SAN ANTONIO WATER COMPANY

BOARD OF DIRECTORS MEETING
Tuesday, April 21, 2020
5:00 p.m.
By Virtual/Online or Teleconference Only

Please join the meeting from your computer, tablet or smartphone. https://global.gotomeeting.com/join/872477429

You can also dial in using your phone. United States: +1 (571) 317-3122
Access Code: 872-477-429

- Call to Order
- Salute to the Flag

1. Recognitions and Presentations:

2. Additions-Deletions to the Agenda:

3. Shareholder-Public Testimony:
   This is the time for any shareholder or member of the public to address the board members on any topic under the jurisdiction of the Company, which is on or not on the agenda. Please note, pursuant to the Brown Act the board is prohibited from taking actions on items not listed on the agenda. For any testimony, speakers are requested to keep their comments to no more than four (4) minutes, including the use of any visual aids, and to do so in a focused and orderly manner. Anyone wishing to speak is requested to voluntarily fill out and submit a speaker's form to the manager prior to speaking.

4. Consent Calendar Items:
   All items listed hereunder are considered to be routine and there will be no separate discussion of these items unless members of the board request specific items to be removed from the consent calendar for separate action. All items listed or remaining will be voted upon in a single action.

   A. Approval of Board Meeting Minutes
      Regular Meeting Minutes of March 17, 2020.
   B. Planning, Resources, and Operations Committee (PROC) Meeting Minutes
      No meeting minutes to approve.
   C. Administration and Finance Committee (AFC) Meeting Minutes
      No meeting minutes to approve.
   D. Financial Statement
      Income Statement and Balance Sheet for February 29, 2020
   E. Investment Activity Report
      Monthly Report of Investments Activity.
   F. Water Production and Consumption
      Monthly water production and consumption figures.
   G. Prominent Issues Update
      Status summaries on certain on-going active issues.
   H. Projects and Operations Update
      Status summaries on projects and operations matters.
   I. Groundwater Level Patterns [Quarterly in January, April, July, and October]
      Tracking patterns of groundwater elevations relative to ground surface.
   J. Approval of Organizational Meeting Minutes
      Meeting held April 7, 2020.
   K. Correspondence of Interest

5. Board Committee – Delegate Report:
   A. PVPA Representative Report
      Verbal report on activities at the Pomona Valley Protective Association that have an impact on the Company.
   B. Six Basins Representative Report
      Verbal report on activities at the Six Basins Watermaster that have an impact on the Company.
   C. Chino Basin Representative Report
      Verbal report on activities at the Chino Basin Watermaster that have an impact on the Company.
   D. Cucamonga Basin Representative Report
      Verbal update by staff.
   E. Administration and Finance Committee (AFC) Chairman's Report
      No meeting to report.
   F. Planning, Resources, and Operations Committee (PROC) Chairman's Report
      No meeting to report.
   G. Office Feasibility Study Ad Hoc Committee
      No meeting to report.

6. General Manager's Report on Activities
   A. Workers Compensation Insurance
      Recommendation for renewal proposal
   B. Conservation Program Update
      Update on SAWCo's existing water conservation programs
   C. Request for Proposals – Professional Design & Project Management for Capital Projects
      Discussion and possible award of contract

7. Closed Session: None.

8. Director's Comments and Future Agenda Items:

Adjournment:

The next regular Board Meeting will be held on Tuesday, May 19, 2020 at 5:00 p.m.

NOTE: All agenda report items and back-up materials are available for review and/or acquisition at the Company Office (139 No. Euclid Avenue, Upland, CA) during regular office hours, Monday through Thursday [7:00 am – 11:30 am & 12:30 pm – 5:00 pm] and alternating Fridays [7:00 am – 11:30 am & 12:30 pm – 4:00 pm]. The agenda is also available for review and copying at the Upland Public Library located at 450 N. Euclid Avenue.

POSTING STATEMENT: On April 16, 2020 a true and correct copy of this agenda was posted at the entry of the Company's Office (139 No. Euclid Avenue), on the public bulletin boards at 450 No. Euclid Avenue (Upland Public Library) and 460 N. Euclid Avenue (Upland City Hall), and on the Company's website.

