.

- J.1 The Board of Directors recessed into Executive Session at 3:25 p.m. pursuant of the Government Code, Section 551.071, to seek the General Counsel's advice regarding matters involving attorney-client privilege, and/or Section 551.072 to discuss water supply project partnership options. The Board of Directors reconvened from Executive Session at 3:40 p.m.
- J.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.
 - D. Consideration of Resolution 2020-03-25-003 finding Public Convenience and Necessity and authorizing Eminent Domain Proceedings, if necessary, for acquisitions of a Permanent Easement totaling 2.055 acres located in the A. Tinney Survey, Abstract No. 26, Caldwell County, Texas, and establishing an effective date; and finding and determining that the meeting at which this Resolution is passed was noticed and is open to the public as required by law.
 - Motion to adopt Resolution 2020-03-25-003 finding Public Convenience and Necessity and authorizing Eminent Domain Proceedings, if necessary, as presented was made by Mr. Taylor, seconded by Ms. Scheel and approved on a 10-0 roll call vote.
 - E. Consideration of Resolution 2020-03-25-004 finding Public Convenience and Necessity and authorizing Eminent Domain Proceedings, if necessary, for acquisitions of a Permanent Easement totaling 7.935 acres located in the B.G. Ridens Survey, Abstract No. 256, Caldwell County, Texas, and 5.079 acres located in the J.D. Sowell Survey, Abstract No. 266, Caldwell County, Texas establishing an effective date; and finding and determining that the meeting at which this Resolution is passed was noticed and is open to the public as required by law.
 - Motion to adopt Resolution 2020-03-25-004 finding Public Convenience and Necessity and authorizing Eminent Domain Proceedings, if necessary, as presented was made by Mr. Taggart, seconded by Mr. Taylor and approved on a 10-0 roll call vote.

- F. Consideration of Resolution 2020-03-25-005 finding Public Convenience and Necessity and authorizing Eminent Domain Proceedings, if necessary, for acquisitions of a Permanent Easement totaling 2.782 acres located in the James George Survey, Abstract No. 9, Caldwell County, Texas, establishing an effective date; and finding and determining that the meeting at which this Resolution is passed was noticed and is open to the public as required by law.
- Motion to adopt Resolution 2020-03-25-005 finding Public Convenience and Necessity and authorizing Eminent Domain Proceedings, if necessary, as presented was made by Mr. Taylor, seconded by Mr. Ramos and approved on a 10-0 roll call vote.
- G. Consideration of Resolution 2020-03-25-006 finding Public Convenience and Necessity and authorizing Eminent Domain Proceedings, if necessary, for acquisitions of a Permanent Easement totaling 3.574 acres located in the John A. Neill Survey, Abstract No. 20, Caldwell County, Texas, establishing an effective date; and finding and determining that the meeting at which this Resolution is passed was noticed and is open to the public as required by law.
- Motion to adopt Resolution 2020-03-25-006 finding Public Convenience and Necessity and authorizing Eminent Domain Proceedings, if necessary, as presented was made by Mr. Taylor, seconded by Mr. Lillibridge and approved on a 10-0 roll call vote.
- H. Consideration of Resolution 2020-03-25-007 finding Public Convenience and Necessity and authorizing Eminent Domain Proceedings, if necessary, for acquisitions of a Permanent Easement totaling 1.555 acres located in the Esther Berry Survey, Abstract No. 1, Caldwell County, Texas, establishing an effective date; and finding and determining that the meeting at which this Resolution is passed was noticed and is open to the public as required by law.
- Motion to adopt Resolution 2020-03-25-007 finding Public Convenience and Necessity and authorizing Eminent Domain Proceedings, if necessary, as presented was made by Mr. Ramos, seconded by Mr. Taylor and approved on a 10-0 roll call vote.
- K. ADJOURNMENT
 - Meeting was adjourned at 3:51 p.m. based on the motion by Mr. Taylor, seconded by Mr. Williams on a 10-0 roll call vote.

APPROVED: _____, 2020

ATTEST:

Chair, Board of Directors

Secretary, Board of Directors

BOARD MEMBER PACKETS

Wednesday, April 22, 2020 at 3:00 P.M. Conference Call Number: 1-903-405-2572; Code: 925 453 055#

D.2 Consider approval of the financial report for March 2020. ~ *Graham Moore, P.E., Executive Director*

Background/Information

Attached is the financial report for the period ending in March 2020.

Attachment(s)

• 2020 03 31 Financial Report

Board Decision(s) Needed:

• Approval of the financial report for the period ending March 2020.



Alliance Regional Water Authority

Financial Statements (Compilation)

For the One Month Ended and Year-to-Date March 31, 2020 04/15/20 Accrual Basis

Alliance Regional Water Authority Balance Sheet As of March 31, 2020

	Mar 31, 20
ASSETS	
Current Assets	
Checking/Savings	
1004 · Broadway Bank	
1005 · Broadway Checking (8040)	-230,093.13
1010 · Broadway Savings (4415)	1,497,178.55
Total 1004 · Broadway Bank	1,267,085.42
1015 · TexStar (3310)	2,363,111.47
1050 · Broadway Bank (Reserved)	
1051 · CRWA Debt Service (2785)	590,622.55
1052 · Kyle Debt Service (2787)	482,081.07
1055 · San Marcos Debt Service (6390)	602,229.21
1056 · Buda Debt Service (6391)	98,850.37
Total 1050 · Broadway Bank (Reserved)	1,773,783.20
1100 · Escrow Accounts	
1105 · BOKF, Escrow, CRWA Series 2015A	334,659,63
1106 · BOKF, Escrow, Kyle Series 2015B	221,676,70
1107 · BOKF, Escrow, CRWA Series 2017A	5.254 408 47
1108 · BOKE Escrow Kyle Series 2017B	4 788 026 66
1100 BOKE Escrow SM Series 2017C	6 133 324 38
1105 BOKF, Escrew, Swide Series 20176	946 060 61
1110 · BOKF, Escrow, Budd Series 2017D	040,909.01
1111 · BOKF, Escrow, CRWA Series 2019A	26,244,898.63
1112 · BOKF, Escrow, Kyle Series 2019B	23,934,103.82
1113 · BOKF, Escrow, SM Series 2019C	30,501,964.87
1114 · BOKF, Escrow, Buda Series 2019D	4,243,250.27
Total 1100 · Escrow Accounts	102,503,283.04
Total Checking/Savings	107,907,263.13
Accounts Receivable	
1209 · Accts receivable, City of SM	344,124.84
1210 · Accts receivable, City of Buda	48,748.92
Total Accounts Receivable	392,873.76
Total Current Assets	108,300,136.89
Fixed Assets	
1405 · Engineering & Construction Cost	2,402,294,20
1420 · Projects in Progress (Cash)	
1420-01 · Legal Support	59 920 03
1420-02 · Hydrogelogic Support	169 987 19
1420-03 · PCCD Permitting	105 005 16
1420-00 FOOD Fernitung	25,000,00
1420-04 · Legal Support, GBRA	45,251.01
Total 1420 · Projects in Progress (Cash)	405,253.39
1430 · Projects in Progress Eng (Cach)	
1430-02 · Engineering - Dumhing Plan	17 663 70
1430-02 Engineering From DOW	11 504 60
1430-05 Engineering Pees-ROW	11,094.09
1430-05 · Engineering - Rate Study	54,055.00
1430-06 · DPK 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
1430-13 · ARWA-GBRA MOU Study	15.000.00
1430-14 · Phase 1A GIS	30.459.87

Total 1430 · Projects in Progress Eng (Cash)

861,296.75

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9:00 AM

04/15/20 Accrual Basis

Alliance Regional Water Authority Balance Sheet As of March 31, 2020

	Mar 31, 20
1440 · Projects in Prog Eng. (Finance)	
1440-01 · Engineering-Phase 1A Pipeline	527,900.66
1440-02 · Engineering-Phase 1A Pump Stat	713,800.74
1440-03 · Engineering-ROW Acquisition	509,721.77
1440-04 · Phase 1A Const Observation	42 150 07
1440-05 · Phase 1A-Construction Trailer	43,159.07
1440-06 · Phase 1A Segment A Construction	1,734,150.32
1440-07 · Phase 1A BPS Construction	4,770,140.42
1440-08 · Phase 1A Segment B Construction	592,098.59
1440-15 · Land Acquisition Phase 1B	4,409,019.09
1440-16 · Phase 1B-Owners Rep	4,055,004.90
1440-17 · Phase 1B Environmental	1,199,757.32
1440-18 · Phase 1B Segment A Design	600,000.99
1440-19 · Phase 1B Segment B Design	618,175.56
1440-20 · Phase 1B Segment C Design	559,457.25
1440-21 · Phase 1B Segment D Design	656,806.34
1440-22 · Phase 1B Segment E Design	342,670.65
1440-23 · Phase 1B Land Attorney	260,161.24
1440-24 · Phase 1B Hydrogeology	125,840.00
1440-25 · Phase 1B WTP Design	1,242,738.64
1440-26 · Raw Water Infr.	666,468.11
1440-27 · Phase 1B Program Survey	1,898,311.25
1440-28 · Phase 1B BPS Design	769,187.38
1440-29 · GVEC Construction-in-Aid	1,000,000.00
1440-30 · Phase 1B Inline Tanks	27,408.80
Total 1440 · Projects in Prog Eng. (Finance)	28,768,363.31
1447 · Land & Easements	922,215.70
1448 · Capitalized Interest	
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
Total 1448 · Capitalized Interest	693,363.55
1505 · Landowner Bonus Payments	1,043,191.83
1510 · GrWater Lease Acquisition Costs	1,004,905.76
1599 · Accumulated Amortization	-2,048,097.59
Total Fixed Assets	34,052,786.90
Other Assets	
1900 · Deferred Outflow	23,797.09
Total Other Assets	23,797.09
TAL ASSETS	142,376,720.88
ABILITIES & EQUITY	
Liabilities	
Current Liabilities	
Other Current Liabilities	
2100 · Payroll Liabilities	18.00
2102 · 401(a) Liability	2,436.95
	9-M.C.T.T.T.T.
2102 · Net Pension Liability	4,718.00
2102 · 40 (a) Elability 2103 · Net Pension Liability 2104 · Pension Deferred Inflows	4,718.00 82.00
2102 • 40 (a) Elability 2103 • Net Pension Liability 2104 • Pension Deferred Inflows 2106 • Accrued Vacation	4,718.00 82.00 29.343.80

9:00 AM

04/15/20 Accrual Basis

Alliance Regional Water Authority Balance Sheet As of March 31, 2020

	Mar 31, 20
2350 · Accrued Interest Payable	5.44 C
2351 · Accrued Int Payable, CRWA 2015A	7,823.31
2352 · Accrued Int Payable, Kyle 2015B	10,879.05
2353 · Accrued Int Payable, CRWA 2017A	29,476.74
2354 · Accrued Int Payable, Kyle 2017B	26,879.43
2355 · Accrued Int Payable, SM 2017C	22,167.12
2356 · Accrued Int Pavable, Buda 2017D	3,150.39
2357 · Accrued Int Pavable, CRWA 2019A	189,649.44
2358 · Accrued Int Pavable, Kyle 2019B	173,040.32
2359 · Accrued Int Pavable, SM 2019C	142,824.64
2360 · Accrued Int Payable, Buda 2019D	20,258.16
Total 2350 · Accrued Interest Payable	626,148.60
Total Other Current Liabilities	993,390.53
Total Current Liabilities	993,390.53
Long Term Liabilities	
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
Total Long Term Liabilities	123,385,000.00
Total Liabilities	124,378,390.53
Equity	
2925 · Net Investment in Capital Asset	8,200,007.29
2950 · Retained Earnings	7,771,023.52
Net Income	2,027,299.54
Total Equity	17,998,330.35
TOTAL LIABILITIES & EQUITY	142,376,720.88

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Alliance Regional Water Authority Profit Loss

For the One Month and Six Months Ended March 31, 2020

	March 2020	October 2019 March 2020
Ordinary Income/Expense		
Income		
4010 · Project Contribution		0.000.000.000
4011 · City of San Marcos	918,761.70	1,788,339.26
4012 · City of Kyle	417,252.25	834,504.50
4013 · City of Buda	140,331.46	263,695.40
4014 · Canyon Regional Water Authority	0.00	961,023.84
4015 · GBRA	505,696.99	1,050,880.01
Total 4010 · Project Contribution	1,982,042.40	4,898,443.01
4200 · Shared Water		
4210 · Shared Water, City of Buda	37,269.00	186,345.00
Total 4200 · Shared Water	37,269.00	186,345.00
4250 · Non Potable Water Sales	3,156.12	15,941.17
4300 · Broadway Interest Income		
4311 · City of San Marcos	210.67	2,010.60
4312 · City of Kyle	143.53	1,526.41
4313 · City of Buda	22.07	274.13
4314 · Canyon Regional Water Authority	196.22	1,846.04
Total 4300 · Broadway Interest Income	572.49	5,657.18
4350 · Escrow Accounts Income		
4351 · BOKF, CRWA Series 2015A	357.21	7,024.50
4352 · BOKF, Kyle Series 2015B	236.62	6,147.32
4353 · BOKF, CRWA Series 2017A	4,581.21	32,643.23
4354 · BOKF, Kyle Series 2017B	4,174.58	29,745.94
4355 · BOKF, SM Series 2017C	5,347.52	38,102.36
4356 · BOKF, Buda Series 2017D	738.46	5,265.15
4357 · BOKF, CRWA Series 2019A	22,882.38	81,601.63
4358 · BOKF, Kyle Series 2019B	20,867.65	74,416.82
4359 · BOKF, SM Series 2019C	26,594.03	94,837.87
4360 · BOKF, Buda Series 2019D	3,699.60	13,193.27
Total 4350 · Escrow Accounts Income	89,479.26	382,978.09
4370 · TexStar Interest Income		
4371 · City of San Marcos	936.66	10,930.77
4372 · City of Kyle	735.80	8,586.72
4373 · City of Buda	132.69	1,548.47
4374 · Canyon Regional Water Authority	806.84	9,415.83
Total 4370 · TexStar Interest Income	2,611.99	30,481.79
Total Income	2,115,131.26	5,519,846.24
Expenses		
6000 · Groundwater Reservation Costs	274,864.08	758,843.38
6010 · Shared Water Costs		
6015 · Shared Water, City of Kyle	23,426.02	117,213.33
6020 · Shared Water, City of San Marcos	13,965.00	69,825.00
Total 6010 · Shared Water Costs	37,391.02	187,038.33
7125 · Auditing fees	0.00	10,715.00
7150 · Amortization Expense	0.00	43,936.64
7210 · Bank Fees	198.24	1,230.17

Alliance Regional Water Authority Profit Loss

For the One Month and Six Months Ended March 31, 2020

	March	October 2019
	2020	March 2020
7220 · Escrow and Paying Agent Fees	0.00	2,450.00
7240 · Bond Issue Costs		
7240-07 · Bond Issue Costs - CRWA 2019A	0.00	366,309.28
7240-08 · Bond Issue Costs - Kyle 2019B	0.00	339,780.56
7240-09 · Bond Issue Costs - SM 2019C	0.00	392,340.76
7240-10 · Bond Issue Costs - Buda 2019D	0.00	139,393.36
Total 7240 · Bond Issue Costs	0.00	1,237,823.96
7250 · Interest Expense		
7250-51 · Interest Expense - CRWA 2015A	5,215.54	31,293.25
7250-52 · Interest Expense - Kyle 2015B	7,252.70	43,516.25
7250-53 · Interest Expense - CRWA 2017A	19,651.16	117,907.00
7250-54 · Interest Expense - Kyle 2017B	17,919.62	107,517.75
7250-55 · Interest Expense - SM 2017C	14,778.08	88,668.50
7250-56 · Interest Expense - Buda 2017D	2,100.26	12,601.50
7250-57 · Interest Expense - CRWA 2019A	47,412.36	189,649.44
7250-58 · Interest Expense - Kyle 2019B	43,260.08	173,040.32
7250-59 · Interest Expense - SM 2019C	35,706.16	142,824.64
7250-60 · Interest Expense - Buda 2019D	5,064.54	20,258.16
Total 7250 · Interest Expense	198,360.50	927,276.81
7325 · Dues	0.00	6,230.00
7350 · Insurance - Liability, E&O	2.00	2,372.62
7400 · Legal Fees	6,060.28	25,029.46
7410 · Newspaper Public Notices	0.00	1,371.31
7425 · Contract Services-Lobbyist	6,000.00	36,000.00
7430 · Agency Mgmt Public Relations	0.00	7,500.00
7440 · Region L Contributions	0.00	813.60
7450 · Permit & Fees	0.00	75,537.95
7500 · Supplies	902.33	4,277.64
7600 · Telephone, Telecommunications	0.00	675.00
7700 · Travel, Conferences & Meetings	365.22	1,148.43
7800 · Employee Expenses		
7810 · Salaries and wages	19,861.38	128,552.91
7820 · Auto Allowance	969.24	6,198.51
7821 · Phone Allowance	207.70	623.10
7830 · Pavroll taxes	1,607.76	8,391.13
7840 · Employee Insurance	1,577.47	9,606.70
7850 Retirement	1,436.91	8,904.05
Total 7800 · Employee Expenses	25,660,46	162.276.40
Total Expenses	549.804.13	3,492,546,70
Net Ordinary Income	1.565 327 13	2.027.299.54
Not Income	1 565 307 13	2 027 200 54
	1,000,021.10	2,021,203.04

Alliance Regional Water Authority Broadway Bank VISA Debit Card Transactions July 31, 2017

Туре	Date	Name	Split	Amount	Balance
2005 · Broadway Bank	Visa Card				0.00
Credit Card Charge	03/02/2020	Stamps Com	7500 - Supplies	17.99	17.99
Credit Card Charge	03/02/2020	USPS	7500 · Supplies	50.00	67.99
Credit Card Charge	03/03/2020	Logan's	7700 · Travel, Conferenc	25.23	93.22
Credit Card Charge	03/05/2020	Microsoft	7500 · Supplies	10.66	103.88
Credit Card Charge	03/05/2020	Texas Water	7700 · Travel, Conferenc	295.00	398.88
Credit Card Charge	03/06/2020	Microsoft	7500 · Supplies	26.79	425.67
Credit Card Charge	03/06/2020	Microsoft	7500 · Supplies	32.48	458.15
Credit Card Charge	03/09/2020	MLA Labs, Inc.	1440-08 · Phase 1A Seg	350.00	808.15
Credit Card Charge	03/10/2020	Rackspace	7500 · Supplies	97.01	905.16
Credit Card Charge	03/11/2020	Henrys Restaurant	7700 Travel, Conferenc	37.00	942.16
Credit Card Charge	03/12/2020	Pedernales Electric	1440-07 · Phase 1A BPS	303.39	1,245.55
Credit Card Charge	03/13/2020	Williams Scotsman	1440-05 · Phase 1A-Con	491.95	1,737.50
Credit Card Charge	03/13/2020	Hotel Booking Fee	7700 · Travel, Conferenc	7.99	1,745.49
Credit Card Charge	03/13/2020	United Site Service	1440-05 · Phase 1A-Con	255.65	2,001.14
Credit Card Charge	03/17/2020	Rackspace	7500 · Supplies	109.51	2,110.65
Credit Card Charge	03/24/2020	Office Depot	7500 · Supplies	148.98	2,259.63
Credit Card Charge	03/27/2020	UPS Store	7500 · Supplies	6.00	2,265.63
Credit Card Charge	03/27/2020	Squarespace Inc	7500 · Supplies	28.15	2,293.78
Credit Card Charge	03/27/2020	Adobo Acropro	7500 · Supplies	16.99	2,310.77
Check	03/31/2020	Broadway	1005 · Broadway Checki	-2,310.77	0.00
Total 2005 · Broadway I	Bank Visa Card			0.00	0.00
TOTAL				0.00	0.00

BOARD MEMBER PACKETS

Wednesday, April 22, 2020 at 3:00 P.M. Conference Call Number: 1-903-405-2572; Code: 925 453 055#

D.3 Consider approval of the quarterly investment report for the period ending March 31, 2020. ~ *Graham Moore, P.E., Executive Director*

Background/Information

Attached is the quarterly investment report for the period ending March 31, 2020.

Attachment(s)

• 2020 03 31 Quarterly Investment Report

Board Decision(s) Needed:

• Approval of the quarterly investment report for the period ending March 31, 2020.

Alliance Regional Water Authority



Quarterly Investment Report Ending as of March 31, 2020

Submitted by:

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 December 31, 2019 – March 31, 2020

Portfolio Allocation Analysis

Portfolio as of December 31, 2019

Portfolio as of March 31, 2019

Beginning Book Value \$109,407,186.72 Beginning Market Value \$109,407,186.72 Unrealized Gain / Loss -0Ending Book Value \$108,212,066.26 Ending Market Value \$108,212,066.26 Accrued Interest \$299,643.68 Change in Unrealized Gain/Loss -0-

Schedule of Cash Accounts and Investments				
	As of December 31, 2019	As of March 31, 2020		
Funds in Investment Pools				
TexSTAR Balance	\$3,351,912.60	\$2,363,111.47		
Deposits to TexSTAR in Period	\$0.00	\$0.00		
Accrued Interest	\$19,282.92	\$11,198.87		
Percentage of Total Portfolio	3.1%	2.18%		
Funds in Checking Accounts				
Broadway Balance	\$75,017.99	\$75,000.00		
Deposits to Checking in Period	\$5,439,665.11	\$3,671,369.58		
Percentage of Total Portfolio	0.1%	0.1%		
Funds in Reserve Accounts				
Reserves Balance	\$451,009.20	\$1,773,493.20		
Deposits to Reserves in Period	\$420,538.62	\$4,657,786.63		
Percentage of Total Portfolio	0.4%	1.0%		
Funds in Savings Accounts				
Broadway Balance	\$3,310,901.81	\$1,497,178.55		
Deposits to Savings in Period	\$2,050,000.00	\$1,000,000.00		
Accrued Interest	\$2,058.13	\$3,041.43		
Percentage of Total Portfolio	3.0%	1.4%		

Total Investments & Cash Accounts	\$109,407,186.72	\$ 108,212,066.26
Percentage of Total Portfolio	93.4%	94.7%
Accrued Interest	\$9,956.77	\$3,215.05
Deposits to Escrow in Period	\$0.00	\$0.00
BoKF - 2019D (Buda)	\$4,231,524.35	\$4,243,250.27
BoKF - 2019C (San Marcos)	\$30,417,674.84	\$30,501,964.87
BoKF - 2019B (Kyle)	\$23,867,963.62	\$23,934,103.82
BoKF - 2019A (CRWA)	\$26,172,372.71	\$26,244,898.63
BoKF - 2017D (Buda)	\$844,629.08	\$846,969.61
BoKF - 2017C (San Marcos)	\$6,116,375.48	\$6,133,324.38
BoKF - 2017B (Kyle)	\$4,774,795.38	\$4,788,026.66
BoKF - 2017A (CRWA)	\$5,239,888.38	\$5,254,408.47
BoKF - 2015B (Kyle)	\$220,262.24	\$221,676.70
BoKF - 2015A (CRWA)	\$332,859.04	\$334,659.63
Funds in Escrow Accounts		

Benchmark Analysis			
Benchmark (US Treasury –	1.113%		
Daily Bill Rates: 4 weeks)			
TexSTAR Average Monthly	1.358%		
Rate			
Average Weighted Maturity	30.7 Days		

Schedule of TexSTAR Monthly Rate History October 1, 2016 – March 31, 2020

	Average	Average	Average	Average	
	Monthly Rate	Monthly Rate	Monthly Rate	Monthly Rate	Average Rate
	(FY 16-17)	<u>(FY 17-18)</u>	<u>(FY 18-19)</u>	<u>(FY 19-20)</u>	Variance
<u>Month</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%	1.55%	-0.84%
February	0.55%	1.35%	2.40%	1.56%	-0.84%
March	0.63%	1.50%	2.41%	0.96%	-1.45%
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%		



4

BOARD MEMBER PACKETS

Wednesday, April 22, 2020 at 3:00 P.M. Conference Call Number: 1-903-405-2572; Code: 925 453 055#

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

Background/Information

The following items were discussed by the Committee at its 4/8 meeting:

- Received an update on the Phase 1A projects (Item F.2).
- Received an update on the Phase 1B program (Item F.3).
- Recommended approval of a work order with BGE, Inc. for Final Design and Procurement Phase Services associated with the Phase 1B Segment C Project (Item H.1).
- Received an update on bids received on the Authority's Phase 1B Well Construction Project (Item H.2).
- Received an update on area water meetings (Item F.4).

Board Decision(s) Needed:

• None.

BOARD MEMBER PACKETS

Wednesday, April 22, 2020 at 3:00 P.M. Conference Call Number: 1-903-405-2572; Code: 925 453 055#

F.2 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:

- Clearing underway.
- Stormwater protection systems installed in current construction areas.
- First sections of pipe are in place.
- Project on time. No change orders currently issued.
- Over 6,900+ feet of pipe laid down so far.

Pump Station:

- Pump station construction proceeding. See attached slides.
- Current substantial completion date is March 3, 2020.
- Current final completion is scheduled for April 17, 2020.
- Final and substantial dates may slide out as the coordination effort continues with various vendors.

Board Decision(s) Needed:

• Approval of minutes.

BOARD MEMBER PACKETS

Wednesday, April 22, 2020 at 3:00 P.M. Conference Call Number: 1-903-405-2572; Code: 925 453 055#

F.3 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.

Attachment(s)

- Phase 1B Program Update April 22, 2020
- Kimley-Horn Invoice & Monthly Summary of Activities for March 2020

Board Decision(s) Needed:

• None.



Phase 1B Program Update

Board of Directors Meeting April 22, 2020



Kimley»Horn



Ongoing Progress

Segment C – Final Design/Procurement Contract (BGE)

Water Treatment Plant – Surge and Transient Analyses







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%
В	46	46	100%	100%
D	69	69	100%	100%
С	90	84	93%	42%
E	32	32	100%	88%
Wellfield	20	15	75%	0%
Total	295	284		



Kimley»Horn

Pipeline Easement Acquisition Status

Pipeline Segment	Number of Parcels	Appraisals Prepared	Inital Offer Letter Delivered	Purchase Agreement Signed / Easement Closed
A	38	37	37	12
В	46	24	23	1
D	69	14	11	5
C	90	0	0	0
E	32	0	0	0
Wellfield	20	0	0	0
Total	295	75	71	18



Questions?



Consulting Services





Phase 1B Transmission Pipeline Design Services

Final Design Phase Pipeline Proposal status update

- Segment A and B approved at the August meeting
- Segment D approved at the November meeting
- Segment E approved at the March meeting
- Segment C on the April agenda

Scope through final design phase, to include:

- 60%, 90%, and 100% Design
- Procurement
- Geotechnical, SUE, and Survey Services
- Does not include Construction Phase Services


Phase 1B Transmission Pipeline Design Services

Supplemental Services:

- Additional Survey, SUE, and Geotechnical Services
- General Engineering Design
- Eminent Domain Support (Up to 10% of Parcels Assumed)
- Additional Meetings



Kimley»Horn

Phase 1B Transmission Pipeline Design Services

Project	Selected Consultant	E	Basic Services	Supplemental Services			Total Proposal			
А	LAN, Inc.	\$	1,903,077.00	\$	232,949.00	\$	2,136,026.00			
В	K Friese + Assoc.	\$	1,830,994.00	\$	421,051.00	\$	2,252,045.00			
D	Freese & Nichols	\$	1,999,464.00	\$	251,427.00	\$	2,250,891.00			
С	BGE	\$	2,688,310.00	\$	402,029.00	\$	3,090,339.00			
E	Walker Partners	\$	1,190,421.00	\$	376,066.00	\$	1,566,487.00			



Phase 1B Transmission Pipeline Design Services

	Anticipa	ted Construction Cost						Preliminary + Final Design	Preliminary + Final Design
	(Draft E	ingineering Feasibility	Ant	ticipated Engine	erin	g Basic Services	1	Engineering Services	Engineering Fee as a % of Total
Project		Report)	Fe	e through Cons	truc	tion (7%-8%)*		(Basic Services)*	Construction Cost
A	\$	44,000,000.00	\$	3,080,000.00	\$	3,520,000.00	\$	1,997,649.00	4.5%
В	\$	43,400,000.00	\$	3,038,000.00	\$	3,472,000.00	\$	1,795,055.00	4.1%
D	\$	50,200,000.00	\$	3,514,000.00	\$	4,016,000.00	\$	2,039,279.00	4.1%
С	\$	61,000,000.00	\$	4,270,000.00	\$	4,880,000.00	\$	2,678,466.00	4.4%
E	\$	29,000,000.00	\$	2,030,000.00	5	2,320,000.00	\$	1,330,388.00	4.6%

*Does not include survey, geotechincal, environmental, subsurface utility engineering (potholing)



Kimley»Horn

Water Treatment Plant Design Services

Final Design & Procurement Services Contract Approved in January

Supplemental Services

• Item 12.11 – Surge and Transient Analysis

Scope Includes:

- Utilize Pump, Piping Data to Develop Surge Model
- Run Model for Multiple Phases of Demand
- Prepare Technical Memorandum

Lump Sum Fee of \$125,203.00



Kimley»Horn

Questions?



