

**Alliance Regional Water Authority  
Board of Directors**

**REGULAR MEETING**



**ALLIANCE WATER**

**BOARD MEMBER PACKETS**

Wednesday, December 18, 2019 at 3:00 P.M.

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

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

**BOARD MEMBER PACKETS**

Wednesday, December 18, 2019 at 3:00 P.M.  
501 E. Hopkins, San Marcos, TX 78666

This Notice is posted pursuant to the Texas Open Meetings Act (Texas Government Code Chapter 551). The Alliance Regional Water Authority (the Authority) Board of Directors will hold a meeting at 3:00 PM, Wednesday, December 18, 2019, at the San Marcos Activity Center, 501 E. Hopkins, San Marcos, Texas. Additional information can be obtained by calling Graham Moore at (512) 294-3214.

A. CALL TO ORDER

B. ROLL CALL

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

D. CONSENT AGENDA

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

D.1 Consider approval of minutes of the Regular Meeting held November 20, 2019.  
~ *Graham Moore, P.E., Executive Director*

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

E. PUBLIC HEARINGS / PRESENTATIONS - None

F. ITEMS FOR ACTION OR DISCUSSION/DIRECTION

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

F.2 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*

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- F.4 Consider adoption of Resolution 2019-12-18-001 approving modification to the Phase 1B Program to incorporate various cost saving measures, as recommended by the Technical Committee. ~ *Graham Moore, P.E., Executive Director*
- F.5 Consider approval of a financial contribution to the Delhi Volunteer Fire Department. ~ *Graham Moore, P.E., Executive Director*
- F.6 Update on status of groundwater management in project target area, and Gonzales County Underground Water Conservation District, Plum Creek Conservation District, Groundwater Management Area 13, Region L Planning Group, Guadalupe-Blanco River Authority, Hays County and CAPCOG activities. ~ *Graham Moore, P.E., Executive Director*
- G. EXECUTIVE DIRECTOR AND LEGAL COUNSEL REPORTS - Update on future meeting dates, locations, status of Authority procurements, Executive Director activities, other operational activities and the status of legal issues, where no action is required. ~ *Graham Moore, P.E., Executive Director / Mike Gershon, Lloyd Gosselink Rochelle & Townsend, P.C.*
- H. BOARD MEMBER ITEMS OR FUTURE AGENDA ITEMS – Possible acknowledgement by Committee Members of future area events and/or requests for item(s) to be placed on a future agenda where no action is required.
- I. EXECUTIVE SESSION
  - I.1 *Executive Session pursuant to the Government Code, Section 551.071 (Consultation with Attorney) and/or Section 551.072 (Real Property Deliberations) regarding:*
    - A. *Water supply partnership options*
    - B. *Groundwater leases*
    - C. *Acquisition of real property for water supply project purposes*
  - I.2 Action from Executive Session on the following matters:
    - A. *Water supply partnership options*
    - B. *Groundwater leases*
    - C. *Acquisition of real property for water supply project purposes*
- J. ADJOURNMENT

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

**BOARD MEMBER PACKETS**

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

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**Alliance Regional Water Authority Board of Directors**

**BOARD MEMBER PACKETS**  
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**A. CALL TO ORDER**

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No Backup Information for this Item.

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**BOARD MEMBER PACKETS**

Wednesday, December 18, 2019 at 3:00 P.M.  
501 E. Hopkins, San Marcos, TX 78666

**B. ROLL CALL**

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

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

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Items D.1 and D.2 are presented as part of the consent agenda.



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

**BOARD MEMBER PACKETS**  
Wednesday, December 18, 2019 at 3:00 P.M.  
501 E. Hopkins, San Marcos, TX 78666

**D.1** Consider approval of minutes of the Regular Meeting held November 20, 2019. ~  
*Graham Moore, P.E., Executive Director*

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Attachment(s)

- 2019 11 20 Board Meeting Minutes

**Board Decision(s) Needed:**

- Approval of minutes.



## ALLIANCE WATER

### Alliance Regional Water Authority

### BOARD MEETING

### MINUTES

**Wednesday, November 20, 2019**

The following represents the actions taken by the Board of Directors of the Alliance Regional Water Authority (ARWA) in the order they occurred during the meeting. The Board of Directors convened in a meeting on Wednesday, November 20, 2019 at the San Marcos Activity Center, 501 E. Hopkins, San Marcos, Texas.

- A. CALL TO ORDER.  
**The Alliance Water Board Meeting was called to order at 3:02p.m. by Mr. Betz.**
  
- B. ROLL CALL.
  - **Present: Lillibridge, Ramos, Earp, Taggart, Betz, Scheel, and Clack with Allen joining in Item F.6.**
  - **Absent: Hughson, Taylor, Williams, Rockeymoore and Parker.**
  
- C. PUBLIC COMMENT PERIOD
  - **None.**
  
- D. CONSENT AGENDA
  - D.1 Consider approval of minutes of the Regular Meeting held October 30, 2019.
  - D.2 Consider approval of the financial report for October 2019.
    - **Motion to approve the consent agenda as presented was made by Mr. Ramos, seconded by Mr. Taggart on a 7-0 vote.**
  
- E. PUBLIC HEARINGS / PRESENTATIONS
  - E.1 None.
  
- F. ITEMS FOR ACTION OR DISCUSSION/DIRECTION

- F.1 Report on Technical Committee activities.
- **Mr. Moore updated the Board on the November meeting.**
  - **No Action.**
- F.2 Report on Administrative Committee activities.
- **Mr. Moore reported on the Administrative Committee activities.**
  - **No Action.**
- F.3 Consider adoption of Resolution 2019-11-20-001 approving and adopting Personnel Policies for the Authority as recommended by the Administrative Committee.
- **Motion to adopt Resolution 2019-11-20-001 approving and adopting Personnel Policies for the Authority was made by Mr. Earp, seconded by Mr. Ramos and approved on a 7-0 vote.**
- F.4 Consider approval of the Executive Director's Goals for FY 2019-2020.
- **Motion to approve the Executive Director's Goals for FY 2019-2020 was made by Ms. Scheel, seconded by Mr. Earp and approved on a 7-0 vote.**
- F.5 Update and discussion regarding the status of the Authority's Phase 1A projects, and direction to staff and consultants.
- **Mr. Biemer provided updates.**
  - **No Action.**
- F.6 Update and discussion regarding the status of the Authority's Phase 1B program, and direction to staff and consultants.
- **Mr. Moore noted that the Cost Saving Measures were discussed with the Technical Committee in November, but that no action was taken. He expects the Committee to make recommendations to the Board in December.**
  - **Mr. Sowa provided an update on the Phase 1B activities.**
  - **No Action.**
- F.7 Consider adoption of Resolution 2019-11-20-002 approving a work order with Freese & Nichols, Inc. for Final Engineering and Procurement Services for the Authority's Phase 1B Segment D pipeline project, as recommended by the Technical Committee.
- **Motion to adopt Resolutions 2019-11-20-002 approving a work order with Freese & Nichols, Inc. for Final Engineering and Procurement Services for the Authority's Phase 1B Segment D pipeline project was made by Mr. Earp, seconded by Mr. Ramos and approved on an 8-0 vote.**

- F.8 Consider adoption of Resolution 2019-11-20-003 approving an agreement for general counsel legal services with Lloyd Gosselink Rochelle and Townsend, P.C.
- **The Board recessed into Executive Session at 3:28 p.m. based on the motion by Mr. Ramos, second by Ms. Scheel on a vote of 8-0, pursuant of the Government Code, Section 551.071, to seek the General Counsel's advice regarding matters involving attorney-client privilege. The Board reconvened from Executive Session at 3:43 p.m. based on the motion from Mr. Ramos, second by Ms. Scheel and a vote of 8-0, at which time it resumed with the regular session.**
  - **Motion to adopt Resolution 2019-11-20-003 approving an agreement for general counsel legal services with Lloyd Gosselink Rochelle and Townsend, P.C. with changes to the Conflict of Interest paragraph to include language such that if a conflict arises with the City of Kyle or County Line Special Utility District and Alliance Water, that Lloyd Gosselink must receive written approval from both parties to serve either, was made by Mr. Earp, seconded by Mr. Taggart and approved on an 8-0 vote.**
- F.9 Update on status of groundwater management in project target area, and Gonzales County Underground Water Conservation District, Plum Creek Conservation District, Groundwater Management Area 13, Region L Planning Group, Guadalupe-Blanco River Authority, Hays County and CAPCOG activities.
- **Mr. Moore provided an update on area water meetings.**
  - **No Action.**
- G. EXECUTIVE DIRECTOR AND LEGAL COUNSEL REPORTS
- **No action.**
- H. BOARD MEMBER ITEMS OR FUTURE AGENDA ITEMS
- **It was noted that this was Mark Taylor's final meeting serving as General Legal Counsel. The Board and Staff thanked him for all of his effort through the years.**
- I.1 Executive Session pursuant to the Government Code, Section 551.071 (Consultation with Attorney) and/or Section 551.072 and/or 551.073 (Real Property Deliberations) regarding:
- A. Water supply partnership options
  - B. Groundwater leases
  - C. Acquisition of real property for water supply project purposes
- **No Executive Session.**

- I.2 Action from Executive Session on the following matters:
- A. Water supply partnership options
  - B. Groundwater leases
  - C. Acquisition of real property for water supply project purposes.
    - **No Action.**

J. ADJOURNMENT

- **Meeting was adjourned at 3:58 p.m. based on the motion by Mr. Ramos, seconded by Mr. Taggart on a 8-0 vote.**

**APPROVED:** \_\_\_\_\_, 2019

**ATTEST:**

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

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

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

**BOARD MEMBER PACKETS**

Wednesday, December 18, 2019 at 3:00 P.M.  
501 E. Hopkins, San Marcos, TX 78666

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

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Background/Information

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

Attachment(s)

- 2019 11 30 Financial Report

**Board Decision(s) Needed:**

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



# **Alliance Regional Water Authority**

**Financial Statements  
(Compilation)**

**For the One Month Ended and Year-to-Date  
November 30, 2019**

**Alliance Regional Water Authority**  
**Balance Sheet**  
**As of November 30, 2019**

Nov 30, 19

**ASSETS****Current Assets****Checking/Savings****1004 · Broadway Bank**

1005 · Broadway Checking (8040) -25,528.42

1010 · Broadway Savings (4415) 267,823.98

**Total 1004 · Broadway Bank 242,295.56**

**1015 · TexStar (3310)**

4,096,883.37

**1050 · Broadway Bank (Reserved)**

1051 · CRWA Debt Service (2785) 15,720.41

1052 · Kyle Debt Service (2787) 14,720.74

1055 · San Marcos Debt Service (6390) 39,604.64

1056 · Buda Debt Service (6391) 18,873.35

**Total 1050 · Broadway Bank (Reserved) 88,919.14**

**1100 · Escrow Accounts**

1105 · BOKF, Escrow, CRWA Series 2015A 1,261,986.44

1106 · BOKF, Escrow, Kyle Series 2015B 1,143,358.09

1107 · BOKF, Escrow, CRWA Series 2017A 5,234,884.94

1108 · BOKF, Escrow, Kyle Series 2017B 4,770,236.05

1109 · BOKF, Escrow, SM Series 2017C 6,110,535.10

1110 · BOKF, Escrow, Buda Series 2017D 843,822.17

1111 · BOKF, Escrow, CRWA Series 2019A 26,163,297.00

1112 · BOKF, Escrow, Kyle Series 2019B 23,859,687.00

1113 · BOKF, Escrow, SM Series 2019C 30,407,127.00

1114 · BOKF, Escrow, Buda Series 2019D 4,230,057.00

**Total 1100 · Escrow Accounts 104,024,990.79**

**Total Checking/Savings**

108,453,088.86

**Total Current Assets**

108,453,088.86

**Fixed Assets****1405 · Engineering & Construction Cost**

2,402,294.20

**1420 · Projects in Progress (Cash)**

1420-01 · Legal Support 54,848.53

1420-02 · Hydrogeologic Support 162,991.44

1420-03 · PCCD Permitting 105,095.16

1420-04 · Kyle Water Model 25,000.00

1420-11 · Legal Support, GBRA 45,251.01

**Total 1420 · Projects in Progress (Cash) 393,186.14**

**1430 · Projects in Progress Eng (Cash)**

1430-02 · Engineering - Plumbing Plan 17,663.79

1430-03 · Engineering Fees-ROW 11,594.69

1430-05 · Engineering - Rate Study 34,635.00

1430-06 · DPR Study 59,880.00

1430-07 · Alignment Study 261,120.80

1430-08 · Prelim Engineering-Well Field 65,586.00

1430-09 · GCUWCD Monitoring Wells 192,607.50

1430-10 · 2017 SWIFT Funding Apps 23,107.96

1430-11 · Blanco Basin WW 41,880.00

1430-12 · Phase 1B Programming 107,761.14

1430-13 · ARWA-GBRA MOU Study 15,000.00

1430-14 · Phase 1A GIS 29,222.37

**Total 1430 · Projects in Progress Eng (Cash) 860,059.25**



## Alliance Regional Water Authority

## Balance Sheet

As of November 30, 2019

12/11/19

Accrual Basis

Nov 30, 19

1440 · Projects in Prog Eng. (Finance)	
1440-01 · Engineering-Phase 1A Pipeline	485,074.40
1440-02 · Engineering-Phase 1A Pump Stat	697,552.58
1440-03 · Engineering-ROW Acquisition	322,261.19
1440-04 · Phase 1A Const Observation	428,246.16
1440-05 · Phase 1A-Construction Trailer	39,035.51
1440-06 · Phase 1A Segment A Construction	1,734,150.32
1440-07 · Phase 1A BPS Construction	4,391,264.41
1440-15 · Land Acquisition Phase 1B	3,849,807.98
1440-16 · Phase 1B-Owners Rep	3,754,765.60
1440-17 · Phase 1B Environmental	868,718.12
1440-18 · Phase 1B Segment A Design	583,600.20
1440-19 · Phase 1B Segment B Design	507,199.06
1440-20 · Phase 1B Segment C Design	427,322.46
1440-21 · Phase 1B Segment D Design	646,472.14
1440-22 · Phase 1B Segment E Design	311,208.35
1440-23 · Phase 1B Land Attorney	163,787.35
1440-24 · Phase 1B Hydrogeology	116,960.00
1440-25 · Phase 1B WTP Design	989,074.88
1440-26 · Raw Water Infr.	462,716.55
1440-27 · Phase 1B Program Survey	1,417,847.80
1440-28 · Phase 1B BPS Design	523,197.12
1440-29 · GVEC Construction-in-Aid	1,000,000.00
1440-30 · Phase 1B Inline Tanks	1,694.56
<b>Total 1440 · Projects in Prog Eng. (Finance)</b>	<b>23,721,956.74</b>
1447 · Land & Easements	902,215.70
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
<b>Total 1448 · Capitalized Interest</b>	<b>693,363.55</b>
1505 · Landowner Bonus Payments	1,043,191.83
1510 · GrWater Lease Acquisition Costs	1,004,905.76
1599 · Accumulated Amortization	-2,004,160.95
<b>Total Fixed Assets</b>	<b>29,017,012.22</b>
Other Assets	
1900 · Deferred Outflow	12,740.77
<b>Total Other Assets</b>	<b>12,740.77</b>
<b>TOTAL ASSETS</b>	<b>137,482,841.85</b>
<b>LIABILITIES &amp; EQUITY</b>	
Liabilities	
Current Liabilities	
Other Current Liabilities	
2102 · 401(a) Liability	3,473.73
2103 · Net Pension Liability	167.00
2104 · Pension Deferred Inflows	707.00
2300 · Accrued Costs	448,141.31