SAN ANTONIO WATER COMPANY

MINUTES OF THE SAN ANTONIO WATER COMPANY
Tuesday, March 17, 2020

An open meeting of the Board of Directors of the San Antonio Water Company (SAWCo) was called to order at 5:00 p.m. on the above date at the Upland City Hall Council Chambers, 460 North Euclid Avenue, Upland, California. Directors present were Tom Thomas, Jose Sanchez, Will Elliott, Bob Cable, Martha Goss, and Rudy Zuniga with Gino Filippi present via conference call. Also in attendance were SAWCo's General Manager Brian Lee, Assistant General Manager Teri Layton, and Senior Administrative Specialist Kelly Mitchell. Director Thomas presided.

- Salute to the Flag

1. *Recognitions and Presentations:* None.

2. *Additions-Deletions to the Agenda*: None.

3. *Shareholder-Public Testimony:* None.

4. *Consent Calendar Items:*
   - A. Approval of Board Meeting Minutes
     Regular Meeting Minutes of February 18, 2020.
   - B. Planning, Resources and Operations Committee (PROC) Meeting Minutes
     Meeting minutes of November 26, 2019.
   - C. Administration and Finance committee (AFC) Meeting Minutes
     No meeting minutes to report.
   - D. Financial Statement
     Income Statement and Balance Sheet for January 31, 2020 and year-to-date and Company State and Federal tax returns for 2019.
   - E. Investment Activity Report
     Monthly Report of Investments Activity.
   - F. Water Production and Consumption
     Monthly water production and consumption figures.
   - G. Prominent Issues Update
     Status summaries on certain on-going active issues.
   - H. Projects and Operations Update
     Status summaries on projects and operations matters.
   - I. Groundwater Level patterns [Quarterly in January, April, July, and October]
     Tracking patterns of groundwater elevations relative to ground surface.
   - J. Correspondence of Interest
     Letters to Chino Basin from Cucamonga Basin Parties.

Director Sanchez asked that Item 4F be pulled for discussion.

Director Elliott moved and Director Sanchez seconded to approve the Consent Calendar sans Item 4F. Motion carried unanimously.

Director Sanchez inquired about the lack of data for groundwater production in Chino Basin. Mr. Lee replied Chino Basin uses a water year while SAWCo uses a calendar year. Staff is looking into how to better reflect that difference in their reporting.

Director Sanchez asked that this anomaly be discussed at the Administrative and Finance Committee (AFC) meeting.

Director Sanchez moved and Director Elliott seconded to approve Item 4F. Motion carried unanimously.

5. *Board Committee – Delegate Report:*

A. Pomona Valley Protective Association (PVPA) Representative's Report – Director Thomas reported on PVPA's Annual Meeting. Craig Miller, CPA from Bowen McBeth, attended the meeting and reported no anomalies with the finances.

Routine maintenance and cleaning of the basins is underway.

H.R. 2215 – 116th Congress: San Gabriel Mountains Foothills and Rivers Protection Act has been amended as H.R. 116-385. PVPA property is included in the original bill and is attempting to have it removed as it is private land.

B. Six Basins Representative Report – Ms. Layton reported on the Six Basins meeting held February 26th. SAWCo was able to store a significant amount of water in Six Basins in 2019 and due to that now has over 600 acre feet (AF) of water it needs to sell in order to return to the 2,000 AF maximum storage capacity in the basin. The City of Pomona has agreed to purchase 643 acre feet (AF) of stored water in Six Basins from SAWCo.

MS4 permit and Storm Water Recharge Plans continue to be the focus.

Director Thomas commented that northeast of Padua Park in Claremont is an area being looked at for a 50 acre recharge basin. Designing a recharge basin in this area will mitigate 20% to 30% of water that is currently not being captured.

C. Chino Basin Representative Report – Mr. Lee reported work is being done on the Storage Management Plan; specifically elements 8 and 9 are the focus of the Appropriative Pool.

The parties are waiting for hydro geotechnical information in order to press forward with the Safe Yield Reset.