Kimley»Horn

Kimley»Horn_

Invoice for Professional Services

ALLIANCE REGIONAL WATER AUTHORITY ATTN: GRAHAM MOORE 1040 HIGHWAY 123 SAN MARCOS, TX 78666

Please send payments to: KIMLEY-HORN AND ASSOCIATES, INC. P.O. BOX 951640 DALLAS, TX 75395-1640 Invoice No: Invoice Date: Invoice Amount: Project No: Project Name: Project Manager: 068706603-0320 Mar 31, 2020 \$ 142,289.73 068706603 ARWA PROGRAM YEAR 3 SOWA, RYAN

Work Order No. 4 Duration:

March 2020 - Feb. 2021

Invoice Duration: March 1, 2020 to March 31, 2020

COST PLUS MAX

KHA Ref # 068706602.3-16466003

Federal Tax Id: 56-0885615

Description	Contract Value	Amount Billed to Date	Previous Amount Billed	Current Amount Due									
PROGRAM MANAGEMENT PLAN UPDATES	49,374.00	90.00	0.00	90.00									
STAKEHOLDER COORDINATION	312,436.00	22,466.75	0.00	22,466.75									
BUDGETTING	119,180.00	8,914.80	0.00	8,914.80									
SCHEDULE	98,555.00	13,291.80	0.00	13,291.80									
REPORTING	48,920.00	4,960.00	0.00	4,960.00									
DATA MANAGEMENT	119,291.00	7,883.16	0.00	7,883.16									
ENVIRONMENTAL MANAGEMENT	162,199.00	1,240.00	0.00	1,240.00									
LAND ACQUISITION MANAGEMENT	510,978.00	7,388.83	0.00	7,388.83									
TEXAS WATER DEVELOPMENT BOARD MANAGEMENT	66,260.00	271.33	0.00	271.33									
DESIGN STANDARDS	339,134.00	11,626.71	0.00	11,626.71									
ENGINEERING DESIGN MANAGEMENT	774,030.00	45,783.26	0.00	45,783.26									
QUALITY ASSURANCE	48,021.00	450.00	0.00	450.00									
ELECTRICAL POWER PLANNING	72,514.00	7.91	0.00	7.91									
PERMIT COORDINATION/TRACKING	46,899.00	265.00	0.00	265.00									
PROCUREMENT AND CONSTRUCTION PHASE SERVICES	29,213.00	1,270.20	0.00	1,270.20									
PROJECT ADMINISTRATION	57,076.00	5,470.00	0.00	5,470.00									
OTHER SERVICES 256,342.00 10,910.00 0.00 10,910.00													
Subtotal	ubtotal 3,110,422.00 142,289.73 0.00 142,289.73												
Total COST PLUS MAX				142,289.73									

Total Invoice: \$ 142,289.73

If you have questions regarding this invoice, please call Jessica Olivarez at (972) 770-1352.

April 17, 2020

Project Monthly Summary

March 2020 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 and presented Technical Committee Meeting Update.
 - Prepared and presented Board Meeting Update.
 - o Prepared and presented Project Advisory Committee Meeting Update.
 - Prepared for and held Monthly Status Meeting with Alliance Water.
 - Prepared for and attended GVEC Coordination Meeting with ARWA and GBRA.
- Task 3 Budgeting
 - Finalized Program Quarterly Update for the Technical Committee and Board Meetings.
 - Continued updates to Budget Workbook to include monthly tracking of actual costs for ARWA review.
- Task 4 Schedule
 - Finalized Program Quarterly Update for the for the Technical Committee and Board Meetings.
 - Coordinated with Program team to integrate each monthly project schedule update into overall Program schedule.
- Task 6 Data Management
 - o 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
 - Coordinated with Environmental Consultant to develop proposal for additional hazmat studies for Segments B and D.
 - Continued coordination with the Program Environmental Consultant regarding additional hazmat studies for Segment A.
 - 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.

- Continued coordination between Program Environmental Consultant and Design Engineers.
- Reviewed Program Environmental invoices, schedule, and risk log.
- Task 8 Land Acquisition Management
 - Coordinated the appraisal process for Segments A, B, and D 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-ofentry and to provide Program clarification on any questions/requests that have come from landowners.
 - Reviewed Program Land Acquisition team, Program Appraiser, and Program Survey invoices.
 - Continued field work coordination to notify landowners of upcoming field work by consultants.
- Task 9 Texas Water Development Board Management
 - Submitted the Booster Pump Station EFR to the TWDB for review.
 - Began preparations for the next reimbursement funding release.
 - Continue coordination with TWDB Staff to track all EFRs, environmental reports, and bid documents currently under review.
- Task 10 Design Standards
 - Began compiling and addressing comments from the Manufacturer review of the Pipeline Construction Standards.
 - Revised the Security Standards given feedback from the PAC and Design Consultants.
 - Finalized Draft Fiber Standards for review by the PAC and Design Consultants.
- Task 11 Engineering Design Management
 - Pipelines:
 - Segment A
 - Continued coordination with Design Consultant for final design.
 - Segment B
 - Continued coordination with Design Consultant to finalize EFR.
 - Continued coordination with Design Consultant for final design.
 - Segment C

- Began review of Draft 30% Engineering Feasibility Report prepared by the Design Consultant.
- Continued coordination and review of scope and fee for final design phase.
- Continued coordination with Design Consultant regarding ongoing field work and pipeline alignment considerations as part of right-of-entry process and EFR development.
- Segment D
 - Continued coordination with Design Consultant for final design.
- Segment E
 - Finalized coordination and review of scope and fee for final design phase.
 - Continued coordination with Design Consultant regarding ongoing field work as part of right-of-entry process and EFR development.
- Wellfield:
 - Continued coordination regarding procurement of the construction contract for Wells 6-9.
 - Coordinated with the Design Consultant to answer contractor questions and issue Addendum No. 1.
 - Prepared for and attended Pre-Proposal Meeting.
- Raw Water Infrastructure:
 - Backcheck reviewed the 30% Engineering Feasibility Report.
 - Continued coordination with Design Consultant for 30% design development.
- Water Treatment Plant:
 - Coordinated with the Design Consultant to finalize draft value engineering cost analysis.
 - Continued coordination with Design Consultant for final design.
- Booster Pump Station:
 - Coordinated with the Design Consultant to finalize and submit the 30% Engineering Feasibility Report to the TWDB.
 - Coordinated with Design Consultant for final design and value engineering cost analysis.
- Inline Elevated Storage Tanks:
 - Continued coordination with Design Consultant for 30% design development.
 - Coordination with Environmental Consultant to perform desktop environmental analyses of potential tank sites.
- o 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
 - Prepared for and attending GVEC Coordination meeting concerning service to the water treatment plant and wellfield.
 - Continued coordinated with ARWA concerning emergency power needs and service options for the water treatment plant and wellfield.
 - Continued coordination with GVEC regarding electric service to the WTP and wellfield.
- Task 14 Permit Coordination/Tracking
 - 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 16 Other Services
 - o Commissioning Planning
 - Continued evaluating the commissioning of the Phase 1B infrastructure and finalized presentation.
 - Continued evaluating the commissioning of the Phase 1B infrastructure and finalized presentation for Technical Committee.
 - Prepared a presentation summarizing the solar feasibility memorandum findings and presented to the Technical Committee
 - Prepared and submitted to ARWA a COVID-19 Impact Assessment Memorandum.

April 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.
 - o Continue weekly task coordination with Alliance Water.
 - o 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.
- Task 3 Budgeting
 - Continue updates to Budget Workbook to include monthly tracking of actual costs for ARWA review.
 - o Begin development of projected Operation and Maintenance costs.

- Task 4 Schedule
 - Coordinate with Program team to integrate each project schedule into overall Program schedule.
- Task 6 Data Management
 - Develop and incorporate Construction Phase Folders on the Microsoft SharePoint Online Program.
 - Integrate executed easement documents and surveyed Benchmarks/Control Points within online GIS Web Map.
 - 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
 - Continued coordination with the Program Environmental Consultant regarding additional hazmat studies for Segment A.
 - Review of draft Segment A Phase II Environmental Report 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.
 - Monthly progress meeting and ongoing coordination with Program Environmental Consultant.
 - Continue coordination between Program Environmental Consultant and Design Engineers.
 - o Review Program Environmental invoices, schedule, and risk log.
- Task 8 Land Acquisition Management
 - o 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-ofentry and to provide Program clarification on any questions/requests that have come from landowners.
 - Review Program Land Acquisition team, Program Appraiser, and Program Survey invoices.
 - Continue field work coordination to notify landowners of upcoming field work by consultants.
- Task 9 Texas Water Development Board Management
 - Submit the Raw Water Infrastructure EFR to the TWDB for review.

- Continue preparations for reimbursement funding release.
- Continue coordination with TWDB Staff to track all EFRs, environmental reports, and bid documents currently under review.
- Task 10 Design Standards
 - Compile and address comments from the Manufacturer review of the Pipeline Construction Standards. Meet with Manufacturers to discuss the comments received.
 - Revise the Cathodic Protection Program Standards given feedback from the PAC and Design Consultants.
 - Revise the Security Standards given feedback from the PAC and Design Consultants.
 - Revise the Fiber Standards given feedback from the PAC and Design Consultants.
- Task 11 Engineering Design Management
 - o Pipelines:
 - Segment A
 - 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.
 - Segment C
 - Finalize and backcheck the 30% Engineering Feasibility Report prepared by the Design Consultant.
 - Finalize coordination and review of scope and fee for final design phase.
 - Continue coordination with Design Consultant regarding ongoing field work and pipeline alignment considerations as part of right-of-entry process and EFR development.
 - Segment D
 - Continue coordination with Design Consultant for final design.
 - Segment E
 - Begin review of Draft 30% Engineering Feasibility Report prepared by the Design Consultant.
 - Continue coordination with Design Consultant regarding ongoing field work as part of right-of-entry process and EFR development.
 - Wellfield:
 - Continue coordination regarding procurement of the construction contract for Wells 6-9.
 - Prepare for and attend Bid Opening Meeting.

- Raw Water Infrastructure:
 - Finalize the Final 30% Engineering Feasibility Report and submit the 30% Design Report to the TWDB.
 - Continue coordination with Design Consultant for 30% design development.
- Water Treatment Plant:
 - Coordination with the Design Consultant to finalize value engineering cost analysis.
 - Coordination with Design Consultant for final design.
- Booster Pump Station:
 - Coordination with Design Consultant for final design.
- Inline Elevated Storage Tanks:
 - Coordination with Design Consultant for 30% design development.
- o 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.
 - Continue coordination with GVEC regarding electric service to the WTP and wellfield.
- Task 14 Permit Coordination/Tracking
 - Continue Permit coordination with Pipeline consultants
 - Continue Coordination with Caldwell County for variance request for the Site Development Permit.
 - o Coordinate with Hays County concerning the Site Development Permit.
 - General Coordination with TxDOT.
 - o Coordinate with Hays County TxDOT office concerning roadway crossings.
 - General Coordination with GVEC and BBEC.
 - Permit Tracking Log Updates.
- Task 16 Other Services
 - Commissioning Planning
 - Continue evaluating the commissioning of the Phase 1B infrastructure.
 - Finalize and submit the City of San Marcos Watershed Protection Plan for the Booster Pump Station Plat.

Scope Elements Added/Removed:

COVID-19 Potential Impacts Analysis, Coordination and Memorandum development.

Kimley »Horn

Alliance Water – Phase 1B Infrastructure – Owner's Representative

Outstanding Issues/Concerns:

None at this time.

HUB Participation:

<u>56.7</u> % allotted by Contract (based on contract total fee)

0.8% to date of Billing

Design Consultant Certifications: N/A

Sub Consultant	Sub Consultant Certifications	Task Description	Contract Value (\$)	Percent Complete to Date (%)	Amount Billed to Date (\$)	Amount Paid to Date (\$)
Foster CM Croup, Inc.	DBE; AABE; MBE; SBE	Budgeting, Schedule, and Data Management	\$224,412.00	10%	\$23,154.00	\$0.00
CP&Y, Inc.	ABE; MBE	Program Standards, Compliance, and Project Management	\$939,880.00	0%	\$0.00	\$0.00
Grubb Engineering, Inc.	ESBE; SBE; WBE	Electrical Power Planning	\$59,680.00	0%	\$0.00	\$0.00
Spitzer and Associates, Inc.	SBE; WBE	Land Acquisition Management	\$437,210.00	0%	\$0.00	\$0.00
RVK Architects, Inc.	WBE	Architectural Project Management	\$47,205.00	0%	\$0.00	\$0.00
V&A Consulting Engineers, Inc.	SBE; HABE; MBE	Cathodic Protection Standards	\$55,878.00	2%	\$1,062.50	\$0.00
		Subtotal	\$1,764,265.00	1.4%	\$24,216.50	\$0.00

REGULAR MEETING Alliance Regional Water Authority Board of Directors

BOARD MEMBER PACKETS

Wednesday, April 22, 2020 at 3:00 P.M. Conference Call Number: 1-903-405-2572; Code: 925 453 055#

F.4 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.

<u>Gonzales County Underground Water Conservation District (GCUWCD)</u> The GCUWCD met on April 14th via a virtual meeting. The GCWUCD adopted new rules, including many of the suggestions that we made on the initial draft in March. No other substantive actions were taken by the GCUWCD.

<u>Plum Creek Conservation District (PCCD)</u> The PCCD is scheduled to meet on April 21st.

Groundwater Management Area 13

The May GMA-13 meeting has been cancelled; it will be rescheduled once public meetings can occur again.

Region L Planning Group

The Region L Planning Group had originally planned to host public meetings in San Antonio, San Marcos and Victoria in May to receive comments on the Initially Prepared Plan. As a result of the COVID-19 pandemic, these have been converted to virtual meetings on May 7th, 21st & 28th all beginning at 6 pm. Please contact me should you wish to attend one of the meetings and I can provide more information.

<u>Guadalupe-Blanco River Authority; Hays County Activities; CAPCOG Activities</u> No update.

Board Decision(s) Needed:

• None.

REGULAR MEETING Alliance Regional Water Authority Board of Directors

BOARD MEMBER PACKETS

Wednesday, April 22, 2020 at 3:00 P.M. Conference Call Number: 1-903-405-2572; Code: 925 453 055#

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.*

EXECUTIVE DIRECTOR

Board Installment & Officer Elections

• The May meeting will include installment of new and returning Board members along with Officer Elections.

Cyber Security Awareness Training

• All staff and contractors with access to Alliance Water's e-mail and electronic documents completed the state mandated Cyber Security Awareness Training. The training will be renewed again in 2021.

Log and Calendar of Events

• Attached is the log of activities for March along with the 3-month look ahead calendar for the Executive Director.

Executive Director Log of Activities

			March			
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1-Mar	2-Mar	3-Mar	4-Mar	5-Mar	6-Mar	7-Mar
	Mtaw/ Jacon D	1D Monthly Monting				
	Deht issuance	TE MONTHLY MEETING	Sign work Orders		SIGITROES	
	schedules out	Civcast coordination	GVEC Open House	Tech Cmte agenda	WTP check-in call	
	Comments on	Operator job posting		Review CM&I RFQ		
	GCUWCD rules	coord	Invoicing	response	Tech Cmte packet	
	Board Appointments			Operator job		
	letters			posting	CM&I RFQ responses	
8-Mar	9-Mar	10-Mar	11-Mar	12-Mar	13-Mar	14-Mar
	Mtg w/ Taggart &	Well Drilling Pre-		Meet with Darrin	Meet w/ Comm.	
	Pantalion	Proposal	Sign ROEs	Coe	Shelton	
	CRWA Board	GCUWCD Board Mtg		GVEC Elec Svc		
	Meeting	Geower board witg	ROW mtg w/ LAN	Conf Call	COVID-19 research	
	Feb financials	ROW coordination	Tech Cmte	ROW Call	CM&I Reviews	
15 1400	10 14-	17	10 14-14		20 14 m	21 14-1
15-Iviar	16-Mar Moot w/ David	17-Mar Boviow WDH	18-1VIAF	19-iviar	20-1Vlar	21-IVIAr
	Davenport	addenda	COVID-19 impact	ROW Call	PAC Meeting	
	DAC meter e servide	Board agenda & mtg	· · · · ·	Land Acquisition	Decid Declinit	
	PAC mig agenua	coord.	CM&I Reviews	coordination	Board Packet	
	Financial payments	Land acquistion	WDH	Board Agenda &	Land Acquisition	
	, , London,	coordination	coordination	Packet	coordination	
	Land acquisition		Filing			
22-Mar	23-Mar	24-Mar	25-Mar	26-Mar	27-Mar	28-Mar
22 11101	Schedule consultant	E002G & E003G	20 11101	20 11101	27 11101	20 1110
	payments	coordination	Board Meeting	Weekly ROW Call	Parcel Closing	
	Seg C Draft EFR	Seg C Draft EFR	Dran for mosting	Sign Checks /	SM HSPS Interconnect	
	review	review	Prep for meeting	Resolutions	Call	
		1A land	1A land	CRWA Dunlap	Monthly WTP Design	
	WDH Addendum	coordination	coordination	delivery coord	Mtg	
				coordination	WO coordination	
					Seg C Final Design	
					Scope Review	
29-Mar	30-Mar	31-Mar				
	BSEACD Temp	1 P. Monthly Monting				
		TE MONTHY MEETING				
	Maxwell WSC	Call with Leon Barba				
	blanket easement	re Plum Creek				
	ACH setup					

SUNDAYMONDAYTUESDAYWEDNESDAYTHURSDAYFRICMar 293031Apr 1239:00am ARWA1BWTP - Admin Layout Discussion (Microsoft Teams Meeting) - Graham Moore11:00am ARWA1B - Weekly ROW Call Bid Opening (Kyle 3:30pm Jason/Graham Mid-Year Goal8:00a 8:00a Dr to 9:00am ARWA1BWTP - Bid Opening (Kyle56789101:30pm ARWA Phase 1B10:00am ARWA1BWTP - 10:00am ARWA1BWTP -3:00pm ARWA Technical9:00am ARWA1BWTP - 10:00am ARWA1BWTP -3:00pm ARWA Technical	Sa Su Mo Tu We Th Fr Sa 4 11 3 4 5 6 7 8 9 18 10 11 12 13 14 15 16 25 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Mar 293031Apr 123Image: Mar 29Image: Mar 20Image: Mar 20<	IDAY SATURDAY
5 6 7 8 9 10 1:30pm ARWA Phase 1B 10:00am ARWA1BWTP - 3:00pm ARWA Technical 9:00am ARWA1BWTP GOO	4 Oam ARWA1BSC - Draft EFR Comment to Sean - Mason, Oam Call Denny Walker re: Groundwater Lease
Weekly Progress Meetings (WEBEX) -Program InternalCommittee Meeting (Kyle Public Works) -11:00am ARWA1B -5:10pm ARWA and GVEC Coord Ehibits - Marcus Naiser- Booster PS &Graham Moore11:30pm ARWA Phase64:30pm ARWA1BBPS - Cost Savings (Skype- 3:00pm ARWA 1A-B	11 OD FRIDAY HOLIDAY
1213141516171:30pm ARWA Phase 1B Weekly Progress Meetings (WEBEX) -5:30am Webex meeting changed: Public10:30am Cyber Security Training for Gov't Officials and System11:00am ARWA1B - Weekly ROW Call 	0am Project Advisory Committee Meeting (Virtual Only) - Graham Moore
1920212223241:30pm ARWA Phase 1B Weekly Progress Meetings (WEBEX) - Shore, Nichola1:00pm PCCD Meeting (Lockhart, Texas, United States)3:00pm ARWA Board Meeting (Virtual Only) - Graham Moore11:00am ARWA1B - Weekly ROW Call (Skype Meeting) - 	25 Oam TWCA Managers Zoom Meeting (https://zoom.us/j/99 159240968?pwd=Tm E3a2o1M2ZubGdjdUZ MeStUblB5dz09) -
26 27 28 29 30 May 1:30pm ARWA Phase 1B Weekly Progress Meetings (WEBEX) - Shore, Nichola 29 30 May 3:00pm ARWA1B Weekly ROW Call (Skype Meeting) - 11:00am ARWA1B - Weekly ROW Call (Skype Meeting) - 3:00pm ARWA1BWTP - Monthly Meeting (Skype Meeting) - 3:00pm ARWA1BWTP - Monthly Meeting	ау 1 2

Graham Moore

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SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Apr 26	27	28	29	30	May 1	2 10:00am Possible Leaseholder BBQ
3	4 1:30pm ARWA Phase 1B Weekly Progress Meetings (WEBEX) - Shore, Nichola	5 9:00am Alliance Water - Monthly Check-in (Skype Meeting) - Cobler, Nathan	6	7 11:00am ARWA1B - Weekly ROW Call (Skype Meeting) - Sowa, Ryan	8	9
10	11 1:30pm ARWA Phase 1B Weekly Progress 6:30pm CRWA Board Meeting (CRWA	12 10:00am ARWA1BPRG - TCEQ Coordination 5:30pm GCUWCD Board Meeting (GCUWCD	13 3:00pm ARWA Technical Committee Meeting (Kyle Public Works)	14 11:00am ARWA1B - Weekly ROW Call 1:30pm Phase 1A 3:00pm ARWA 1A-B	15 9:00am Project Advisory Committee Meeting (Kyle Public Works)	16
17	18 1:30pm ARWA Phase 1B Weekly Progress Meetings (WEBEX) - Shore, Nichola	19 1:00pm PCCD Meeting (Lockhart, Texas, United States)	20	21 11:00am ARWA1B - Weekly ROW Call 6:00pm Region L Public Meeting	22	23
24	25 MEMORIAL DAY HOLIDAY 1:30pm ARWA Phase 1B Weekly Progress	26	27 10:00am CRWA Board of Managers Meeting 3:00pm ARWA Board Meeting (TBD)	28 11:00am ARWA1B - Weekly ROW Call (Skype Meeting) - Sowa, Ryan	29	30
31	Jun 1	2	3	4	5	6
Graham Moore			2			4/17/2020 11:49 AM

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June 202	0			June 2020 Su Mo Tu We Th 1 2 3 4 7 8 9 10 11 14 15 16 17 18 21 22 23 24 25 28 29 30 30	Fr Sa Su Mo 5 6 12 13 5 6 19 20 12 13 20 12 13 26 27 19 20 26 27	July 2020 Tu We Th Fr Sa 1 2 3 4 7 8 9 10 11 14 15 16 17 18 21 22 23 24 25 28 29 30 31
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
May 31	Jun 1 1:30pm ARWA Phase 1B Weekly Progress Meetings (WEBEX) - Shore, Nichola	2 9:00am Alliance Water - Monthly Check-in (Skype Meeting) - Cobler, Nathan	3	4 11:00am ARWA1B - Weekly ROW Call (Skype Meeting) - Sowa, Ryan	5	6
7	8 1:30pm ARWA Phase 1B Weekly Progress Meetings (WEBEX) - 6:30pm CRWA Board Meeting (CRWA Offices (850 Lakeside	9 5:30pm GCUWCD Board Meeting (GCUWCD Offices)	10 3:00pm ARWA Technical Committee Meeting (Kyle Public Works)	11 11:00am ARWA1B - Weekly ROW Call 1:30pm Phase 1A Construction 3:00pm ARWA 1A-B Progress Meeting	12	13
14	15 1:30pm ARWA Phase 1B Weekly Progress Meetings (WEBEX) - Shore, Nichola	16 1:00pm PCCD Meeting (Lockhart, Texas, United States)	17	18 11:00am ARWA1B - Weekly ROW Call (Skype Meeting) - Sowa, Ryan	19 9:00am Project Advisory Committee Meeting (Kyle Public Works)	20
21	22 1:30pm ARWA Phase 1B Weekly Progress Meetings (WEBEX) - Shore, Nichola	23	24 10:00am CRWA Board of Managers Meeting (CRWA Offices) 3:00pm ARWA Board Meeting (TBD)	25 11:00am ARWA1B - Weekly ROW Call (Skype Meeting) - Sowa, Ryan	26	27
28	29 1:30pm ARWA Phase 1B Weekly Progress Meetings (WEBEX) - Shore, Nichola	30 9:00am Alliance Water - Monthly Check-in (Skype Meeting) - Cobler, Nathan	Jul 1	2	3	4

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REGULAR MEETING Alliance Regional Water Authority Board of Directors

BOARD MEMBER PACKETS

Wednesday, April 22, 2020 at 3:00 P.M. Conference Call Number: 1-903-405-2572; Code: 925 453 055#

H.1 Consider adoption of Resolution 2020-04-22-001 approving Work Authorization #5 with BGE, Inc. for Final Design and Procurement Services for the Authority's Phase 1B Segment C Project as recommended by the Technical Committee. ~ Ryan Sowa, P.E., Kimley-Horn & Associates

Background/Information

Alliance Water entered into a Work Order in May 2018 with BGE, Inc. to provide preliminary engineering services for the Phase 1B Segment C project. The preliminary design is almost complete and in order to maintain progress, Staff has negotiated a scope and fee with BGE to provide final design and procurement services for the Segment C 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 Segment E proposal:

Firm: BGE, Inc.
Fee: \$3,090,339
Work Order Type: Lump Sum
Anticipated Duration: 15 months
Project Manager: Ron Mick, P.E.
Key Subconsultants: HVJ Associates (Geotechnical), Chapman Engineering (Cathodic Design), Rios Group (SUE), & Unintech Consulting Engineers (Survey)

Staff is requesting that the Committee recommend Board approval of a Work Order with a fee for the basic services of \$2,688,310 and a fee for supplemental effort in an amount not-to-exceed \$402,029 for a total fee of \$3,090,339. The Executive Director will be given the discretion to authorize the supplemental effort if needed.

Attachment(s)

- Resolution 2020-04-22-001
- Proposal for Design and Procurement for Phase 1B Segment C Project dated March 26, 2020.

Technical Committee Recommendation(s)

• Technical Committee unanimously recommended approval of the work authorization with BGE, Inc. as presented.

REGULAR MEETING Alliance Regional Water Authority Board of Directors

BOARD MEMBER PACKETS

Wednesday, April 22, 2020 at 3:00 P.M. Conference Call Number: 1-903-405-2572; Code: 925 453 055#

Board Decision(s) Needed:

• Adoption of Resolution 2020-04-22-001 approving Work Authorization #5 with BGE, Inc. for Final Design and Procurement Services for the Authority's Phase 1B Segment C Project as recommended by the Technical Committee.



RESOLUTION NO. 20200422-001

A RESOLUTION OF THE ALLIANCE REGIONAL WATER AUTHORITY BOARD OF DIRECTORS APPROVING WORK AUTHORIZATION #5 BETWEEN THE AUTHORITY AND BGE, INC. FOR FINAL DESIGN AND PROCUREMENT PHASE SERVICES RELATED TO THE AUTHORITY'S PHASE 1B SEGMENT C PROJECT AND RELATED MATTERS, AND DECLARING AN EFFECTIVE DATE

RECITALS:

1. Alliance Regional Water Authority (the "Authority") entered into a master agreement with BGE, Inc. ("BGE") for professional engineering services and related matters in May 2016.

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 authorization with BGE for preliminary design services for the Authority's Phase 1B Segment C Pipeline Project (the "Project") in May 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 BGE.

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

SECTION 1. The attached work authorization for Final Engineering Design and Procurement Services for the Project between the Authority and BGE is approved with a total fee of \$2,688,310.

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 \$402,029 for the items noted as supplemental services, at the Executive Director's discretion.

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

Resolution 20200422-001 Phase 1B Segment C Final Design & Procurement

ADOPTED: April 22, 2020.