## Alliance Regional Water Authority

## Balance Sheet

12/11/19

As of November 30, 2019

Accrual Basis

	Nov 30, 19
2350 · Accrued Interest Payable	
2351 · Accrued Int Payable, CRWA 2015A	18,254.39
2352 · Accrued Int Payable, Kyle 2015B	25,384.45
2353 · Accrued Int Payable, CRWA 2017A	68,779.06
2354 · Accrued Int Payable, Kyle 2017B	62,718.67
2355 · Accrued Int Payable, SM 2017C	51,723.28
2356 · Accrued Int Payable, Buda 2017D	7,390.33
<b>Total 2350 · Accrued Interest Payable</b>	<b>234,250.18</b>
<b>Total Other Current Liabilities</b>	<b>686,739.22</b>
<b>Total Current Liabilities</b>	<b>686,739.22</b>
<b>Long Term Liabilities</b>	
2501 · Bond Payable, CRWA Series 2015A	3,405,000.00
2502 · Bond Payable, Kyle Series 2015B	3,260,000.00
2503 · Bond Payable, CRWA Series 2017A	9,605,000.00
2504 · Bond Payable, Kyle Series 2017B	8,755,000.00
2505 · Bond Payable, SM Series 2017C	10,910,000.00
2506 · Bond Payable, Buda Series 2017D	1,550,000.00
2507 · Bond Payable, CRWA Series 2019A	26,530,000.00
2508 · Bond Payable, Kyle Series 2019B	24,200,000.00
2509 · Bond Payable, SM Series 2019C	30,800,000.00
2510 · Bond Payable, Buda Series 2019D	4,370,000.00
<b>Total Long Term Liabilities</b>	<b>123,385,000.00</b>
<b>Total Liabilities</b>	<b>124,071,739.22</b>
<b>Equity</b>	
2925 · Net Investment in Capital Asset	2,335,322.00
2950 · Retained Earnings	12,419,124.73
Net Income	-1,343,344.10
<b>Total Equity</b>	<b>13,411,102.63</b>
<b>TOTAL LIABILITIES &amp; EQUITY</b>	<b>137,482,841.85</b>

# Alliance Regional Water Authority Profit Loss

For the One Month and Two Months Ended November 30, 2019

	<u>November 2019</u>	<u>October 2019 November 2019</u>
<b>Ordinary Income/Expense</b>		
<b>Income</b>		
<b>4010 · Project Contribution</b>		
4011 · City of San Marcos	0.00	0.00
4012 · City of Kyle	0.00	0.00
4013 · City of Buda	0.00	0.00
4014 · Canyon Regional Water Authority	0.00	0.00
4015 · GBRA	325,616.95	325,616.95
<b>Total 4010 · Project Contribution</b>	<u>325,616.95</u>	<u>325,616.95</u>
<b>4200 · Shared Water</b>		
4210 · Shared Water, City of Buda	37,269.00	37,269.00
<b>Total 4200 · Shared Water</b>	<u>37,269.00</u>	<u>37,269.00</u>
4250 · Non Potable Water Sales	3,172.58	3,172.58
<b>4300 · Broadway Interest Income</b>		
4311 · City of San Marcos	169.83	378.00
4312 · City of Kyle	131.90	295.82
4313 · City of Buda	25.23	55.60
4314 · Canyon Regional Water Authority	144.59	324.31
<b>Total 4300 · Broadway Interest Income</b>	<u>471.55</u>	<u>1,053.73</u>
<b>4350 · Escrow Accounts Income</b>		
4351 · BOKF, CRWA Series 2015A	1,759.48	3,730.62
4352 · BOKF, Kyle Series 2015B	1,594.09	3,379.94
4353 · BOKF, CRWA Series 2017A	6,079.14	13,119.70
4354 · BOKF, Kyle Series 2017B	5,539.56	11,955.33
4355 · BOKF, SM Series 2017C	7,096.01	15,313.08
4356 · BOKF, Buda Series 2017D	982.23	2,117.71
<b>Total 4350 · Escrow Accounts Income</b>	<u>23,050.51</u>	<u>49,616.38</u>
<b>4370 · TexStar Interest Income</b>		
4371 · City of San Marcos	2,076.93	5,111.37
4372 · City of Kyle	1,631.54	4,015.26
4373 · City of Buda	294.22	724.09
4374 · Canyon Regional Water Authority	1,789.08	4,402.97
<b>Total 4370 · TexStar Interest Income</b>	<u>5,791.77</u>	<u>14,253.69</u>
<b>Total Income</b>	<u>395,372.36</u>	<u>430,982.33</u>
<b>Expenses</b>		
6000 · Groundwater Reservation Costs	195,221.73	198,040.04
<b>6010 · Shared Water Costs</b>		
6015 · Shared Water, City of Kyle	23,314.11	23,314.11
6020 · Shared Water, City of San Marcos	13,965.00	13,965.00
<b>Total 6010 · Shared Water Costs</b>	<u>37,279.11</u>	<u>37,279.11</u>
7125 · Auditing fees	0.00	0.00
7150 · Amortization Expense	0.00	0.00
7210 · Bank Fees	225.72	425.23
7220 · Escrow and Paying Agent Fees	1,400.00	1,400.00

# Alliance Regional Water Authority Profit Loss

For the One Month and Two Months Ended November 30, 2019

	<u>November 2019</u>	<u>October 2019 November 2019</u>
<b>7240 · Bond Issue Costs</b>		
7240-07 · Bond Issue Costs - CRWA 2019A	366,353.00	366,353.00
7240-08 · Bond Issue Costs - Kyle 2019B	339,963.00	339,963.00
7240-09 · Bond Issue Costs - SM 2019C	392,523.00	392,523.00
7240-10 · Bond Issue Costs - Buda 2019D	139,593.00	139,593.00
<b>Total 7240 · Bond Issue Costs</b>	<b>1,238,432.00</b>	<b>1,238,432.00</b>
<b>7250 · Interest Expense</b>		
7250-51 · Interest Expense - CRWA 2015A	5,215.54	10,431.08
7250-52 · Interest Expense - Kyle 2015B	7,252.70	14,505.40
7250-53 · Interest Expense - CRWA 2017A	19,651.16	39,302.32
7250-54 · Interest Expense - Kyle 2017B	17,919.62	35,839.24
7250-55 · Interest Expense - SM 2017C	14,778.08	29,556.16
7250-56 · Interest Expense - Buda 2017D	2,119.97	4,239.94
<b>Total 7250 · Interest Expense</b>	<b>66,937.07</b>	<b>133,874.14</b>
<b>7325 · Dues</b>	3,600.00	5,030.00
<b>7350 · Insurance - Liability, E&amp;O</b>	0.00	2,370.62
<b>7400 · Legal Fees</b>	6,845.00	6,845.00
<b>7410 · Newspaper Public Notices</b>	0.00	0.00
<b>7425 · Contract Services-Lobbyist</b>	6,000.00	12,000.00
<b>7430 · Agency Mgmt Public Relations</b>	0.00	0.00
<b>7440 · Region L Contributions</b>	0.00	0.00
<b>7450 · Permit &amp; Fees</b>	0.00	75,537.95
<b>7500 · Supplies</b>	524.19	1,348.20
<b>7530 · Printing &amp; Copying</b>	0.00	0.00
<b>7600 · Telephone, Telecommunications</b>	225.00	450.00
<b>7700 · Travel, Conferences &amp; Meetings</b>	232.48	499.04
<b>7800 · Employee Expenses</b>		
7810 · Salaries and wages	29,792.07	49,107.39
7820 · Auto Allowance	1,453.86	2,321.55
7830 · Payroll taxes	1,235.69	2,778.04
7840 · Employee Insurance	1,545.85	3,317.58
7850 · Retirement	1,984.14	3,270.54
<b>Total 7800 · Employee Expenses</b>	<b>36,011.61</b>	<b>60,795.10</b>
<b>Total Expenses</b>	<b>1,592,933.91</b>	<b>1,774,326.43</b>
<b>Net Ordinary Income</b>	<b>-1,197,561.55</b>	<b>-1,343,344.10</b>
<b>Net Income</b>	<b>-1,197,561.55</b>	<b>-1,343,344.10</b>

**Alliance Regional Water Authority**  
**Broadway Bank VISA Debit Card Transactions**  
**November 30, 2019**

Type	Date	Name	Split	Amount	Balance
<b>2005 · Broadway Bank Visa Card</b>					<b>0.00</b>
Credit Card Charge	11/01/2019	Stamps Com	7500 · Supplies	17.99	17.99
Credit Card Charge	11/04/2019	Microsoft	7500 · Supplies	10.66	28.65
Credit Card Charge	11/04/2019	Microsoft	7500 · Supplies	26.79	55.44
Credit Card Charge	11/04/2019	Jaliscos	7700 · Travel, Conference...	41.53	96.97
Credit Card Charge	11/04/2019	Hat Creek Burgers	7700 · Travel, Conference...	25.25	122.22
Credit Card Charge	11/12/2019	United Site Service	1440-05 · Phase 1A-Cons...	556.68	678.90
Credit Card Charge	11/12/2019	Aramark	7700 · Travel, Conference...	8.39	687.29
Credit Card Charge	11/12/2019	Rackspace	7500 · Supplies	91.00	778.29
Credit Card Charge	11/13/2019	Williams Scotsman	1440-05 · Phase 1A-Cons...	491.95	1,270.24
Credit Card Charge	11/18/2019	Rackspace	7500 · Supplies	113.27	1,383.51
Credit Card Charge	11/19/2019	Cab Store	7500 · Supplies	125.00	1,508.51
Credit Card Charge	11/19/2019	Kreuz Market	7700 · Travel, Conference...	17.99	1,526.50
Credit Card Charge	11/19/2019	Kreuz Market	7700 · Travel, Conference...	88.69	1,615.19
Credit Card Charge	11/20/2019	HEB	7500 · Supplies	12.94	1,628.13
Credit Card Charge	11/21/2019	Sean Patricks	7700 · Travel, Conference...	34.07	1,662.20
Credit Card Charge	11/22/2019	USPS	7500 · Supplies	50.00	1,712.20
Credit Card Charge	11/22/2019	City Bakery	7700 · Travel, Conference...	16.56	1,728.76
Credit Card Charge	11/26/2019	Squarespace Inc	7500 · Supplies	28.15	1,756.91
Credit Card Charge	11/26/2019	Acrobat Pro	7500 · Supplies	18.39	1,775.30
Check	11/30/2019	Broadway	1005 · Broadway Checkin...	-1,775.30	0.00
Total 2005 · Broadway Bank Visa Card				<u>0.00</u>	<u>0.00</u>
<b>TOTAL</b>				<u><b>0.00</b></u>	<u><b>0.00</b></u>

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

**BOARD MEMBER PACKETS**

Wednesday, December 18, 2019 at 3:00 P.M.  
501 E. Hopkins, San Marcos, TX 78666

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

---

Background/Information

The following items were discussed by the Committee at its 12/11 meeting:

- Received an update on the Phase 1A projects (Item F.2).
- Received an update on the Phase 1B program (Item F.3).
- Recommended inclusion of specific cost saving measures into the Phase 1B Program. (Item F.4)
- Rescheduled the January Technical Committee meeting to Wednesday, January 15th.
- Received an update on area water meetings (Item F.6).

**Board Decision(s) Needed:**

- None.

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

**BOARD MEMBER PACKETS**

Wednesday, December 18, 2019 at 3:00 P.M.  
501 E. Hopkins, San Marcos, TX 78666

**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 A Pipeline:

- None

Segment B Pipeline:

- Bid opened 8/22/2019 (recap).
  - 9/25 ARWA Board approved contingent award of contract to Smith Contracting, per LAN recommendation.
  - Ductile Iron.
  - Contract cost \$3.811 million dollars.
- Notice to proceed received 12/5/2019.
- Pre-Construction kickoff meeting is scheduled for Tuesday, December 17<sup>th</sup>.

Pump Station:

- Pump station construction proceeding. See attached slides.

**Board Decision(s) Needed:**

- None.

## Phase 1A Booster Pump Station

- Status Update
- December 11, 2019



## General Updates



ROAD WORK ON SITE  
NEARING COMPLETION



GENERATOR INSTALLATION  
UNDERWAY.



BUILDING STRUCTURES UP –  
INTERNAL PAINTING  
COMPLETED.



ELECTRICAL CONDUIT AND  
CHEMICAL FEED SYSTEM  
INSTALL EFFORT UNDERWAY.



SCADA SYSTEMS FACTORY  
TESTING DECEMBER 9<sup>TH</sup>  
THROUGH 11<sup>TH</sup>.





## Facility Structures - *Interior*

- HVAC system installation completed.
- Chemical feed system completing.
- Chemical leak safety system installation completing.
- Ventilation system installation completing.



## Facility Structures - *Landscaping*

- Gates and fence installation underway.
- Road work nearing completion.
- Vegetation planting underway.
- Irrigation system installation completing soon.



## Phase 1A *Buda Delivery Point*

- Canopy completed.
- Underground plumbing completed.
- SCADA and electrical systems next in installation sequence.



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

**BOARD MEMBER PACKETS**

Wednesday, December 18, 2019 at 3:00 P.M.  
501 E. Hopkins, San Marcos, TX 78666

- 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 – December 18, 2019
- Kimley-Horn Monthly Invoice for November 2019

**Board Decision(s) Needed:**

- None.