D. Cucamonga Basin Representative Report – Ms. Layton reported the working group met on March 3rd. The terms of reference is currently being reviewed. Cost sharing will be worked out after the terms of reference document is finalized.

All parties in the basin have sent letters to Wildermuth Environmental, Inc. (WEI) regarding WEI's insistence on utilizing the Cucamonga Basin modeling to determine the Chino Basin safe yield.

The parties continue to meeting and revise the Judgment. The next meeting is scheduled for April 7, 2020.

E. Administration and Finance Committee (AFC) Chairman's Report – No meeting to report.

F. Planning, Resources, and Operations Committee (PROC) Chairman's Report – Director Elliott advised the first two items on the General Manager's Report on Activities came from the most recent PROC meeting.

G. Office Feasibility Study Ad Hoc Committee – No meeting to report.

6. *General Manager's Report on Activities:*

A. Statements of Proposal – Comprehensive System Master Plan & Asset Mgmt Program – Mr. Lee stated two proposals were received for the Comprehensive System Master Plan and Asset Management Plan. The PROC discussed the merits of both firms and requested the full Board discuss and possibly recommend awarding the contract.

Director Cable expressed concern with utilizing Carollo Engineers for the project. He read aloud a report Carollo Engineers had provided for the City of Upland and pointed out some inconsistencies in the numbers. As such, he could not recommend them in good faith and felt it in the Company's best interest to utilize a different firm.

Director Sanchez felt it was a toss-up between the two firms. He believed there was an opportunity to capitalize on WSC's current work on the Company's GIS and also shared concerns over the Carollo Engineers report read by Director Cable. He felt inclined to go with WSC.

Director Elliott agreed the merits of both firms led to a toss-up in deciding whom to award the contract. He believed the prior relationship with the City of Upland was a plus but was agreeable to utilizing either firm.

Director Filippi stated he spoke with other agencies and Carollo Engineers was highly recommended.

Director Sanchez inquired about the benefit of the relationship with the City of Upland in utilizing Carollo Engineers.

Director Elliott replied they are the majority shareholder.

Director Sanchez wondered whether there was a technical benefit for Carollo Engineers performing the job.

Director Zuniga shared Director Cable's concern over Carollo Engineers' report for the City of Upland and stated he favored WSC for the project.

Director Sanchez clarified he slightly favored WSC for the project.

Director Goss stated she also favored WSC as she believes they cast a larger umbrella with their emergency plan.

Director Thomas advised he also favored WSC. If SAWCo was a larger agency Carollo Engineers may have been a good fit, however, for SAWCo's size he believes WSC to be a better match.

Mr. Lee commented he highly respects both firms.

Director Elliott moved and Director Goss seconded to award WSC the contract for the Comprehensive System Master Plan and Asset Management Program. Motion carried unanimously.

B. Request for Proposals – Professional Design & Project Mgmt for Capital Projects– Mr. Lee advised proposals are due Monday, March 23rd. He suggested scheduling an additional Board meeting on March 31st to award the contract. The meeting may need to be held in the SAWCo Boardroom via conference call depending on the restrictions levied due to the coronavirus pandemic.

There was consensus on the Board to hold an additional Board Meeting to award the contract for the professional design and project management for capital projects.

C. Share Requirement to Receive Will-serve Letter – Mr. Lee spoke regarding the will-serve letter requirement of ¼ share of water stock per ¼ acre of land. He asked the Board for the ability to take each will-serve letter request on a case-by-case basis by considering how much of the land is actually buildable and allow a variance of up to 1/8 of an acre when considering the number of shares needed to build.

Director Cable, though in favor of giving the General Manager the authority to consider building space and a variance of up to 1/8 acre when considering will-serve letter requests, he asked that in the future the square footage of the residence be a factor in determining the number of shares required to build.

Director Cable moved and Director Goss seconded to approve authorizing the General Manager's discretion when issuing will-serve letters for lots that are sized no more than an 1/8 of an acre over an equal number of shareholdings if, in the professional judgment of staff, up to 1/8 acre portion of the lot is undevelopable and unable to be landscaped. Motion carried unanimously.

7. *Closed Session:* None.