ATTEST:

Chris Betz Chair, Board of Directors James Earp Secretary, Board of Directors



March 26, 2020

Mr. Sean Mason, P.E. Segment C Project Manager 2600 Via Fortuna, Bldg. 1, Suite 300 Austin, TX 78746

Re: Final Design Scope of Work – Rev. 2 Alliance Regional Water Authority Pipeline Segment C

BGE, Inc. (BGE) is pleased to present this proposal for engineering services related to the final design of the Alliance Regional Water Authority Phase 1B Pipeline Segment C.

Attached herein, please find:

- A. Scope of Services
- B. Fee Budget Estimate
- C. Subconsultant Proposals

We appreciate the opportunity to provide our services to the authority. We look forward to discussing this proposal with you at your convenience.

Sincerely,

Alle?

Ron Mick, P.E. Senior Project Manager BGE, Inc.

Attachment A

Alliance Regional Water Authority – Phase 1B Final Design Segment C Pipeline Scope of Work

Pipeline Segment C includes approximately 119,000 linear feet (LF) of new 42-inch, 36-inch, 24-inch, and 16-inch water transmission main (WTM) that will interconnect the Phase 1B Booster Pump Station near Maxwell to the Phase 1B program delivery points at San Marcos #2, Kyle, and County Line Special Utility District (CLSUD). BGE has completed preliminary engineering phase; which includes a pipeline alignment alternatives evaluation, an Engineering Feasibility Report, and 30% plans for the proposed pipeline. Based on the findings of the preliminary phase, the following scope of work for final design phase is proposed.

Scope of Work

- 1. Project Management
 - 1.1. Prepare Monthly Summary Reports/Invoicing as identified in the ARWA Phase 1B Program Management Plan
 - 1.2. Schedule Development and monthly updates
 - 1.2.1. Schedule shall be in Microsoft Project format
 - 1.3. Risk Register development and monthly updates
 - 1.3.1. Risk Register shall be in Microsoft Excel format
 - 1.4. Meetings
 - 1.4.1. Conduct Progress Meetings with Owner's Representative (18 meetings)
 - 1.4.2. Conduct half-day coordination workshops (2 workshops)
 - 1.4.3. Prepare and distribute meeting notes
 - 1.4.4. Quality Control Audit (1 workshop)
- 2. Review of Final Pipeline Construction Standards
 - 2.1. Review and provide comments on Updates to Pipeline Construction Standards prepared by Owner's Representative
 - 2.2. Meetings
 - 2.2.1. Attend one half-day workshop to discuss comments on Final Pipeline Construction Standards
 - 2.3. Deliverables
 - 2.3.1. Develop comment list on Updates to Pipeline Construction Standards in Adobe PDF format
- 3. Environmental Coordination
 - 3.1. Review Final Environmental Document for applicable project and develop Construction Documents based on findings.
 - 3.2. Incorporate recommendations from Environmental into Contract Documents
 - 3.3. Meetings

- 3.3.1. Conduct coordination meeting with Environmental Consultant to discuss the Final Environmental Report and incorporation of recommended items into contract documents for applicable project
- 3.3.2. Prepare and distribute meeting notes
- 4. Land Acquisition Coordination
 - 4.1. Provide Program with right-of-entry needs for final design phase
 - 4.2. Easement Development
 - 4.2.1. Review and comment on draft and final easement exhibits to verify that the exhibit reflects the intent of the design.
 - 4.2.2. Update Parcel Data Forms and easement exhibits, including environmental findings
 - 4.3. Meetings
 - 4.3.1. Coordination with Land Acquisition team to address easement items
 - 4.3.1.1. Respond to Land Acquisition team and/or property owner questions regarding easement (Assume 80% of easements)
 - 4.3.1.2. Respond to property owner requests within properties and incorporate minor alignment adjustments within a parcel that do not require additional field studies (when practical). (Assume 20% of easements)
- 5. Entity/Agency Coordination
 - 5.1. Develop and submit applicable permit applications
 - 5.1.1. Texas Department of Transportation (TXDOT). 4 crossing locations: SH 142, SH-21, IH-35 (2 locations).
 - 5.1.1.1. Permit preparation will be conducted during the 60% Design Phase milestone
 - 5.1.1.2. Submittal of permit during 60% Design Phase milestone (submittal provided to Owner's Representative)
 - 5.1.1.3. Address comments and re-submit permit during the 90% Design Phase milestone (through Owner's Representative) (Assume 1 round of formal comments)
 - 5.1.2. Union Pacific Railroad. 3 crossing locations: Caldwell County, west of IH35 and adjacent to Kohler's Crossing.
 - 5.1.2.1. Permit preparation during 60% Design Phase milestone
 - 5.1.2.2. Submittal of permit during 60% Design Phase milestone
 - 5.1.2.3. Address Comments and Resubmit Permit during 90% Design Phase milestone (Assume 1 round of formal comments)
 - 5.1.3. Caldwell County. 3 County Road Crossings: Valley Way Drive, FM 1966, and Farmers Road
 - 5.1.3.1. Permit preparation during 60% Design Phase milestone
 - 5.1.3.2. Submittal of permit during 60% Design Phase milestone (submittal provided to Owner's Representative)
 - 5.1.3.3. Address comments and resubmit permit during the 90% Design Phase milestone (through Owner's Representative, Assume 1 round of formal comments)
 - 5.1.4. Hays County roadway crossings. 12 roadway crossings: FM 158, FM 150, Bunton Lane, Bunton Creek Rd, Dacy Ln, Post Rd, Aztec Village Dr, Bunton Ln, Bunton Ln, Cotton Gin Rd, Plum Creek Rd, High Rd.
 - 5.1.4.1. Permit preparation during 60% Design Phase milestone

- 5.1.4.2. Submittal of permit during 60% Design Phase milestone
- 5.1.4.3. Address comments and r permit during 90% Design Phase milestone (Assume 1 round of formal comments)
- 5.1.5. Hays County Development Permit. A development permit will be required for the project, and a separate permit may be required for each parcel within Hays County. The Project Includes 74 Parcels in Hays County. Basic services includes a single development permit within Hays County for the total project. Supplemental services includes additional task if the county requires 74 individual permits.
 - 5.1.5.1. Permit preparation during 60% Design Phase milestone
 - 5.1.5.2. Submittal of permit during 60% Design Phase milestone
 - 5.1.5.3. Address comments and resubmit permit during 90% Design Phase milestone (Assume 1 round of formal comments)
- 5.1.6. Meetings (Conduct coordination meetings with each entity/agency as required). Assume 10 total meetings.
- 5.2. Texas Commission on Environmental Quality (TCEQ) Exceptions and Variance Development and Coordination. Provide exhibits, calculations, and technical support data for each exception request to Owner's Representative for use in obtaining TCEQ acceptance. Three variances are anticipated and are listed below. It is assumed that the Owner will manage and conduct all correspondence with TCEQ personnel in relation to said variances.
 - 5.2.1. Minimum Pressure Variance TCEQ 290.44 (d)
 - 5.2.2. Stream Crossing Exception TCEQ 290.44 (f) (2)
 - 5.2.3. Sampling Frequency Variance TCEQ 290.44 (f) (3)
- 6. Public and Private Utility Coordination
 - 6.1. Provide Quality Service Level A SUE services to identify the location and depth of existing utilities. Utility crossings identified include 12 Overhead Electric, 16 Gas lines, 41 communications lines, 7 wastewater mains, and 37 water mains. To fully identify and provide adequate clearance in design, 63 Level A Potholes are requested (reference TRG proposal in Attachment E.
 - 6.2. Provide Quality Service Level B SUE services to identify the horizontal location of existing utilities. Approximately 45,000 Linear feet of gas pipeline is parallel to the proposed Segment C water main alignment. To identify and provide adequate clearances in design, 10,000 linear feet of this gas main is requested to be located to Quality Service Level B. (reference TRG proposal in Attachment E.
 - 6.2.1. GIS files, record drawings, utility block maps, and other methods
 - 6.3. Coordinate with Owner's Representative on available collected GIS data
 - 6.3.1. Coordinate with entities for additional data needs as needed.
 - 6.4. Utility Coordination
 - 6.4.1. Conduct on-going coordination with impacted utilities consisting of telephone and e-mail correspondence for review of crossings and parallel installations.
 - 6.5. Meetings
 - 6.5.1. Conduct coordination meetings with impacted utilities. Assume 15 meetings.
 - 6.5.2. Prepare and distribute meeting notes for all meetings.

- 7. Design Consultant Coordination
 - 7.1. Booster Pump Station/Delivery Point Design Consultant Coordination
 - 7.1.1. Coordinate with said consultant to confirm tie-in locations to the following delivery points.
 - 7.1.1.1. County Line SUD Delivery Point
 - 7.1.1.2. San Marcos # 2 Delivery Point
 - 7.1.1.3. Kyle Delivery Point
 - 7.1.2. Coordinate with said consultant to confirm hydraulics, surge, pipe diameter, and pressure class.
 - 7.1.3. Coordinate with consultant to confirm tie-in locations to BPS site. Task shall include coordination with the Pipeline Segment B and D consultants as needed at the BPS connection point.
 - 7.1.4. Tie-in Coordination meeting with BPS Designer, and Segments B & C designers. Assume one meeting.
- 8. Design Survey
 - 8.1.1. Horizontal and Vertical survey based on NAD 83 coordinates (State Plane Texas South Central/Feet). Topographic survey area shall include an area along the proposed Segment C pipeline length consisting of the full easement width plus 40 feet to provide contours to the edge of the easement (reference Unintech proposal in Attachment F).
 - 8.1.1.1. Survey will identify property lines, contours, benchmarks, bores, topographic features, apparent locations of existing features marked on the surface, and appurtenances such as heritage trees, fences, drainage structures, and surface features of existing utilities.
 - 8.1.1.1.1. Where drainage culverts are crossed, the survey will identify the manhole, junction box, or outfall structure immediately upstream and downstream of the water main crossing and provide flowline and pipe size information for the culvert crossing the water main.
 - 8.1.1.1.2. Where a wastewater pipeline is crossed, the survey shall identify manholes on each side of the crossing and provide flowline, pipe diameter, and material information for the pipeline.
 - 8.1.1.1.3. Where water mains or gas mains are crossed, the survey shall locate any surface features of the main within 50 feet of the easement.
 - 8.1.1.1.4. All communications manholes within 50 feet of the easement will be identified in the survey.
 - 8.1.1.1.5. Perform a tree inventory in accordance with local entities (Cities of Kyle and San Marcos have Tree Preservation Ordinances). Trees 9-inch diameter and greater will be surveyed in jurisdictions with ordinances. Trees are to be tagged using permanent marking tags and a certified arborist or forester will confirm species.
 - 8.1.1.2. Verify control points established by ARWA Owner's Representative
- 9. Subsurface Investigations
 - 9.1. Geotechnical Investigation (reference HVJ proposal in Attachment D)

- 9.1.1. The Geotechnical investigation will consist of geotechnical borings conducted at approximately 1,400 foot spacing along the pipeline alignment to an average depth of 20 feet. Borings will be added to those taken during the preliminary phase and locations will be provided at roadway, stream, and major utility crossings. 60 total borings are estimated for this phase of work.
- 9.1.2. Soil samples will be obtained using Shelby tubes and / or split-spoon samplers. Field testing of soil samples will include pocket penetrometer in cohesive soils and standard penetration test (SPT) in cohesionless soils. Competent rock will be sampled with an NX core size and percent recovery, and Rock Quality Designation will be reported on the boring logs. All borings will be backfilled completely unless a piezometer is determined to be needed at the location (any identified necessary piezometers will be determined after the preliminary geotechnical program results are evaluated and will be included as supplemental services).
- 9.1.3. The geotechnical program will include laboratory tests to classify the soil samples and develop a thorough understanding of the subsurface conditions relevant to the design.
- 9.1.4. Specialty tests may be developed after the preliminary geotechnical testing program is completed that will be included in supplemental services.
- 9.2. Corrosion Investigation, Data Collection and Design Support (reference Chapman proposal in Attachment C).
 - 9.2.1. Provide corrosion investigation services. Tests will include:
 - 9.2.1.1. ASTM G57 Resistivities,
 - 9.2.1.2. EPA 9045C pH,
 - 9.2.1.3. SW 9056 Chlorides and Sulfates, S
 - 9.2.1.4. M 2320B Bicarbonates
 - 9.2.1.5. Wenner 4-pi testing ASTM G57 every 2,000 feet.
 - 9.2.1.6. Obtain soil sample from approximate pipeline depth every 4,000 feet
 - 9.2.1.6.1. Minimum of 1-quart soil sample
- 10. 60% Design Phase
 - 10.1. Perform site visits as needed for 60% design, up to 5 site visits included.
 - 10.2. Construction Drawings
 - 10.2.1. Perform analyses and calculations to support the pipeline design as follows:
 - 10.2.1.1. Cathodic Protection
 - 10.2.1.2. Joint Restraint (for one pipe material)
 - 10.2.1.3. Trenchless Engineering and Calculations (include casing and/or liner thickness)
 - 10.2.1.4. Scour analysis and stream bank mitigation at major stream crossings
 - 10.2.1.5. Pipeline buoyancy
 - 10.2.1.6. Pipe Deflection
 - 10.2.1.7. Combination Air Vacuum and Air Release Valves (size and location)
 - 10.2.1.8. Blow-off Valves (size)
 - 10.2.1.9. Pipeline structural design calculations
 - 10.2.2. Develop 60% Plan Set (in accordance with the ARWA Phase 1B Program Design Standards)
 - 10.2.2.1. General Sheets (Cover, Project Layout, General Notes, Quantities, etc.)
 - 10.2.2.2. Overall Dimensional Control Plan

- 10.2.2.3. Survey Control sheets
- 10.2.2.4. Contractor access sheets (including permanent access driveways, low water crossings, traffic control (if necessary)).
- 10.2.2.5. Plan and Profile sheets. Identify scale of P&P sheets: 1"=50' H, 1"=5' V (22"x34" sheet); 1"=100' H, 1"=10'V (11"x17" sheet)
- 10.2.2.6. Erosion Control Sheets
- 10.2.2.7. Cathodic Protection sheets
- 10.2.2.8. Standard Details (Provided by the Owner's Representative)
- 10.2.2.9. Cathodic Protection Detail sheets
- 10.2.2.10. Project Specific Details (as developed by the Design Consultant)
- 10.3. Preparation of Project Manual
 - 10.3.1. Development of Table of Contents
 - 10.3.1.1. ARWA Phase 1B Program standard specifications (Provided by the Owner's Representative).
 - 10.3.1.2. Draft project specific technical specifications.
- 10.4. 60% Opinion of Probable Construction Cost (25% contingency)
- 10.5. Perform internal Quality Control review and address QC comments.
- 10.6. 60% Design Workshop
 - 10.6.1. Conduct 60% Design workshop to review the 60% Design Submittal
 - 10.6.2. Prepare and distribute meeting notes
- 10.7. Address comments provided by the Owner and Owner's Representative (Assume response to 1 round of formal comments)
- 10.8. 60% Design Phase Deliverables
 - 10.8.1. 60% Design Deliverables (plans and specifications)
 - 10.8.2. Draft Geotechnical Report
 - 10.8.3. Updated list of permits required for the project
 - 10.8.4. Updated Risk Register
 - 10.8.5. SUE Deliverables, Test Hole data reports.
 - 10.8.6. Updated Project Schedule
 - 10.8.7. Draft Cathodic Protection Report
 - 10.8.8. 60% Opinion of Probable Construction Cost (OPCC)
 - 10.8.9. 60% Design Letter documenting conformance to applicable AWWA and TCEQ standards, conformance to ARWA standards, and documentation of any exceptions to these standards.
 - 10.8.10. 60% QA/QC Documentation
 - 10.8.11. 60% Design Review Workshop and meeting notes
- 11. 90% Design Phase
 - 11.1. Perform site visits as needed for 90% design, up to 5 site visits included.
 - 11.2. Construction Drawings
 - 11.2.1. Develop 90% Plan Set (in accordance with the ARWA Phase 1B Program Design Standards)
 - 11.2.1.1. Further Development of 60% Plan Set sheets

- 11.2.1.1.1. General Sheets (Cover, Project Layout, General Notes, Quantities, etc.)
- 11.2.1.1.2. Overall Dimensional Control Plan
- 11.2.1.1.3. Survey Control Sheets
- 11.2.1.1.4. Contractor Access Sheets (including permanent access driveways, low water crossings, etc)
- 11.2.1.1.5. Plan and Profile Sheets
- 11.2.1.1.6. Erosion Control Sheets
- 11.2.1.1.7. Cathodic Protection Sheets
- 11.2.1.1.8. Standard Details (Provided by the Owner's Representative_
- 11.2.1.1.9. Cathodic Protection detail sheets
- 11.2.1.1.10. Project Specific Details (as developed by the Design Consultant)
- 11.2.1.2. Traffic Control Plan
- 11.2.1.3. Tree Preservation Plan
- 11.3. Draft Project Manual including all front end and contract specifications
- 11.4. 90% Opinions of Probable Construction Cost (15% Contingency)
- 11.5. Perform internal QC review and address QC comments
- 11.6. 90% Design Workshop
 - 11.6.1. Conduct 90% Design workshop to review the 90% Design Submittal
 - 11.6.2. Prepare and distribute meeting minutes
- 11.7. Address comments provided by Owner and Owner's Representative (Assume response to 1 round of formal comments)
- 11.8. 90% Design Phase Deliverables
 - 11.8.1. 90% Design Deliverables (plans and specifications)
 - 11.8.2. Final Geotechnical Report
 - 11.8.3. Updated Risk Register
 - 11.8.4. Updated Project Schedule
 - 11.8.5. 90% Design Letter documenting conformance to applicable AWWA and TCEQ standards, conformance to ARWA standards, and documentation of any exceptions to these standards.
 - 11.8.6. 90% Opinion of Probable Construction Cost (OPCC)
 - 11.8.7. QA/QC Documentation
 - 11.8.8. 90% Design Review Workshop and meeting notes
- 12. 100% Design Phase
 - 12.1. Perform site visits as needed for 100% design, up to 2 site visits included.
 - 12.2. Construction Drawings
 - 12.2.1. Develop 100% Plan Set (in accordance with the ARWA Phase 1B Program Design Standards)
 - 12.2.1.1. Final Development Plan Set sheets from 90% to 100% level.
 - 12.3. Final Project Manual
 - 12.3.1. Contract Documents to include language for Request for Competitive Sealed Proposals (RFCSP) (Standard language to be provided by the Owner)
 - 12.3.2. Incorporation of all applicable specifications provided by the Program and specific to the project

- 12.4. 100% Opinion of Probable Construction Cost
- 12.5. Perform internal QC review and address QC comments
- 12.6. 100% Design Workshop
 - 12.6.1. Conduct 100% Design workshop to review the 100% Design Submittal
 - 12.6.2. Prepare and distribute meeting notes
- 12.7. Address comments provided by the Owner and Owner's Representative (Assume response to 1 round of formal comments)
- 12.8. Agency Review of 100% Plan Set
 - 12.8.1. Prepare packet for submission of 100% construction documents (plans and specifications) to the following agencies
 - 12.8.1.1. TWDB
 - 12.8.1.2. TCEQ
 - 12.8.2. Address 2 rounds each of formal comments provided by TWDB and TCEQ
- 12.9. 100% Design Phase Deliverables
 - 12.9.1. 100% Design Deliverables (plans and specifications)
 - 12.9.2. Updated Risk Register
 - 12.9.3. Updated Project Schedule
 - 12.9.4. 100% Design Letter documenting conformance to applicable AWWA and TCEQ standards conformance to ARWA standards, and documentation of any exceptions to these standards.
 - 12.9.5. 100% Opinion of Probable Construction Cost (OPCC)
 - 12.9.6. QA/QC Documentation
 - 12.9.7. 100% Design Review Workshop and meeting notes
- 13. Procurement (Request for Competitive Sealed Proposal (RFCSP))
 - 13.1. Submit Final Documents for Advertisement (assume Owner is responsible for advertisement activities)
 - 13.2. Attend Pre-Proposal Conference
 - 13.3. Prepare Addendum and Clarifications (assume 4 addenda)
 - 13.4. Attend Proposal Opening
 - 13.5. Review Contractors Proposals
 - 13.5.1. Complete bid tab calculations and identify, discuss, and rectify anomalies with Owner
 - 13.5.2. Perform Contractor References Checks for up to 3 responsive proposals.
 - 13.5.3. Confirm Contractor Experience for up to 3 proposals.
 - 13.5.4. Prepare Recommendation for Award.
 - 13.6. Prepare Conformed Contract Documents that incorporate addenda into the documents.
- 14. Supplemental Services
 - 14.1. Survey

14.1.1. Verify/Reset horizontal and vertical controls points for construction purposes

- 14.2. General Engineering Design.
- 14.3. Land Acquisition

- 14.3.1. Coordination meetings, additional alignment evaluations, and discussions with land owners for adjustments requested by property owners that are unforeseen at the completion of preliminary engineering phase.
- 14.3.2. Attend eminent domain hearings (assume 15 incursions)
- 14.3.3. Provide support documents and exhibits for eminent domain hearings (assume 15 hearings)
- 14.4. Environmental coordination based on necessary additional environmental investigations
- 14.5. Attend Public Meetings (2 meetings)
- 14.6. Attend additional meetings in the vicinity of the project (5 meetings)
- 14.7. Additional SUE Potholes
 - 14.7.1. At the direction of the Owner, the Consultant may be requested to perform additional SUE potholes beyond those identified in this scoping document.
- 14.8. Additional Geotechnical Borings & Piezometers
 - 14.8.1. At the direction of the Owner, the Consultant may be requested to perform additional geotechnical borings beyond those identified in this scoping document, and conduct surveying as required to tie-in borings into the design documents. This task includes borings needed for trenchless crossing designs and a Geotechnical Baseline Report.
- 14.9. Supplemental Permitting Hays County Development Permit. Acquire development permits for individual parcels within Hays County if directed by Hays County staff. Note, a single permit for development within Hays county is included in the basic services.

Exclusions

- 1. No environmental or cultural resource services will be provided by BGE.
- 2. No boundary survey or easement documents are included.
- 3. No Storm Water Pollution Prevention Plan development or submittal is included.
- 4. No real estate / easement negotiation is included.
- 5. No pipeline hydraulic modeling is included.
- 6. No drainage hydraulic/hydrologic modeling or engineering is included.

Assumptions

- 1. Design standards will be provided by the Owner.
- 2. Boundary Survey and Survey Control will be provided by the Owner.
- 3. All meetings will be held in the immediate vicinity of the project (Travis, Hays, or Caldwell Counties).
- 4. Pipeline alignments are as provided in the Engineering Feasibility Report for the project by BGE. No further alignment evaluations will be provided in this scope of work without written notice to proceed and agreed upon additional services.
- 5. The Owner will be the primary contact with TWDB and TCEQ, and will facilitate submittals and coordination.
- 6. The Owner will provide CAD standards.
- 7. Drainage hydraulic/hydrologic calculations and/or modeling will be provided where pipeline crosses drainage features to develop pipeline protection and scour analysis.

Compensation

BGE will be paid on a lump sum basis for work performed. BGE and its subconsultants fees are included in Attachment B to provide a basis for compensation.

Schedule

Final Design Schedule is approximately 15 months from Notice To Proceed.

Alliance Water Phase 1B Program															Project Fee Summary				
			Pipel	ine Segme	ent C											Basic Effort	\$ 2,688,310		
		A the e laws e		3/26/2020		na al classon												Supplemental	\$ 402,029
		Attachme	ent B - Detalle	d Overall	BGE COST B	reakdown												I otal Effort	\$ 3,090,339
Task	Employee												1						
		Dringing	Designt Manager	04/00	Design to Engineer	Engineer in	CADD	CADD	Admin (Clarical	Total Usura	Total Labor	Total	Chanman	10/1	TRO	l Ininte ek	Total Sub	Total Effort	Accumutions
		Principal	Project Manager	QAVQC	Project Engineer	Training	Analyst	Technician	Admin/Ciencal	Total Hours	Effort	Expense	Chapman	ΠVJ	IKG	Unintech	Effort	Total Enort	Assumptions
	Hourly Bill Rate	\$295.00	\$245.00	\$290.00	\$165.00	\$108.00	\$118.00	\$105.00	\$95.00										
	Table Desired Menonement	45	111	0	470	70	Basic S	ervices	20	447	¢ 00 550	A	¢	¢	¢	¢	¢	¢ 00.550	
11	Prepare Monthly Summary Reports/Invoicing	10	45	U	40	70	U	4	30	125	\$ 00,000 \$ 23,425	5 -	5 -	5 - \$-	5 - 5-	5 -	5 -	\$ 00,000 \$ 23,425	15 Months
1.2	Schedule Development and Monthly Updates	1	30		48					79	\$ 15,565	\$-	\$-	\$-	\$-	\$-	\$-	\$ 15,565	
1.3	Risk Register Development and Monthly Updates	1	24		42	30				97	\$ 16,345	\$ -	\$ -	\$-	\$ -	\$ -	\$ -	\$ 16,345	
1.4	Meetings Conduct Progress Meetings with Owner's Representative (18 Meetings)		24		24	24				0	\$ - \$ 12/32	\$ - \$ -	\$ - \$ -	\$ - \$ -	\$ - \$ -	\$ - \$ -	\$ - \$ -	\$ - \$ 12/32	
1.4.2	Conduct half-day coordination workshops (2 workshops)	2	16		16	16				50	\$ 8,878	\$ -	\$ -	\$- \$-	\$- \$-	\$ -	\$- \$-	\$ 8,878	
1.4.3	Prepare meeting notes		1		4	6				11	\$ 1,553	\$ -	\$ -	\$-	\$ -	\$ -	\$ -	\$ 1,553	
1.4.4	Quality Control Audit	1	4		4			4		13	\$ 2,355	\$-	\$-	\$-	\$-	\$-	\$-	\$ 2,355	
	Task 2 - Review of Pipeline Construction Standards	0	22	0	56	48	20	0	0	146	\$ 22 174	\$ -	\$ -	\$ -	\$ -	\$ -	\$	\$ 22.174	
2.1	Review and provide comments on construction standards prepared by Owner's	Ū	40	V	40	20	10	U		100	¢ 44.004	¢	¢	¢	¢	¢	c	¢ 44.004	
2.1	Representative		12		40	32	01			100	φ 14,884	р -	р -	φ -	φ -	р -	φ -	φ 14,884	
2.2	Meetings Attend 1/2 day workshop to discuss comments on Final Disaling Construction		_							0	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	
2.2.1	Standards		8		8	8				24	\$ 4,144	\$-	\$-	\$-	\$-	\$-	\$-	\$ 4,144	
2.3	Deliverables									0	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	
2.3.1	Comments on Final Pipeline Construction Standards in Adobe PDF format		2		8	8	4			22	\$ 3,146	\$-	\$-	\$-	\$-	\$ -	\$-	\$ 3,146	
	Task 3 - Environmental Coordination	2	17	0	62	64	24	24	0	193	\$ 27,249	\$-	\$-	\$-	\$-	\$-	\$-	\$ 27,249	
3.1	Review Final Environmental Document	2	8		24	24				58	\$ 9,102	\$-	\$-	\$-	\$-	\$-	\$-	\$ 9,102	
3.2	Incorporate recommendations into contract documents		4		24	24	24	24		100	\$ 12,884 \$ -	\$ - \$ -	\$ - \$ -	\$- \$-	\$- \$-	\$ - \$ -	\$ - \$ -	\$ 12,884 \$ -	
3.3.1	Conduct coordination meeting with Environmental Consultant		4		12	12				28	\$ 4,256	\$ -	\$ -	\$ -	\$- \$-	\$ -	\$- \$-	\$ 4,256	
3.3.2	Prepare meeting notes		1		2	4				7	\$ 1,007	\$-	\$-	\$-	\$-	\$-	\$-	\$ 1,007	
	Task 4 Land Association Coordination	0	110	0	100	169	104	90	0	650	¢ 06.336	¢	¢	¢	¢	¢	¢	¢ 06.226	
4.1	Provide ROE needs for final design	U	12	U	24	24	40	00	0	100	\$ 90,330 \$ 14,212	5 -	5 -	5 -	5 - \$-	5 -	<mark>⊅ -</mark> \$ -	\$ <u>96,330</u> \$ 14,212	
4.2	Easement Development									0	\$ -	\$-	\$-	\$-	\$-	\$ -	\$-	\$ -	
4.2.1	Review and comment on draft and final easement documents		8		24	24	24			80	\$ 11,344	\$-	\$-	\$-	\$-	\$-	\$-	\$ 11,344	
4.2.2	Update parcel Data Forms and easement exhibits		12		40	40	60	80		232	\$ 29,340 \$	\$ - \$ -	\$ - \$ -	\$- \$-	\$ - \$ -	\$ - \$ -	\$ - \$ -	\$ 29,340 \$	
4.3.1	Coordination Meetings									0	\$ -	\$ -	\$ -	\$ -	\$- \$-	\$ -	\$- \$-	\$- \$-	
4.3.1.1	Basic quesstion meetings (80% of easements)		40		40	40				120	\$ 20,720	\$-	\$-	\$-	\$-	\$-	\$-	\$ 20,720	
4.3.1.2	Adjustment or special easement request meetings (20% of easements)		40		40	40				120	\$ 20,720	\$-	\$-	\$-	\$-	\$-	\$-	\$ 20,720	
		1											1		1		1	1	
	Task 5 - Entity/Agency Coordination	0	66	13	190	262	165	0	0	696	\$ 99,056	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 99,056	
5.1	Develop and submit permit applications									0	\$ -	\$ - ¢	\$- ¢	\$- ¢	\$-	\$ -	\$- ¢	\$ - ¢	
5.1.1	Permit Prep at 60% milestone		8	3	24	24	12			0 71	 φ - \$ 10 798 	ъ - \$ -	\$ - \$ -	ə - \$ -	ъ - \$ -	ъ - \$ -	» - \$-		
5.1.1.2	Permit submittal at 60% milestone		1	, 	2	4				7	\$ 1,007	\$ -	\$-	\$ -	\$ -	\$ -	\$ -	\$ 1,007	
5.1.1.3	Address comments and re-submit at 90%		1		12	12	12			37	\$ 4,937	\$-	\$-	\$-	\$-	\$-	\$-	\$ 4,937	
5.1.2 5.1.2.1	UPKK - 3 crossings Permit Pren at 60% milestone		8	2	24	24	16			0 74	\$ - \$ 10.080	\$ - \$ -	\$ - \$ -	\$- \$-	\$- \$-	\$ - \$ -	\$- \$-	\$- \$10.080	
5.1.2.1	Permit submittal at 60% milestone	1	1	۷	24	4	10			7	\$ 1.007	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1.007	
5.1.2.3	Address comments and re-submit at 90%		1		12	12	12			37	\$ 4,937	\$ -	\$-	\$-	\$ -	\$ -	\$-	\$ 4,937	
5.1.3	Caldwell County - 3 road crossings			^	40	40				0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
5.1.3.1 5.1.3.2	Permit Prep at 60% milestone		8	2	12	12	9			43 5	\$ 6,878 \$ 701	\$- \$-	\$- \$-	\$- \$-	\$- \$-	\$ - \$ -	ծ - Տ -	\$ 6,878 \$ 701	
5.1.3.3	Address comments and re-submit at 90%		1		2	8	8			19	\$ 2,383	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,383	
5.1.4	Hays County - 12 road crossings									0	\$ -	\$ -	\$-	\$ -	\$ -	\$ -	\$ -	\$ -	
5.1.4.1	Permit Prep at 60% milestone		8	4	24	24	24			84	\$ 12,504 \$ 2,000	\$ - ¢	\$- ¢	\$- ¢	\$- ¢	\$ - ¢	\$- ¢	\$ 12,504 \$ 2,000	
5.1.4.2	Address comments and re-submit at 90%		1		8 12	18	18			∠5 49	φ 3,293 \$ 6.293	ъ - \$ -	ъ - \$ -	э - \$ -	φ - \$ -	ъ - \$ -	φ - \$ -	<i>φ</i> 3,293 <i>\$</i> 6,293	
5.1.5	Hays County Development Permits (Basic)		· ·				.0			0	\$ -	\$ -	÷ \$ -	\$ -	\$ -	\$-	\$ -	\$ -	Assume one permit for all parcels
5.1.5.1	Permit Prep at 60% milestone		8	2	12	12	24			58	\$ 8,648	\$-	\$-	\$-	\$-	\$-	\$ -	\$ 8,648	
5.1.5.2	Permit submittal at 60% milestone		1		2	4	6			7	\$ 1,007 \$ 2,021	\$ - ¢	\$- \$	\$- ¢	\$- \$	\$ - ¢	\$- \$	\$ 1,007 \$ 2,021	
5.1.6	Meetings - coordination meetings with permitting agency's		4		8	8	U			20	\$ 3.164	\$ - \$ -	φ - \$ -	φ - \$ -	\$- \$-	φ - \$ -	φ - \$ -	\$ 2,921 \$ 3.164	2 meetings
5.2	TCEQ Exceptions and Variance Development/Coordination		-			-				0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$-	\$ -	, , , , , , , , , , , , , , , , , , ,
5.2.1	Min Pressure Variance		4		8	24	8			44	\$ 5,836	\$-	\$-	\$-	\$-	\$-	\$-	\$ 5,836	