## Phase 1B Program Update

Board of Directors Meeting  
December 18, 2019

Kimley»Horn

### Agenda

Ongoing Progress

Schedule & Budget Update



Kimley»Horn

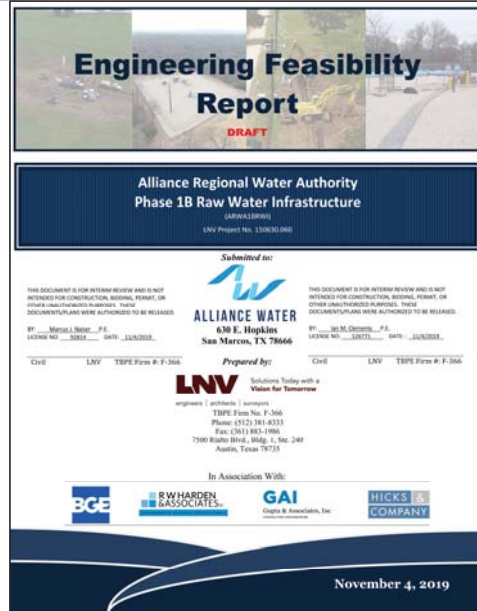
# Ongoing Progress

## Consultant Contracting Update

- Well Drilling
  - Construction Phase Contract (January)
- Water Treatment Plant
  - Final Design Phase Contract (January)
- Pipeline Segment C
  - Final Design Phase Contract (February)
- Pipeline Segment E
  - Final Design Phase Contract (February)

## Design Milestone Reviews

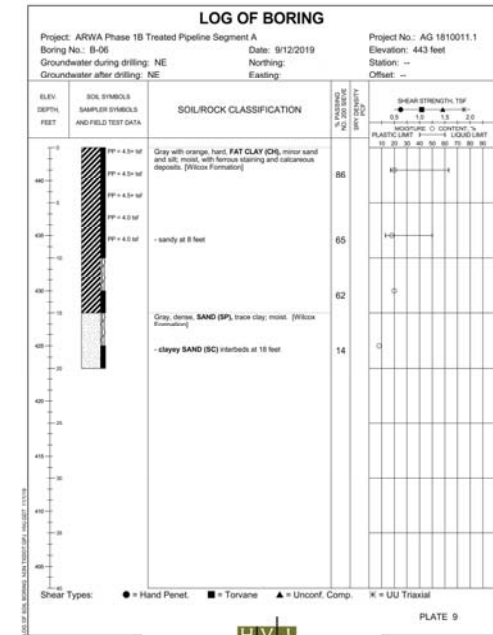
- Water Treatment Plant
  - Draft Engineering Feasibility Report (December)
- Booster Pump Station & Delivery Points
  - Draft Engineering Feasibility Report (December)
- Raw Water Infrastructure
  - Final Engineering Feasibility Report (December)



Kimley»Horn

# Ongoing Progress

## Online GIS Update – Geotechnical Bores



Kimley»Horn

## Pipeline Route Analyses & Rights of Entry

Pipeline Segment	Number of Right-of-Entry Requests	Right-of-Entry Received or Access Granted (No. of Parcels)	Right-of-Entry Received or Access Granted (%)	Alignment Confirmed (%)
A	38	38	100%	100%
B	46	46	100%	85%
D	68	66	97%	82%
C	88	71	81%	0%
E	32	24	75%	6%
Wellfield	15	8	53%	0%
<b>Total</b>	<b>287</b>	<b>253</b>		



Kimley»Horn

## Pipeline Easement Acquisition Status

Pipeline Segment	Number of Parcels	Appraisals Prepared	Initial Offer Letter Delivered	Purchase Agreement Signed / Easement Closed
A	38	31	24	5
B	46	6	1	1
D	68	0	0	0
C	88	0	0	0
E	32	0	0	0
Wellfield	15	0	0	0
<b>Total</b>	<b>287</b>	<b>37</b>	<b>25</b>	<b>6</b>



Kimley»Horn



Questions?



Kimley»Horn

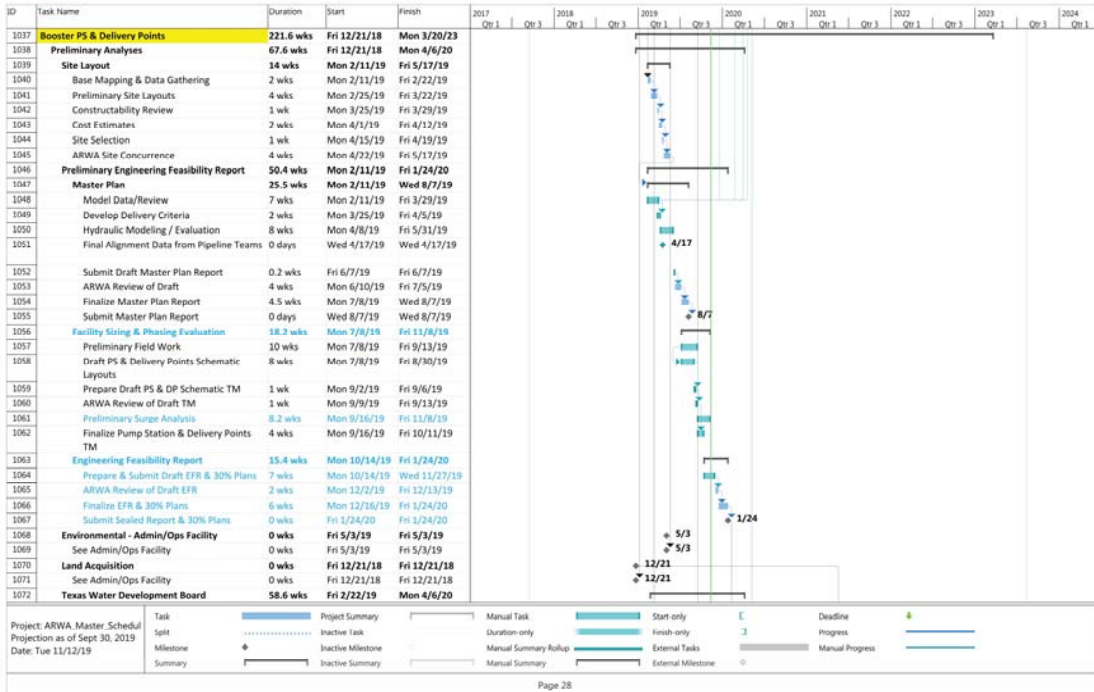


Schedule Update

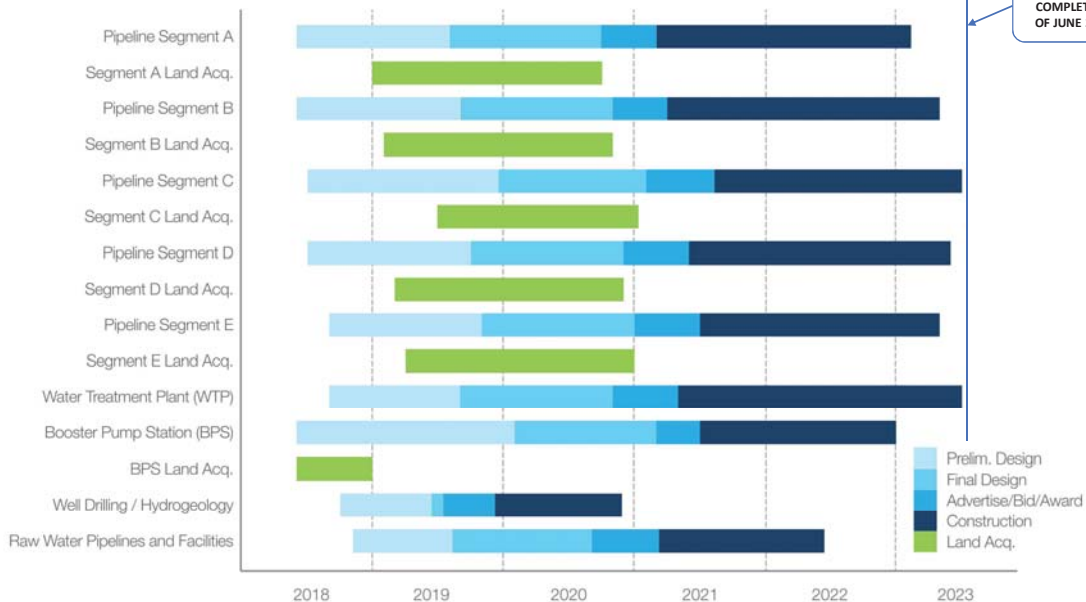


Kimley»Horn



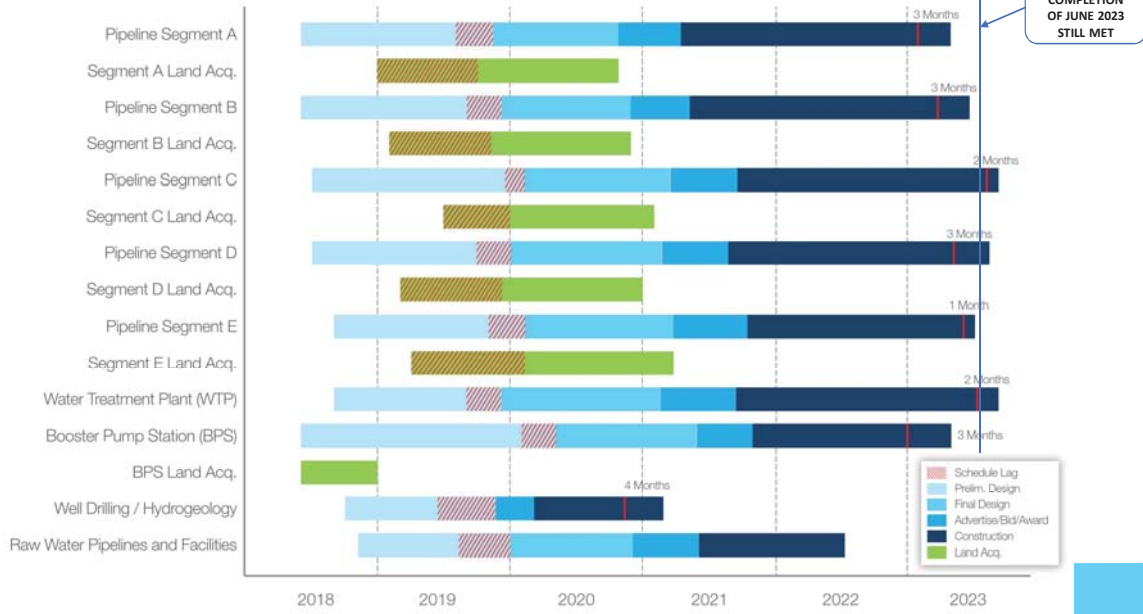


## Baseline Schedule





# Schedule Update



# Schedule Update

## Transmission Pipelines

- Right-of-Entry Process Delay – 6 to 8 months
  - IMPACTS:
    - Environmental Field Work – 6 to 8 months
    - EFR Submittal – 6 to 8 months
    - Land Acquisition – 6 to 8 months
    - Pipeline Final Design – 1 to 3 months
    - Pipeline Construction Completion – 1 to 3 months
  - MITIGATION:
    - Decoupling of EFR Submittal Process from Final Design Process

## Schedule Update

### Well Drilling

- Delay – 4 months
  - Pipeline / Access Road Alignment Confirmation and TWDB Environmental Review Process

### Water Treatment Plant

- Potential Delay – 2 months
  - Design Process and Program Direction (Minimum Flow Determinations)
  - MITIGATION: Accelerated Final Design Phase

### Booster Pump Station

- Potential Delay – 3 months
  - Design Process and Program Direction (Extended Hydraulic Analyses)
  - MITIGATION: Accelerated Final Design Phase



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## Budget Update



Kimley»Horn



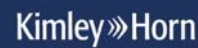
# Budget Update

## Budget Development

- ARWA1B Preliminary Engineering Report
  - Serves as Baseline

## Budget Tracking

- Monthly Expenditures
  - Invoices
- Budget Updates
  - Actual Contract Amounts
  - Updated Cost Projections
- TWDB Milestones & Funding Releases



ARWA PHASE 1B COST TRACKING -- COMBINED PROGRAM  
Through September 2019

PHASE 1B COMBINED PROGRAM SUMMARY	PLANNING BUDGET		2019			TOTAL
			June	September	December	
WATER TREATMENT PLANT CUMULATIVE TOTAL	\$46,700,000	BUDGET	\$1,791,000	\$3,373,000	\$4,194,000	\$46,726,000
		ACTUAL	\$5,221,000	\$2,840,000		
BPS & GBRA METERING STATIONS CUMULATIVE TOTAL	\$24,100,000	BUDGET	\$1,200,000	\$1,911,000	\$1,697,000	\$24,022,000
		ACTUAL	\$493,000	\$823,000		
IN-LINE EST (COMBINED PROGRAM) CUMULATIVE TOTAL	\$5,200,000	BUDGET	\$88,000	\$111,000	\$179,000	\$5,239,000
		ACTUAL	\$58,000	\$74,000		
PIPELINE SEGMENT A CUMULATIVE TOTALS	\$49,700,000	BUDGET	\$2,131,000	\$1,103,000	\$4,375,000	\$49,685,000
		ACTUAL	\$1,044,000	\$1,274,000		
PIPELINE SEGMENT B CUMULATIVE TOTALS	\$47,400,000	BUDGET	\$1,433,000	\$2,007,000	\$3,637,000	\$47,436,000
		ACTUAL	\$956,000	\$1,169,000		
PIPELINE SEGMENT D CUMULATIVE TOTALS	\$53,300,000	BUDGET	\$3,020,000	\$2,480,000	\$3,695,000	\$53,289,000
		ACTUAL	\$1,044,000	\$1,422,000		
PIPELINE SEGMENT E1 CUMULATIVE TOTALS	\$15,500,000	BUDGET	\$389,000	\$521,000	\$620,000	\$15,505,000
		ACTUAL	\$367,000	\$433,000		
<b>PROGRAM CUMULATIVE TOTALS WITHOUT CONTINGENCY</b>	<b>\$241,900,000</b>	<b>BUDGET</b>	<b>\$9,062,000</b>	<b>\$13,966,000</b>	<b>\$18,677,000</b>	<b>\$241,875,000</b>
		<b>ACTUAL</b>	<b>\$5,183,000</b>	<b>\$8,035,000</b>		
<b>ACCUMULATED PROGRAM CONTINGENCY</b>	<b>\$64,200,000</b>	<b>BUDGET</b>	<b>\$1,250,000</b>	<b>\$2,073,000</b>	<b>\$2,854,000</b>	<b>\$64,368,000</b>
<b>ARWA AND GBRA CASH FLOW FORECASTS</b>						
ARWA CUMULATIVE CASH FLOW	\$145,300,000	BUDGET	\$4,496,000	\$6,888,000	\$8,761,000	\$145,365,000
		ACTUAL	\$2,592,000	\$4,037,445		
GBRA CUMULATIVE CASH FLOW	\$96,500,000	BUDGET	\$4,496,000	\$4,888,000	\$8,761,000	\$96,509,000
		ACTUAL	\$2,577,000	\$3,974,000		
<b>ARWA AND GBRA CONTINGENCY ACCUMULATION FORECASTS</b>						
ARWA CUMULATIVE CONTINGENCY ACCUMULATION	\$39,500,000	BUDGET	\$645,000	\$1,036,000	\$1,438,000	\$39,462,000
		ACTUAL	\$645,000	\$1,036,000		
GBRA CUMULATIVE CONTINGENCY ACCUMULATION	\$24,800,000	BUDGET	\$645,000	\$1,036,000	\$1,438,000	\$24,806,000
		ACTUAL	\$645,000	\$1,036,000		

ARWA PHASE 1B COST TRACKING -- ARWA PHASE 1B PROGRAM SUMMARY  
Through September 2019