8. *Director's Comments and Future Agenda Items*: Mr. Lee advised the Annual Shareholder's Meeting is scheduled for Tuesday, April 7th at 6:00 p.m. SAWCo will livestream the meeting. Notice will be sent to the shareholders advising they will not be able to physically attend the meeting but instead, watch online or participate via GoToMeeting.

Adjournment:
With no further business to discuss, Director Thomas adjourned the meeting at 5:34 p.m.

_____
Assistant Secretary
Brian Lee

San Antonio Water Company, CA

Income Statement

Group Summary

For Fiscal: 2020 Period Ending: 02/29/2020

IncomeStatement	Original Total Budget	Current Total Budget	MTD Activity	YTD Activity	Budget Remaining
Category: 4 - Income					
SubCategory: 40 - Shareholder Revenue					
1185 - Domestic Water Income (Base)	301,000.00	301,000.00	26,475.31	26,506.76	274,493.24
1215 - Domestic Water Income (Supplemental)	148,000.00	148,000.00	22,565.64	22,565.64	125,434.36
1220 - Domestic Water Income (Tier 3)	104,000.00	104,000.00	38,868.73	38,868.73	65,131.27
1230 - Domestic Water Income (Readi/Chrg)	200,000.00	200,000.00	33,431.00	33,470.66	166,529.34
1235 - Domestic Water Availability Charge (WAC)	60,000.00	60,000.00	10,146.34	10,153.40	49,846.60
1245 - Municipal Water Income (Base)	3,073,000.00	3,073,000.00	196,656.50	373,418.88	2,699,581.12
1268 - Municipal Water Income (Readi/Chrg)	80,000.00	80,000.00	6,900.00	13,800.00	66,200.00
1274 - Misc Water Income (Base)	224,000.00	224,000.00	10,089.66	17,114.06	206,885.94
1275 - Misc Water Income (Supplemental)	126,000.00	126,000.00	4,576.52	8,045.06	117,954.94
1276 - Munnicipal Water Availability Charge (WAC)	477,000.00	477,000.00	39,730.00	79,460.00	397,540.00
1280 - Misc Water Income (Tier 3)	15,000.00	15,000.00	0.00	0.00	15,000.00
1288 - Misc Water Income (Readi/Chrg)	23,000.00	23,000.00	1,860.00	3,720.00	19,280.00
1290 - Misc Water Availability Charge (WAC)	24,000.00	24,000.00	1,922.00	3,844.00	20,156.00
1295 - Dormant Water Availability Charge (WAC)	54,000.00	54,000.00	8,744.14	8,744.14	45,255.86
1400 - Stock Transfer	5,000.00	5,000.00	30.00	240.00	4,760.00
1410 - Late/Re-establishment Fee	4,000.00	4,000.00	1,355.00	1,355.00	2,645.00
1430 - Stock Certificate Storage and Handling Fee	0.00	0.00	40.00	40.00	-40.00
SubCategory: 40 - Shareholder Revenue Total:	**4,918,000.00**	**4,918,000.00**	**403,390.84**	**641,346.33**	**4,276,653.67**
SubCategory: 42 - Non-Shareholder Revenue					
1725 - Misc. Income	2,000.00	2,000.00	0.00	0.00	2,000.00
1750 - Service/Litigation Agreements	0.00	0.00	49.26	171.96	-171.96
1753 - Ground Lease Income	54,000.00	54,000.00	6,315.84	13,273.68	40,726.32
1755 - Interest Earned	90,000.00	90,000.00	616.55	14,453.10	75,546.90
1785 - Gain on Sale of Asset	344,000.00	344,000.00	0.00	0.00	344,000.00
SubCategory: 42 - Non-Shareholder Revenue Total:	**490,000.00**	**490,000.00**	**6,981.65**	**27,898.74**	**462,101.26**
Category: 4 - Income Total:	**5,408,000.00**	**5,408,000.00**	**410,372.49**	**669,245.07**	**4,738,754.93**
Category: 5 - O & M Expense					
SubCategory: 50 - Operating Facilities					
2175 - Facility Related Field Labor	221,000.00	221,000.00	16,386.45	29,428.26	191,571.74
2235 - Repairs to Facilities and Equipment	305,000.00	305,000.00	12,489.53	25,451.13	279,548.87
2265 - Power-Gas & Electric (utilities)	600,000.00	600,000.00	25,640.78	29,621.92	570,378.08
SubCategory: 50 - Operating Facilities Total:	**1,126,000.00**	**1,126,000.00**	**54,516.76**	**84,501.31**	**1,041,498.69**
SubCategory: 51 - Operating Activities					
2475 - Customer Service	86,000.00	86,000.00	5,006.43	9,699.37	76,300.63
2498 - Conservation	30,000.00	30,000.00	2,572.31	2,586.90	27,413.10
SubCategory: 51 - Operating Activities Total:	**116,000.00**	**116,000.00**	**7,578.74**	**12,286.27**	**103,713.73**
SubCategory: 52 - Other Operating Expense					
2205 - Non-Facility Related Labor	83,000.00	83,000.00	5,932.10	9,608.29	73,391.71
2210 - O & M - All Other	1,000.00	1,000.00	2,591.68	2,591.68	-1,591.68
2295 - Supplies (Inventory & Tools Expense)	10,000.00	10,000.00	148.66	1,248.50	8,751.50
2565 - Depreciation/Amortization	901,000.00	901,000.00	76,835.67	153,756.91	747,243.09
2715 - Property Taxes	220,000.00	220,000.00	0.00	0.00	220,000.00
2805 - Water Resource Mgmt.	220,000.00	220,000.00	2,199.74	20,678.86	199,321.14
SubCategory: 52 - Other Operating Expense Total:	**1,435,000.00**	**1,435,000.00**	**87,707.85**	**187,884.24**	**1,247,115.76**
Category: 5 - O & M Expense Total:	**2,677,000.00**	**2,677,000.00**	**149,803.35**	**284,671.82**	**2,392,328.18**
Category: 6 - G & A Expense					
SubCategory: 60 - Personnel					
2115 - Administrative Services	295,000.00	295,000.00	15,499.18	36,064.96	258,935.04
2130 - Development/Water Svc. App.	1,000.00	1,000.00	0.00	20.49	979.51