		Alliance Water Phase 1B Program															Project Fee Summary		
		Pipeli	ine Segme	nt C													Basic Effort	\$ 2,688,310	
		• ;	3/26/2020														Supplemental	\$ 402,029	
	Attachme	ent B - Detaile	d Overall I	BGE Cost B	reakdown												Total Effort	\$ 3,090,339	
Task Employee									-		Total								
Project Role	Principal	Project Manager	QA/QC	Project Engineer	Engineer in	Designer/GIS	CADD	Admin/Clerical	Total Hours	Total Labor	Expense	Chapman	HVJ	TRG	Unintech	Total Sub	Total Effort	Assumptions	
Haurity Bill Bate	¢205.00	¢045.00	¢000.00	¢165.00	¢100.00	Analyst	¢105.00	¢05.00		Enort	Effort					Enort			
5.2.2 Stream Crossing Exception	\$295.00	\$243.00	\$290.00	\$100.00 8	\$106.00 24	\$110.00 8	\$103.00	\$9 <u>0</u> .00	11	\$ 5,836	¢ _	¢ _	¢ _	¢ _	۹	۹	\$ 5,836		
5.2.3 Sampling Frequency Variance		4		8	24	8			44	\$ 5.836	\$ -	\$ -	\$ -	\$ -	\$- \$-	\$ -	\$ 5.836		
													•	•			.,		
Task 6 - Public and Private Utility Coordination	0	100	0	181	244	40	24	0	589	\$ 87,957	\$-	\$ -	\$-	\$ 122,490	\$-	\$ 122,490	\$ 210,447		
6.1 Quality Level A SUE - 63 Level A Test Holes		12		18	12		12		54	\$ 8,466	\$ -	\$ -	\$ -	\$ 110,240	\$-	\$ 110,240	\$ 118,706		
6.2 Quality Level B SUE - 10,000 LF LVI B		4		18	12		12		46	\$ 6,506 \$ 26,180	ֆ - ¢	\$ - ¢	¢	\$ 12,250 ¢	\$- ¢	\$ 12,250 ¢	\$ 18,756 \$ 26,180		
6.4 Utility Coordination		40		00	00				0	\$ 20,100 \$ -	\$ - \$ -	\$ - \$ -	\$- \$-	\$ - \$ -	ş - \$ -	ş - \$ -	\$ 20,100 \$ -		
6.4.1 Ongoing Coordination with utilities		24		40	70	40			174	\$ 24,760	\$-	\$ -	\$-	\$ -	\$-	\$-	\$ 24,760		
6.5 Meetings									0	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-		
6.5.1 Conduct Coordination meetings - 15		15		30	60				105	\$ 15,105	\$ -	\$ -	\$ -	\$ -	\$-	\$-	\$ 15,105		
0.0.2 Prepare and distribute meeting notes		5		15	30				50	ъ <u>6</u> ,940	р -	پ -	ф -	ф -	р -	р -	ъ <u>6,940</u>		
Task 7 - Design Consultant Coordination	8	48	0	116	96	40	40	0	348	\$ 52,548	\$-	\$-	\$-	\$ -	\$ -	\$-	\$ 52.548		
7.1 BPS / Delivery Point Design Consultant									0	\$ -	\$-	\$-	\$ -	\$-	\$ -	\$ -	\$ -		
7.1.1 Coordination to confirm tie-in locations to delivery points	8		-						8	\$ 2,360	\$ -	\$-	\$-	\$ -	\$ -	\$ -	\$ 2,360		
7.1.1.1 County Line SUD		12		24	20	8	8		72	\$ 10,844	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,844		
7.1.1.2 San Marcos #2 7.1.1.3 Kyle		12		24	20	8	8		/2 72	a 10,844	\$- \$_	\$ - \$ _	• ¢ \$	- ¢ \$	- ¢	\$ - \$ _	\$ 10,844 \$ 10,844		
		12		24	20	0	0		0	\$ 10,044	\$ - \$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,044		
7.1.2 Coordination with BPS consultant for hydraulics, surge, pipe sizing		8		32	24	8	8		80	\$ 11,616	\$-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 11,616		
7.1.3 Coordinate to confirm tie-in at BPS		2		8	8	8	8		34	\$ 4,458	\$-	\$ -	\$-	\$-	\$-	\$-	\$ 4,458		
7.1.4 Tie-in Coordination Meeting		2		4	4				10	\$ 1,582	\$-	\$-	\$-	\$-	\$-	\$-	\$ 1,582		
Task 8 - Design Survey	1	24	0	44	44	0	0	0	113	\$ 18 187	\$ -	\$ -	¢ _	\$	\$ 302 789	\$ 302 789	\$ 320.976		
8.1 Topographic Survey	1	24	U	44	44	U	U	U	113	\$ 18,187	\$- \$-	\$ -	\$ -	\$ -	\$ 302,789	\$ 302,789	\$ 320,976		
															,	,,			
Task 9 - Subsurface Investigations	1	40	0	100	64	0	0	0	205	\$ 33,507	\$ -	\$ -	\$ 164,310	\$ -	\$ -	\$ 164,310	\$ 197,817		
9.1 Geotechnical Investigation	1	24		60	44				129	\$ 20,827	\$ -	\$ -	\$ 131,510	\$ -	\$ -	\$ 131,510	\$ 152,337		
		10		40	20				70	\$ 12,680	ф -	р -	\$ 32,800	р -	ъ -	\$ 32,800	\$ 45,480		
Task 10 - 60% Design Phase	44	364	84	698	1.640	1.246	1.236	20	5.332	\$ 697.518	\$-	\$ 22,585	\$-	\$-	\$-	\$ 22,585	\$ 720.103		
10.1 Site Visits		8		40	80	,	,		128	\$ 17,200	\$-	\$-	\$-	\$-	\$-	\$-	\$ 17,200		
10.2 Construction Drawings									0	\$-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$-		
10.2.1 Analyses and Calculations	40	80	24	100	200				404	\$ 64,660	\$- ¢	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 64,660 \$ 55,000		
10.2.2 00% Plans	40	160		4	48	24	24		100	\$ 55,900 \$ 11 196	ъ - \$-	ъ - \$ -	ъ - \$ -	ъ - \$ -	\$ - \$ -	\$ - \$ -	\$ 55,900 \$ 11 196		
10.2.2.2 Dimension Contol Plan				4	8	24	24		60	\$ 6,876	\$ -	\$-	\$-	\$-	\$-	\$ -	\$ 6,876		
10.2.2.3 Survey Contol				12	24	16	16		68	\$ 8,140	\$-	\$ -	\$-	\$-	\$-	\$-	\$ 8,140		
10.2.2.4 Contractor's Access Sheets				24	160	80	80		344	\$ 39,080	\$ -	\$ -	\$ -	\$-	\$ -	\$ -	\$ 39,080		
10.2.2.5 Plan and Profile Sheets				200	400	200	200		1,800	\$ 210,000 \$ 80,540	\$ - \$ -	\$ - \$ _	- ¢	\$ - \$ _	\$- \$_	- ¢	\$ 210,000 \$ 80,540		
10.2.2.7 Cathodic Protection		4		4	16	8	200		32	\$ 4,312	\$- \$-	\$ 11,293	\$ -	\$ -	\$- \$-	\$ 11,293	\$ 15,605		
10.2.2.8 Standard Details				4	16	8	24		52	\$ 5,852	\$ -	\$ -	\$ -	\$-	\$-	\$ -	\$ 5,852		
10.2.2.9 Cathodic Protection Details		4		4	16	8			32	\$ 4,312	\$ -	\$ 11,293	\$-	\$-	\$ -	\$ 11,293	\$ 15,605		
10.2.2.1 Special Details		4		24	36	80	80	20	224	\$ 26,668 \$ 25,590	\$- ¢	\$ - ¢	\$- \$	\$ - ¢	\$- \$	\$ - \$	\$ 26,668		
10.4 60% OPCC		40		24	80	24	24	20	<u>∠ou</u> 160	φ 35,580 \$ 19,912	φ - \$ -	φ - \$ -	φ - \$ -	φ - \$ -	φ - \$ -	φ - \$ -	φ 30,060 \$ 19,912		
10.5 Internal QA/QC Review & Corrections		16	60	60	120	110	100		466	\$ 67,660	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 67,660		
10.6 60% Design Workshop		4		10	16				30	\$ 4,358	\$-	\$-	\$-	\$-	\$-	\$-	\$ 4,358		
10.7 Address Owner / Owner Rep Comments - provide comment responses	4	16		44	80	64	64		272	\$ 35.272	\$-	\$-	\$-	\$-	\$-	\$-	\$ 35,272		
						-	-		l		-				·				
Task 11 - 90% Design Phase	36	248	60	564	1,294	1,040	1,026	20	4,288	\$ 553.942	\$-	\$ 11.293	\$-	\$ -	\$-	\$ 11.293	\$ 565.235		
11.1 Site Visits		8		48	80	,	,•		136	\$ 18,520	\$-	\$ -	\$ -	\$-	\$ -	\$ -	\$ 18,520		
11.2 Construction Drawings	24	120	-						144	\$ 36,480	\$-	\$-	\$ -	\$ -	\$ -	\$ -	\$ 36,480		
11.2.1.1. General Sheets				2	32	16	16		66	\$ 7,354	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,354		
11.2.1.1 Dimensional control plan				6	ک م	б g	б д		30	\$ 3,638 \$ 3,638	ծ - Տ	ծ - Տ	- ¢	- ¢	- ¢	- ¢	\$ 3,638 \$ 3,638		
11.2.1.1. Contractor's Access Sheets				32	86	60	60		238	\$ 27.948	\$ -	\$ -	\$-	\$-	\$- \$-	\$- \$-	\$ 27.948		
11.2.1.1 Plan and Profile Sheets				80	180	400	400		1,060	\$ 121,840	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 121,840		
11.2.1.1 Erosion Control Sheets				32	100	160	160		452	\$ 51,760	\$ -	\$-	\$ -	\$ -	\$ -	\$-	\$ 51,760		
11.2.1.1 Cathodic Protection Sheets		4		12	16	4			36	\$ 5,160	\$ -	\$ 5,646	\$ -	\$-	\$ -	\$ 5,646	\$ 10,806		
11.2.1.1 Standard Details	1	4		12	32	8	16	1	12	ъ	\$ -	ъ -	5 -	э -	ъ -	\$ -	р 9,040		

Non-thing Segment C Section 10 Section 10 <th colspan="2" sec<="" th=""><th>-</th><th></th><th></th><th>Allianaa Wa</th><th>tor Dhoon 4</th><th>D Drogram</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>Drojaat Eas Summany</th></th>	<th>-</th> <th></th> <th></th> <th>Allianaa Wa</th> <th>tor Dhoon 4</th> <th>D Drogram</th> <th></th> <th>Drojaat Eas Summany</th>		-			Allianaa Wa	tor Dhoon 4	D Drogram														Drojaat Eas Summany
But the construction of the con											Pagio Effort											
Description Description <thdescription< th=""> <thdescription< th=""></thdescription<></thdescription<>													Basic Ellort	\$ 2,688,310								
Intermine to use					3/26/2020														Supplemental	\$ 402,029		
Product Service Under			Attachme	nt B - Detaile	ed Overall I	BGE Cost B	reakdown												Total Effort	\$ 3,090,339		
Inter Interview In					1	1			1	1				1		1		1				
Image: Constraint of the second sec	Task	Employee						0455					Total									
Hearty Bill All Orthold Matches Hearty Bill All No.0 No.0 <t< td=""><td></td><td>Project Role</td><td>Principal</td><td>Project Manager</td><td>QA/QC</td><td>Project Engineer</td><td>Engineer in Training</td><td>Designer/GIS</td><td>CADD Technician</td><td>Admin/Clerical</td><td>Total Hours</td><td>Total Labor Effort</td><td>Expense</td><td>Chapman</td><td>HVJ</td><td>TRG</td><td>Unintech</td><td>Total Sub Effort</td><td>Total Effort</td><td>Assumptions</td></t<>		Project Role	Principal	Project Manager	QA/QC	Project Engineer	Engineer in Training	Designer/GIS	CADD Technician	Admin/Clerical	Total Hours	Total Labor Effort	Expense	Chapman	HVJ	TRG	Unintech	Total Sub Effort	Total Effort	Assumptions		
12.12 Charles Presson Deals Orange Presson Deals Orange Presson Deals 0 4.10 10.0 <th></th> <th>Hourly Bill Rate</th> <th>\$295.00</th> <th>\$245.00</th> <th>\$290.00</th> <th>\$165.00</th> <th>\$108.00</th> <th>\$118.00</th> <th>\$105.00</th> <th>\$95.00</th> <th></th> <th>Enon</th> <th>Effort</th> <th></th> <th></th> <th></th> <th></th> <th>Liidit</th> <th></th> <th></th>		Hourly Bill Rate	\$295.00	\$245.00	\$290.00	\$165.00	\$108.00	\$118.00	\$105.00	\$95.00		Enon	Effort					Liidit				
12.10 Prepare Speak Frank 9 40 000 40 000 40 248 24.100 5 1	11 2 1 1	Cathodic Protection Details	φ200.00	φ240.00	φ200.00	8	φ100.00 16	8	φ100.00	ψ00.00	36	¢ / 072	¢ _	\$ 5.646	¢ _	¢ _	¢ _	\$ 5.646	\$ 10.618			
11.2.1 Tethe Counts Prime 10 100 <th< td=""><td>11.2.1.1.</td><td>Project Specific Details</td><td></td><td>8</td><td></td><td>40</td><td>160</td><td>40</td><td>40</td><td></td><td>288</td><td>\$ 34,760</td><td>φ - \$ -</td><td>\$ 5,040</td><td>φ - \$ -</td><td>φ - \$ -</td><td>φ - \$</td><td>\$ 5,040</td><td>\$ 34,760</td><td></td></th<>	11.2.1.1.	Project Specific Details		8		40	160	40	40		288	\$ 34,760	φ - \$ -	\$ 5,040	φ - \$ -	φ - \$ -	φ - \$	\$ 5,040	\$ 34,760			
12.13 17.2	11212 T	raffic Contol Plan		16		40	100	100	100		356	\$ 43,620	\$ -	\$ -	\$- \$-	\$ -	\$-	\$ -	\$ 43 620			
13 00% Proof Memain 0 00 100 <	11213 T	ree Preservation Plan				24	80	80	80		264	\$ 30,440	\$-	\$ -	\$-	\$-	\$-	\$-	\$ 30,440			
11.4 6 mb c QCC 7 mb c QCC 8 mb q 2 l 1 mb q 1 mb q 2 l 1 mb q	11.3 909	% Project Manual	8	40		100	140			20	308	\$ 45.680	\$-	\$-	\$-	\$-	\$-	\$-	\$ 45.680			
11.5 Inhemial AGACC Reves & Corrections 1.6 1.6 9.0 <td>11.4 90</td> <td>% OPCC</td> <td></td> <td>8</td> <td></td> <td>24</td> <td>80</td> <td>24</td> <td>24</td> <td></td> <td>160</td> <td>\$ 19,912</td> <td>\$-</td> <td>\$-</td> <td>\$-</td> <td>\$-</td> <td>\$-</td> <td>\$-</td> <td>\$ 19,912</td> <td></td>	11.4 90	% OPCC		8		24	80	24	24		160	\$ 19,912	\$-	\$-	\$-	\$-	\$-	\$-	\$ 19,912			
11.6 000: Data provide comment: sprovide comment: sprovi	11.5 Inte	ernal QA/QC Review & Corrections		16	60	50	100	60	50		336	\$ 52,700	\$-	\$-	\$-	\$-	\$-	\$-	\$ 52,700			
11.7. Address Owner Rep Comments - provide comment responses 4 10 40 64 64 64 7 24 5 <	11.6 909	% Design Workshop		4		8	16				28	\$ 4,028	\$ -	\$ -	\$ -	\$ -	\$-	\$ -	\$ 4,028			
Tak 12 - 100% Design Phase 24 0 <th<< td=""><td>11.7 Ad</td><td>dress Owner / Owner Rep Comments - provide comment responses</td><td>4</td><td>16</td><td></td><td>40</td><td>60</td><td>64</td><td>64</td><td></td><td>248</td><td>\$ 32,452</td><td>\$-</td><td>\$ -</td><td>\$ -</td><td>\$ -</td><td>\$-</td><td>\$-</td><td>\$ 32,452</td><td></td></th<<>	11.7 Ad	dress Owner / Owner Rep Comments - provide comment responses	4	16		40	60	64	64		248	\$ 32,452	\$-	\$ -	\$ -	\$ -	\$-	\$-	\$ 32,452			
Tak 12 - 100% Design Phase Pail Pail <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>																						
12.1 Site Visits	Tas	sk 12 - 100% Design Phase	24	108	24	308	494	336	336	20	1,650	\$ 221,500	\$-	\$ 11,293	\$-	\$-	\$-	\$ 11,293	\$ 232,793			
122 Construction Drawing schwage Manual 24 40 40 40 20 200 704 \$ \$3,100 \$	12.1 Site	e Visits		4		16	32				52	\$ 7,076	\$-	\$-	\$-	\$-	\$-	\$-	\$ 7,076			
12.3 Final Project Manual 40 100 120 100 20 240 \$	12.2 Co	nstruction Drawings - finalize drawing package	24	40		100	140	200	200		704	\$ 93,100	\$-	\$ 11,293	\$-	\$-	\$-	\$ 11,293	\$ 104,393			
124 10% OPCC 10% OPCC 9 0.624 5 9 - 5 -	12.3 Fin	al Project Manual		40		60	120			20	240	\$ 34,560	\$-	\$-	\$-	\$-	\$-	\$-	\$ 34,560			
12.5 Internal GAQC Review A Gemedians Internal GAQC Review A Gemedians No 80 80 80 80 80 80 80 84,210 8 8 8 8 8 8 8 9 8 9 8 9 8 9 8 9 8 9 8 9 8 9 4 8 10 40 80 40 40 80 20 20 20 8 5	12.4 100	0% OPCC		8		16	30	8	8		70	\$ 9,624	\$-	\$-	\$-	\$-	\$-	\$-	\$ 9,624			
12.4 100% Design Workshop 4 8 16 - 28 5 4,228 5 - <t< td=""><td>12.5 Inte</td><td>ernal QA/QC Review & Corrections</td><td></td><td>4</td><td>24</td><td>60</td><td>60</td><td>80</td><td>80</td><td></td><td>308</td><td>\$ 42,160</td><td>\$ -</td><td>\$ -</td><td>\$ -</td><td>\$ -</td><td>\$ -</td><td>\$ -</td><td>\$ 42,160</td><td></td></t<>	12.5 Inte	ernal QA/QC Review & Corrections		4	24	60	60	80	80		308	\$ 42,160	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 42,160			
12.7 Address Owner Nowner Rep Comments - provide comments - pr	12.6 100	0% Design Workshop		4		8	16				28	\$ 4,028	\$-	\$-	\$-	\$-	\$-	\$-	\$ 4,028			
12.8 Approvement RPCSP V 4 8 16 8 8 V 4 5,812 5<	12.7 Ad	dress Owner / Owner Rep Comments - provide comment resoponses		4		40	80	40	40		204	\$ 25,140	\$-	\$-	\$-	\$-	\$-	\$-	\$ 25,140			
Task 13 - Procurement (RFCSP) 4 36 0 88 144 104 80 24 480 6.0.24 5 6 6.02 7 7 7 7 7 7 7 7 7 8 20 5 5 5 5 5 5 5 5	12.8 Ag	ency Review Packages TWDB and TCEQ		4		8	16	8	8		44	\$ 5,812	\$-	\$-	\$-	\$-	\$-	\$-	\$ 5,812			
Task 13 - Procurement (RFCSP) 4 36 0 88 144 104 80 24 480 \$ 63,024 \$ <td></td>																						
13.1 Final Documents for RFCSP Package 2 16 24 40<	Ta	sk 13 - Procurement (RFCSP)	4	36	0	88	144	104	80	24	480	\$ 63,024	\$-	\$-	\$-	\$-	\$-	\$-	\$ 63,024			
13.2 Atter dre Pro-Proposal Conference 4 4 4 4 6 12 \$ 2,072 \$ </td <td>13.1 Fin</td> <td>al Documents for RFCSP Package</td> <td>2</td> <td>16</td> <td></td> <td>24</td> <td>40</td> <td>40</td> <td>40</td> <td>24</td> <td>186</td> <td>\$ 23,990</td> <td>\$-</td> <td>\$-</td> <td>\$-</td> <td>\$-</td> <td>\$-</td> <td>\$-</td> <td>\$ 23,990</td> <td></td>	13.1 Fin	al Documents for RFCSP Package	2	16		24	40	40	40	24	186	\$ 23,990	\$-	\$-	\$-	\$-	\$-	\$-	\$ 23,990			
13.3 Prepare Addenda and provide clarifications 8 24 40 24 96 \$ 1,30 2 5 - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ 5 . \$ - \$ - \$ - \$ 5 . \$ - \$.	13.2 Att	end Pre-Proposal Conference		4		4	4				12	\$ 2,072	\$ -	\$ -	\$ -	\$ -	\$-	\$ -	\$ 2,072			
13.4 Attend Proposal Opening 2 2 - 4 \$ 8.00 \$ - \$ 16.20 \$ - \$ 16.20 \$ - \$ 16.20 \$ - \$ 16.20 \$ - \$ 16.20 \$ - \$ 16.20 \$ 16.20 \$ 16.20 \$ 16.20 \$ 16.20 \$	13.3 Pre	pare Addenda and provide clarifications		8		24	40	24			96	\$ 13,072	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 13,072			
13.6 Review Contractor's Proposals, provide Recommendation of Award 2 4 16 24 - 46 \$ 6,802 \$ - \$ 16,268 \$ - \$ - \$ - \$ - \$ - \$ 16,268 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ > \$ 16,268	13.4 Att	end Proposal Opening		2		2					4	\$ 820	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 820			
13.0 Prepare Conformed Contract Documents 13.0 14.0 13.0 13.0 14.0 13.0 14.	13.5 Re	view Contractor's Proposals, provide Recommendation of Award	2	4		16	24				46	\$ 6,802	\$-	\$ -	\$ -	\$ -	\$-	\$ -	\$ 6,802			
Image: Note of the state of the st	13.6 Pre	pare Conformed Contract Documents		2		18	36	40	40		136	\$ 16,268	\$-	\$-	\$-	\$-	\$-	\$-	\$ 16,268			
Task 14 - Supplemental Services very limital Services very limital Services Task 14 - Supplemental Services 0 278 0 298 266 15 1 206,868 \$<- \$ 1 5 21,105 \$ 20,000 \$ 195,161 \$ 402,029 14.1 Supplemental Survey 4 4 6 8 1,640 \$<- \$<- \$<- \$ 20,000 \$ 21,640 14.2 General Engineering Design 100 100 100 100 100 510 \$ 75,280 \$<- \$<- \$<- \$<- \$<- \$								Supplement	lal Comicae							I	<u> </u>					
Task 14 - Supplemental Services 0 278 0 280 140 20 5 20,060 5 21,105 5 20,000 5 21,105 5 21,105 5 20,000 5 21,105 5 21,105 5 20,000 5 21,105 5 20,000 5 21,105 5 20,000 5 21,105 5 20,000 5 21,005 5 21,105 5 20,000 5 20,000 5 20,000 21,000 5 20,000 21,000 5 20,000 21,005 5 2 5 <th< td=""><td>Ter</td><td>k 14 Supplemental Services</td><td>0</td><td>070</td><td>0</td><td>200</td><td>066</td><td></td><td></td><td>•</td><td></td><td>¢ 006.969</td><td>¢</td><td>¢</td><td>¢ 154.056</td><td>¢ 01.105</td><td>¢ 20.000</td><td>¢ 105 161</td><td>¢ 400.000</td><td></td></th<>	Ter	k 14 Supplemental Services	0	070	0	200	066			•		¢ 006.969	¢	¢	¢ 154.056	¢ 01.105	¢ 20.000	¢ 105 161	¢ 400.000			
14.2 Subplemental Survey 4 4 4 6 6 5 1,040 5 5 6 5 6 5 7 6 6 7 6 6 6 7 6 6 6 7 6 7 6 7 6 7	14.1 Su	sk 14 - Supplemental Services	0	270	U	290	200	150	140	20	0	\$ 200,000 \$ 1,640	ф -	- 0	\$ 154,050 ¢	\$ 21,105 ¢	\$ 20,000	\$ 195,161	\$ 402,029 \$ 21,640			
14.2 General Engineening Desgin 100	14.1 Su	porel Engineering Decign		4		4	100	110	100		0 510	φ 1,040 ¢ 75,290	φ - ¢	ф -	φ - ¢	φ - ¢	\$ 20,000 ¢	\$ 20,000 ¢	φ 21,040 ¢ 75,090			
14.3 Land Acquisition 60 6	14.2 Ge	ad Acquisition		80		80	88	110	100	20	316	\$ 75,260	- ቀ	р - С	φ - ¢	φ - ¢	ф - С	р - ¢	\$ 75,200 \$ 40.244			
14.5Attend Public Meetings (2)888882424\$ 4,144\$ -\$ -\$ -\$ -\$ -\$ -\$ -\$ 4,14414.6Additional project meetings (5)1010101030\$ 5,180\$ - </td <td>14.0 Lai</td> <td></td> <td></td> <td>40</td> <td></td> <td>60</td> <td>60</td> <td>40</td> <td>40</td> <td>20</td> <td>200</td> <td>ψ 49,244 \$ 30,000</td> <td>Ψ - \$ _</td> <td>Ψ - \$</td> <td>φ - \$</td> <td>ф - \$</td> <td>Ψ - \$ _</td> <td>Ψ - \$ _</td> <td>φ 43,244 \$ 30,000</td> <td></td>	14.0 Lai			40		60	60	40	40	20	200	ψ 49,244 \$ 30,000	Ψ - \$ _	Ψ - \$	φ - \$	ф - \$	Ψ - \$ _	Ψ - \$ _	φ 43,244 \$ 30,000			
14.6Additional project meetings (5)101010101030\$ 1,1401030\$ 1,1401010111	14.5 Att	and Public Meetings (2)		8		8	8	-10			200	\$ 4 1//	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4 144			
14.7 Additional SUE Potholes 10	14.6 Ad	ditional project meetings (5)		10		10	10	+			30	\$ 5 180	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5180			
14.8 Additional Geotechnical Borings, Piezometers, and GBR 24 24 40 40 40 40 40 40 5 6 7 5 163,896 6 6 7 5 154,056 5 163,896 6 163,896 14.9 184 5 257,010 5 5 5 5 5 5 163,896 163,896 14.9 14.9 184 5 257,010 5 5 5 5 5 5 5 5 5 163,896 163,8	14.7 Ad	ditional SUE Potholes		12		12	10				24	\$ 4 920	\$ -	\$ -	\$ -	\$ 21 105	\$ -	\$ 21 105	\$ 26.025			
14.9 Supplemental Permitting - Hays County Development Permit 24 40 40 40 40 6 5 7 5 5 7 5	14.8 Ad	ditional Geotechnical Borings Piezometers and GBR		24		24		1			48	\$ 9.840	\$ -	\$ -	\$ 154.056	\$ -	\$ -	\$ 154.056	\$ 163,896			
	14.9 Su	oplemental Permitting - Hays County Development Permit		24		40	40	40	40		184	\$ 25 720	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 25 720			
Grand lotal $S = 2.260.419$ $S = -S = 45.170$ $S = 318.566$ $S = 143.595$ $S = 522.789$ $S = 829.920$ $S = 3.090.339$. 1.0	spinnental entitling have been bereichnent entit		21	1		10		10	1	Grand Total	\$ 2,260.419	\$ -	\$ 45,170	\$ 318,366	\$ 143,595	\$ 322,789	\$ 829,920	\$ 3,090,339			
CP Design, Alliance Regional Water Authority Water Pipelines, Carrizo Aquifer Well Field, Caldwell County, Texas