PHASE 1B ARWA PROGRAM SUMMARY	PLANNING BUDGET		2019			TOTAL
			June	September	December	
<b>ARWA-ONLY PROJECTS</b>						
WELDFIELD CUMULATIVE TOTAL	\$3,800,000	PLANNED	\$178,000	\$300,000	\$900,000	\$3,800,000
		ACTUAL	\$105,000	\$100,000		
RAW WATER INFRASTRUCTURE CUMULATIVE TOTAL	\$7,400,000	PLANNED	\$900,000	\$1,164,000	\$1,300,000	\$7,378,000
		ACTUAL	\$700,000	\$628,000		
ARWA-ONLY WATER TREATMENT PLANT CUMULATIVE TOTAL	\$2,800,000	PLANNED	\$2,584,000	\$2,584,000	\$2,584,000	\$2,584,000
		ACTUAL	\$1,564,000	\$1,564,000		
BPS Sg C & ARWA DELIVERY POINTS CUMULATIVE TOTAL	\$7,800,000	PLANNED	\$617,000	\$987,000	\$1,917,000	\$7,783,000
		ACTUAL	\$548,000	\$633,000		
IN-LINE EST SEG C CUMULATIVE TOTAL	\$1,200,000	PLANNED	\$93,000	\$105,000	\$170,000	\$1,314,000
		ACTUAL	\$55,000	\$64,000		
ADMIN & OPS CENTER CUMULATIVE TOTAL	\$4,300,000	PLANNED	\$74,000	\$157,000	\$288,000	\$4,368,000
		ACTUAL	\$37,000	\$67,000		
PIPELINE SEGMENT C CUMULATIVE TOTALS	\$67,000,000	PLANNED	\$2,297,000	\$2,774,000	\$3,232,000	\$67,069,000
		ACTUAL	\$1,100,000	\$1,367,000		
PIPELINE SEGMENT E2 CUMULATIVE TOTALS	\$6,800,000	PLANNED	\$1,173,000	\$1,226,000	\$298,000	\$6,805,000
		ACTUAL	\$146,000	\$193,000		
ARWA CUMULATIVE CASH FLOW -- ARWA-ONLY PROGRAM	\$98,200,000	PLANNED	\$4,700,000	\$9,200,000	\$10,000,000	\$98,000,000
		ACTUAL	\$5,100,000	\$5,700,000	\$0	
<b>COMBINED PROGRAM PROJECTS</b>						
WATER TREATMENT PLANT CUMULATIVE TOTAL	\$24,300,000	BUDGET	\$896,000	\$1,484,000	\$2,097,000	\$24,535,000
		ACTUAL	\$610,000	\$1,420,000		
BPS & GBRA METERING STATIONS CUMULATIVE TOTAL	\$13,300,000	BUDGET	\$807,000	\$953,000	\$1,354,000	\$13,318,000
		ACTUAL	\$247,000	\$411,000		
IN-LINE EST (COMBINED PROGRAM) CUMULATIVE TOTAL	\$3,600,000	BUDGET	\$44,000	\$16,000	\$89,000	\$3,618,000
		ACTUAL	\$29,000	\$37,000		
PIPELINE SEGMENT A CUMULATIVE TOTALS	\$28,600,000	BUDGET	\$1,265,000	\$1,476,000	\$2,388,000	\$28,582,000
		ACTUAL	\$533,000	\$637,000		
PIPELINE SEGMENT B CUMULATIVE TOTALS	\$29,500,000	BUDGET	\$717,000	\$1,091,000	\$1,818,000	\$29,506,000
		ACTUAL	\$478,000	\$505,000		
PIPELINE SEGMENT D CUMULATIVE TOTALS	\$58,300,000	BUDGET	\$1,010,000	\$1,361,000	\$1,932,000	\$58,308,000
		ACTUAL	\$322,000	\$711,000		
PIPELINE SEGMENT E1 CUMULATIVE TOTALS	\$9,500,000	BUDGET	\$189,000	\$200,000	\$350,000	\$9,497,000
		ACTUAL	\$188,000	\$227,000		
ARWA CUMULATIVE CASH FLOW -- COMBINED PROGRAM	\$143,200,000	PLANNED	\$4,538,000	\$9,100,000	\$9,898,000	\$143,365,000
		ACTUAL	\$2,592,000	\$4,038,000	\$0	
<b>ARWA PHASE1B CUMULATIVE CASH FLOW W/O CONTINGENCY</b>	<b>\$243,500,000</b>	<b>PLANNED</b>	<b>\$11,238,000</b>	<b>\$14,982,000</b>	<b>\$19,898,000</b>	<b>\$243,365,000</b>
		<b>ACTUAL</b>	<b>\$7,692,000</b>	<b>\$8,786,000</b>	<b>\$0</b>	
ARWA CUMULATIVE CONTINGENCY ACCUMULATION	\$105,500,000	PLANNED	\$2,014,000	\$2,192,000	\$4,132,000	\$105,612,000
		ACTUAL	\$2,014,000	\$2,192,000		



# Budget Update

## Next Steps

- Update for Program Cost Directives
- Update with 30% Cost Projections
- Continuous Monthly Tracking
- Quarterly Updates to Technical Committee and Board



Kimley»Horn

# Questions?



Kimley»Horn

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: 068706602-1119  
 Invoice Date: Nov 30, 2019  
 Invoice Amount: \$ 212,818.12  
 Project No: 068706602  
 Project Name: ARWA PROGRAM YEAR 2  
 Project Manager: SOWA, RYAN

Client Reference:

For Services Rendered through Nov 30, 2019

Federal Tax Id: 56-0885615

**COST PLUS MAX**

KHA Ref # 068706602.3-15352459

Description	Contract Value	Amount Billed to Date	Previous Amount Billed	Current Amount Due
PROGRAM MANAGEMENT PLAN UPDATES	39,934.00	9,148.50	8,278.50	870.00
STAKEHOLDER COORDINATION	299,997.00	217,514.64	187,492.61	30,022.03
BUDGETTING	111,073.00	89,417.70	87,957.70	1,460.00
SCHEDULE	113,584.00	71,776.40	70,451.40	1,325.00
REPORTING	40,450.00	35,167.50	31,312.50	3,855.00
DATA MANAGEMENT	83,746.00	88,850.18	84,366.93	4,483.25
ENVIRONMENTAL MANAGEMENT	193,252.00	86,713.93	74,619.50	12,094.43
LAND ACQUISITION MANAGEMENT	289,226.00	307,037.75	257,514.70	49,523.05
TEXAS WATER DEVELOPMENT BOARD MANAGEMENT	70,764.00	31,174.86	26,815.96	4,358.90
DESIGN STANDARDS	287,643.00	241,470.52	217,613.77	23,856.75
ENGINEERING DESIGN MANAGEMENT	831,824.00	551,243.50	489,670.68	61,572.83
QUALITY ASSURANCE	46,646.00	49,387.96	48,348.46	1,039.50
ELECTRICAL POWER PLANNING	105,747.00	48,774.99	41,693.71	7,081.28
PERMIT COORDINATION/TRACKING	57,683.00	41,429.83	36,490.83	4,939.00
PROJECT ADMINISTRATION	53,067.00	34,081.77	30,272.17	3,809.60
OTHER SERVICES	252,467.00	80,113.30	77,585.80	2,527.50
<b>Subtotal</b>	<b>2,877,103.00</b>	<b>1,983,303.34</b>	<b>1,770,485.22</b>	<b>212,818.12</b>
<b>Total COST PLUS MAX</b>				<b>212,818.12</b>

**Total Invoice: \$ 212,818.12**

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

December 13, 2019

## **Project Monthly Summary**

### **November 2019 Tasks Performed:**

- Task 1 – Program Management Plan (PMP)
  - Finalized additional updates to the Real Estate Acquisition and Management Plan based on feedback from ARWA.
  
- Task 2 – Stakeholder Coordination
  - Coordination and/or meetings with entities including: Caldwell County, Guadalupe County, Bluebonnet Electric Coop, TxDOT, TCEQ, and TWDB.
  - Continued weekly task coordination with Alliance Water.
  - Prepared for Project Advisory Committee Meeting Update.
  - Prepared and presented Technical Committee Meeting Update.
  - Prepared and presented Board Meeting Update.
  - Prepared for and held Monthly Status Meeting with Alliance Water.
  
- Task 3 – Budgeting
  - Continued cost analyses and development of supporting materials for evaluating potential reductions in overall Program costs.
  - Continued updates to Budget Workbook to include monthly tracking of actual costs for ARWA review.
  
- Task 4 – Schedule
  - Coordinated with Program team to integrate each project schedule into overall Program schedule.
  
- Task 6 – Data Management
  - Ongoing maintenance of Microsoft SharePoint Online program.
  - Continued updating of web-based GIS for right-of-entry process and alignment changes.
  
- Task 7 – Environmental Management
  - 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.

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

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



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

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

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

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- 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
- Prepared for and attended coordination meeting with GVEC
- On-going Permit Tracking Log Updates
- Task 17 - Other Services
  - Prepared a draft solar field feasibility analysis for the WTP site.

**December 2019 Projection:**

- Task 2 - Stakeholder Coordination
  - Coordination and/or meetings with entities including: Caldwell County, Guadalupe County, GVEC, Bluebonnet Electric Coop, TxDOT, TCEQ, and TWDB.
  - Continue weekly task coordination with Alliance Water.
  - Prepare and present Project Advisory Committee Meeting Update.
  - Prepare and present Technical Committee Meeting Update.
  - Prepare and present Board Meeting Update.
  - Prepare for and held Monthly Status Meeting with Alliance Water.
- Task 3 - Budgeting
  - Provide any additional cost data in support of the program cost analysis process.
  - Finalize updates to Budget Workbook to include monthly tracking of actual costs for ARWA review.
- Task 4 - Schedule
  - Coordinate with Program team to integrate each project schedule into overall Program schedule.
- Task 6 - Data Management
  - Ongoing maintenance of Microsoft SharePoint Online program.
  - Continued updating of web-based GIS for right-of-entry process and alignment changes.
- Task 7 - Environmental Management
  - 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.

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

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

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

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- Continue review of scope and fee for final design phase.
    - Segment D
      - Continue coordination with design consultant for beginning final design.
    - Segment E
      - Continue coordination with design consultant regarding ongoing field work as part of right-of-entry process and EFR development.
      - Begin scoping process coordination for final design phase.
  - Wellfield:
    - Continue coordination regarding bidding of Wells 6-9.
    - Continued review of scope and fee for construction phase.
  - Raw Water Infrastructure:
    - Review and comment on 30% Design Report.
    - Continue coordination with design consultant for 30% design development.
  - Water Treatment Plant:
    - Review and comment on 30% Design Report.
    - Continue coordination with design consultant for 30% design development.
  - Booster Pump Station:
    - Review of 30% Design Report to be submitted by the design consultant.
    - Begin scoping process coordination for final design phase.
  - Inline Elevated Storage Tanks:
    - Provide input on potential EST sites.
    - Coordination with design consultant for 30% design development.
  - 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
    - Coordination with ARWA concerning emergency power needs and service options for the water treatment plant and wellfield.
    - Coordination with GVEC regarding electric service to the WTP and wellfield.
  - Task 14 - Permit Coordination/Tracking
    - Continue Permit coordination with Pipeline consultants
    - Continue Coordination with Caldwell County for variance request for the Site Development Permit.
    - General Coordination with TxDOT
    - General Coordination with GVEC and BBEC
    - Prepare for and attend coordination meeting with GVEC.
    - Permit Tracking Log Updates

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

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- Task 17 – Other Services
  - Finalize and submit the City of San Marcos Watershed Protection Plan for the Booster Pump Station Plat.
  - Submit solar feasibility analysis to ARWA and finalize memorandum.

**Scope Elements Added/Removed:**

Performance of a solar field feasibility analysis at the WTP site and preparation of memorandum.

**Outstanding Issues/Concerns:**

None at this time.

**HUB Participation:**

61.0% allotted by Contract (based on contract total fee)

49.5% to date of Billing

Design Consultant Certifications: N/A

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

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	\$228,846.00	65%	\$149,657.55	\$149,657.55
CP&Y, Inc.	ABE; MBE	Program Standards, Compliance, and Project Management	\$925,009.00	53%	\$486,796.78	\$422,564.45
Grubb Engineering, Inc.	ESBE; SBE; WBE	Electrical Power Planning	\$99,000.00	42%	\$41,221.13	\$35,202.76
Spitzer and Associates, Inc.	SBE; WBE	Land Acquisition Management	\$388,720.00		\$292,180.90	\$246,207.50
RVK Architects, Inc.	WBE	Architectural Project Management	\$49,165.00	17%	\$8,432.34	\$6,873.09
V&A Consulting Engineers, Inc.	SBE; HABE; MBE	Cathodic Protection Standards	\$64,678.00	7%	\$4,405.50	\$4,405.50
		Subtotal	\$1,755,418.00	56.0%	\$982,694.20	\$864,910.84

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

**BOARD MEMBER PACKETS**

Wednesday, December 18, 2019 at 3:00 P.M.  
501 E. Hopkins, San Marcos, TX 78666

- F.4** Consider adoption of Resolution 2019-12-18-001 approving modification to the Phase 1B Program to incorporate various cost saving measures, as recommended by the Technical Committee. ~ *Graham Moore, P.E., Executive Director*
- 

Background/Information

A Board Workshop meeting was held on October 16<sup>th</sup> to discuss the eight cost saving measures that were identified for the Phase 1B Program. Staff will quickly go through the basic presentation that was provided at the Workshop, along with a few updates, including the Technical Committee Recommendations.

Attachment(s)

- Resolution 2019-12-18-001
- 2019-12-18 Cost Saving Measure Presentation

Technical Committee Recommendation(s)

- The Committee unanimously recommended the incorporation of the following cost saving measures into the Phase 1B Program:
  - Peaking Factor Reduction for Segment A from 1.5 to 1.3 (48-inch line to a 42-inch; bid both pipeline sizes).
  - Peaking Factor Reduction for the Water Treatment Plant and Booster Pump Station from 1.5 to 1.0 (size critical items that cannot easily be expanded for full 1.5 peaking factor).
  - Re-Packaging of the Segment A and B Pipeline Projects with the Water Treatment Plant and Booster Pump Station.
  - Revise Design Criteria to Extend Minimum Spacing between Valves to 13,000-feet or at Critical Crossings.
  - Request an Exception from TCEQ to Allow for the Elimination of Pipeline Casing at Intermittent or Mostly Dry Creek Crossings where Scour is not Anticipated to be a Problem.

**Board Decision(s) Needed:**

- Adoption of Resolution 2019-12-18-001 approving modification to the Phase 1B Program to incorporate cost saving measures as recommended by the Technical Committee.



**RESOLUTION NO. 20191218-001**

**A RESOLUTION OF THE ALLIANCE REGIONAL WATER AUTHORITY BOARD OF DIRECTORS APPROVING MODIFICATION OF THE PHASE 1B PROGRAM TO INCORPORATE COST SAVING MEASURES, AND DECLARING AN EFFECTIVE DATE**

**RECITALS:**

1. The Alliance Regional Water Authority (the "Alliance Water") approved the Execution Structure and Other Items related to Alliance Water's Phase 1B Program through the adoption of Resolution 20171025-006. It also adopted changes to the Canyon Regional Water Authority delivery location and flowrate through the adoption of Resolution 20180627-004.

2. Preliminary construction cost estimates for the Phase 1B Program have indicated that costs may exceed the initial planning estimates and the committed funding amount of \$213.4 million approved by the Texas Water Development Board for Alliance Water.

3. The Alliance Water Staff and Owner's Representative have embarked on effort to identify various cost saving measures that could be implemented in the Phase 1B Program to reduce the anticipated construction costs. Eight possible cost saving measures were presented to the Alliance Water Board of Directors at a Workshop Meeting held on October 16, 2019.