IncomeStatement	Original Total Budget	Current Total Budget	MTD Activity	YTD Activity	Budget Remaining
2325 - Payroll Taxes	78,000.00	78,000.00	6,062.23	13,362.38	64,637.62
2355 - Worker's Compensation Insurance	16,000.00	16,000.00	0.00	1,517.00	14,483.00
2385 - Benefit Pay (Vac., sick, etc.)	147,000.00	147,000.00	20,572.08	46,886.32	100,113.68
2415 - Benefit Insurance (Pension,Life,Medical,Vision etc	241,000.00	241,000.00	18,767.19	36,994.52	204,005.48
2430 - Benefit Administrative Services	1,000.00	1,000.00	0.00	0.00	1,000.00
SubCategory: 60 - Personnel Total:	**779,000.00**	**779,000.00**	**60,900.68**	**134,845.67**	**644,154.33**
SubCategory: 61 - Other					
2445 - Office/IT Support	70,000.00	70,000.00	2,953.50	7,368.03	62,631.97
2505 - Directors Fees & Expense	32,000.00	32,000.00	3,107.87	5,277.23	26,722.77
2535 - Liability Insurance	39,000.00	39,000.00	0.00	0.00	39,000.00
2595 - Communication	106,000.00	106,000.00	3,502.11	8,073.10	97,926.90
2625 - Dues & Publications	3,000.00	3,000.00	0.00	1,277.95	1,722.05
2655 - Outside Services	69,000.00	69,000.00	288.42	441.84	68,558.16
2745 - Income Tax Expense	8,000.00	8,000.00	0.00	0.00	8,000.00
2775 - Accounting	76,000.00	76,000.00	3,750.53	6,621.33	69,378.67
2776 - Legal	180,000.00	180,000.00	42,124.91	61,130.86	118,869.14
2790 - Human Resources Expense	42,000.00	42,000.00	2,265.38	5,366.29	36,633.71
2865 - All other	42,000.00	42,000.00	2,228.51	4,235.68	37,764.32
SubCategory: 61 - Other Total:	**667,000.00**	**667,000.00**	**60,221.23**	**99,792.31**	**567,207.69**
Category: 6 - G & A Expense Total:	**1,446,000.00**	**1,446,000.00**	**121,121.91**	**234,637.98**	**1,211,362.02**
Total Surplus (Deficit):	**1,285,000.00**	**1,285,000.00**	**139,447.23**	**149,935.27**	