1717
February 17, 2020
Gilbert Schutza, CP-4
Cal Chapman, Mike Ames
Mr. Ron Mick, P. E.
BGE, Inc.
Senior Project Manager
101 West Louis Henna Blvd, Suite 400
Austin, Texas 78728
RMick@bgeinc.com

Dear Mr. Mick:

Thanks very much for your scope of work request, and the information about this Alliance Regional Water Authority project known as Segment C located east of Kyle and San Marcos, TX (Figure 1). The project described is 22-miles long and will include water transmission pipeline ranging in size from 16-inches to 42-inches in diameter.

SCOPE OF WORK PROPOSED

The Scope of Work will include the following:

- 1. Up to 3 meetings with BGE to coordinate design.
- 2. Review of program standards for Cathodic Design. Review and evaluation of soil corrosion potential testing.
- 3. 60% Design
 - a. Draft special specification for cathodic protection if program standard is insufficient based on corrosion potential.
 - b. 60% Design Level corrosion control/cathodic protection sheets.
 - c. Quantities and Cost Estimate for corrosion control and cathodic protection elements.
 - d. Address comments from design reviews from BGE, Program Management Team, and ARWA.
- 4. 90% Design
 - a. Final special specification for cathodic protection if program standard is insufficient based on corrosion potential.

- b. Final Design Level corrosion control/cathodic protection sheets.
- c. Quantities and Cost Estimate for corrosion control and cathodic protection elements.
- d. Address comments from design reviews from BGE, Program Management Team, and ARWA.
- 5. 100% Design
 - a. Updated final special specification for cathodic protection if program standard is insufficient based on corrosion potential.
 - b. Updated and Sealed corrosion control/cathodic protection sheets. Address comments from agency review by TWDB and TCEQ. Provide updated drawings and specifications as needed.
 - c. Quantities and Cost Estimate for corrosion control and cathodic protection elements.
- 6. Deliverables:
 - a. Technical memorandum documenting review of corrosion potential testing with recommendations for design.
 - b. Drawings and specifications and estimates in PDF format for each design milestone (60, 90, and 100%).



Portion of Project Area

Our proposed scope of work will select up to 10 soil borings from the sub-consultant's geotechnical investigation for soil sampling and laboratory corrosivity testing. Soil samples will be obtained from approximate pipe depth zone, and then analyzed for electrical conductivity, pH, chlorides, sulfates, sulfides, and redox potential, as a minimum. Each one-pound disturbed soil sample will be tested for saturated electrical conductivity (by US EPA Method 9050A), pH, chemical analysis for major anions and cations, ammonium and nitrates. We will use a properly accredited subcontract laboratory, with whom we have worked for more than ten years.

In addition, Chapman Engineering personnel will perform a site visit to review conditions along the alignment (estimated to take four field days). We will collect soil resistivity data between 2.5 and 20 feet of depth, and search for possible sources of stray current (with the two known foreign pipelines being obvious targets to check). We will review the laboratory soil corrosivity data, analyze the collected field data, and prepare a technical summary of these results.

Under the Scope of Work Proposed detailed above, including attendance three progress meeting to coordinate design, the estimated fee is **\$45,170.00**.

KEY STAKEHOLDERS (CLIENT AND CHAPMAN ENGINEERING)

Client Project Leader	Mr. Ron Mick, Senior Project Manager
Client Sponsor	BGE, Inc.
CE Project Manager	Bert Schutza

ADDITIONAL WORK

Chapman Engineering will not exceed the cost estimate unless an approved written change order is signed by both parties. Chapman Engineering must have BGE approval of such a change order prior to any additional costs being incurred.

Any requested changes to previously completed work or additional work requested by BGE will be charged based on the attached T&M Rate Schedule, or the rate schedule previously agreed between both parties.

PAYMENT TERMS

BGE agrees to pay Chapman Engineering invoice(s) in accordance with the existing Commercial Agreement Terms and Conditions governing Chapman Engineering's work. If no agreement is in place, BGE will pay all invoices within thirty (30) days. Any balance left unpaid after 30 days will be subject to a finance charge of 1.5% per month, or the maximum allowed by law.

GENERAL

Any abnormal work conditions that cause delays, such as delays due to weather, delays associated with site conditions, right of way issues or unknown circumstances or project delays due to waiting on BGE or other contractors, and those delays cause Chapman Engineering personnel to standby, will be billed at T&M rates. In design phase, this is unlikely.

Client will be responsible for any local or state permits, sales taxes, and other fees which may apply.

AUTHORIZATION

Please find attached an "Acceptance" block, for you to complete to give us authorization and "notice to proceed." Issuance of a PO is acceptance of the Terms and Conditions of this proposal.

We appreciate the opportunity to work with you on this project. If you should have any comments or require any changes in our proposed scope of services, please contact the undersigned at (830) 816-3311.

CHAPMAN ENGINEERING AUTHORIZED SIGNATURE

Gillet W. Schutze

Gilbert "Bert" Schutza Senior Project Manager NACE Cathodic Protection Specialist NACE Senior Corrosion Technologist

ACCEPTANCE

I, _____, on behalf of BGE, authorize Chapman Engineering to proceed with the work described above for the proposed Project Costs, for Proposal #1717 as detailed above, and per a schedule to be agreed between the parties.

Signature of Contracting Authority

Title

Date

Printed Name of Contracting Authority



4201 Freidrich Lane, Suite 110 Austin, Texas 78744 512.447.9081 Ph 512.443.3442 Fax www.hvi.com

February 26, 2020

Ron Mick, PE Senior Project Manager BGE, Inc. 7000 North Mopac, Suite 330 Austin, Texas 78731

> Re: Geotechnical Engineering Report Alignment 2, Segment C of Alliance Water's Design Phase Owner: Alliance Regional Water Authority (ARWA) HVJ Proposal No. AG1810011.2.2

Dear Ron:

HVJ South Central Texas – M&J Inc. (HVJ) is pleased to submit this proposal to provide engineering services for the above referenced project to BGE, Inc (Client). HVJ understands that the overall project will consist of design and construction of approximately 22 miles of water line segments using open cut methods, including two separate IH-35 trenchless crossings, northeast of San Marcos, Texas in Hays and Caldwell Counties. The invert depths of the water lines are expected to be between 5 feet and 10 feet below existing grade.

Our geotechnical investigation will include borings conducted at approximately 1,400 foot spacing along the pipeline alignment to an average depth of 20 feet. Borings will supplement those taken during the preliminary phase and locations will be provided at railroad, roadway, stream, and major utility crossings. For purposes of this proposal, the total number of borings is estimated to be 60 for this phase of work, to supplement the 24 borings originally taken.

Scope of Work

For this project, HVJ will conduct the following:

- Subsurface Exploration: To investigate subsurface conditions and characterize soil at the project area for the design phase, HVJ has estimated that the exploration will consist of 60 test borings to average depths of 20 feet, for total drilling footage of 1,200 feet. The borings will be completed with a truck-mounted rig, equipped with flight augers and sampling tools. Soil samples in particular will be collected using Shelby tubes and/or split-spoon samplers. Field-testing of soil samples will include pocket penetrometer readings in the cohesive soils and Standard Penetration Tests (SPT) in cohesionless soils. If bedrock is encountered, it will be continuously cored using a NX size core barrel. Field recovery and Rock Quality Designation (RQD) for samples recovered by coring will be recorded in the field. The completed boreholes will be backfilled with soil cuttings and bentonite.
- Resistivity Testing: HVJ shall perform Wenner 4-point resistivity tests (ASTM G57) at approximate 2,000 foot intervals along the pipeline route. Based on the pipeline length, our scope includes 41 test locations.

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- Laboratory Tests: Laboratory index tests will be performed on select soil samples recovered from the test borings. The tests will include Atterberg limits, minus 200 sieve, moisture content, and unconfined compression tests.
- Corrosivity testing including pH, sulfates, and chlorides shall be performed upon samples recovered at approximate pipeline depth every 4,000 lineal feet, for a total of 21 locations.
- Specialty tests may be developed after the initial geotechnical testing program is completed that will be included as supplemental services.
- Specialty scope items including geotechnical baseline reports (GBR) at 60 and 90 percent design level, and a final baseline report for 100 percent design for trenchless construction methods may be requested after the initial geotechnical testing program is completed that will be included in supplemental services

Engineering Report Deliverables

Results of the field data and laboratory data will be used to develop design and construction recommendations for the proposed pipelines. A report of HVJ's study will be prepared by an engineer specializing in soil mechanics after reviewing available design, boring and laboratory data. In general, the following items will be included in the report:

- Geotechnical Data Report Including:
 - o Description and Scope of the Project
 - o Field Investigation Summary
 - o Laboratory Testing Program
 - o Site Vicinity Map
 - o Geology Map
 - o Plan of Borings
 - o Boring Logs
 - o Laboratory Test Results Summary
 - o Subsurface Characterization
 - Geotechnical Design Report Including:
 - o Recommendations for Open-Cut Installation of the Utility Lines
 - o Pipe, Bedding, and Backfill Recommendations
 - o General Earthwork and Select Fill Recommendations

Assumptions

The following assumptions were made in developing the scope and fee estimate for this project:

- Our proposal includes an allowance for clearing of 4 days at \$2,000 per day. Additional clearing services will be quoted upon request.
- Boring locations will be mutually agreed upon by the Client and HVJ.
- Right of Entry Permits will be provided by the Client, if necessary.
- Traffic control and traffic control plans are not included in the scope of this proposal.
- Client shall provide HVJ with an electronic site map.

Mr. Ron Mick February 26, 2020 AG1810011.2.2

- Surveying of the boring locations will be done by others, if required.
- A Geotechnical Baseline Report (GBR) for the trenchless crossings is not included in the scope of this proposal.
- All spoils from drilling will be left onsite and will not be containerized to dispose of at a different location.

Fee

HVJ will perform the outlined scope of work on a time and material basis not to exceed amount of \$164,310.00. If the project configuration changes significantly, additional work may be required. HVJ will recommend such additional work when and if it is deemed necessary.

Insurance

Insurance certificates verifying HVJ's general liability, automobile, worker's compensation, and errors and omissions insurance coverage, listing BGE as a certificate holder, will be provided upon request.

Schedule

HVJ proposes to initiate project scheduling and coordination, immediately upon receiving notice-toproceed. It is expected the field work will be completed approximately 3 weeks after receiving any permits and required right-of-entries. Laboratory testing, evaluation of test results, engineering analyses and report preparation will take approximately 9 weeks after completion of the fieldwork.

Sample Retainage

Soil samples will be retained in our laboratory for 30 days after submittal of the draft geotechnical report.

InvoicesInvoices will be submitted at the end of each month based on the time spent on the work and items completed by the last Saturday of each month, or based on an invoice schedule provided by owner.

If this proposal meets with your approval, please sign and complete the indicated spaces below and forward a copy of the proposal to us. Thank you for this opportunity. We appreciate your business.

Sincerely,

HVJ SOUTH CENTRAL TEXAS- M&J INC.

Bryan E. Rose, PE Senior Project Manager

Mr. Ron Mick February 26, 2020 AG1810011.2.2

Agreed to this day of	, <u>202</u> 0
By:	
Title:	
Firm:	
Phone No.:	
Date to Start Work:	

					0
Geotechnical Inve	stigation	ı			
liance Regional Wat	er Autho	ority			
BGE, Inc.					
J SCTx Proposal No.	AG1810	011.2.2	2		
nd Soil Sampling					
	4	a	\$2,000.00	per day	\$8,000.00
ounted rig)	2	a	\$400.00	per mobilization	\$800.00
				-	

BGE, Inc					
HVJ SCTx Proposal No	. AG1810	011.2.	2		
Geotechnical Field Investigation - Drilling and Soil Sampling					
Allowance for Clearing	4	(a)	\$2,000.00	per day	\$8,000.00
Mobilization/Demobilization - Austin (truck mounted rig)	2	(a)	\$400.00	per mobilization	\$800.00
Mobilization/Demobilization - Dallas (atv track rig)	2	(a)	\$2,000.00	per mobilization	\$4,000.00
Driller Per Diem (atv track crew)	10	(a)	\$250.00	per day	\$2,500.00
Drilling & Sampling- Soils	900	(a)	\$22.00	per foot	\$19,800.00
Drilling & Sampling- Rock	300	(a)	\$30.00	per foot	\$9,000.00
Shelby Tube (Thin Wall)	270	(a)	\$20.00	each	\$5,400.00
Standard Penetration Tests (SPT)	90	a	\$20.00	each	\$1,800.00
Backfilling Soils	1200	a	\$7.00	per foot	\$8,400.00
Vehicle Trip	24	a	\$45.00	each	\$1,080.00
Core Box Storage	10	a	\$150.00	per month	\$1,500.00
Geophysical Crew Mobilization	1	a	\$1,600.00		\$1,600.00
Wenner 4-point Resistivity Testing at 2000-ft intervals	41	a	\$800.00		\$32,800.00
				Sub Total	\$96,680.00
Laboratory Testing - Standard					
Moisture Content	120	a	\$18.00	each	\$2,160.00
Atterberg Limits	120	a	\$65.00	each	\$7,800.00
#200 Sieve Analysis	120	a	\$45.00	each	\$5,400.00
Unconfined Compressive Strength Tests	120	(a)	\$50.00	each	\$6,000.00
pH, Sulfate, and Chloride Tests	21	a	\$215.00	each	\$4,515.00
				Sub Total	\$25,875.00
Geotechnical Engineering & Reporting					
Senior Engineer, PE	15	a	\$150.00	hr	\$2,250.00
QA/QC of deliverables	9	hr			
Project management and coordination	6	hr			
Project Engineer, PE	57	a	\$125.00	hr	\$7,125.00
Project management and coordination	15				
Invoice and expense review	9				
Lab assignment and bore log review	9				
Report review	15				
Report comment and finalize	9				
Staff Engineer II, EIT	374	(a)	\$85.00	hr	\$31,790.00
Mark borings and utility clearance	30				
Driller and permit coordination	30				
Logging in field	200				
Bore logs and lab data entry	60				
Drafting Report	40				
CAD	14				
Project Administrator	9	a	\$50.00	hr	\$450.00
Project setup and administration	9				
				Sub-Total	\$41,615.00
				TOTAL	\$164,310.39



4201 Freidrich Lane, Suite 110 Austin, Texas 78744 512.447.9081 Ph 512.443.3442 Fax www.hvj.com

March 24, 2020

Ron Mick, PE Senior Project Manager BGE, Inc. 7000 North Mopac, Suite 330 Austin, Texas 78731

> Re: Supplemental Services Geotechnical Baseline Report(s) Alignment 2, Segment C of Alliance Water's Design Phase Owner: Alliance Regional Water Authority (ARWA) HVJ Proposal No. AG1810011.2.2

Dear Ron:

HVJ South Central Texas – M&J Inc. (HVJ) is pleased to submit this proposal to provide supplemental engineering services for the above referenced project to BGE, Inc. (Client). HVJ understands that the overall project will consist of design and construction of approximately 22 miles of water line segments using open cut methods, with trenchless construction at select locations. The invert depths of the water lines are expected to be between 5 feet and 10 feet below existing grade. Pipe diameters are anticipated to range from 16□inch to 42□inch.

HVJ provided a February 26, 2020 proposal to provide a geotechnical data report and geotechnical design report for the pipeline alignment. This proposal included borings conducted at approximately 1,400 foot spacing along the pipeline alignment at various depths as outlined in Task 1.

In addition to the aforementioned proposal for design and data reports, we understand that BGE desires supplemental services to include additional field exploration, laboratory testing, and preparation of geotechnical baseline reports (GBR) at select pipeline crossings where the utility traverses critical infrastructure including highways, railroads, creeks, and surface roads. BGE has identified eight (8) primary utility crossing locations that include three (3) highway crossings, three (3) railroad crossings, and two (2) major creek crossings.

In addition to these eight (8) primary crossing locations, HVJ has identified ten (10) secondary utility crossings. While it is anticipated that these secondary crossings can be completed with boring and jacking techniques, HVJ recommends subsurface investigation at these crossings to evaluate the feasibility of this construction technique.

SCOPE OF WORK

HVJ SCTx's objectives for this project are to conduct additional subsurface exploration and laboratory testing at eight (8) primary and ten (10) secondary crossing locations, prepare a

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geotechnical data report (GDR) for the pipeline crossings, and assist BGE with conceptual and final designs for the project. The scope of work anticipated to be performed by HVJ to achieve these objectives are as follows:

Task 1 – Supplemental Geotechnical Investigation

For this project, HVJ will conduct the following:

• Subsurface Exploration: To investigate subsurface conditions at the proposed pipeline crossings and characterize soil and rock for the design phase, HVJ has tabulated our proposed supplemental field exploration below.

Туре	Structure	Crossings	Borings Per Crossing	Depth, ft	Subtotal, ft
Primary	Railroad	3	2	45	270
	Highway	3	2	45	270
	Creek	2	2	70	280
Secondary	Road	1	2 ¹	35	70
		9	1	35	315
			Continge	ncv Footage ³	210

Contingency Footage³

TOTAL 1,415

Notes:

- At the Hwy 205 crossing, the pipeline is nearly parallel to, and passing beneath a bridge, as such, an additional boring was 1. recommended.
- Our proposed field exploration budget includes a contingency for 200 additional feet of drilling to extend borings, as 2. needed.
- 3. Contingency footage will be used when encountering anomalous conditions, for changes in alignment, or proposed depth of the line.
- The borings will be completed with a truck-mounted rig, equipped with flight augers and • sampling tools. Soil samples in particular will be collected using Shelby tubes and/or splitspoon samplers. Field-testing of soil samples will include pocket penetrometer readings in the cohesive soils and Standard Penetration Tests (SPT) in cohesionless soils. If bedrock is encountered, it will be continuously cored using a NX size core barrel. Field recovery and Rock Quality Designation (RQD) for samples recovered by coring will be recorded in the field. The completed boreholes will be backfilled with soil cuttings and bentonite.
- Laboratory Tests: Laboratory index tests will be performed on select soil and rock samples recovered from the test borings. The tests will include Atterberg limits, minus 200 sieve, moisture content, and unconfined compression tests.
- Specialty tests may be developed after the initial geotechnical testing program is completed • that will be included as supplemental services.
- Soil samples will be retained in our laboratory for 30 days after submittal of the draft ٠ geotechnical report.

Results of the field data and laboratory data will be used to develop design and construction recommendations for the proposed pipelines. A report of HVJ's study will be prepared by an engineer specializing in soil mechanics after reviewing available design, boring and laboratory data. In general, the following items will be included in the report:

- Geotechnical Data Report Including:
 - o Description and Scope of the Project
 - o Field Investigation Summary
 - o Laboratory Testing Program
 - o Site Vicinity Map
 - o Geology Map
 - o Plan of Borings
 - o Boring Logs
 - o Laboratory Test Results Summary
 - o Subsurface Characterization

Task 2 - Review Geotechnical Data

The single-most important item for good design and cost-effective construction is an accurate description of the existing ground conditions. Tunnel Contractors will tell you that uncertainty about ground conditions represent the highest risk and contingency item for a project. An accurate description of the ground allows for an efficient layout and effective design of the project. We propose to work closely with BGE in accomplishing this.

Task 3 - Conceptual Design of Trenchless Crossings

Personnel with HVJ will work with BGE and the BGE/ARWA to review and optimize potential routes for the pipeline. Establishing the most effective route is crucial for field investigations and design decisions during the final design stage. A technical memorandum is expected to be prepared to document the trenchless design recommendations.

Task 4 - Prepare GBR and Tunnel/Shaft Specifications

The contract documents communicate the design to the contractor. The contract documents we anticipate in producing for BGE will consist of a Geotechnical Baseline Report (GBR), tunnel and shaft specifications, and sketches to be incorporated into drawings. We anticipate assisting with the preparation of drawings (see Task 2 above) and specifications. We anticipate that these documents will be reviewed at the 60, 90 and 100 percent completion. We have anticipated that BGE will prepare all drawings. We will be happy to perform drafting of drawings if desired, utilizing AutoCAD 2020, for an additional negotiated fee. HVJ SCTx will provide initial sketches, engineering, review and quality control of content of all the tunnel and shaft drawings. Specifications will be prepared utilizing Microsoft Word. Electronic copies of all documents will be provided to BGE. We will prepare the specifications utilizing Austin Water Utilities format. BGE

Mr. Ron Mick March 24, 2020 AG1810011.2.2

will provide standard Contract and "Boiler Plate" provisions. Upon request, we will review Division 1 specifications prepared by BGE for applicability to tunnel construction. It is assumed that BGE will coordinate submittals, and do all reproduction for submittals and final Contract Documents.

Task 5 - Project Management and Quality Control

We will track the project budget on a weekly basis, prepare a schedule, update it, and monitor it on a regular basis, and fulfill our contract obligations. We will provide BGE with a monthly progress report describing the status of the project, the budget, schedule, and other relevant issues.

In addition, HVJ SCTx has a quality control program whereby we will internally review all submittals by senior personnel. An important aspect of our quality control program will be frequent communication with BGE. We will do this by a variety of means including face-to-face meetings with appropriate personnel, e-mail, faxes, and written documentation. We will keep BGE fully informed of the design process and request input as necessary continuously during the design process.

ASSUMPTIONS

The following assumptions were made in developing the scope and fee estimate for this project:

- Boring locations will be mutually agreed upon by the Client and HVJ.
- Right of Entry Permits will be provided by the Client, if necessary.
- Traffic control and traffic control plans are not included in the scope of this proposal.
- Client shall provide HVJ with an electronic site map.
- Surveying of the boring locations will be done by others, if required.
- All spoils from drilling will be left onsite and will not be containerized to dispose of at a different location.
- Clearing will not be necessary for this scope of work

SCHEDULE, FEE, AND INVOICING

HVJ proposes to initiate project scheduling and coordination, immediately upon receiving notice-toproceed. It is expected the field work will be completed approximately 6 weeks after receiving any permits and required right-of-entries. Laboratory testing, evaluation of test results, engineering analyses and report preparation will take approximately 6 weeks after completion of the fieldwork.

HVJ will perform the outlined scope of work on a time and material basis not to exceed amount of \$156,046.00. If the project configuration changes significantly, additional work may be required. HVJ will recommend such additional work when and if it is deemed necessary.

Invoices will be submitted at the end of each month based on the time spent on the work and items completed by the last Saturday of each month, or based on an invoice schedule provided by owner.

CLOSING REMARKS

Mr. Ron Mick March 24, 2020 AG1810011.2.2

If this proposal meets with your approval, please sign and complete the indicated spaces below and forward a copy of the proposal to us. Thank you for this opportunity. We appreciate your business.

Sincerely,

HVJ SOUTH CENTRAL TEXAS- M&J INC.