4. At their December 11, 2019 meeting, the Technical Committee unanimously recommended to the Board the incorporation of the following cost saving measures into the Phase 1B Program:

- a. Pipeline Peaking Factor: Reduce the peaking factor in the Segment A Pipeline (Water Treatment Plant to Lockhart) from a 1.5 multiplier to a 1.3 multiplier. This equates to a change in pipe size from a 48-inch diameter to a 42-inch diameter pipeline. The Segment A project will be bid at both the 48-inch and 42-inch pipeline sizes so that at the time of construction award, an evaluation may be conducted to determine if the larger pipeline size should be utilized based on actual, not projected, cost data.
- b. Facility Peaking Factor: Reduce the peaking factor in the Water Treatment Plant and Booster Pump Station projects from a 1.5 multiplier to a 1.0 multiplier. During the final design phase of each project, determination should be made as to items that can or cannot be feasibly expanded in the future. Any items that cannot be feasibly expanded in the future, should be built at the full 1.5 peaking factor capacity during the Phase 1B project.



- c. Repackaging of Construction Contracts: While utilizing the Competitive Sealed Proposal process for the selection and award of the construction projects, add an option whereby contractors identify the savings if they are awarded Pipeline Segments A, B the Water Treatment Plant and Booster Pump Station simultaneously. The Program may consider expanding this repackaging to include Pipeline Segments C, D and E.
- d. Isolation Valve Spacing Revision: Revise the Phase 1B Program design criteria to extend the maximum spacing between the isolation gate valves for the five pipe segments from 5,000-feet to 13,000-feet while still placing valves at critical locations such as all railroad crossings, major roadway crossing and major river crossings.
- e. Stream Crossing Variance: Revise the Phase 1B Program design criteria to seek an exception from the Texas Commission on Environmental Quality (TCEQ) to eliminate the requirement to utilize pipeline encasement at smaller streams that are typically dry or those that show no signs of regular flows.

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

**PART 1.** The Technical Committee’s Recommendations detailed in Recital #4 are hereby approved.

**PART 2.** Alliance Water’s Executive Director, Graham Moore, is directed to incorporate the recommendations into the Phase 1B Program.

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

**ADOPTED:** December 18, 2019.


**ATTEST:**


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Chris Betz  
Chair, Board of Directors

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James Earp  
Secretary, Board of Directors



  
**ALLIANCE WATER**


**ARWA Phase 1B**  
Program Cost Summary  
December 18, 2019

**Kimley»Horn**

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## Agenda

- Overall Program Update
- Review Design / Bidding Schedule
- Overall Program Cost verses Available Funding
- Cost Saving Options
- Next Steps

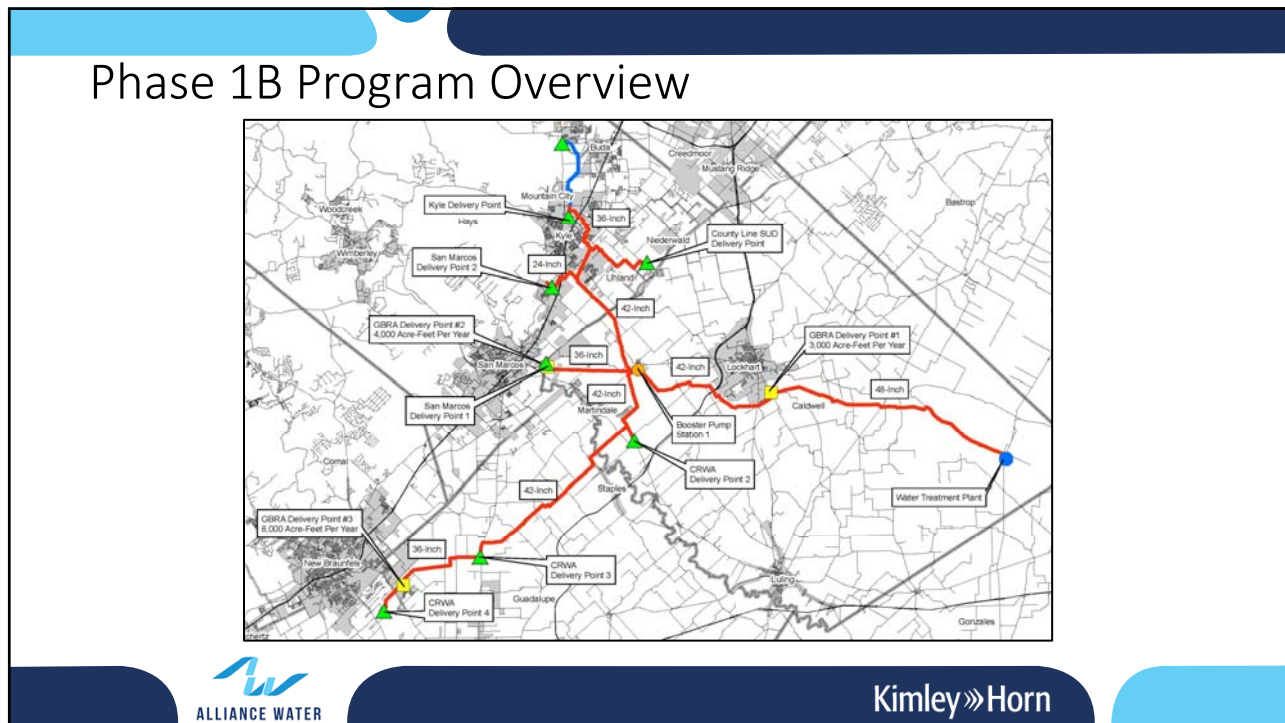
  
**ALLIANCE WATER**

**Kimley»Horn**

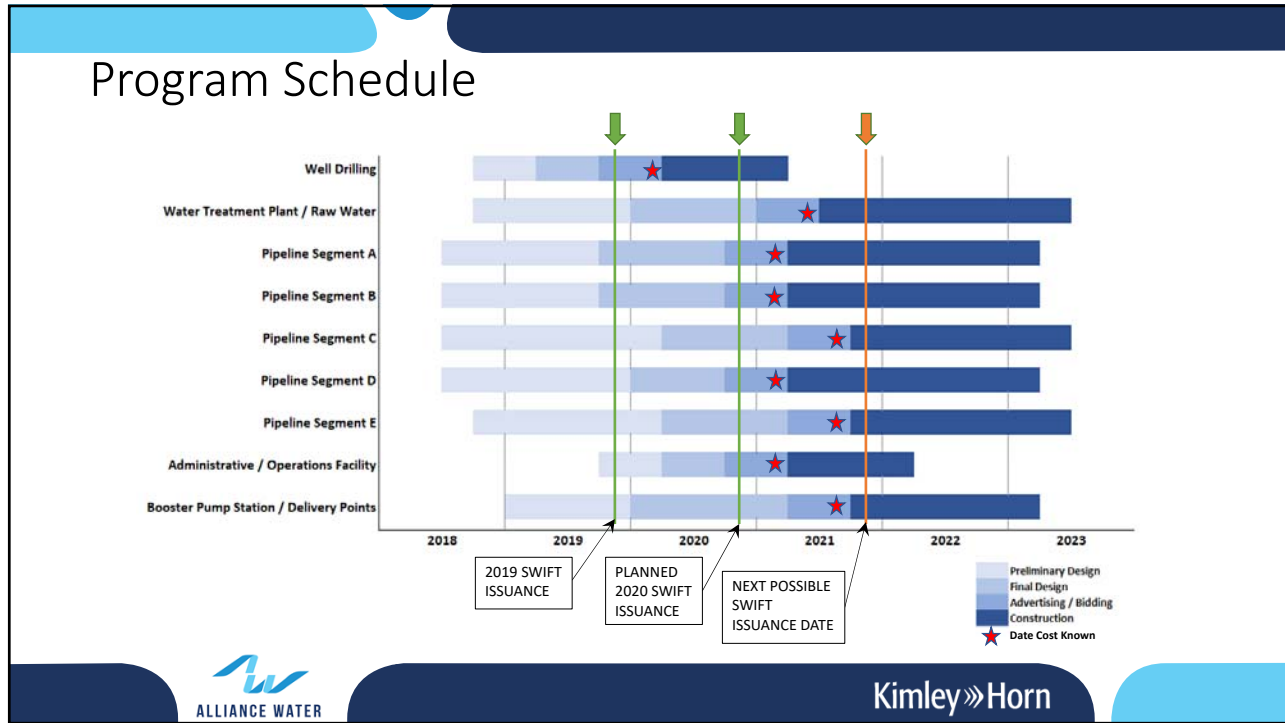
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## Current Funding Summary

Sponsor	2017 Issuance	2019 Issuance	2020 Issuance	Total
CRWA	\$9,865,000	\$26,530,000	\$29,520,000	\$65,915,000
Kyle	\$8,995,000	\$24,200,000	\$26,925,000	\$60,120,000
San Marcos	\$11,450,000	\$30,800,000	\$34,270,000	\$76,520,000
Buda	\$1,625,000	\$4,370,000	\$4,860,000	\$10,855,000
<b>Total</b>	<b>\$31,935,000</b>	<b>\$85,900,000</b>	<b>\$95,575,000</b>	<b>\$213,410,000</b>

Note: Interest savings have created approximately \$18 million in additional financing capacity for equivalent debt service payments, not including the 2020 issuance.

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## PER Costs vs. Available Funding

	Total PER Projected Cost	GBRA Projected Cost of Shared Program	ARWA Projected Cost for Phase 1B
No Contingency	\$345,900,000	\$97,000,000	\$248,900,000
With 30% Contingency	\$437,000,000	\$122,100,000	\$314,800,000
Current Funding			\$213,400,000
"Funding – Projected Cost" (w/o contingency)			(\$35,490,000)
"Funding – Project Costed" (w/ 30% contingency)			(\$101,390,000)

The "Gap"




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## Addressing the Gap

Option 1: Additional Funding

Option 2: Cost Reductions

Option 3: Combination of Option 1 & 2



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## Additional Funding Options

Option	Pros	Cons
Private Funding	<ul style="list-style-type: none"> <li>• Flexible timing (close anytime)</li> <li>• Funds available immediately at closing</li> </ul>	<ul style="list-style-type: none"> <li>• Higher interest costs</li> <li>• Never used by ARWA</li> </ul>
SWIFT Funding	<ul style="list-style-type: none"> <li>• Lowest interest costs</li> <li>• Known process by ARWA</li> </ul>	<ul style="list-style-type: none"> <li>• Limited timing (once/yr)</li> <li>• Funds “released” based on info provided to TWDB</li> <li>• Requires action by February 2020 to add capacity</li> </ul>



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## Cost Saving Options

- 5 - Require Direction
- 3 - Savings Realized though Design Standards Updates  
(No Specific Action Needed)



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# Cost Saving Options Summary

Reflects ARWA's share of potential cost savings:

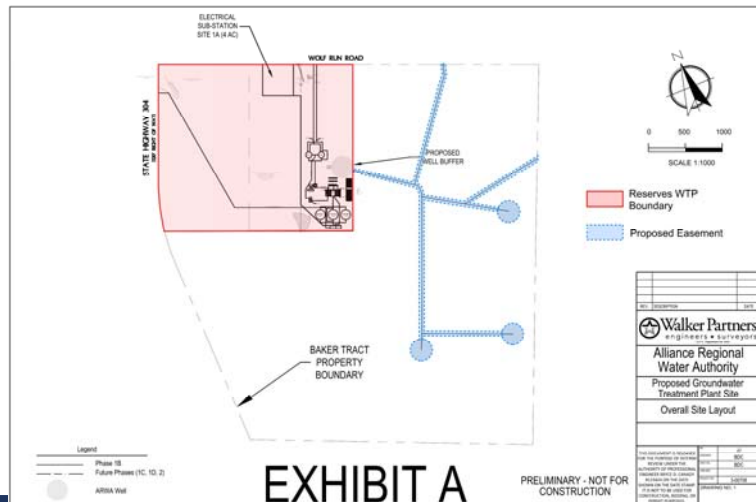
Item	Original Standards	Potential Capital Cost Savings	Potential Capital Cost Savings (30% Construction Contingency)
1	Selling Excess WTP Property	\$2,000,000	\$2,000,000 (No Cont.)
2a	Peaking Factor Reduction - Pipelines	Up To \$16,000,000	Up To \$20,000,000
2b	Peaking Factor Reduction - Facilities	Up To \$7,000,000	Up To \$9,000,000
3	Phase 2 Capacity Deferral	\$21,000,000	\$27,000,000
4	Administrative / Operations Deferrals	\$3,200,000 - \$4,400,000	\$4,100,000 - \$5,700,000
5	Inline Elevated Storage Tanks Deferral	\$6,600,000	\$8,600,000
6	Repackaging of Contract Analysis	\$1,700,000 - \$7,900,000	\$2,200,000 - \$10,300,000
7	Isolation Valve Spacing Revision	\$2,600,000	\$3,400,000
8	Stream Crossing Variance	\$1,100,000	\$1,400,000



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## Item 1 – Selling Excess WTP Property

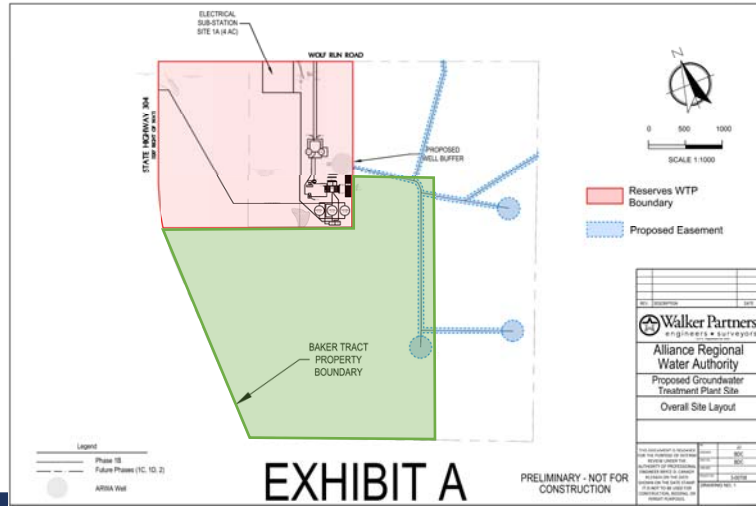
- Total WTP Property acreage = 560 acres
- Approximately 400 acres of excess property anticipated and available to sell.
- Potential Sales Cost = **\$2,000,000**



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# Item 1 – Selling Excess WTP Property

- Green area is available for solar farm
- Action items:
  - Coordination with GVEC on interconnect
  - Consumption Analysis
  - Production Analysis
  - Site Plan
  - Financial Model



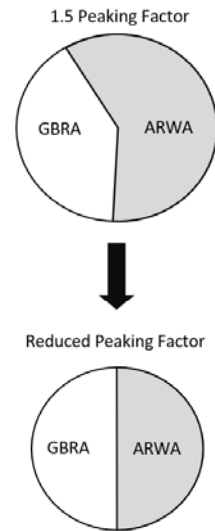
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# Item 2 - Peaking Factor Analysis

- Peaking Factor Reduction from 1.5 to 1.0 in tenth increments
- By reducing the peaking factor, the peak flow is reduced which decreases the required pipe diameter and facility sizing