Fund Summary

Fund	Original Total Budget	Current Total Budget	MTD Activity	YTD Activity	Budget Remaining
10 - 10	1,285,000.00	1,285,000.00	139,447.23	149,935.27	1,135,064.73
Total Surplus (Deficit):	**1,285,000.00**	**1,285,000.00**	**139,447.23**	**149,935.27**	

San Antonio Water Company, CA

Balance Sheet
Account Summary
As Of 02/29/2020

Account	Name	Balance
Fund: 10 - 10		
Assets		
BalSubCategory: 10 - Cash		
10-00-00-10100-00000	Petty Cash	250.00
10-00-00-10200-00000	Checking Account	700,495.10
10-00-00-10300-00000	Savings-Money Market	2,202,042.05
10-00-00-10400-00000	Savings-CD Accounts	20,000.00
10-00-00-10415-00000	D&O Checking Account	1,298,373.03
10-00-00-10438-00000	Depre/Obsolescene Res (LAIF)	2,303,521.12
	Total BalSubCategory 10 - Cash:	**6,524,681.30**
BalSubCategory: 11 - Accounts Receivable		
10-00-00-11100-00000	Accounts Receivable-Domestic	126,741.20
10-00-00-11200-00000	Accounts Receivable-Municipal	258,355.82
10-00-00-11250-00000	Accounts Receivable-Misc.	23,195.44
10-00-00-11260-00000	Accounts Receivable - Dormant	10,259.14
10-00-00-11275-00000	Contra Accounts Receivable - Unapplied	-15,199.02
10-00-00-11300-00000	Accounts Receivable-Other	215,738.44
10-00-00-11301-00000	Note Receivable	1,376,000.00
	Total BalSubCategory 11 - Accounts Receivable:	**1,995,091.02**
BalSubCategory: 12 - Inventory		
10-00-00-12100-00000	Inventories-Materials & Supply	94,860.55
	Total BalSubCategory 12 - Inventory:	**94,860.55**
BalSubCategory: 13 - Prepaid		
10-00-00-13100-00000	Prepaid Insurance	8,868.75
10-00-00-13105-00000	PREPAID POSTAGE	369.00
	Total BalSubCategory 13 - Prepaid:	**9,237.75**
BalSubCategory: 14 - Investments		
10-00-00-14150-00000	P.V.P.A. Investment	1.00
10-00-00-14151-00000	457B Plan Investment	18,414.15
	Total BalSubCategory 14 - Investments:	**18,415.15**
BalSubCategory: 15 - Property, Plant, & Equipment		
10-00-00-15100-00000	Land & Water Rights	920,161.26
10-00-00-15110-1507J	Work in Progress "Proj J"	63,160.15
10-00-00-15110-1601N	Work in Progress	25,090.11
10-00-00-15110-1602U	Work in Progress	465,784.96
10-00-00-15110-1701A	Work in Progress	1,280,369.57
10-00-00-15110-1806K	Work In Progress	14,968.94
10-00-00-15110-1807P	Work In Progress	270,794.37
10-00-00-15110-1808D	Work In Progress	118,172.84
10-00-00-15110-1901	Work In Progress	400.00
10-00-00-15110-1903	Work in Progress	24,138.08
10-00-00-15110-1904	Work in Progress-GIS	34,277.65
10-00-00-15110-2010	Work in Progress-Edison Box Value	10,905.65
10-00-00-15150-00000	Buildings & Site Improvements	1,746,624.52
10-00-00-15200-00000	Wells-Shafts, Bldgs, & Equip	4,879,915.22
10-00-00-15250-00000	Boosters-Bldgs & Equip	2,448,690.30
10-00-00-15300-00000	Reservoirs	1,712,021.73
10-00-00-15350-00000	Tunnels, Forebay, & Ponds	1,587,111.19
10-00-00-15400-00000	Spreading Works-Cucamonga Wash	54,859.53
10-00-00-15410-00000	Spreading Works-SanAntonio Wsh	50,235.18
10-00-00-15450-00000	Pipelines	15,922,083.13
10-00-00-15500-00000	Autos & Equipment	511,050.56
10-00-00-15550-00000	Tools	101,416.39