Russell Jernigan, PE, PG, PhD Special Consultant

Bryan E. Rose, PE Senior Project Manager

Uprean Schwarg

Jason Schwarz, PE Vice President

Agreed to this	day of	, <u>2020</u>	
Ву:			
Title:			
Firm:			
Phone No.:			
Date to Start Work:			

Geotechnical Inv	vestigation				
Aliance Regional Water Authori	ity - Supplem	ental	GBR(s)		
BGE, Ir	nc.		(-)		
HVJ SCTx Proposal N	lo. AG181001	1.2.2			
Geotechnical Field Investigation - Drilling and Soil Sampling					
Mobilization/Demobilization - Austin (truck mounted rig)	2	(a)	\$400.00	per mobilization	\$800.00
Mobilization/Demobilization - Dallas (atv track rig)	1	a	\$2,000.00	per mobilization	\$2,000.00
Driller Per Diem (atv track crew)	11	(a)	\$250.00	per day	\$2,750.00
Drilling & Sampling- Soils	940	a	\$22.00	per foot	\$20,680.00
Drilling & Sampling- Rock	475	a	\$30.00	per foot	\$14,250.00
Shelby Tube (Thin Wall)	166	a	\$20.00	each	\$3,320.00
Standard Penetration Tests (SPT)	166	(a)	\$20.00	each	\$3,320.00
Backfilling Soils	1,415	(a)	\$7.00	per foot	\$9,905.00
Vehicle Trip	34	(a)	\$45.00	each	\$1,530.00
Core Box Storage	10	(a)	\$150.00	per month	\$1,500.00
				Sub Total	\$60,055.00
Moisture Content	142	a)	\$18.00	each	\$2,556.00
Atterberg Limits	94	(a)	\$65.00	each	\$6,110.00
#200 Sieve Analysis	94	(a)	\$45.00	each	\$4,230.00
Unconfined Compressive Strength Tests	142	a.	\$50.00	each	\$7,100.00
				Sub Total	\$19,996.00
Geotechnical Engineering & Reporting					, _, , , , , , , , , , , , , , , , , , ,
Principal. PE	38	a.	\$255.00	hr	\$9.690.00
Prepare 60% GBR and Tunnel/Shaft Specifications	4	9	#		# 7 ,070.000
Prepare 90% GBR and Tunnel/Shaft Specifications	4				
Prepare Final GBR and Tunnel/Shaft Specifications	4				
Design Project Management and OC	26				
Special Tunnel Consultant PE	124	$\widehat{\mathcal{A}}$	\$220.00	hr	\$27 280 00
Review Geotechnical Data	8	œ	Q220.00		¥27,200.00
Conceptual Design of Trenchless Crossings (30% Design)	20				
Prenare 60/90%/Final GBB and Tunnel/Shaft Specifications	76				
Design Project Management and OC	20				
Project Engineer PE	60		\$150.00	hr	\$9,000,00
Project management and coordination	26	u	\$150.00		<i>ψ</i> ,000.00
Lab log and report review	34				
Staff Engineer II FIT	311		\$85.00	hr	\$26,435,00
Staking and Field Coordination with Property Owners	82	u	φ05.00	111	<i>\\\\</i> 20,155.00
Logging of Borings	151				
Bore logs and lab data entry	54				
Prepare 60/90%/Final GBR and Tunnel/Shaft Specifications	24				
Project Administrator	24	\bigcirc	\$50.00	hr	\$1,600,00
Droport 60/00% / Eigel CBP and Typpel / Shoft Specifications	24	u	\$30.00	111	\$1,000.00
Decign Project Management and OC	0				
Design Froject management and QC	8			Sub Total	\$74 005 00
				500-10tal	\$/4,005.00
				ΤΟΤΑΙ	\$154 056 00
			1	101/11	9107,00000

March 24, 2020

Ron Mick, PE Senior Project Manager BGE, Inc. 101 W Louis Henna Blvd, Suite 400 Austin, TX 78728 M: 512.879.0400 RMick@bgeinc.com

RE: Subsurface Utility Engineering Alliance Regional Water Authority Phase 1B Segment C – Final Design

Dear Mr. Mick:

The Rios Group, Inc. (TRG) is pleased to submit a cost proposal for Subsurface Utility Engineering (SUE) for the above referenced project. This proposal is based on information provided via email on February 10, 2020.

Introduction

TRG will perform SUE services for this project in general accordance with the recommended practices and procedures described in ASCE publication CI/ASCE 38-02 "Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data." As described in the publication, four levels have been established to describe and depict the quality of subsurface utility information. The four quality levels are as follows:

- Quality Level D (QL"D") Information obtained from existing utility records.
- Quality Level C (QL"C") Surveyed data depicting visible above-ground features supplemented with QL"D" information.
- Quality Level B (QL"B") Two-dimensional horizontal information obtained through the application and interpretation of non-destructive surface geophysical methods. Also known as "designating," this level incorporates QL"C" information and provides horizontal positioning of subsurface utilities to within approximately 1.0 foot.
- Quality Level A (QL"A") Three-dimensional horizontal and vertical information obtained through non-destructive vacuum excavation equipment to expose utilities at critical points. Also known as "locating," this level incorporates QL"B" information and provides horizontal and vertical positioning of subsurface utilities to within approximately 0.05 feet.

Scope of Work

Based on information provided by BGE, Inc. (Client), TRG has developed a proposed scope for SUE services on this project. This scope may be modified, with Client and TRG concurrence, during the performance of work if warranted by changing or unexpected field conditions.

The Base Scope of this proposal includes QL"A" and QL"B" SUE services for the Alliance Regional Water Authority Phase 1B Segment C pipeline project in Hays and Caldwell Counties, Texas. QL"B" base scope of this proposal includes up to 10,000 LF of designating along a gas pipeline that parallels the water main alignment. The specific sections of QL "B" along the gas pipeline will be provided by the Client. The QL"A" base scope of this proposal includes sixtythree (63) test holes along the proposed water main alignment at locations that will be provided by the Client. This scope of work also includes up to three meetings with the Client to identify the final locations of the QL"A" and QL"B" SUE needs, review data, and evaluate findings.

This proposal also includes Supplemental Services for ten (10) QL"A" SUE test holes at locations that will be provided by the Client.

The survey of SUE field markings for both the Base Scope and Supplemental Services is included in the scope of work. It is assumed that the Client will provide the necessary survey control information.

Any necessary Right-Of-Entry (ROE) permits, including railroad ROE, will be provided by the Client prior to the start of field work.

TRG Procedures

QL"D" and "C" – Records Research and Surface Feature Survey

It is the responsibility of the SUE provider to perform due-diligence with regard to records research and the acquisition of available utility records. The due-diligence provided for this project will consist of contacting the applicable One Call agency and associated utility owners/municipalities, visually inspecting the work area for evidence of utilities, and reviewing available utility record information. Additional utilities not identified through these efforts will be referred to as Unknown utilities.

<u>QL"B" – Designating</u>

Following a review of the project scope and available utility records with the project manager, TRG field personnel will begin designating the approximate horizontal position of known subsurface utilities within the project area. A suite of geophysical equipment that includes magnetic and electromagnetic induction will be used to designate conductive utilities. Where access is available, a sonde will be inserted into non-conductive utilities to provide a medium for transmission which can then be designated using geophysical equipment. Non-conductive utilities can also be designated using other proven methods, such as rodding and probing. TRG will make a reasonable attempt to designate Unknown utilities identified during field work; however, no guarantee is made that all Unknown utilities will be designated. Utilities will be marked and labeled to distinguish type and ownership. Field data depicting the designated utilities, as well as relevant surface features, will be produced to ensure accuracy and completeness of subsequent survey data. The TRG project manager will review the collected survey data, field data, and utility records for accuracy and completeness.

<u>QL"A" – Locating</u>

TRG will utilize non-destructive vacuum excavation equipment to excavate test holes at the requested locations. To layout the test holes, TRG will follow the QL"B" - Designating procedures described above. Once each utility is located, TRG will record the size, type, material, and depth. Test holes will be uniquely marked. Excavations will be backfilled by mechanical means with the appropriate material, and the original surface will be restored. If necessary, TRG can core pavement up to a depth of 12 inches. Asphalt surfaces will be repaired with an asphalt cold patch, and concrete cores will be epoxied in place, flush with the surrounding surface. TRG assumes that flowable fill will not be required when backfilling test holes and that full-section pavement repair (including sidewalks) will not be required to restore the original pavement surface. If requested, these services can be provided at an additional cost.

TRG will establish any necessary routine traffic control measures at no additional cost. However, if non-routine traffic control measures (lane closures, traffic detours, flagpersons, etc.) are required, this service will be invoiced as a direct expense. Due to the risk of damage, TRG will not attempt to probe or excavate test holes on AC water lines unless approval is obtained from the owner in advance. Additionally, excavation in rock, or to a depth greater than 18 feet, is considered beyond the scope of this proposal.

TRG has made the following assumptions with regard to the test holes on this project:

- All test holes will be accessible to truck-mounted vacuum excavation equipment.
- Right-Of-Way (ROW) permits from Hays and/or Caldwell County will be required. TRG will obtain all required County permits and ensure that coordination and compliance with the County is provided.
- Designed traffic control plans will not be required.
- Non-routine traffic control measures will be required. TRG will acquire the services of a qualified Maintenance-Of-Traffic (MOT) Subcontractor, and ensure that adequate traffic control is provided. It is assumed that two traffic control set-ups will be required.
- The coring of pavement will not be required.

Deliverables

TRG will provide the following as a final deliverable to the Client:

- A utility file in CAD format depicting all designated and located utilities. The Client will provide TRG with any necessary background files for use in completing the final deliverables.
- A summary sheet of all test hole coordinate data and depth information.
- 8.5" x 11" Test Hole Data Forms for all test hole locations completed. These plans will be signed and sealed by a Professional Engineer and delivered to the Client in electronic PDF form.
- 11" x 17" SUE Plan Sheets depicting all designated and located utilities. These plans will be signed and sealed by a Professional Engineer and delivered to the Client in electronic PDF form.

Schedule

TRG can mobilize within three (3) weeks of receiving Notice-To-Proceed (NTP). TRG estimates that the QL"B" SUE work for the Base Scope can be completed in seventeen (17) working days, broken down as follows:

- QL"B" SUE field work 5 days
- Survey and preparation of data 5 days
- Deliverable preparation 7 days

TRG estimates that the QL"A" SUE work for the Base Scope can be completed in thirty-five (35) working days, broken down as follows:

- QL"A" SUE field work 20 days
- Survey and preparation of data 5 days
- Deliverable preparation 10 days

TRG estimates that the QL"A" SUE work for the Supplemental Services can be completed in twenty (20) working days, broken down as follows:

- QL"A" SUE field work 5 days
- Survey and preparation of data 5 days
- Deliverable preparation 10 days

Estimated Fee

The total estimated cost to complete the work described herein for the Base Scope is **One Hundred Twenty-Two Thousand Four Hundred Ninety Dollars and NO/100 (\$122,490.00)**. An itemized breakdown of cost is provided in Exhibit A-1.

The total estimated cost to complete the work described herein for the Supplemental Services is **Twenty-One Thousand One Hundred Five Dollars and NO/100 (\$21,105.00)**. An itemized breakdown of cost is provided in Exhibit A-2.

Please note that these pricings are based on an assumption of quantities, and that only actual quantities will be invoiced – up to the total Contract amount.

We look forward to working with you on this project. If there are any questions, please do not hesitate to call at 512.580.5440.

Respectfully,

The Rios Group, Inc.

By Ulh

Ryan C. Chapin, P.E. Project Manager

EXHIBIT A-1 FEE SCHEDULE SUMMARY Method of Payment: Specified Rate and Unit Cost

Description of Work Task	Total
SUE Office Effort	\$ 10,690.00
SUE Field Effort	\$ 100,550.00
Other Direct Expenses	\$ 11,250.00
Total Fee	\$122,490.00

Total Fee

\$122,490.00

Prime Provider	BGE, Inc.								Exhibit A-1		
Subprovider	The Rios Group, Inc.										
Alliance Regional	Water Authority										
Phase 1B Segment	t C										
		\$ 220.00	¢ 190.00	¢ 00.00	\$ 70.00		1			. 	T
	DASIS SERVICES	\$ 220.00	Ş 180.00	Ş 90.00	Ş 70.00					ł	
	Tack Descriptions	² roject Manager	Project Engineer	CADD Operator	Admin / Clerical			Total Hours	Total Cost	Total Sheets or # of Items	Hours per Sheet or item
									10141 COSt	╂────	
	QLB Project Management	2	6	4	1			13	\$ 1,950.00	<u> </u>	
	QLA Project Management	3	15	30	4			52	\$ 6,340.00		
	Team Meetings with BGE	6	6						\$ 2,400.00		
	Totals	11	27	34	5	0	0	65	\$ 10.690.00	0	j

Prime Provider: BGE_Inc		Fxhibit A-1		
Subprovider: The Bios Group. Inc.				
Alliance Regional Water Authority Phase 1B Segment C				
Allance Regional Water Authonty Phase 16 Segment C				
Specified Rate Classification	Unit	Specified Contract Rate	Quantity	Total Cost
SUE (Quality Level C and D)				
This unit price includes personnel and equipment for records research. CADD, and				
mapping. Price per linear foot (including all related services)				
	LF	0.60	0.00	Ş -
SUE (Quality Level B - Utility Designating)				
I his unit price includes personnel and equipment for records research, designating,				
(including all related convices)		1 55	6 000 00	¢ 0.200.00
(Including all related services)	LF	1.55	6,000.00	\$ 9,500.00
SOE (Quality Level A - Other Locate, Test Holes)				
Price per Test Hole.				
Level A: 0 to 5 ft	FΔ	\$ 1 100 00	30.00	\$ 33,000,00
Level A: > 5 to 10 ft	ΕΔ	\$ 1,100.00 \$ 1,350.00	20.00	\$ 27,000,00
Level $A > 10$ to 15 ft	FΔ	\$ 1,350.00 \$ 1,750.00	11.00	\$ 19 250 00
Level A: > 15 to 20 ft.	FA	\$ 2,300,00	2 00	\$ 4,600,00
Level A: > 20 ft.	VF	\$ 160.00	0.00	\$ -
SUE Mobilization/Demobilization	MILE	\$ 5.00	0.00	\$ -
Traffic Control Services - Small Project (Includes labor, equipment, and fuel)	DAY	\$ 1,000.00	2.00	\$ 2,000.00
SUE Field Services One (1) Designating Person with Equipment - Test Hole Layout	Hour	\$ 135.00	40.00	\$ 5,400.00
SUE Field Services Two (2) Designating Person with Equipment	Hour	\$ 180.00	0.00	\$ -
			TOTAL	\$ 100,550.00
The unit costs shown include labor, overhead, and profit. Payment based on units comple	ted. No pa	rtial payments.		
All unit costs are negotiated costs and are not subject to change or adjustment.				
Unit Cost Payment Basis: If unit costs by year are included, unit costs billed should corresp was done.	oond to the	e fiscal or calendar	year, if applicable,	in which the work
Note: Any direct labor, unit cost, or other direct expense classification included in the con under that work authorization.	tract, but	not in a work autho	rization, is not elig	ble for payment

Prime Provider: BGE, Inc.				Exhibi	t A-1
Subprovider: The Rios Group, Inc.					
Alliance Regional Water Authority Phase 1B Segment C					
OTHER DIRECT EXPENSE	UNIT	UNIT COST	QUANTITY		COST
Lodging/Hotel (Taxes/fees not included)	day/person	\$ 141.00	0	\$	-
Lodging/Hotel - Taxes and Fees	day/person	\$ 30.00	0	\$	-
Meals (Excluding alcohol & tips) (Overnight stay required)	day/person	\$ 59.00	0	\$	-
Mileage	mile	\$ 0.535	0	\$	-
Survey	day	\$ 2,250.00	5	\$	11,250.00
				\$	-
		 Subtotal Other Di	irect Expense:	\$	11,250.00
Profit not allowed on Other Direct Expenses.				<u></u>	

EXHIBIT A-2 FEE SCHEDULE SUMMARY Method of Payment: Specified Rate and Unit Cost

Description of Work Task	Т	otal
SUE Office Effort	\$	1,980.00
SUE Field Effort	\$	16,875.00
Other Direct Expenses	\$	2,250.00
Total Fee		\$21,105.00

Total Fee

\$21,105.00

Prime Provider	BGE, Inc.								Exhibit A-2		
Subprovider	The Rios Group, Inc.										
Alliance Regional	Water Authority										
Phase 1B Segmen	t C										
		-	1	-	1	1	1				1
	BASIS SERVICES	\$ 220.00	\$ 180.00	\$ 90.00	\$ 70.00						
	Ted. Descriptions	roject Manager	roject Engineer	CADD Operator	Admin / Clerical			Total Hours	Tatal Cast	Total Sheets or # of Items	Hours per Sheet or item
	Task Descriptions	<u>م</u>	۵.	Ű	4				lotal Cost	└───	
										┣───	
	QLA Project Management	1	. 6	6	5 2			15	\$ 1,980.00	───	
											
											
										L	
	Totals	1	6	6	2	0	0	15	\$ 1.980.00		•

Prime Provider: BGE Inc		Fxhibit A-2				
Subprovider: The Rios Group. Inc.						
Alliance Regional Water Authority Phase 1B Segment C						
Specified Rate Classification		Specified Contract Rate	Quantity	Total Cost		
SUE (Quality Level C and D)						
This unit price includes personnel and equipment for records research. CADD, and						
mapping. Price per linear foot (including all related services)						
	LF	0.60	0.00	\$ -		
SUE (Quality Level B - Utility Designating)						
This unit price includes personnel and equipment for records research, designating,						
engineering, surveying, CADD, mapping and limited traffic control. Price per linear root		1 55	0.00	ę		
(Including all related services)	LF	1.00	0.00	Ş -		
SUE (Quality Level A - Utility Locate, Test Holes)						
Drice per Test Hole.						
Level A: 0 to 5 ft	F۵	¢ 1 100 00	4.00	¢ 4,400,00		
Level A: 5 to 10 ft	FΔ	\$ 1,100.00 \$ 1,350.00	4.00	\$ 4,+00.00 \$ 5,400.00		
Level $A > 10$ to 15 ft	FΔ	\$ 1,550.00	1.00	<i>\$</i> 3,∓00.00 く 1,750,00		
Level A > 15 to 20 ft.	FA	\$ 2,300.00	1.00	\$ 2,300,00		
Level A: > 20 ft.	VF	\$ 160.00	0.00	\$ -		
SUE Mobilization/Demobilization	MILE	\$ 5.00	0.00	\$ -		
Traffic Control Services - Small Project (Includes labor, equipment, and fuel)	DAY	\$ 1,000.00	1.00	\$ 1,000.00		
SUE Field Services One (1) Designating Person with Equipment - Test Hole Layout	Hour	\$ 135.00	15.00	\$ 2,025.00		
SUE Field Services Two (2) Designating Person with Equipment	Hour	\$ 180.00	0.00	\$ -		
			TOTAL	\$ 16,875.00		
The unit costs shown include labor, overhead, and profit. Payment based on units comple	ted No pa	rtial navments				
All unit costs are negotiated costs and are not subject to change or adjustment.						
Unit Cost Payment Basis: If unit costs by year are included, unit costs billed should corresp was done.	oond to the	e fiscal or calendar y	year, if applicable,	in which the work		
Note: Any direct labor, unit cost, or other direct expense classification included in the con under that work authorization.	tract, but i	not in a work autho	rization, is not elig	ible for payment		

Prime Provider: BGE, Inc.		Exhibit A-2				
Subprovider: The Rios Group, Inc.						
Alliance Regional Water Authority Phase 1B Segment C						
OTHER DIRECT EXPENSE	UNIT		UNIT COST	QUANTITY		COST
Lodging/Hotel (Taxes/fees not included)	day/person	\$	141.00	0	\$	-
Lodging/Hotel - Taxes and Fees	day/person	\$	30.00	0	\$	-
Meals (Excluding alcohol & tips) (Overnight stay required)	day/person	\$	59.00	0	\$	-
Mileage	mile	\$	0.535	0	\$	-
Survey	day	\$	2,250.00	1	\$	2,250.00
					\$	-
	Subtotal Other Direct Expense:				\$	2,250.00
Profit not allowed on Other Direct Expenses.						



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March 26, 2020

Mr. Ron Mick, P.E. Senior Project Manager Brown & Gay Engineers, Inc. (BGE) 101West Louis Henna Boulevard Suite 400 Austin, Texas 78728

Re: Alliance Regional Water Authority (ARWA); Phase 1B Pipeline Segment C

UNINTECH CONSULTING ENGINEERS, INC. (UCE), is pleased to submit this proposal to provide Professional Surveying Services in connection with the above referenced project.

PROJECT DESCRIPTION AND LIMITS

This proposal is based on your initial phone contact, project materials provided by your office, a subsequent meeting, and a field visit. We understand that the project involves Topographic/Design surveying of a handful of primary pipeline segments which make up Phase 1B, Segment C. The total estimated length of the proposed survey segments is approximately 119,000 L.F. or approximately 22.5 miles.

Based on our meeting and review of the Technical Memorandum, prepared by BGE, UCE further understands the complexity and goals of the regional approach to provide a water supply to an underserved land area. Several Central Texas Engineering consultants are involved with the project. The consultants UCE expects to interact with, are Kimley-Horn, CP&Y and BGE. As you explained, during our meeting, Kimley-Horn is the Program Manager, and CP&Y is performing the Boundary Surveying and Easement preparation for the private properties to be crossed. BGE will be providing CP&Y's digital information to UCE as it is completed.

The primary Survey Project Limits will be based upon the alignment of the segments to be provided by BGE. This alignment is to be the centerline of the pipeline (easements) corridors. The corridor widths are to be 40 feet wide for proposed pipelines of 16", plus an additional 20 feet on both sides (where possible), and 60 feet wide for proposed pipelines larger than 16", plus an additional 20 feet on both sides (where possible). Based on the "preferred" alignment described in the Technical Memorandum and shown on a KMZ file provided by BGE, approximately 28,000 feet of corridor will be 80 feet wide, and 91,000 feet will be 100 feet wide. These pipeline corridors constitute the primary limits of the Survey.

Per our discussions, and the document entitled "Topographic Survey Scope of Work Request" (SOW), you provided, UCE understands the following items constitute a description of the surveying services requested by your firm.



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March 26, 2020 BGE ARWA 1BSC Proposal Page Two

SURVEY SITE – DESIGN ALIGNMENT SEGMENTS



 2431 E. Evans Road, San Antonio, TX 78259
 505 E. Huntland Drive, Ste. 335, Austin, TX 78752

 P: (210) 641-6003
 F: (210) 641-8279
 P: (512) 579-0722
 F: (512) 579-0734
 P

 TBPE No. F-5499
 • wW3.unintech.com
 • TBPLS No. 10051100



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March 26, 2020 BGE ARWA 1BSC Proposal Page Three

Task 1 - Survey Control

It is noted in the material provided to UCE, that we will be provided with Primary Control Points to utilize for this survey. Item 4 in the Work Request requires that we "verify control points provided by ARWA Owner's Representative". Those points considered, or intended to be used as, Primary control, will be verified by STATIC GPS methods. Said positions will be occupied for a minimum of 1-hour. The data collected, will be Post-Processed using NGS OPUS facilities. Unless otherwise specified, Horizontal values will be Texas Coordinate System, NAD 83/93 HARN (2011/IGS08 Ref. Frame), expressed in Grid coordinates. Elevation values will use the NAVD88 Datum, computed using GEOID12B applied to the vertical component of the STATIC GPS Observations. Secondary Control will be placed as needed and the positions obtained using "Rapid Static" observations, with a much shorter Epoch time. Control placed by CP&Y for use locating boundaries for Easements will be considered Secondary Control. Those points may be located for a cross check between the Boundaries and the Topographic/Design Survey.

Task 2 - Planimetric Data, Existing Conditions and DTM Data Collection

This task is the heart of the Topo/Design Survey. Survey observations made, and data collected, will be utilized to identify and map the horizontal position, and/or footprint, of all visible aboveground features, improvements, utilities and structure. Including street curbs and pavement edges, markings, street/road signage and traffic control structure, bridges and cross-culverts, sidewalks and driveways, fences and walls, buildings, drainage channels and structure, (i.e., inlets, drive-way culverts, out-fall structure), above-ground utility lines (including poles and guy wires) and, underground utility evidence (i.e., signage, manholes, valves, meters, pavement cuts, etc.). A digital CAD drawing file will be developed and delivered in 2D or dwg format.

The following is taken verbatim from the SOW:

- a. Where drainage culverts are crossed, the survey is to identify the manhole, junction box, or outfall structure immediately upstream and downstream of the water main crossing and provide flowline and pipe size information for the culvert crossing the water main.
- b. Where a sewer main is crossed, the survey is to identify manholes on each side of the crossing and provide flowline, pipe diameter, and material information for the wastewater main.
- c. Where water mains or gas mains are crossed, survey will locate any surface features of the main within 50 feet of the easement.
- d. All communications manholes within 50 feet of the easement are to be identified in the survey.

Page | 3



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March 26, 2020 BGE ARWA 1BSC Proposal Page Four

Task 2 – Continued:

In addition, per our meeting to discuss the Project:

- All visible, man-made improvements observed along the identified survey segments.
- When locating street signs, provide a description of sign type and any labeling on the sign. Collect a photograph for back-up evidence.
- Natural ground observations will be obtained by cross sections at 50 foot intervals, where possible. Obtain sufficient elevation positions to map existing ground conditions and DTM, which shall include a minimum of breaklines, etc., to develop a contour plan with a one (1') foot interval.
- If deemed appropriate by the Field Survey Chief, sketches or field drawings of the improvements will be made to backup digital files. NOTE: Digital photographs may be collected in addition to sketches.
- When crossing under overhead utilities and over buried utilities having visible surface evidence, additional observations will be taken outside the survey corridor limits in order to locate the next available utility indication (i.e. poles, structures, signs, or evidence) on either side of the corridor. Any ownership information or phone numbers will be noted, if observed.
- When crossing railroads or roadways, additional observations will be taken outside the survey corridor limits for drafting purposes.
- When crossing streams or waterways, additional observations will be taken outside the survey corridor, limits upstream and downstream, in the manner of cross sections. This data will aid in showing the designer profile and drainage characteristics of the crossing area.
- Crossings of wastewater or storm lines, the closest manholes, inlets or drainage structures to the corridor will be located and detailed and photographed. Inverts and pipeline material will be noted where possible.
- RTK GPS equipment will be utilized, where possible, to obtain survey information, tied to the primary and secondary control mentioned above.
- Topographic observations or shots using conventional instruments shall not exceed 500 feet from the instrument.

As most of the corridor alignments cross open fields, and reasonably open areas, gathering this topographic/planimetric data using on-the-ground survey methodology would be "time prohibitive". UCE plans to achieve collection of the data using a combination of ground methods and aerial survey methods. UCE will subcontract aerial collection of survey data to United Geo Technologies, LLC, (UGT) – a woman owned, HUB business in San Antonio. Acquisition will utilize the Survey Grace Phoenix LiDAR system, carried by a multi-hex rotor UAV. UGT will process the raw point cloud in the LAS format. This data will be conveyed to UCE as Topographic bare earth data in LAS/AutoCAD format, and Planimetrics in AutoCAD format. The aerial data, and ground survey data will be melded together, and a 3D DTM created for contour creation.



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March 26, 2020 BGE ARWA 1BSC Proposal Page Five

Task 2 - Continued:

In Addition:

- UCE will provide ground control for orientation and coordination with the on-board RTK GPS UAV Navigation. UCE will provide linear ground-truthing for the aerial data.
- The UGT Flight Crew will obtain all licenses and permits required for the aerial surveys.
- Flight Crew will coordinate with local law enforcement, airport authorities and the FAA to establish aerial flight plans, especially around the Airport areas.
- Flight Crew to provide a flight schedule detailing date and time of the aerial surveys.

When UCE is proceeding with the project, the project will be captured as soon as the above logistics have been accomplished, and weather permits. Please note that due to the size and bureaucracy of the FAA, permission and permitting may require an unusual length of time. Therefore, getting that initiated as soon as possible should be a priority.

Task 3 - Tree Survey and Inventory

Where the alignment corridors encounter significant trees, they will be tagged and located in accordance with the Hill Country Tree Ordinance, City of Kyle Ordinance No. 912, Section 53-995 and City of San Marcos Environmental Regulations Article 4, Sections 6.4.1.1 through 6.4.2.2 And in accordance with the SOW, UCE will employ Baer Engineering and Environmental Consulting, Inc, a woman owned HUB business in Austin, to provide us with a Field Scientist to verify our Survey Field Crew tree observations, and a Staff Scientist to review and confirm species. The identifier tags and species information will be included as a tree list, or inventory, in the 2D Planimetric Plan.

Task 4 - QA/QC and Project Deliverables

- UCE will employ our standard quality assurance and control measures throughout the completion of Professional Surveying Services for this project. This includes coordinating with the Subs used, to ensure the consistency and quality of all work on the project.
- Prepare AUTOCAD 2d and 3d DTM drawings showing the results of the field survey.
- Digital File Copies for the Survey (.DWG & .PDF); Digital photograph files; and Copies of Field Book Notes, or independent sketches will be provided.

Task 5 - Supplemental Survey Services Upon Request of ARWA

Should the ARWA request the following additional services, UCE has budgeted them separately, at your request:



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March 26, 2020 BGE ARWA 1BSC Proposal Page Six

Supplemental Survey Services, continued:

- If deemed necessary, UCE would recover Horizontal & Vertical Control points along the alignment for use during construction. A photograph and/or verification note or sketch would be created to ensure the condition of the control object as of that date.
- Should the control object not be found, and determined to be obliterated, UCE would set or reset a point at that location, and complete GPS observations necessary to tie it in to the overall network datums. A new data sheet would be prepared for the new position.