Peaking Factor	Potential Cost Savings			
	ARWA		GBRA	
	Without Contingency	With Contingency	Without Contingency	With Contingency
1.5	\$ -	\$ -	\$ -	\$ -
1.4	\$ 1,000,000	\$ 2,000,000	\$ (300,000)	\$ (400,000)
1.3	\$ 8,000,000	\$ 11,000,000	\$ (500,000)	\$ (700,000)
1.2	\$ 10,000,000	\$ 13,000,000	\$ (800,000)	\$ (1,000,000)
1.1	\$ 17,000,000	\$ 22,000,000	\$ (2,300,000)	\$ (3,000,000)
1.0	\$ 23,000,000	\$ 30,000,000	\$ (3,600,000)	\$ (4,700,000)



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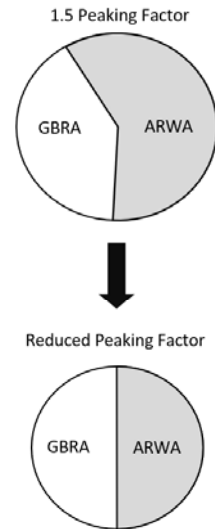
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## Item 2a - Peaking Factor Analysis – Pipelines

- Peaking Factor Reduction from 1.5 to 1.0 in tenth increments
- By reducing the peaking factor, the peak flow is reduced which decreases the required pipe diameter sizing

Peaking Factor	Potential Cost Savings			
	ARWA		GBRA	
	Without Contingency	With Contingency	Without Contingency	With Contingency
1.5	\$ -	\$ -	\$ -	\$ -
1.4	\$ -	\$ -	\$ -	\$ -
1.3	\$ 5,000,000	\$ 7,000,000	\$ 100,000	\$ 200,000
1.2	\$ 6,000,000	\$ 8,000,000	\$ 100,000	\$ 200,000
1.1	\$ 12,000,000	\$ 15,000,000	\$ (1,100,000)	\$ (1,300,000)
1.0	\$ 16,000,000	\$ 20,000,000	\$ (2,100,000)	\$ (2,700,000)



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## Item 2b - Peaking Factor Analysis – Facilities

- Peaking Factor Reduction from 1.5 to 1.0 in tenth increments
- By reducing the peaking factor, the peak flow is reduced which decreases the required facility sizing

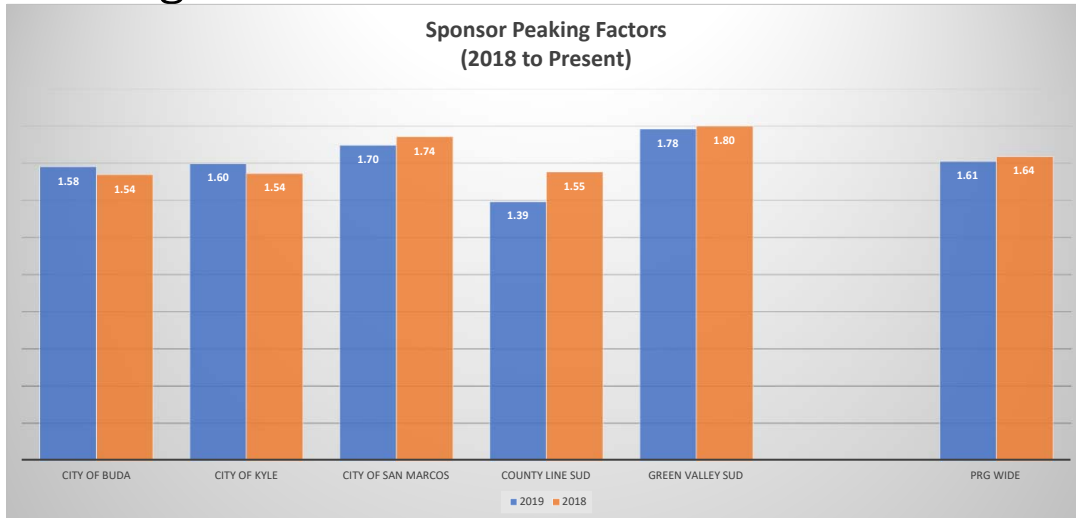
Peaking Factor	Potential Cost Savings			
	ARWA		GBRA	
	Without Contingency	With Contingency	Without Contingency	With Contingency
1.5	\$ -	\$ -	\$ -	\$ -
1.4	\$ 1,000,000	\$ 2,000,000	\$ (300,000)	\$ (400,000)
1.3	\$ 3,000,000	\$ 4,000,000	\$ (600,000)	\$ (800,000)
1.2	\$ 4,000,000	\$ 5,000,000	\$ (900,000)	\$ (1,200,000)
1.1	\$ 6,000,000	\$ 7,000,000	\$ (1,200,000)	\$ (1,600,000)
1.0	\$ 7,000,000	\$ 9,000,000	\$ (1,500,000)	\$ (2,000,000)



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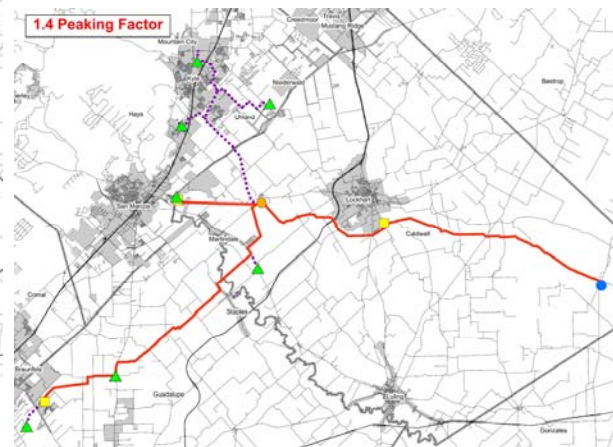
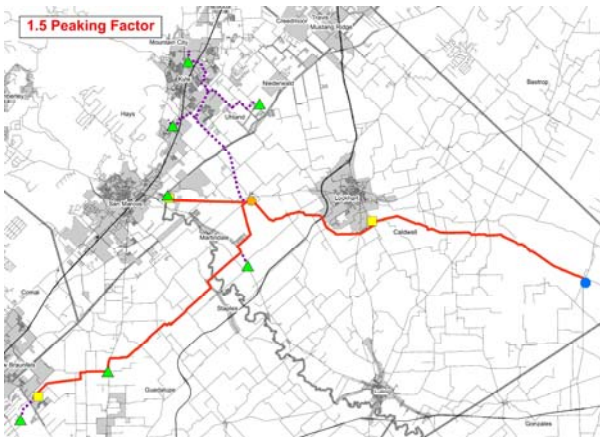
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# Peaking Factor Data



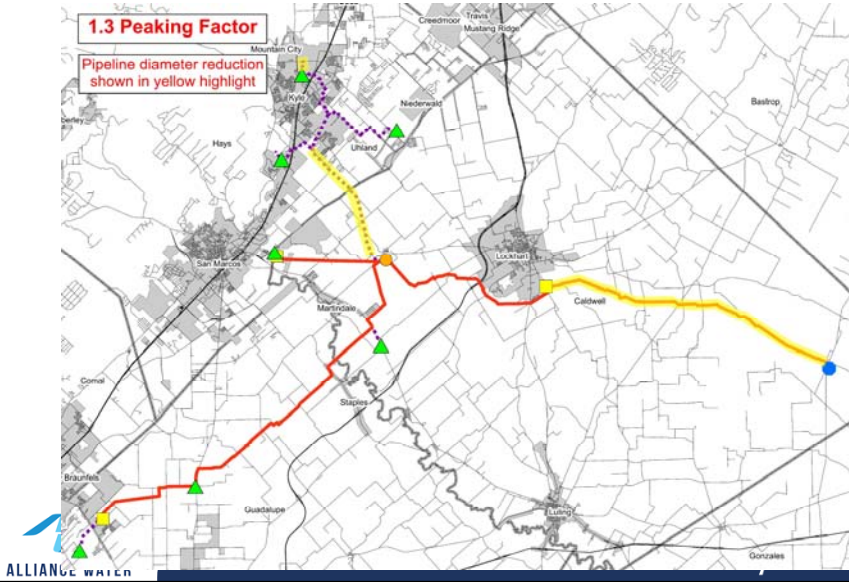
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# Item 2 - Peaking Factor Analysis



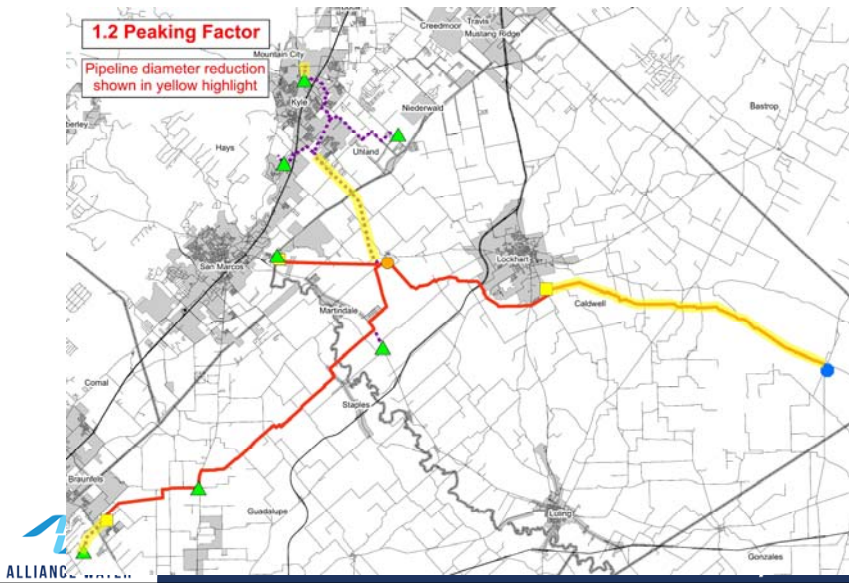
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## Item 2 - Peaking Factor Analysis



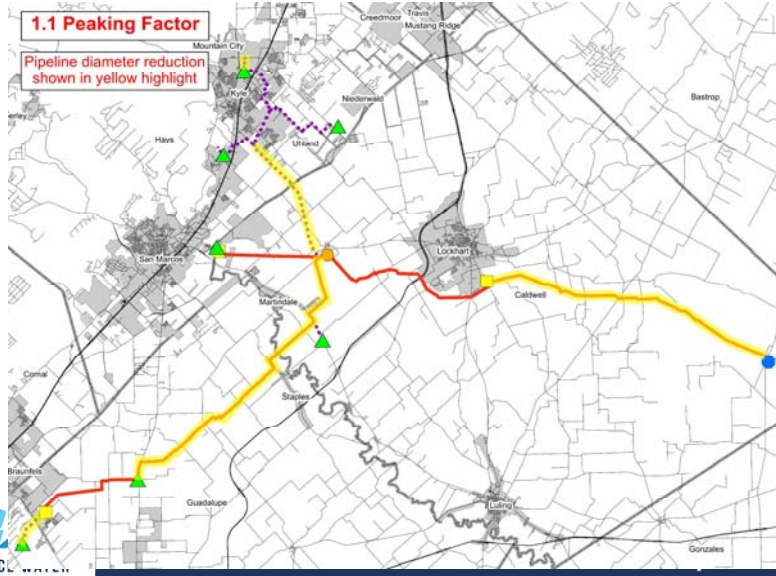
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## Item 2 - Peaking Factor Analysis



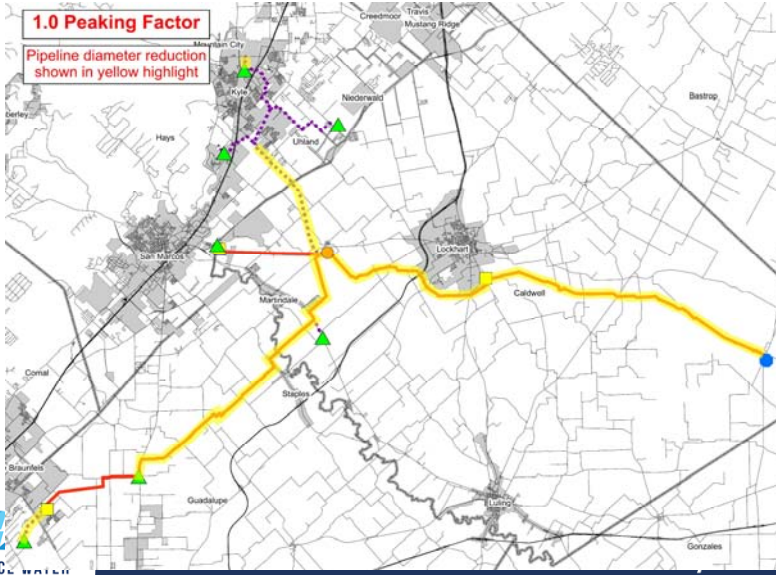
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## Item 2 - Peaking Factor Analysis



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## Item 2 - Peaking Factor Analysis



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## Item 3 - Phase 2 Capacity Deferral

- Existing pipelines from the Booster Pump Station (BPS) are sized to handle Phase 2 capacity
- Potential capital cost savings associated with deferring the Phase 2 capacity until it is needed
- Phase 2 capacity would require an additional parallel pipeline project

Segment	Current	Phase 2 Deferral	
	Phase 1+2 Capacity	Phase 1 Capacity	Phase 2 Capacity
Segment B2	36"	30"	24"
Segment C	16", 24", 30", 36", 42"	12", 30"	12", 16", 20", 30"
Segment D	42"	30"	36"
Segment E1	36"	30"	30"
Segment E2	36"	24"	24"



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## Item 3 - Phase 2 Capacity Deferral

Phase 1B ARWA Cost Savings

Option	Excluding Contingency			Including 30% Contingency		
	Current Phase 1+2 Capacity	Phase 1 Capacity (with Phase 2 Deferral)	Potential Cost Savings	Current Phase 1+2 Capacity	Phase 1 Capacity (with Phase 2 Deferral)	Potential Cost Savings
Total	\$102,000,000	\$81,000,000	\$21,000,000	\$133,000,000	\$106,000,000	\$27,000,000

Future Phase 2 Pipeline Cost (Cost in 2040 \$)

Option	Excluding Contingency	Including 30% Contingency
Total	\$183,800,000	\$230,500,000

Current Phase 1+2 Capacity



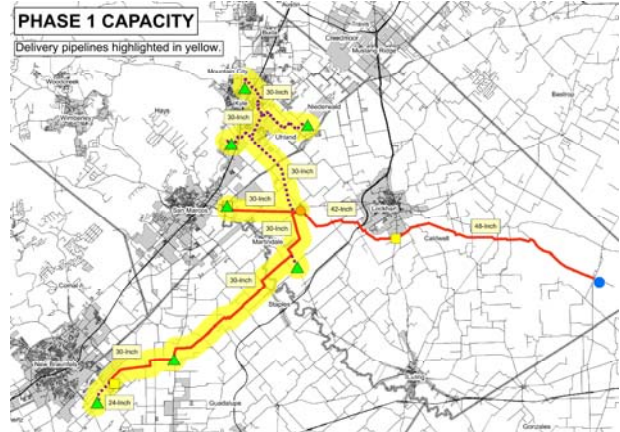
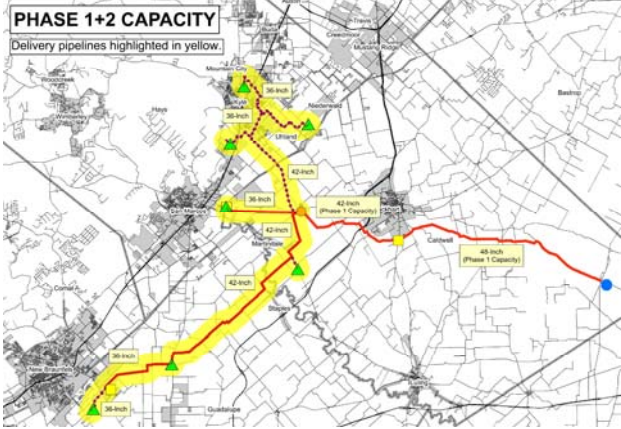
Phase 1 Capacity (with Phase 2 Deferral)