Account	Name	Balance	
10-00-00-15600-00000	Telemetry System	482,714.06	
10-00-00-15650-00000	Office Equipment	505,661.56	
10-00-00-15990-00000	Accumulated Depreciation	-12,780,844.00	
Total BalSubCategory 15 - Property, Plant, & Equipment:		**20,449,762.95**	
BalSubCategory: 16 - Other Assets			
10-00-00-16100-00000	Documents & Studies	867,778.67	
10-00-00-16990-00000	Accumulated Amortization	-640,137.80	
Total BalSubCategory 16 - Other Assets:		**227,640.87**	
Total Assets:		**29,319,689.59**	**29,319,689.59**
Liability			
BalSubCategory: 13 - Prepaid			
10-00-00-20650-00000	Deferred Revenue Deposit	4,824.00	
Total BalSubCategory 13 - Prepaid:		**4,824.00**	
BalSubCategory: 20 - Short-term less than 1 year			
10-00-00-20100-00000	Trade Accounts Payable	80,696.20	
10-00-00-20115-00000	D&O Trade Accounts Payable	34,424.22	
10-00-00-20261-00000	Section 125 - Dental	-0.06	
10-00-00-20262-00000	Section 125 - Vision	-0.07	
10-00-00-20263-00000	Section 125 - Medical	-0.04	
10-00-00-20410-00000	State Franchise Tax Payable	2,005.00	
10-00-00-20600-00000	Water Hydrant Meter Deposit	1,700.00	
10-00-GN-20820-00000	Accrued Vacation Payable	20,404.60	
10-00-OP-20820-00000	Accrued Vacation Payable	24,818.57	
Total BalSubCategory 20 - Short-term less than 1 year:		**164,048.42**	
BalSubCategory: 21 - Long-term more than 1 year			
10-00-00-20152-00000	457B Deferred Comp Liability	18,414.15	
10-00-00-21500-00000	Unclaimed Credits	541,561.76	
10-00-00-22100-00000	Deferred Gain	1,372,237.78	
Total BalSubCategory 21 - Long-term more than 1 year:		**1,932,213.69**	
Total Liability:		**2,101,086.11**	
Equity			
BalSubCategory: 30 - Stockholder equity			
10-00-00-30200-00000	Contributed Capital - Ext. Fee	447,258.02	
10-00-00-30210-00000	Contr. Property, Plant & Equip	2,426,040.00	
10-00-00-30300-00000	Capital Account	1,500,000.00	
10-00-00-30310-00000	Unissued Capital Stock	-861,100.00	
10-00-00-30400-00000	Retained Earngs-Brd Designated	2,656,215.35	
10-00-00-30410-00000	Retained Earnings-Unrestricted	20,900,254.84	
Total BalSubCategory 30 - Stockholder equity:		**27,068,668.21**	
Total Beginning Equity:		**27,068,668.21**	
Total Revenue		669,245.07	
Total Expense		519,309.80	
Revenues Over/Under Expenses		**149,935.27**	
Total Equity and Current Surplus (Deficit):		**27,218,603.48**	
Total Liabilities, Equity and Current Surplus (Deficit):			**29,319,689.59**

Monthly Investment Activity Summary - Compiled from Banking Statements for Correlation with Monthly Financials

Institution	Type of Investment	Date of Maturity	Rate of Interest	Amount of Deposit as of 02/29/2020	*Accumulated Yearly Service Fees thru February	Accumulated Yearly Interest Earnings thru February
Citizens Business Bank (CBB)	*Checking	N/A	No Interest	700,495.10	-	N/A
Citizens Business Bank (CBB)	*D&O Checking	N/A	No Interest	1,298,373.03		N/A
Citizens Business Bank	Pref. Money Mrkt	N/A	0.3500%	2,202,042.05		1,245.28
Local Agency Investment Fund	LAIF	N/A	1.912%	2,303,521.12		13,156.86
Golden State Business Bank	12 Month C.D.	April 15,2020	1.50%	20,000.00		50.96
			TOTAL:	$ 6,524,431.30		
			TOTAL IN CD'S:	$ 20,000.00		