Exclusions to Scope:

- 1. No coordination with 811 or One Call, to have potential utilities marked in the field. Only visible evidence of subsurface utilities will be located per the scope. Client agrees to contact utilities noted in the "Technical Memorandum" to mark any areas deemed necessary. This is due to the corridor alignment information being controlled by BGE.
- 2. Data Collection outside of the project limits described other than that listed in Task 2.
- 3. No subsurface utility engineering (SUE), will be conducted by UCE.
- 4. No Geotechnical locations or coordination with such consultants is included herein.

Additional Services:

Any items requested that are not outlined in the above scope would be considered additional services and would be provided via a separate fee proposal.

To Be Provided By Client:

- Client to provide Unintech with Right-Of-Entry (ROE) documentation to Private properties, or Restricted Areas prior to the start of any field activities or work performed by Unintech Consulting Engineers, Inc.
- All boundary and easement survey data completed by CP&Y in digital format.
- Drawing Templates, line styles, or any other CAD Standards unique to the Client.

Fee Schedule and Invoicing Requirements:

We propose to provide the above described services listed in Task Items 1 thru 4, for a total Lump Sum Fee of \$302,789.00. Invoicing will occur on a monthly basis during execution of the Project. Invoices will be prepared in a percent complete format to cover UCE efforts performed at the calendar end of each month. Task Item 5 is to be considered separate, and will not be acted upon

Page | 6



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March 26, 2020 BGE ARWA 1BSC Proposal Page Seven

Fee Schedule and Invoicing Requirements, Continued:

unless requested in writing, and contracted for separately. We propose to provide services listed in Task 5 for a Time & Materials basis, with an **Estimated fee of \$20,000.00**. Invoicing will occur on a monthly basis during execution of the Project. Invoices will be prepared identifying those services completed, and listing the titles of assets utilized, and hours they worked, to arrive at that months' total Invoice fee.

If the scope and terms of this proposal are acceptable to you, please sign and date where indicated, and return at your earliest convenience. Should you have any questions or require additional information, please do not hesitate to contact me at (512) 579-0722, or <u>lsavory@unintech.com</u>.

Thank you for the opportunity to prepare this proposal. We look forward to providing these, and any future professional surveying services you may require.

Sincerely,

ynn M. C

Lynn R. Savory, RPLS UNINTECH Project Manager & Austin Office Administrator

----- THIS AREA INTENTIONALY LEFT BLANK ------
UNINTECH CONSULTING ENGINEERS, INC.

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BGE – ARWA – PHASE 1B PIPELINE SEGMENT C TERMS AND CONDITIONS:

UNINTECH shall perform the services outlined in this agreement for the stated fee arrangement. Assignment

Neither party to this Agreement shall transfer, sublet or assign any rights under or interest in this Agreement (including, but not limited to, monies that are due or monies that may be due) without the prior written consent of the other party.

Access To Site:

Unless otherwise stated, UNINTECH will have access to the site for activities necessary for the performance of the services. UNINTECH will take precautions to minimize damage due to these activities, but have not included in the fee the cost of restoration of any resulting damage. **Jobsite Safety**

Neither the professional activities of UNINTECH, nor the presence of UNINTECH's employees and subconsultants at a construction site, shall relieve the General Contractor and any other entity of their obligations, duties and responsibilities including, but not limited to, construction means, methods, sequence, techniques or procedures necessary for performing, superintending or coordinating all portions of the Work of construction in accordance with the contract documents and any health or safety precautions required by any regulatory agencies. UNINTECH and its personnel have no authority to exercise any control over any construction contractor or other entity or their employees in connection with their work or any health or safety precautions. CLIENT agrees that the General Contractor is solely responsible for jobsite safety, and warrants that this intent shall be made evident in CLIENT's agreement with the General Contractor.

Dispute Resolution:

Any claims or disputes made during design, construction or post-construction between CLIENT and UNINTECH shall be submitted to non-binding mediation. CLIENT and UNINTECH agree to include a similar mediation agreement with all contractors, subcontractors, sub consultants, suppliers and fabricators, thereby providing for mediation as the primary method for dispute resolution between all parties.

Indemnification:

CLIENT shall, to the fullest extent permitted by law, indemnify and hold harmless UNINTECH, its officers, directors, employees, agents and sub consultants from and against all damage, liability and cost, including reasonable attorney's fees and defense costs, arising out of or in any way connected with the performance by any of the parties above named of the services under this agreement, excepting only those damages, liabilities or costs attributable to the sole negligence or willful misconduct of UNINTECH. Limitation of Liability:

In recognition of the relative risks, rewards and benefits of the project to both CLIENT and UNINTECH, the risks have been allocated such that CLIENT agrees that, to the fullest extent permitted by law, UNINTECH's total liability to CLIENT for any and all injuries, claims, losses, expenses, damages or claim expenses arising out of this agreement from any cause or causes, shall not exceed total amount of engineering fee stated in this agreement. Such causes include but are not limited to, UNINTECH's negligence, errors, omissions, strict liability, breach of contract or breach of warranty.

Governing Law

The laws of the State of Texas will govern the validity of this Agreement, its interpretation and performance. Any litigation arising in any way from this Agreement shall be brought in the courts of the State of Texas, County of Bexar.



UNINTECH CONSULTING ENGINEERS, INC.

STRUCTURAL . CIVIL . SURVEYING

Terms & Conditions, Cont.

Third Party Beneficiaries

Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against either CLIENT or UNINTECH. UNINTECH's services under this Agreement are being Performed solely for CLIENT's benefit, and no other entity shall have any claim against UNINTECH because of this Agreement or the performance or nonperformance of services hereunder. CLIENT agrees to include a

provision in all contracts with contractors and other entitles involved in this project to carry out the intent of this paragraph.

Certifications, Guarantees and Warranties:

UNINTECH shall not be required to execute any documents that would result in their certifying, guaranteeing or warranting the existence of conditions whose existence UNINTECH cannot ascertain. UNINTECH shall not be required to execute any documents subsequent to the signing of this Agreement that in any way might, in the sole judgment of UNINTECH, increase UNINTECH's risk or the availability or cost of his or her professional or general liability insurance.

Billings/Payments:

Invoices for the Firm's services shall be submitted, at the Firm's option, either upon completion of such services or on a monthly basis. Invoices shall be payable within 30 days after the invoice date. All such invoices are due and payable to 2431 E. Evans Road, Sa Antonio, Texas. If the invoice is not paid within 30 days the Firm may, without waiving any claim or right against the Client, and without liability whatsoever to the Client, terminate the performance of the service. Retainers shall be credited on the final invoice.

Late Payments:

Accounts unpaid 60 days after the invoice date may be subject to a monthly service charge of 1.5% (or the legal rate) on the then unpaid balance. In the event any portion or all of an account remains unpaid 90 days after billing, CLIENT shall pay all costs of collection, including reasonable attorney's fees.

Termination of Services:

This agreement may be terminated by CLIENT or UNINTECH should the other fail to perform its obligations hereunder. In the event of termination, CLIENT shall pay UNINTECH for all services rendered to the date of termination, all reimbursable expenses, and reimbursable termination expenses.

Ownership of Documents:

All documents produced by UNINTECH under this agreement shall remain the property of UNINTECH and may not be used by CLIENT for any other endeavor without the written consent of UNINTECH. CLIENT agrees, to the fullest extent permitted by law, to defend, indemnify and hold UNINTECH harmless from any claim, liability or cost (including reasonable attorneys' fees and defense costs) arising or allegedly arising out of any unauthorized reuse or modification of the construction documents by CLIENT or any person or entity that acquires or obtains the plans and specifications from or through CLIENT without the written authorization of UNINTECH.

Contract offered this 26th day of March, 2020, and is valid for 30 days.

Unintech Consulting Engineers, Inc.

	N	in Chow (Clifford) Hew, CEO	
Contract accepted this	s day	of,:	2020.
Ву,			
	2431 E. Evans Road, San Antonio, TX 78259	505 E. Huntland Drive, Ste. 335, Austin, T	X 78752
	P: (210) 641-6003 • F: (210) 641-8279 TBPE No. F-5499 • WWP.un	P: (512) 579-0722 • F: (512) 579-07 intech.com • TBPLS No. 10051100	³⁴ Page 9

BOARD MEMBER PACKETS

Wednesday, April 22, 2020 at 3:00 P.M. Conference Call Number: 1-903-405-2572; Code: 925 453 055#

H.2 Consider adoption of Resolution 2020-04-22-002 approving Supplemental Amendment #1 to Work Order #3 with Walker Partners, LLC for Surge and Transient Analysis of the High Service Pump Station at the Phase 1B Water Treatment Plant.
 ~ Ryan Sowa, P.E., Kimley-Horn & Associates

Background/Information

Alliance Water entered into Work Order #3 with Walker Partners in January 2020 for the Final Design of the Phase 1B Water Treatment Plant project. At the time of the approval it was noted that a supplemental amendment would be required for the Surge and Transient Analysis associated with the High Service Pump Station at the Water Treatment Plant. This effort was being coordinated with the final design of the Booster Pump Station project so that the analyses would be similar in nature.

The Surge and Transient Analysis is needed to determine the appropriate valve sizing and timing as well as pipe pressure class. Attached is the negotiated scope and fee for the Surge and Transient Analysis. It matches the total amount identified as a possible supplemental effort within the approved Work Order #3.

As part of the approval of Work Order #3, the Board required that any supplemental amendment that exceeds \$50,000 would require Board approval.

The scope and fee were not ready in time to discuss with the Technical Committee, so there is no recommendation from the committee. Staff is requesting approval of this supplemental amendment now so that schedules are not delayed.

Attachment(s)

- Resolution 2020-04-22-002
- Proposal for Surge and Transient Analysis for the Phase 1B Water Treatment Plant Project dated April 13, 2020.

Board Decision(s) Needed:

• Adoption of Resolution 2020-04-22-002 approving Supplemental Amendment #1 to Work Order #3 with Walker Partners, LLC for Suge and Transient Analysis of the High Service Pump Station at the Phase 1B Water Treatment Plant.



RESOLUTION NO. 20200422-002

A RESOLUTION OF THE ALLIANCE REGIONAL WATER AUTHORITY BOARD OF DIRECTORS APPROVING SUPPLEMENTAL AMENDMENT #1 TO WORK ORDER #3 BETWEEN THE AUTHORITY AND WALKER PARTNERS, LLC FOR SURGE AND TRANSIENT ANALYSIS OF THE HIGH SERVICE PUMP STATION FOR THE AUTHORITY'S PHASE 1B WATER TREATMETN PLANT PROJECT AND RELATED MATTERS, AND DECLARING AN EFFECTIVE DATE

RECITALS:

1. Alliance Regional Water Authority (the "Authority") entered into Work Order #3 with Walker Partners, LLC ("Walker Partners") for final design services of the Phase 1B Water Treatment Plant project in January 2020.

2. It was noted in Work Order #3 that a supplemental amendment would be required in order to complete the Surge and Transient Analysis that is required as part of the final design of the High Service Pump Station that is part of the Phase 1B Water Treatment Plant project.

3. The Authority Board of Directors required that any supplemental amendment that exceeds \$50,000 would require Board approval.

4. The scope of services and fee for the supplemental amendment was negotiated by the Executive Director and the Owner's Representative on behalf of the Authority.

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

SECTION 1. The attached supplemental amendment for Surge and Transient Analysis of the High Service Pump Station at the Phase 1B Water Treatment Plant between the Authority and Walker Partners is approved with a total fee of \$125,203.00.

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

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

ADOPTED: April 22, 2020.

ATTEST:

Chris Betz Chair, Board of Directors James Earp Secretary, Board of Directors



ALLIANCE WATER PHASE 1B PROGRAM PROGRAM MANAGEMENT PLAN

Kimley »Horn

PROPOSAL FOR SUPPLEMENTAL WORK

то:	GRAHAM MOORE, P.E.; RYAN SOWA, P.E.
FROM:	JOSEPH JENKINS, P.E.
SUBJECT:	WORK ORDER No. 3 – SUPP REQUEST No. 2 – SURGE & TRANSIENT ANALYSIS
DATE:	4/13/2020
CC:	MARISA VERGARA, P.E.

Work Order No. 3 includes Supplemental Task 12.11 for completion of a Surge and Transient Analysis for a fee of \$114,269. After review of Freese & Nichols' final design scope and proposed hydraulic evaluation scope, Northwest Hydraulic Consultants (NHC) has requested authorization for a lump sum fee of \$109,340 for completion of the surge and transient analysis as per the attached scope. Note that Task 2 for the amount of \$12,960 was approved under Basic Services.

Walker Partners is requesting authorization for a lump sum fee of \$4,929 as shown within Task 12.11 on the fee table for review and coordination of the surge and transient analysis as outlined in the master scope. Walker Partners is also requesting the 10% subconsultant markup on NHC's effort for a lump sum fee of \$10,934. The corresponding scope and fee documents are attached for reference. Please let me know if you need any other information or have questions.

Task	Amount
Supplemental 12.11 – Surge and Transient Analysis NHC	\$ 109,340.00
Supplemental 12.11 – Surge and Transient Analysis Walker Partners	\$ 4,929.00
Subtotal:	\$ 114,269.00
Supplemental – Subconsultant 10% Markup	\$ 10,934.00
Total:	\$ 125,203.00



April 13, 2020

Walker Partners 804 Las Cimas Pkwy, Suite 150 Austin, TX 78746

Attention: Mr. Joseph Jenkins, P.E. Senior Client Manager

Subject:Proposal to Perform Hydraulic Transient Analyses for the
Alliance Regional Water Authority WTP High Service Pump Station

Dear Mr. Jenkins:

Northwest Hydraulic Consultants (NHC) is pleased to submit the following scope of work and budget to perform hydraulic transient analyses for the new ground water treatment plant (WTP) high service pump station for Alliance Regional Water Authority (ARWA). A brief summary of the project is provided and includes the technical aspects of the project used to develop a scope of work and budget.

Project Understanding

Alliance Water is planning to construct infrastructure to convey treated water from eastern Caldwell County to several delivery points. The high service pump station at the WTP will pump treated water to the City of Lockhart delivery point (GBRA Delivery Point 1) and to the ground storage tank on the suction side of the Booster Pump Station (BPS GST) at Maxwell via a treated water pipeline.

As part of Phase 1B, one 48-inch pipeline (approximately 89,000 ft or 16.9 miles long) will be installed from the WTP to the takeoff at Lockhart and one 42-inch pipeline (approximately 55,325 ft or 10.5 miles long) will be installed from the takeoff at Lockhart to the BPS GST. To convey treated water to the City of Lockhart an approximately 1.8 mile long transmission line will be installed from the junction of the 42- and 48-inch treated water pipelines to the City of Lockhart storage tank.

For this analysis, the maximum design flow rate for the WTP high service pump station will be as follows:

- a) 4 MGD under low flow operation,
- b) 19.5 MGD under Phase 1B operation,
- c) 28.1 MGD under Phase 1C operation, and
- d) 33.5 MGD under Phase 1D operation.

Normally, the worst-case transients are created following pump power failure when the system is initially operating at the largest magnitude flow rate (in this case, Phase 1D) and surge control that is designed to protect the system following pump power failure from the largest magnitude flow rate will be sufficient to protect the system following pump power failures that occur when the system is initially operating at lower magnitude flow rates (in this case, low flow, Phase 1B and Phase 1C). However, ARWA has requested that this



proposal include scope of work to develop surge control measures specifically for operating at lower magnitude flow rates (in this case, low flow, Phase 1B and Phase 1C) in addition to operation at under Phase 1D.

It is anticipated that the WTP high service pump station will include a total of 5 pumps when configured for Phase 1D operation. Three pumps will have check valves and variable frequency drives, and two pumps will have pump control valves and soft starts. It is our understanding that fewer and/or smaller capacity pumps will be utilized for operating at lower magnitude flow rates such as low flow, Phase 1B and Phase 1C.

Of primary interest for the analyses will be the pressure transients created in the pipelines by the operation (e.g., pump power failure, and pump start/stop) of the pumps at the WTP high service pump station. These events are described below.

- 1. Power failure and pump shutdown at the WTP high service pump station are likely to cause the worstcase pressure transients in the system. For example, loss of power to the pumps will create a pressure drop wave that will propagate out from the discharge side of the pumps and into pipeline toward Maxwell. The polar moment of inertia of a pump will be small so the flow and pressure will drop very rapidly at the pump station following loss of power. If the pressure drops sufficiently low in the pipelines (perhaps due to insufficient air valves installed on the pipelines) to create vapor pressure, vapor cavities will form, and fluid column separation will occur. Upon re-pressurization of the pipelines by flow reversal and/or reflected water hammer waves, the vapor cavities will collapse back into solution and the fluid columns will rejoin. When the fluid columns rejoin, very high magnitude pressure spikes will be created that could damage the WTP high service pump station, pipelines and delivery point. The pipelines may also be damaged by large magnitude negative pressures resulting from the initial pressure drop wave and/or large magnitude high pressures created by a reflected water hammer wave. Pathogen intrusion could occur in the pipelines if leak locations are subjected to negative pressure. If combination air valves on the pipelines open following passage of the pressure drop wave, and then slam closed following re-pressurization of the pipelines, adverse pressures may be created that could damage both the valve floats and the pipelines.
- 2. If the pumps at the WTP high service pump station are started too quickly, the pipelines could be overpressurized.

The objectives of the hydraulic transient analysis will be as follows:

- 1. to predict the maximum and minimum hydraulic grade line (HGL) envelopes for the pipelines following pump power failure, controlled shut down of the pumps and pump startup at WTP high service pump station,
- 2. to recommend surge control measures (e.g., controlled venting vacuum relief valves at the WTP high service pump station and on the pipeline between the WTP and the BPS GST, pressure/surge relief valves, pressurized surge tank at the WTP high service pump station, etc.), if necessary, to protect the pipeline from adverse pressure transients created by the WTP high service pump station,
- 3. to develop recommendations for safely starting and stopping the pumps at the WTP high service pump station.



It is presumed that pressure/flow regulation valves will be installed on the inlet to the City of Lockhart storage tank and the inlet to the BPS GST. Pressure surges created by the operation of the pressure/flow regulation valves are described as follows:

- If a pressure/flow regulation valve is closed too quickly, a pressure upsurge wave will be created that will propagate out from the upstream side of the valve and into the treated water pipelines toward the WTP high service pump station. If the pressure exceeds the maximum allowable pressure for the treated water pipelines between the WTP and the BPS GST, the pipelines could be over pressurized and damaged.
- If opened too quickly, a pressure/flow regulation valve will create a pressure drop wave on the upstream side of the valve. If the pressure is reduced sufficiently to create large magnitude negative pressures or vapor cavity formation in the treated water pipelines between the WTP and the BPS GST, the integrity of the pipelines could be compromised.

Transient analyses for the close/open operation of the pressure/flow regulation valves that will be installed on the inlet to the City of Lockhart storage tank and inlet to the BPS GST are <u>not</u> part of the scope of work for this proposal and it is assumed will be performed by others. However, transient analyses for the pressure/flow regulation valves could be added to NHC's scope of work at ARWA's request following review of this proposal.

Transient analyses of the Phase 2 pipelines, Phase 2 pumps at the WTP high service pump station, and the BPS are beyond the scope of this proposal.

Technical Approach

NHC proposes to construct a surge computer model of the system using the TransAM hydraulic transient analysis software¹. This Method of Characteristics (MOC) based computer model has been used by NHC to perform hydraulic transient analyses of pipeline systems with diameters as large as 22 ft and flow rates up to 1800 cfs. The MOC is universally accepted by transient analysis experts around the world as the state-of-the-art methodology for surge protection design software, the most accurate method available for surge control selection, and the most numerically efficient method in terms of software execution time. TransAM has been. extensively verified by comparison of computed transient pressures and flows with those measured in the field (e.g., Axworthy and Chabot, 2004²) and laboratory (e.g., Axworthy, et al., 2000³), and predicted by codes developed by others. TransAM is one of the first transient analysis software products to fully exploit the parallel processing capabilities of the multi-core processor and has been used to analyze hundreds of pipelines and

¹ McInnis, D. A., Karney, B.W. and Axworthy, D.H. (2019). *TransAM Reference Manual*. Pasadena, CA.

² Axworthy, D.H. and Chabot, N. (2004). "Pressure transients in a Canadian sewage force main." Canadian Journal of Civil Engineering, NRC, Canada, 31, 1039-1050.

³ Axworthy, D.H., Ghidaoui, M.S., and McInnis, D.A. (2000). "Extended thermodynamics derivation of energy dissipation in unsteady pipe flow." Journal of Hydraulic Engineering, ASCE, 126(4), 276-287.





TransAM Transient Analysis Software



distribution systems. The resulting fast computer execution time makes this transient analysis software ideal for performing analyses of large and complex pipeline systems.

TransAM is unique in that it has one hydraulic computational engine that can perform hydraulic transient simulations, extended period simulations, and steady state simulations. This means that, unlike other transient computer models, TransAM does not require an external steady state numerical engine. Our experience shows that TransAM computes more stable numerical solutions in both the unsteady and steady flow regimes because the same hydraulic engine is used to perform both sets of calculations. This attribute of TransAM is particularly beneficial when modeling flow and pressure regulating stations, which are notorious for not converging to stable solutions when modeled using conventional steady state solvers in combination with dedicated transient models.

NHC has used TransAM to perform hydraulic transient analyses for the Brushy Creek Regional Utility Authority, City of Dallas, San Antonio Water System, Metropolitan Water District of Southern California, Los Angeles Department of Water and Power, United States Bureau of Reclamation, NASA/Jet Propulsion Laboratory, San Diego County Water Authority, Calleguas Municipal Water District, Irvine Ranch Water District, Southern Nevada Water Authority, City of San Diego, City of Fresno, City of Stockton, City of Lodi, City of Elk Grove, City of Thousand Oaks and many other water and wastewater agencies.

Scope of Work

This scope of work was developed assuming that the transient analyses would be performed once with the information provided by Walker Partners and ARWA and that attendance at workshops and meetings would not be required. Each task necessary to complete the hydraulic transient analyses for the project is discussed below.

Task 1 – Transient Analyses:

- Coordinate with Walker Partners to 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.
 - With Walker Partners approval and assistance, NHC will coordinate with the BPS, pipeline and WTP designers to obtain information/data necessary for constructing the transient analysis computer model, performing the analysis, and developing surge control measures. For example, the high (max.) and low (min.) water levels in the ground storage tank at the BPS will be obtained from the



BPS designer to ensure that the back pressure provided by the ground storage tank is accounted for in the transient analysis when developing surge control measures for the system.

- 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:
 - a) Low flow operation (4 MGD),
 - b) Phase 1B operation (19.5 MGD),
 - c) Phase 1C operation (28.1 MGD), and
 - d) Phase 1D operation (33.5 MGD).
- NHC will use the above initial HGL elevations to perform hydraulic transient analysis simulations for the operation of the WTP high service pump station under the following operating conditions:
 - a) Low flow operation (4 MGD),
 - b) Phase 1B operation (19.5 MGD),
 - c) Phase 1C operation (28.1 MGD), and
 - d) Phase 1D operation (33.5 MGD).

Pertinent sub-scenarios (i.e., conditions) that include water demands along the transmission line (e.g., Lockhart high and low demands) will be included in the transient analysis. Transient simulations will include

- 1. pump power failure
- 2. planned pump shutdown, and
- 3. pump startup

for the 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 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.

- 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:
 - a) Low flow operation (4 MGD),
 - b) Phase 1B operation (19.5 MGD),
 - c) Phase 1C operation (28.1 MGD), and
 - d) Phase 1D operation (33.5 MGD).
- If surge protection is deemed necessary for any of the above conditions, <u>NHC will determine surge control</u> <u>measures</u> (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 <u>under the following operating conditions</u>:

- a) Low flow operation (4 MGD),
- b) Phase 1B operation (19.5 MGD),
- c) Phase 1C operation (28.1 MGD), and
- d) 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.

- Draft and final technical memoranda will be prepared that will include (1) a description of the hydraulic transient analysis modeling approach, (2) a description of the physical facilities, including a schematic showing the hydraulic transient analysis model, (3) component data and assumptions used for the analyses, (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., and (5) recommendations for surge control, and safe startup and shutdown of the pumps for low flow, Phase 1B, Phase 1C and Phase 1D. The technical memorandum will also include:
 - The results of the hydraulic transient analysis "before" any surge improvements are added, and the results of the hydraulic transient analysis "after" surge improvements are applied.
 - A phased approach for surge mitigation (i.e., surge control measures will be determined for Low flow, Phase 1B, Phase 1C and Phase D operating conditions). For example, this might include one surge tank for Phase 1B and a second tank for Phase 1D.
 - An Excel or electronic format of the surge analysis output for relevant transient analysis simulations.

Movies of the pertinent hydraulic transient analysis simulations may be included in the technical memorandum 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.

• NHC will participate in one conference call (up to 2 hours in duration) to discuss the findings and recommendations presented in the draft technical memorandum prior to finalizing the memo. This task does <u>not</u> include a presentation (e.g., PowerPoint slides) of the findings and recommendations from the transient analysis.



Task 2 – Program Coordination:

- 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.
- 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.
- 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).
- 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.

Budget, Schedule, and Data Requirements

Table 1 provides our cost estimate for completing the work described above. NHC's fee schedule is also enclosed. We will submit monthly invoices for work conducted in the previous month. The draft memorandum will be completed within about 12 to 16 weeks of receiving a fully executed contract, notice to proceed, and the requested data. The final memo will be provided within 2 weeks of receiving comments on the draft memo. A list of data required to complete the work will be provided upon selection.

Task		D. Axworthy/ H. Fehlman	M. Lewis	C. Gombert	M. Nissim	
Number Task Description		Principal	Principal Engineer 2		Senior Doc. Prod. Spec.	Cost
		\$250/hr	\$130/hr	\$115/hr	\$110/hr	
1	Transient Analyses	164	248	304	4	\$ 108,640
2	Program Coordination	32	24	16		\$ 12,960
	Direct Cost					\$ 700
Totals		196	272	320	4	\$ 122,300

Table 1. Cost Estimate

Closure

The Principal-in-Charge for NHC will be available immediately after selection to complete project management tasks necessary to start the project. NHC will commit the key individuals to be available to begin work with a



notice to proceed from Walker Partners and will also commit these individuals to the level of involvement necessary to maintain the project schedule.

If you have any questions or need further information, please do not hesitate to contact me at (626) 440-0080 or by email at <u>dAxworthy@nhcweb.com</u>. We look forward to working with Walker Partners on this interesting project.

Yours truly, Northwest Hydraulic Consultants Inc.

David H. Chousty

David H. Axworthy, Ph.D., P.E. Principal-in-Charge for NHC

SCHEDULE OF STANDARD CHARGES

(Effective 1 Jan 2019)

Labor	Fee Rate
Category	(\$US/hour)
Principal	250
Principal T3	230
Sr. Project Engineer/Scientist	205
Sr. Engineer 1	190
Sr. Engineer/Scientist 2	165
Sr. Geoscientist 2	150
Engineer/Scientist 1	145
Engineer/Scientist 2	130
Jr. Engineer	115
GIS Analyst 1	140
GIS Analyst 2	105
Sr. Engineering Technician	140
Sr. Laboratory Technician	110
Sr. Contract Administrator	140
Sr. Technical Editor	140
Sr. Document Production/Finance Specialist	110
Document Production Specialist	105

Handling Charges / Fees

Markup on Subconsultants..... 10% Markup on Reimbursables 10% Markup on Travel/Subsistence 10%

Plotting \$/sheet

Plots, bond, 11 x 17	\$2.00
Plots, bond, D size	\$4.00
Plots, oversize (running foot)	\$2.00

Photocopies \$/sheet

B&W 8½ x 11	\$0.10
B&W 11 x 17	\$0.15
Color 8½ x 11	\$1.00
Color 11 x 17	\$2.00

Labor costs subject to annual escalation adjustment in October to reflect cost of living and merit salary increases. Refer to separate schedules for field and laboratory equipment charges.

BOARD MEMBER PACKETS

Wednesday, April 22, 2020 at 3:00 P.M. Conference Call Number: 1-903-405-2572; Code: 925 453 055#

H.3 Consider adoption of Resolution 2020-04-22-003 awarding a construction contract to Hydro Resources Mid-Continent, Inc. for the Phase 1B Well Construction Project, contingent upon approval of the award by the Texas Water Development Board. ~ *Ryan Sowa, P.E., Kimley-Horn & Associates*

Background/Information

Alliance Water sought proposals for the Phase 1B Well Construction Project starting in February with proposals submitted on April 2, 2020. In accordance with the Authority's policies and Texas Water Development Board (TWDB) requirements, the project was advertised for two consecutive weeks in the Hays Free Press and in the Lockhart Post-Register.