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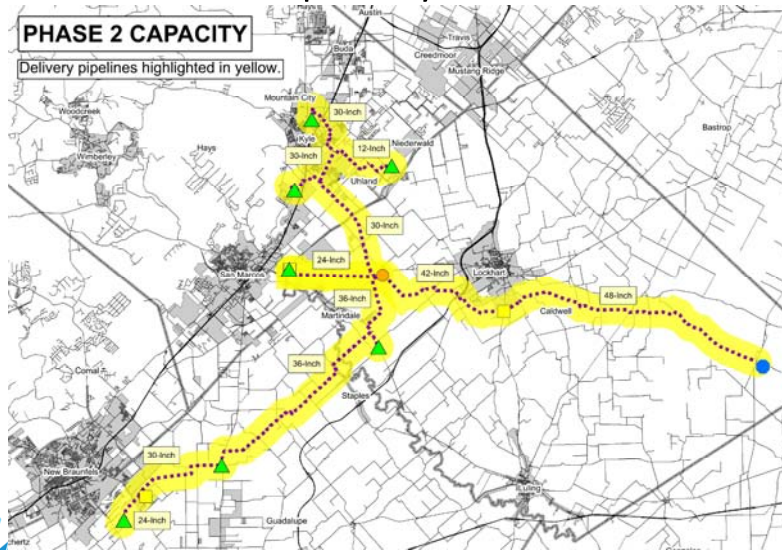
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# Item 3 - Phase 2 Capacity Deferral



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# Item 3 - Phase 2 Capacity Deferral



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# Item 4 - Administrative / Operations Deferrals

Two options to consider

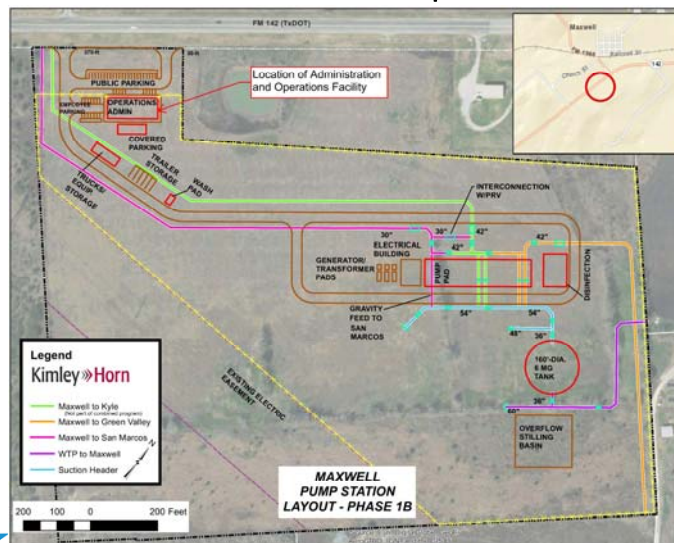
- Defer the entire facility (Administrative and Operations Building), or
- Defer only the Administrative portion of the facility

Option	Description	Potential Capital Cost Savings	30% Contingency	Temporary Housing Cost
1	Defer the entire facility	\$4,400,000	\$5,700,000	\$800/month
2	Defer only the Administrative portion of the facility	\$3,200,000	\$4,100,000	\$800/month



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# Item 4 - Administrative / Operations Deferrals



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# Item 5 - Inline Elevated Storage Tanks Deferral

**Benefit of Inline ESTs:**

- Consistent Hydraulics
- Reduced Operational Concerns

**Potential Deferral of ESTs:**

- Additional Operational Considerations (Controls / SCADA)
- Increased Complexity of Start-up Process
- Additional Complexity in selection of booster pumps
- Greater Risk of Surge Events
  - Including fatigue/damage to pipes, valves, and various other infrastructure related items



Projected Construction Cost - **\$6,600,000**  
 (30% Cont. \$8,600,000)

Project Construction Cost includes additional costs for additional controls and surge mitigations



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# Item 6 – Repackaging of Contract Analysis

**Two Potential Options:**

- **Option 1** is to combine all facility work into one package. This includes the Water Treatment Plant, Booster Pump Station, and Raw Water Infrastructure.
- **Option 2** is to combine all east to west projects. This includes the Water Treatment Plant, Booster Pump Station, Segment A Pipeline, Segment B Pipeline, and the Raw Water Infrastructure.

Package Options	Projected Construction Cost	ARWA Share	ARWA Potential Savings	GBRA Share	GBRA Potential Savings
1	Total package \$55,800,000	\$33,300,000	<b>\$1,700,000</b>	\$24,400,000	\$1,100,000
	w/ 30% Contingency \$72,500,000	\$43,300,000	<b>\$2,200,000</b>	\$29,200,000	\$1,500,000
2	Total package \$128,500,000	\$79,200,000	<b>\$7,900,000</b>	\$49,300,000	\$4,900,000
	w/ 30% Contingency \$167,100,000	\$103,000,000	<b>\$10,300,000</b>	\$64,100,000	\$6,400,000

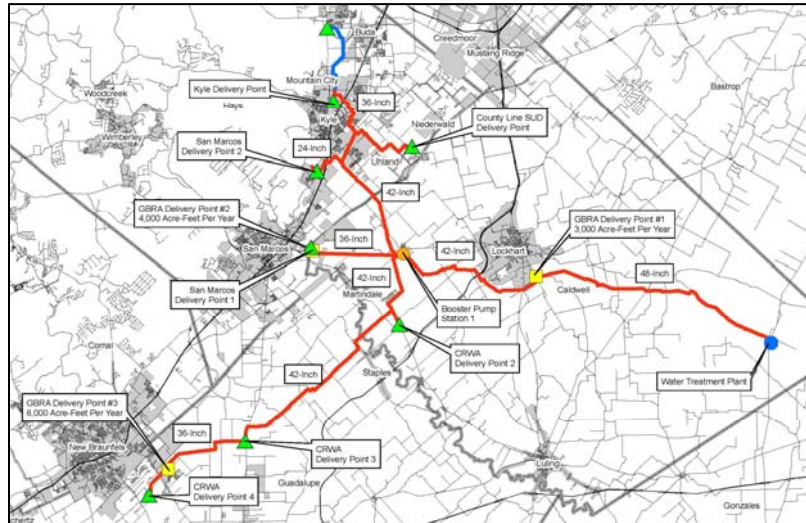


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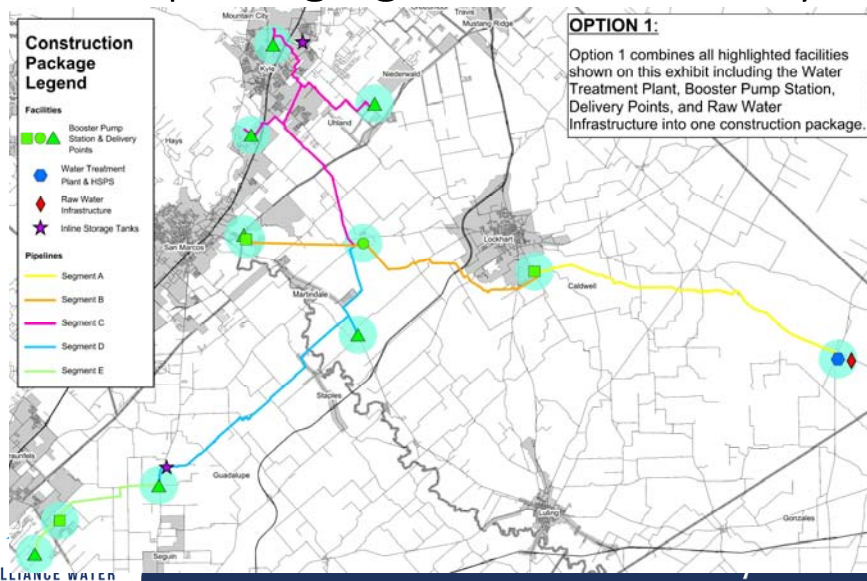


# Phase 1B Program Overview



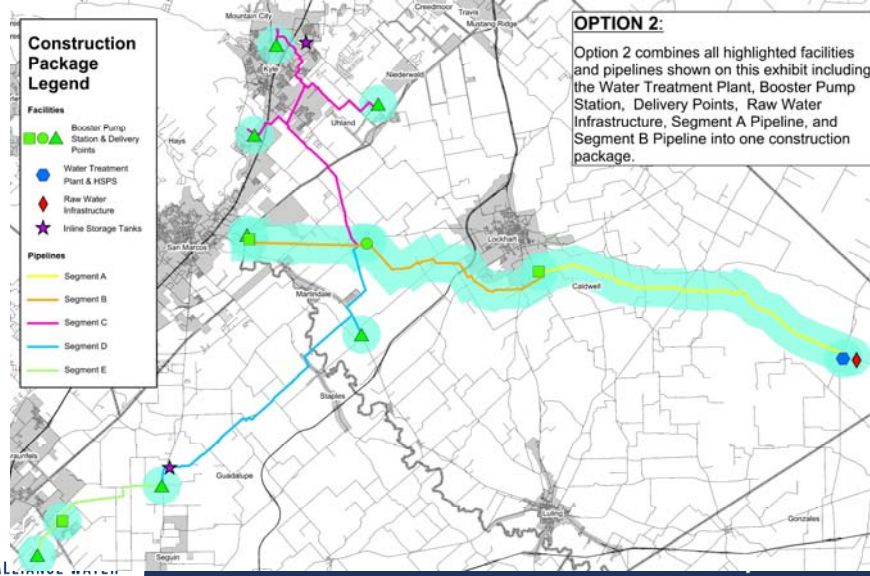
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# Item 6 – Repackaging of Contract Analysis



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## Item 6 – Repackaging of Contract Analysis



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## Item 7 – Isolation Valve Spacing Revision

Original Standards	Revised Standards
Max spacing 5,000 LF	Not to exceed 13,000 LF
Both sides of Highways, rivers, Lakes, Railroads	Balance the distance of the spacing with the accessibility of the valve and the risk associated with significant crossings.

Segment	Potential Cost Savings	ARWA Savings	GBRA Savings
Segment A	\$1,000,000	\$600,000	\$400,000
Segment B	\$1,000,000	\$670,000	\$330,000
Segment C	\$400,000	\$400,000	\$0
Segment D	\$1,000,000	\$750,000	\$250,000
Segment E	\$300,000	\$200,000	\$100,000
<b>Total</b>	<b>\$3,700,000</b>	<b>\$2,600,000</b>	<b>\$1,100,000</b>
<b>Total w/30% Contingency</b>	<b>\$4,800,000</b>	<b>\$3,400,000</b>	<b>\$1,400,000</b>

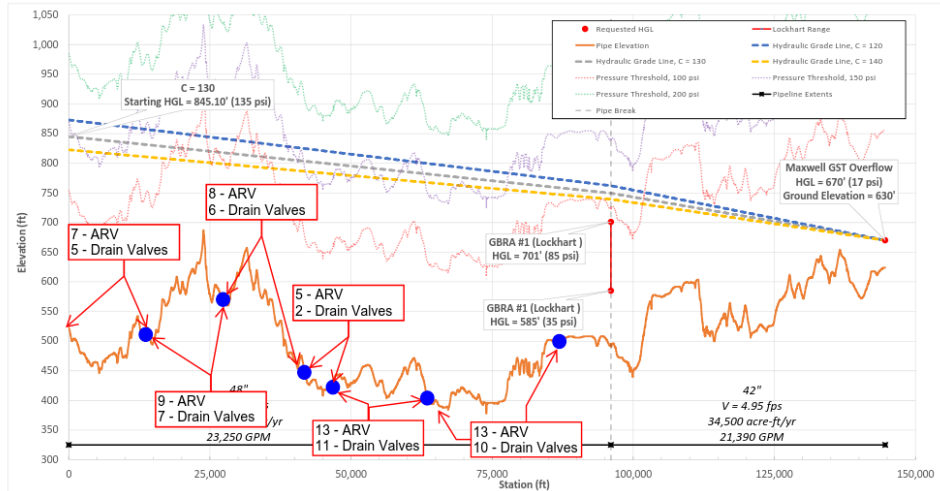
\*Based on projected reduction in number of valves for revised spacing requirements



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# Item 7 – Isolation Valve Spacing Revision

## POSSIBLE SEGMENT A ISOLATION VALVE SPACING



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# Item 8 – Stream Crossing Variance

## Stream Crossings Exception – TCEQ 290.44 (f) (2) Variance Request

- TCEQ – Precautions must be taken when waterlines are laid under any flowing or intermittent stream or semi-permanent body of water. Includes encasement and valves on each side of the crossing. With permission of executive director, watertight pipe encasement may be omitted.

## Variance Request

- For crossings that are typically dry or show no sign of regular flows, eliminate requirement for trenchless crossing and/or encasement (should scour calculations allow).