The project includes drilling and installing four Carrizo wells to include the well casing and screens and a concrete pad at the surface. The future water treatment plant project will include installation of all of the equipment necessary (i.e. pumps, piping, valves, electrical system, etc.) to produce and deliver the water to the water treatment plant. The design hydrogeologist's cost estimate for the project was \$3,411,000.

A total of three proposals were received. The bidding documents utilized a Competitive Sealed Proposal (CSP) process whereby cost is considered but so too are the qualifications of the contractor to perform he work. The table below summarizes the scores of the three proposals, with Hydro Resources Mid-Continent, Inc. being both the low bidder and scored as provided the best overall value to Alliance Water.

			Average Scoring (Points Available)								
			Quality, Reputation, Ability to Complete	Drilling	Key Personnel	Detailed Schedule and	Safety	1			
Proposer	Price	Price (50)	Similar Projects (15)	Equipment (5)	(10)	Work Plan (10)	Record (5)	HUB (5)	Total (100)		
Friedel Drilling Co.	\$2,934,016.00	20.00	7.33	4.00	7.47	5.33	4.33	1.33	49.79		
Hydro Resources Mid-Continent, Inc.	\$2,597,000.00	50.00	13.30	4.67	8.27	9.00	3.67	3.00	91.91		
Weisinger, Inc.	\$3,489,900.00	0.00	14.67	4.67	9.40	9.67	2.67	4.00	45.08		

As the design hydrogeologist, RW Harden & Associates has recommended the project be awarded to Hydro Resources Mid-Continent, Inc. Attached is the recommendation letter.

The Alliance Water Board will be asked to approve the contract, contingent upon approval by the TWDB. This is a requirement of all projects that are funded by the TWDB. The proposal information is in the process of being submitted to the TWDB for their review and approval. After the TWDB approves the bidding, the final contracts, bonds and insurance will be submitted to the TWDB for their review and approval, after which the project will officially be awarded and the notice to proceed will be scheduled.

BOARD MEMBER PACKETS

Wednesday, April 22, 2020 at 3:00 P.M. Conference Call Number: 1-903-405-2572; Code: 925 453 055#

The award of this contract will utilize the SWIFT funding that has already been issued to Alliance Water.

Attachment(s)

- Resolution 2020-04-22-003
- RW Harden Award Recommendation Letter

Board Decision(s) Needed:

• Adoption of Resolution 2020-04-22-003 awarding a construction contract to Hydro Resources Mid-Continent, Inc. for the Phase 1B Well Construction Project, contingent upon approval of the award by the Texas Water Development Board.



RESOLUTION NO. 20200422-003

A RESOLUTION OF THE ALLIANCE REGIONAL WATER AUTHORITY BOARD OF DIRECTORS AWARDING A CONTRACT TO HYDRO RESOURCES MID-CONTINENT, INC. FOR THE PHASE 1B WELL CONSTRUCTION PROJECT CONTINGENT UPON APPROVAL OF THE AWARD BY THE TEXAS WATER DEVELOPMENT BOARD AND CONTINGENT UPON THE BIDDER'S TIMELY SUBMISSION OF SUFFICIENT BONDS AND INSURANCE IN ACCORDANCE WITH THE BID DOCUMENTS FOR THE 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 proposals for the Phase 1B Well Construction Project (the "Project") in accordance with Alliance Water's purchasing policies and the Texas Water Development Board ("TWDB") guidelines.

2. Alliance Water received three proposals for the Project which were reviewed and scored by a committee to determine which respondent provides the best overall value to Alliance Water. The committee was led by the design hydrogeologist, R.W. Harden & Associates ("RWH&A"). RWH&A recommended that Alliance Water award a contract for the Project to Hydro Resources Mid-Continent, Inc who scored as the best overall value contractor.

3. Alliance Water Staff has submitted the bidding information to TWDB to allow TWDB to review and approve the proposed contract, as required for projects funded by the TWDB.

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

SECTION 1. The award of a construction contract to Hydro Resources Mid-Continent, Inc. for the Phase 1B Well Construction Project (IFB #2020-002) in the amount of \$2,597,000.00 is approved contingent upon the bidder's timely submission of sufficient bonds and insurance in accordance with the bid documents for the Project and contingent upon approval of the proposed contract by the TWDB.

SECTION 2. The Project is funded through funds secured through the Texas Water Development Board.

SECTION 3. The Chair of Alliance Water's Board of Directors, Chris Betz, is authorized to execute the contract documents for the Project on behalf of Alliance Water.

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

ADOPTED: April 22, 2020

ATTEST:

Chris Betz Chair, Board of Directors James Earp Secretary, Board of Directors



9009 Mountain Ridge Dr • Suite 100 • Austin Texas 78759 • ph (512) 345-2379 • fax (512) 338-9372

April 16, 2020

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

Re: ARWA Phase 1B - Well Contractor Proposal Review and Recommendation

Dear Mr. Moore,

R.W. Harden & Associates, Inc. (RWH&A) has completed our evaluation of the proposals received for construction of four new Carrizo production wells (Wells 6 through 9) associated with Phase 1B of the project. Proposal packages were received from three contractors:

- 1) Friedel Drilling Company
- 2) Hydro Resources Mid-Continent, Inc.
- 3) Weisinger Incorporated

Each proposal was evaluated and scored on various criteria by three reviewers. The scores assigned by the three reviewers were averaged to find the total points awarded for each contractor's proposal. Table 1 lists the points awarded to all evaluation criteria and the total points associated with each proposal.

			Awarded Points					
00 21 14	Evaluation Criteria	Potential	Friedel	Hydro	Weisinger			
Paragraph		Points		Resources				
18.4.1	Proposal Price	50	20.0	50.0	0.0			
18.4.2	Project Experience	15	7.3	13.3	14.7			
18.4.3	Drilling Equipment	5	4.0	4.7	4.7			
18.4.4	Key Personnel	10	7.5	8.3	9.4			
18.4.5	Schedule and Work Plan	10	5.3	9.0	9.7			
18.4.6	Safety Record	5	4.3	3.7	2.7			
18.4.7	HUB Program Compliance Plan	5	1.3	3.0	4.0			
	Total Score:	100.0	49.8	91.9	45.1			

Table 1. Proposal Scoring Summary

As shown, the proposal submitted by Hydro Resources earned significantly more points than either Friedel or Weisinger. While the proposals were scored on a range of criteria, the project cost submitted by each contractor represents a major component in the proposal review process. For reference, Table 2 provides the costs for bid items and bonds provided by each contractor.

			Friedel			Hydro Resources				Weisinger				
Bid Item	Description	Quantity	U	nit Price		Total	U	nit Price		Total	U	nit Price		Total
1	Mobilization/Demobilization	1	\$	75,000	\$	75,000	\$	245,000	\$	245,000	\$	600,800	\$	600,800
2	Drill and Log Test Hole	4	\$	120,000	\$	480,000	\$	68,000	\$	272,000	\$	240,000	\$	960,000
3	Construct Type A Carrizo Well	1	\$	521,496	\$	521,496	\$	462,000	\$	462,000	\$	425,000	\$	425,000
4	Construct Type B Carrizo Well	3	\$	590,416	\$	1,771,248	\$	506,000	\$	1,518,000	\$	470,500	\$	1,411,500
5	Construct Pump Foundation	4	\$	12,818	\$	51,272	\$	15,000	\$	60,000	\$	11,900	\$	47,600
N/A	Payment and Performance Bonds	1	\$	35,000	\$	35,000	\$	40,000	\$	40,000	\$	45,000	\$	45,000
		Total Price:			\$	2,934,016			\$	2,597,000			\$	3,489,900

Table 2: Proposed Project Costs

As shown, the range in provided costs was significant, with Hydro Resources submitting the lowest project cost of \$2,597,000.

Our firm has worked with Hydro Resources several times over the past decade on projects of this type. We have generally been satisfied with their performance on previous jobs, and we have confidence in their ability to perform this work in professional, cost-effective manner. Consequently, we recommend that ARWA award this work to Hydro Resources. Please call me if you have any questions,

Sincerely,

m

James Bené, P.G. R. W. Harden & Associates, Inc.



The seal appearing on this document was authorized by James E. Bené, P.G. 2089 on April 16, 2020. R.W. Harden & Associates, Inc. TBPG Firm No. 50033.



BOARD MEMBER PACKETS

Wednesday, April 22, 2020 at 3:00 P.M. Conference Call Number: 1-903-405-2572; Code: 925 453 055#

H.4 Update, discussion and possible direction to Staff regarding the Authority's request to the Texas Water Development Board for additional SWIFT Funding. ~ *Graham Moore, P.E., Executive Director*

Background/Information

On April 9, 2020 the Texas Water Development Board (TWDB) approved nine projects to move forward with SWIFT funding, including the Authority's request to increase its funding by up to \$65 million. The approval of the ranking formally set in motion a request by the TWDB for the Agency to submit a detailed financial application. The deadline for the application is May 11th.

<u>Schedule</u>

Below is a draft schedule:

- February 3, 2020 Abridged Applications are due
- April 9, 2020 TWDB invites entities to submit a Financial Applications
- May 11, 2020 Financial Applications are due
- Summer 2020 TWDB approves financial applications
- Late September 2020 last day to set maturity schedule and to terminate without penalty
- October 2020 TWDB sells bonds; penalties escalate if request is terminated
- Mid-October 2020 financial rates are set and made available
- November to December 2020 funds must be closed within this period

The next agenda item is a requirement in order for the Authority to submit its Financial Application to the TWDB for SWIFT funding.

Attachments(s)

• SWIFT Invite Letter – Alliance Regional Water Authority

Board Decision(s) Needed:

• Possible direction to Staff.

April 9, 2020

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

Re: Alliance Regional Water Authority SWIFT PIF #13258 – Hays-Caldwell Groundwater Project - Phase 1B State Water Implementation Fund for Texas – Invitation to Apply

Dear Mr. Moore:

Thank you for submitting an abridged application for financial assistance through the State Water Implementation Fund for Texas (SWIFT) program on behalf of the Alliance Regional Water Authority. The abridged applications received for the current funding cycle have been prioritized according to the criteria outlined in 31 TAC §363.1304, and the Texas Water Development Board approved the prioritization on April 9, 2020.

We are pleased to extend the Alliance Regional Water Authority an invitation to submit a complete application for financial assistance through the SWIFT program. All applicants have 30 days to submit their applications. **The deadline for receipt of the complete application is 5:00pm, Central Daylight Time, on Monday, May 11, 2020.** At this time, the invited amount and type of SWIFT funding eligible to be included in the application is summarized below. This prioritization approval does not constitute a funding commitment and is contingent on the financial and technical review of the complete application. Terms and conditions, including applicable interest rate subsidies will be set prior to or at the time of commitment.

Invitation Amount and Type of Funding:

- Total: \$65,000,000 Low-Interest Loan
 - o 2020: \$27,000,000
 - o 2021: \$38,000,000

Applications may be submitted through our online loan application system or as traditional hard copies. To download application documents or access the online system, please visit our <u>Financial Assistance Application web page</u>.

Please direct any questions or concerns regarding the application, commitment process, and closing processes to Dain Larsen, Manager, Regional Project Team 5. Please contact Dain to discuss your project in greater detail and to schedule a pre-application meeting if you have not already done so. If approved, Dain's team will work with you throughout the life of your project and may be reached at <u>Dain.Larsen@twdb.texas.gov</u> or (512) 463-1618.

We look forward to working with the Alliance Regional Water Authority on the next steps toward implementing this important project. Thank you again for your interest in the SWIFT program.

Sincerely,

Jessica Peña Zuba Deputy Executive Administrator Texas Water Development Board

Cc: Dain Larsen, Manager, Regional Project Team 5

BOARD MEMBER PACKETS

Wednesday, April 22, 2020 at 3:00 P.M. Conference Call Number: 1-903-405-2572; Code: 925 453 055#

H.5 Consider adoption of resolution requesting financial assistance from the Texas Water Development Board and Contractor's Act of Assurance Resolution for the Authority's Phase 1B projects; authorizing the filing of an application for assistance; and making certain findings in connection herewith. ~ *Graham Moore, P.E., Executive Director*

Background/Information

The attached resolution is a standard format prepared by the Texas Water Development Board. In addition to requesting a maximum additional funding amount of \$65,000,000, the resolution also names the contacts for the application. Approval of this resolution is required in order for the Authority to submit the Financial Application to the TWDB.

The amount of financing requested cannot be increased after the Financial Application is submitted. Based on this possibility, Staff recommends that the application seek a maximum additional funding amount of \$65,000,000. The amount to be closed upon in 2020 would not exceed \$122,575,000: \$95,575,000 as originally planned and a maximum additional amount of \$27 million.

Attachment(s)

- Application Filing and Authorized Representative Resolution
- Contractor's Act of Assurance Resolution

Board decision needed:

 Adoption of attached resolution requesting financial assistance from the Texas Water Development Board authorizing the filing of an application for assistance, and adoption of the Contractor's Act of Assurance Resolution and making certain findings in connection herewith.

Application Filing and Authorized Representative Resolution

A RESOLUTION by the <u>Board of Directors</u> of the <u>Alliance Regional Water Authority</u> requesting financial assistance from the Texas Water Development Board; authorizing the filing of an application for assistance; and making certain findings in connection therewith.

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

<u>SECTION 1</u>: That an application is hereby approved and authorized to be filed with the Texas Water Development Board seeking financial assistance in an amount not to exceed <u>65,000,000</u> to provide for the costs of the Authority's Phase 1B Carrizo project

<u>SECTION 2</u>: That <u>the Authority's Executive Director, Graham Moore</u> be and is hereby designated the authorized representative of the <u>Alliance Regional Water Authority</u> for purposes of furnishing such information and executing such documents as may be required in connection with the preparation and filing of such application for financial assistance and the rules of the Texas Water Development Board.

<u>SECTION 3</u>: That the following firms and individuals are hereby authorized and directed to aid and assist in the preparation and submission of such application and appear on behalf of and represent the <u>Alliance Regional Water Authority</u> before any hearing held by the Texas Water

Development Board on such application, to wit:

Financial Advisor:	Jennifer Ritter with Specialized Public Finance, Inc.					
	248 Addie Roy Road, Suite B-103, Austin, TX 78746					
Engineer:	Ryan Sowa with Kimley-Horn & Associates, Inc.					
	601 NW Loop 410, Suite 350, San Antonio, TX 78216					
Bond Counsel:	Carol Polumbo with McCall, Parkhurst & Horton, LLP					
	600 Congress Ave., Suite 1800, Austin, TX 78701					
	ED this the 22nd deviat April 20.00					
PASSED AND APPROV	ED, this the 220 day of April , 2020 .					
	_					
ATTEST:	By:					

James Earp

Chris Betz

(Seal)

CONTRACTOR'S ACT OF ASSURANCE RESOLUTION

I hereby certify that it was RESOLVED by a quorum of the directors of the

meeting on the _____day of ______ 20____, that:

Authorized Representative(s):

That all above resolution was unanimously ratified by the Board of Directors at said meeting and that the resolution has not been rescinded or amended and is now in full forces and effect; and;

In authentication of the adoption of this resolution, I subscribe my name and affix the seal of the Corporation this ______ day of ______, 20____.

_____(Secretary) James Earp

____(Name of Corporation),

[SEAL]

BOARD MEMBER PACKETS

Wednesday, April 22, 2020 at 3:00 P.M. Conference Call Number: 1-903-405-2572; Code: 925 453 055#

H.6 Consider adoption of Resolution 2020-04-22-004 approving a Policy on Contributions to Outside Entities. ~ *Graham Moore, P.E., Executive Director*

Background/Information

In December 2019 the Board of Directors requested that Staff develop a policy for dealing with possible contributions to outside entities. Legal Counsel developed a memorandum discussing the legal criteria that must be met in order for a political subdivision to make a contribution to an outside entity. The three key criteria are:

- 1. The contribution's predominant purpose must be to accomplish a public purpose, and not to benefit private parties;
- 2. The political subdivision must retain a modicum of control over the funds to ensure that the public purpose is accomplished and to protect the public's investment; and
- 3. The political subdivision receives a reciprocal benefit in exchange for its contribution.

Staff prepared the attached policy on contributions to reiterate these criteria. If the Authority is approached to make a contribution, the Executive Director (or designee) will review the request against the criteria and will report to the Board the results of the review. If all criteria is met, Staff will place an item on the next available Board agenda for possible action by the Board to approve the contribution.

Attachment(s)

- Resolution 2020-04-22-004
- Policy on Contributions to Outside Entities

Board Decision(s) Needed:

• Consider adoption of Resolution 2020-04-22-004 approving a Policy on Contributions to Outside Entities.



A RESOLUTION OF THE ALLIANCE REGIONAL WATER AUTHORITY BOARD OF DIRECTORS APPROVING A POLICY ON CONTRIBUTIONS TO OUTSIDE ENTITIES; AND DECLARING AN EFFECTIVE DATE

RECITALS:

1. The Alliance Regional Water Authority (the "Authority") was approached in 2019 by an outside entity requesting a contribution to their efforts. The Authority does not currently have a policy to deal with such requests.

2. The Authority Board wishes to adopt a policy on contributions to outside entities to help provide guidance to Staff and the Authority's Board of Director.

3. The Authority Board has reviewed the attached Policy on Contributions to Outside Entities drafted by the Authority's staff and general counsel, and the Authority Board wishes to approve and adopt the policy.

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

SECTION 1. The Authority Board approves and adopts the attached Policy on Contributions to Outside Entities.

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

ADOPTED: April 22, 2020.

ATTEST:

Chris Betz Chair, Board of Directors James Earp Secretary, Board of Directors



Alliance Regional Water Authority Policy on Contributions of Public Funds Adopted XXXX

It is the policy of Alliance Regional Water Authority, which may from time to time choose to contribute public funds to external public or private entities, to conform with the State's constitutional ban on gratuitous gifts to any person, association or corporation, whether public or private, except where otherwise permitted by law.

Article 1. In General

Section 1.01. Definitions. In this Policy:

A. Authority means the Alliance Regional Water Authority.

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

C. *Executive Director* means the person appointed by the Board as the chief executive officer of the Authority.

D. *Request for Contribution* means a request submitted by an external person or entity to the Authority for contribution of funds for any purpose other than funds related to a contract or agreement approved by the Authority separate from any *Request for Contribution*.

Section 1.02. General Policy Statements

A. It is the policy of the Authority to evaluate requests for contributions of public funds in a structured manner in accordance with the guidelines in this policy.

B. It is the policy of the Authority not to proactively seek areas to contribute funds, but instead to only react to a request(s) for contributions.

Article 2. Procedure and Criteria for Considering Requests

Section 2.01. Application. Each Request for Contribution submitted to the Authority must at a minimum include the legal name of the person or entity requesting contribution, the intended purpose of the funds, and the reciprocal benefit to the Authority for the contribution.

Section 2.02. Criteria for Evaluations of Applications. The criteria used in evaluating requests for contributions will include, without limitation, the following:

A. Ensure that the contribution's predominant purpose is to accomplish a public purpose, and not to benefit private parties.

B. Ensure that the Authority retains a modicum of control over the funds to ensure that the public purpose is accomplished and to protect the public's investment.

C. Ensure that the Authority receives a reciprocal benefit in exchange for its contribution.

Section 2.03. Procedure for Review of Requests for Contribution. The Executive Director, or their designee, will perform a review of each Request for Contribution using the criteria in Section 2.02 of this policy. A summary report will be prepared detailing specifically how each of the criteria is either met or why the Request for Contribution did not meet the criteria.

Section 2.04. Presentation of Findings to the Board.

A. If all criteria in Section 2.02 are met as demonstrated by the initial review conducted in Section 2.03, the Executive Director will place an item on the next available Board Agenda for possible action by the Board to approve the contribution.

B. If not all criteria in Section 2.02 are met, the Executive Director will inform the Board of the request and will provide the summary report prepared in Section 2.03. The Executive Director will also notify the entity that submitted the Request for Contribution that their request has been denied based on one or more of the criteria in Section 2.02.

Section 2.05. Disbursement of Funds. If the Board approves a request for contribution, the Executive Director, or their designee, will disburse the contribution according the Board's conditions, ensuring:

- A. The funds are disbursed in the amount authorized by the Board;
- B. The Authority retains certain controls over the funds to be contributed; and
- C. The Authority receives a reciprocal benefit for the contribution.

BOARD MEMBER PACKETS

Wednesday, April 22, 2020 at 3:00 P.M. Conference Call Number: 1-903-405-2572; Code: 925 453 055#

H.7 Consider adoption of Resolution 2020-04-22-005 authorizing the issuance of a debit card to Jason Biemer. ~ *Graham Moore, P.E., Executive Director*

Background/Information

Jason Biemer is a Project Coordinator with the Authority whose responsibility includes operations of the Authority's facilities.

From time-to-time the need arises to procure small equipment to support he operations of the Authority. Due to the spread-out nature of the operations of the Authority, it is not always possible to utilize the Executive Director's debit card for all such purchases.

The Executive Director is requesting that the Board approve the issuance of a debit card tied to the Authority's Checking Account with Broadway Bank to Jason Biemer. Mr. Biemer will be required to follow all of the requirements for use of the debit card that are contained in the Authority's Purchasing Policy.

Attachment(s)

- Resolution 2020-04-22-005
- Broadway Bank Debit Car Application Form

Board Decision(s) Needed:

• Adoption of Resolution 2020-04-22-005 authorizing the issuance of a debit card to Jason Biemer.



RESOLUTION NO. 20200422-005

A RESOLUTION OF THE ALLIANCE REGIONAL WATER AUTHORITY BOARD OF DIRECTORS AUTHORIZING THE ISSUANCE OF A DEBIT CARD TO JASON BIEMER AND RELATED MATTERS, AND DECLARING AN EFFECTIVE DATE

RECITALS:

1. The Alliance Regional Water Authority ("Authority") currently utilizes Broadway Bank for all of its banking services.

2. Jason Biemer is a Project Coordinator with the Authority whose responsibility includes operations of the Authority's facilities.

3. From time-to-time the need arises to procure small equipment to support he operations of the Authority. Due to the spread-out nature of the operations of the Authority, it is not always possible to utilize the Executive Director's debit card for all such purchases.

4. The Authority's Purchasing Policy requires the issuance of a debit card to an employee be approved by the Authority's Board of Directors.

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

PART 1. The Board of Directors authorizes the issuance of a debit card to Jason Biemer tied to the Authority's Checking Account.

PART 2. The Authority's Executive Director, Graham Moore, is authorized to execute all necessary paperwork with Broadway Bank for the new debit card.

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

ADOPTED: April 22, 2020.

ATTEST:

Chris Betz Chair, Board of Directors James Earp Secretary, Board of Directors

VISA BUSINESS DEBIT CARD APPLICATION

1.	Business Name:
	(All Cards Must Be Tied To Business CIS, Not Cardholder Name)
2.	Cardholder Name:
	(Notify Bankcard Immediately To Add 2 nd Line Name Before Card Is Ordered)
3.	Business Acct Number:
4.	Visa Debit Card Number:
5.	Is Person Ordering Card A Signer? Yes No (All Non-signers Must Have An Authorized Signer's Signature On Application Or Attached Fax With Approval And Signature In Order To Process Card)
6.	Card Limits:
	ATM: POS:
	(POS Limit Includes Cash Advance, POS, & Merchant Purchases)
7.	Authorized Signer Name Printed:
8.	Authorized Signature:
9.	Non-signer Name Printed:
10.	Non-signer Signature:
11.	Date: Bank Employee: Ext
	(Bank Employee's First Initial And Last Name)
12.	Bankcard Employee Signature Date:
For	ward This Form By Inter-office



To Bankcard For Processing.

BOARD MEMBER PACKETS

Wednesday, April 22, 2020 at 3:00 P.M. Conference Call Number: 1-903-405-2572; Code: 925 453 055#

H.8 Consider appointment of a Temporary Committee to review and score submissions to the Authority's Request for Qualifications for Public Relations Services and possibly to recommend the selection of a respondent. ~ *Graham Moore, P.E., Executive Director*

Background/Information

The Authority issued an RFQ for Public Relations Services and four responses were received on March 26th. Staff is seeking direction from the Board as to who will be on the committee to review the responses, possibly interview the short-listed firms and recommend a selection to the Board. Historically selection committees have selected of one member from each of the four Sponsors and Staff.

The Bylaws allow for the creation of a Temporary Committee through a motion and a Board vote.

Board decision needed:

• Possible appointment of a Temporary Committee for the review of responses to the Authority's RFQ for Public Relation Services.

BOARD MEMBER PACKETS

Wednesday, April 22, 2020 at 3:00 P.M. Conference Call Number: 1-903-405-2572; Code: 925 453 055#

H.9 Consider adoption of Resolution 2020-04-22-006 approving a Groundwater Development Agreement with Denny and Tammy Winkler. ~ *Graham Moore, P.E., Executive Director*

Background/Information

The Winklers recent purchased 50 acres of property on Highway 304 to the north of the Authority's planned water treatment plant and adjacent to property where the Authority has permitted water well locations (see map below). The Winklers are interested in entering into a lease agreement with the Authority for the water rights associated with their property. The terms and conditions for the lease are the same as for all of the Authority's leases.

Mr. Mike Gershon has reviewed the title; due to the COVID-19 pandemic, the Caldwell County property records office is closed and therefore recent transaction cannot be searched. Mr. Gershon is preparing a Title Opinion Letter for the property noting this exceptional circumstance and the need to have the Winklers warranty that they own the water rights for the property. The attached resolution gives the Authority the ability to enter into the agreement contingent upon the receipt of the Title Opinion Letter and agreement to the form of the lease from Mr. Gershon.



<u>Attachment</u>

• Resolution 2020-04-22-006

Board decision needed:

• Adoption of Resolution 2020-04-22-006 approving a Groundwater Development Agreement with Denny and Tammy Winkler.


RESOLUTION NO. 20200422-006

A RESOLUTION OF THE ALLIANCE REGIONAL WATER AUTHORITY BOARD OF DIRECTORS APPROVING A GROUNDWATER DEVELOPMENT AGREEMENT WITH DENNY AND TAMMY WINKLER AND RELATED MATTERS, AND DECLARING AN EFFECTIVE DATE

RECITALS:

1. The Alliance Regional Water Authority ("Authority") has entered into groundwater lease agreements with landowners covering more than 17,000 surface acres of property in Caldwell and Gonzales counties.

2. The Authority has total permitted groundwater rights of 16,320 acre-feet per year split between the Gonzales County Underground Water Conservation District and the Plum Creek Conservation District.

3. Denny and Tammy Walker own approximately 50 acres of property adjacent to property where the Authority has permitted water well locations. As such the Winklers desire to enter into a groundwater development agreement with the Authority.

4. The Authority Board of Directors wish to approve a groundwater development agreement with the Winklers utilizing the standard terms and conditions previously developed by the Authority for other groundwater leasing agreements.

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

PART 1. The Groundwater Development Agreement between the Authority and Denny and Tammy Winkler is approved, contingent upon final approval of form by the Authority's General Counsel and on receipt of a Title Opinion Letter from the Authority's General Counsel.

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

ADOPTED: April 22, 2020.

ATTEST:

Chris Betz Chair, Board of Directors James Earp Secretary, Board of Directors

BOARD MEMBER PACKETS

Wednesday, April 22, 2020 at 3:00 P.M. Conference Call Number: 1-903-405-2572; Code: 925 453 055#

I. BOARD MEMBER ITEMS OR FUTURE AGENDA ITEMS – Possible acknowledgement by Board 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 Board Members have an opportunity to make announcements or to request that items be added to future Board or Committee agendas.

BOARD MEMBER PACKETS

Wednesday, April 22, 2020 at 3:00 P.M. Conference Call Number: 1-903-405-2572; Code: 925 453 055#

- **J.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

BOARD MEMBER PACKETS

Wednesday, April 22, 2020 at 3:00 P.M. Conference Call Number: 1-903-405-2572; Code: 925 453 055#

- **J.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

BOARD MEMBER PACKETS

Wednesday, April 22, 2020 at 3:00 P.M. Conference Call Number: 1-903-405-2572; Code: 925 453 055#

K. ADJOURNMENT