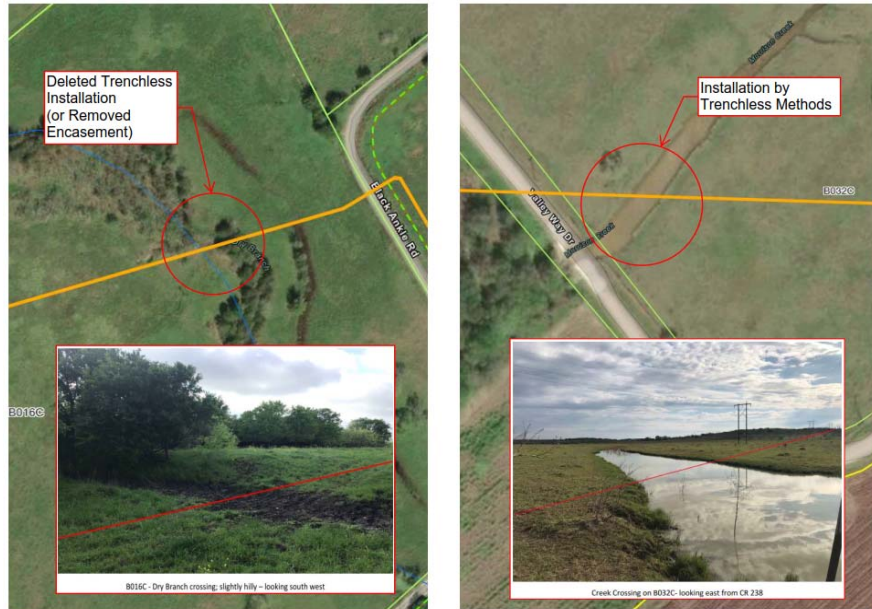
Segment	Potential Cost Savings	ARWA Savings	GBRA Savings
Segment A	\$500,000	\$300,000	\$200,000
Segment B	\$300,000	\$200,000	\$100,000
Segment C	\$100,000	\$100,000	\$0
Segment D	\$500,000	\$375,000	\$125,000
Segment E	\$200,000	\$130,000	\$70,000
<b>Total</b>	<b>\$1,600,000</b>	<b>\$1,100,000</b>	<b>\$500,000</b>
<b>Total w/30% Contingency</b>	<b>\$2,100,000</b>	<b>\$1,400,000</b>	<b>\$700,000</b>

\*Based on stream crossings identified in most current studies performed by Pipeline Segment Design Consultants



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## Item 8 – Stream Crossing Variance



\* Photos and descriptions taken from the "Phase 1B Pipeline Segment B Engineering Feasibility Report" (K. Friese and Associates; August 2019)



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## Cost Saving Options - Recommendations

Reflects ARWA's share of potential cost savings:

Item	Option	Potential Capital Cost Savings	Comments
2a	Peaking Factor Reduction – Pipelines. Reduce Segment A Only to 1.3 Peaking	\$3,100,000	Bid Segment A as a 48" and 42" Pipeline
2b	Peaking Factor Reduction – Facilities. Reduce Peaking to 1.0 in both WTP & BPS	\$7,000,000	Size critical elements for full flow where future expansion will be difficult
6	Repackaging of Projects	\$7,900,000	
7	Isolation Valve Spacing Revision	\$2,600,000	
8	Stream Crossing Variance	\$1,100,000	

- Recognize savings of \$18 million resulting from the reduced interest rates at time of closing as compared to budgeted numbers.



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## Next Steps



- Approve Resolution Memorializing Changes to the Phase 1B Program.

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

**BOARD MEMBER PACKETS**

Wednesday, December 18, 2019 at 3:00 P.M.  
501 E. Hopkins, San Marcos, TX 78666

- F.5** Consider approval of a financial contribution to the Delhi Volunteer Fire Department.  
~ *Graham Moore, P.E., Executive Director*
- 

Background/Information

In the course of discussing the groundwater development agreement that was ultimately entered into with Mr. and Mrs. Rodgers in September 2019, a request was made for Alliance Water to make a donation to the Delhi Volunteer Fire Department.

The community has invested considerable time and effort in expanding the facilities to include an open meeting room and a kitchen which can be available for future Alliance Water meetings, if needed. The group has sought and received multiple grants to help pay for the renovations and expansions.

The fire department is raising money to complete the access area behind the fire station so that they fire trucks can enter the garage through the back and pull through.



Executive Director Recommendation(s)

- The Executive Director recommends that the Authority contributes \$7,500 to the Delhi Volunteer Fire Department for their use in improving the facilities. The funding would come from the “Public Relations” line item in the approved FY 19-20 budget.

**Board Decision(s) Needed:**

- Consider a financial contribution to the Delhi Volunteer Fire Department.

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

**BOARD MEMBER PACKETS**

Wednesday, December 18, 2019 at 3:00 P.M.  
501 E. Hopkins, San Marcos, TX 78666

- F.6** Update on status of groundwater management in project target area, and Gonzales County Underground Water Conservation District, Plum Creek Conservation District, Groundwater Management Area 13, Region L Planning Group, Guadalupe-Blanco River Authority, Hays County and Capital Area Planning Group activities.

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Gonzales County Underground Water Conservation District (GCUWCD)

The GCUWCD met on December 10th. No items affecting the Authority were discussed.

Plum Creek Conservation District (PCCD)

The PCCD is scheduled to meet on December 17th. A verbal update will be provided to the Board.

Groundwater Management Area 13

No update.

Region L Planning Group

No update.

Guadalupe-Blanco River Authority; Hays County Activities; CAPCOG Activities

No update.

**Board Decision(s) Needed:**

- None.

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

**BOARD MEMBER PACKETS**

Wednesday, December 18, 2019 at 3:00 P.M.  
501 E. Hopkins, San Marcos, TX 78666

- G. EXECUTIVE DIRECTOR AND LEGAL COUNSEL REPORTS** - Update on future meeting dates, locations, status of Authority procurements, Executive Director activities, other operational activities and the status of legal issues, where no action is required. ~ *Graham Moore, P.E., Executive Director / Mike Gershon, Lloyd Gosselink Rochelle & Townsend, P.C.*

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**EXECUTIVE DIRECTOR**

Phase 1B Construction Management & Inspection RFQ

- Staff is developing an RFQ for the Phase 1B Construction Management & Inspection services. The RFQ will be released prior to Christmas with responses due in mid-February.

Public Relations RFQ

- Staff is also developing the RFQ for Public Relations. The RFQ will be released in early 2020.

Log and Calendar of Events

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



**Executive Director  
Log of Activities**

November						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1-Nov	2-Nov
					Project Advisory Comm mtg	
					Sign 1ASB coversheet	
3-Nov	4-Nov	5-Nov	6-Nov	7-Nov	8-Nov	9-Nov
	Appraisal reviews	1B Monthly Check-In	Invoices	Region L Meeting	GBC meeting	
	Segment B change in service	TWDB HUB reporting	Appraisal report approvals	Electronic payments	General counsel interviews	
	GWDA	General counsel interview questions	Admin Cmte packet		Appraisal approvals	
	TWDB HUB reporting				Tech cmte agenda & packet	
10-Nov	11-Nov	12-Nov	13-Nov	14-Nov	15-Nov	16-Nov
	Sign ROEs	Meet w/ Weston Solutions	Raw Water Infrastructure EFR Review	1A BPS Construction Mtg	Board Agenda	
	Meet w/ CRWA re: cost savings	Technical Cmte meeting	Administrative Cmte meeting	1A Seg B bond docs to TWDB	Board Packet	
	CRWA Board Mtg	GCUWCD Board meeting		ROW weekly call	Cost saving measure coordination	
				Legal contract		
17-Nov	18-Nov	19-Nov	20-Nov	21-Nov	22-Nov	23-Nov
	New Board Member Info to B. Lillibridge	GVEC conference call	Budget/Schedule update discussion	Filing / mailing	GVSUD Meeting	
	1A BPS - Concrete Testing	CLSUD meeting	San Marcos meeting	General Counsel transition	Meeting w/ CDM Smith team	
	Consultant invoices	Meeting w/ Kenneth Williams	ARWA Board meeting	ROW conference call	WTP montly update mtg	
				1A Seg B TWDB coordination	Royalty change letters	
24-Nov	25-Nov	26-Nov	27-Nov	28-Nov	29-Nov	30-Nov
	PTO	PTO	PTO	Thanksgiving Holiday	Thanksgiving Holiday	

# December 2019

December 2019							January 2020						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7	5	6	7	8	9	10	11
8	9	10	11	12	13	14	12	13	14	15	16	17	18
15	16	17	18	19	20	21	19	20	21	22	23	24	25
22	23	24	25	26	27	28	26	27	28	29	30	31	
29	30	31											

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Dec 1	2 1:00pm WinCC HMI presentation (Skype) 1:30pm ARWA Phase 1B Weekly Progress 3:00pm ARWA - Cost 6:30pm CUAB Meeting	3 8:00am GCUWCD Rules Workshop Meeting 9:00am Alliance Water - Monthly Check-in 11:30am ARWA1B - RWI 1:00pm ARWA1B - WTP	4 9:00am Alliance Water - Cost Saving Measures 10:45am Sign ROEs (Starbucks (5401 S Fm 11:30am Moore/Grijalva 2:00pm Conf call re	5 9:00am Meet w/Graham- ARWA 11:00am ARWA1B - Weekly ROW Call 3:00pm ARWA - Fiber and Security Design	6 10:00am Rep. Cyrier (State Capitol (Texas) 12:00pm Janay - Lunch (Hyde Park Bar & Grill 1:30pm ARWA1BENV - Amendment	7
8	9 9:00am ARWA - GBRA Meet to Discuss Cost 1:30pm ARWA Phase 1B Weekly Progress 1:30pm Coordination of GBRA and ARWA well	10 9:00am Coffee - Breakfast - Discussion (Centerpoint Station, 5:30pm GCUWCD Board Meeting (GCUWCD Offices)	11 3:00pm ARWA Technical Committee Meeting (Kyle Public Works)	12 10:00am Meeting w/ Tetra Tech 11:00am ARWA1B - Weekly ROW Call 1:30pm Phase 1A Construction	13 9:00am Project Advisory Committee Meeting (Kyle Public Works) 1:00pm Citect HMI Presentation (City Of Kyle Public Works)	14
15	16 1:30pm ARWA Phase 1B Weekly Progress Meetings (WEBEX) - Shore, Nichola	17 1:00pm PCCD Meeting (Lockhart, Texas, United States)	18 9:30am ARWA1BBPSDP - Booster PS & Delivery Points - DRAFT EFR Review 3:00pm ARWA Board Meeting (TBD)	19 11:00am ARWA1B - Weekly ROW Call (Skype Meeting) - 3:00pm ARWA1BWTP - Monthly Update Meeting (Skype)	20	21
22	23 1:30pm ARWA Phase 1B Weekly Progress Meetings (WEBEX) - Shore, Nichola	24 HOLIDAY	25 HOLIDAY	26 11:00am ARWA1B - Weekly ROW Call (Skype Meeting) - Sowa, Ryan	27	28
29	30 1:30pm ARWA Phase 1B Weekly Progress Meetings (WEBEX) - Shore, Nichola	31 HOLIDAY	Jan 1, 20	2	3	4

# January 2020

January 2020							February 2020						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
			1	2	3	4							1
5	6	7	8	9	10	11	2	3	4	5	6	7	8
12	13	14	15	16	17	18	9	10	11	12	13	14	15
19	20	21	22	23	24	25	16	17	18	19	20	21	22
26	27	28	29	30	31		23	24	25	26	27	28	29

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Dec 29	30	31	Jan 1, 20 HOLIDAY	2 PTO 11:00am ARWA1B - Weekly ROW Call (Skype Meeting) - Sowa, Ryan	3 9:00am Alliance Water - Monthly Check-in (Skype Meeting) - Cobler, Nathan	4
5	6 1:30pm ARWA Phase 1B Weekly Progress Meetings (WEBEX) - Shore, Nichola	7	8 3:00pm ARWA Technical Committee Meeting (Kyle Public Works)	9 11:00am ARWA1B - Weekly ROW Call (Skype Meeting) - 1:30pm Phase 1A Construction Meetings	10	11
12	13 1:30pm ARWA Phase 1B Weekly Progress Meetings (WEBEX) - 6:30pm CRWA Board Meeting (CRWA Offices (850 Lakeside	14 5:30pm GCUWCD Board Meeting (GCUWCD Offices)	15	16 11:00am ARWA1B - Weekly ROW Call (Skype Meeting) - Sowa, Ryan	17 9:00am Project Advisory Committee Meeting (Kyle Public Works)	18
19	20 1:30pm ARWA Phase 1B Weekly Progress Meetings (WEBEX) - Shore, Nichola	21 1:00pm PCCD Meeting (Lockhart, Texas, United States)	22 10:00am CRWA Board of Managers Meeting (CRWA Offices) 3:00pm ARWA Board Meeting (TBD)	23 9:30am Region L Meeting (San Antonio Water System (2800 11:00am ARWA1B - Weekly ROW Call (Skype Meeting) -	24	25
26	27 1:30pm ARWA Phase 1B Weekly Progress Meetings (WEBEX) - Shore, Nichola	28	29	30 11:00am ARWA1B - Weekly ROW Call (Skype Meeting) - Sowa, Ryan	31	Feb 1

# February 2020

February 2020							March 2020							
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	
	2	3	4	5	6	7	8	1	2	3	4	5	6	7
9	10	11	12	13	14	15	16	8	9	10	11	12	13	14
16	17	18	19	20	21	22	23	15	16	17	18	19	20	21
	24	25	26	27	28	29		22	23	24	25	26	27	28
								29	30	31				

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Jan 26	27	28	29	30	31	Feb 1
2	3 1:30pm ARWA Phase 1B Weekly Progress Meetings (WEBEX) - Shore, Nichola	4 9:00am Alliance Water - Monthly Check-in (Skype Meeting, ~TX-SNA-RM-Training Room (Trio)) - Cobler, Nathan	5	6 11:00am ARWA1B - Weekly ROW Call (Skype Meeting) - Sowa, Ryan	7 9:30am GMA-13 Meeting (Pleasanton, TX)	8
9	10 1:30pm ARWA Phase 1B Weekly Progress Meetings (WEBEX) - 6:30pm CRWA Board Meeting (CRWA Offices (850 Lakeside)	11 5:30pm GCUWCD Board Meeting (GCUWCD Offices)	12 3:00pm ARWA Technical Committee Meeting (Kyle Public Works)	13 11:00am ARWA1B - Weekly ROW Call (Skype Meeting) - 1:30pm Phase 1A Construction Meetings	14	15
16	17 1:30pm ARWA Phase 1B Weekly Progress Meetings (WEBEX) - Shore, Nichola	18 1:00pm PCCD Meeting (Lockhart, Texas, United States)	19	20 9:30am Region L Meeting (San Antonio Water System (2800 11:00am ARWA1B - Weekly ROW Call (Skype Meeting) -	21 9:00am Project Advisory Committee Meeting (Kyle Public Works)	22
23	24 1:30pm ARWA Phase 1B Weekly Progress Meetings (WEBEX) - Shore, Nichola	25	26 10:00am CRWA Board of Managers Meeting (CRWA Offices) 3:00pm ARWA Board Meeting (TBD)	27 11:00am ARWA1B - Weekly ROW Call (Skype Meeting) - Sowa, Ryan	28	29

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

**BOARD MEMBER PACKETS**

Wednesday, December 18, 2019 at 3:00 P.M.  
501 E. Hopkins, San Marcos, TX 78666

- H. BOARD MEMBER ITEMS OR FUTURE AGENDA ITEMS – Possible acknowledgement by Committee Members of future area events and/or requests for item(s) to be placed on a future agenda where no action is required.
- 

Background/Information

The Committee Members have an opportunity to make announcements or to request that items be added to future Board or Committee agendas.

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

**BOARD MEMBER PACKETS**

Wednesday, December 18, 2019 at 3:00 P.M.  
501 E. Hopkins, San Marcos, TX 78666

- I.1** *Executive Session pursuant to the Government Code, Section 551.071 (Consultation with Attorney) and/or Section 551.072 (Real Property Deliberations) regarding:*
- A. Water supply partnership options*
  - B. Groundwater leases*
  - C. Acquisition of real property for water supply project purposes*
-

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

**BOARD MEMBER PACKETS**

Wednesday, December 18, 2019 at 3:00 P.M.  
501 E. Hopkins, San Marcos, TX 78666

**I.2** Action from Executive Session on the following matters:

- A. *Water supply partnership options*
  - B. *Groundwater leases*
  - C. *Acquisition of real property for water supply project purposes*
-

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

**BOARD MEMBER PACKETS**  
Wednesday, December 18, 2019 at 3:00 P.M.  
501 E. Hopkins, San Marcos, TX 78666

**J. ADJOURNMENT**

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