2020 Production

CHINO BASIN	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	THIS YEAR
Yearly Production Rights = 1232	38.19%	38.21%	-	-	-	-	-	-	-	-	-	-	
Well #12 - inactive	-	-	-	-	-	-	-	-	-	-	-	-	-
Well #15 - Domestic	0.08	0.09	-	-	-	-	-	-	-	-	-	-	0.17
Well #16 - Domestic	0.16	0.17	-	-	-	-	-	-	-	-	-	-	0.33
Well#18 - inactive	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	**0.23**	**0.26**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.49**

CUCAMONGA BASIN	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	THIS YEAR
Yearly Production Rights = 5996 (1496 10-yr Average Spread)	2.57%	6.25%	8.12%	11.12%	13.91%	16.76%	18.99%	21.91%	24.22%	27.12%	29.43%	32.24%	
Well #2	49.87	0.25	0.09	-	-	-	-	-	-	-	-	-	50.22
Well #3	0.33	0.40	0.11	-	-	-	-	-	-	-	-	-	0.85
Well#19 - inactive	-	-	-	-	-	-	-	-	-	-	-	-	-
Well #22	9.49	18.84	7.17	-	-	-	-	-	-	-	-	-	35.49
Well #24	0.68	0.43	0.20	-	-	-	-	-	-	-	-	-	1.32
Well #31	0.33	3.46	1.28	-	-	-	-	-	-	-	-	-	5.07
Well #32 - Domestic	-	-	-	-	-	-	-	-	-	-	-	-	-
Upl. # 15 {SAWCo's Rts]	93.55	197.41	102.78	-	-	-	-	-	-	-	-	-	393.75
Subtotal	**154.26**	**220.79**	**111.64**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**486.69**
Upl. # 15 {WECWCo's Rts] Memo Only	-	-	-	-	-	-	-	-	-	-	-	-	-

SIX BASINS	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	THIS YEAR
Yearly Production Rights = 932	9.81%	19.22%	52.21%	70.37%	91.38%	111.60%	139.77%	159.09%	186.29%	205.84%	233.00%	253.66%	
Well #25-A	-	-	-	-	-	-	-	-	-	-	-	-	-
Well #26	46.26	45.92	50.02	-	-	-	-	-	-	-	-	-	142.20
Well 27-A	45.14	41.80	44.77	-	-	-	-	-	-	-	-	-	131.72
Subtotal	**91.40**	**87.72**	**94.80**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**273.92**

TOTAL PUMPED	**245.90**	**308.77**	**206.43**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**761.10**

GRAVITY FLOW	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	THIS YEAR
V screen	524.54	368.06	611.92	-	-	-	-	-	-	-	-	-	1,504.51
backwash from city treatment plant	0.74	0.92	0.86	-	-	-	-	-	-	-	-	-	2.51
San Antonio Tunnel (forebay)	233.50	199.02	207.04	-	-	-	-	-	-	-	-	-	639.56
Frankish & Stamm Tunnel 8"	35.45	12.40	48.64	-	-	-	-	-	-	-	-	-	96.49
San Ant. Tunnel Connect to City	-	-	-	-	-	-	-	-	-	-	-	-	-
Discharge to waste	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL GRAVITY	**794.23**	**580.40**	**868.44**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**2,243.07**

Monthly

San Antonio Tunnel	**233.50**	**199.02**	**207.04**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**639.56**
V Screen, Frankish & Stamm Tunnel and TP Backwash	**560.73**	**381.38**	**661.41**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1,603.51**
Gravity Production	**794.23**	**580.40**	**868.44**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**2,243.07**

Cumulative

San Antonio Tunnel	**233.50**	**432.52**	**639.56**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**639.56**
V Screen, Frankish & Stamm Tunnel and TP Backwash	**560.73**	**942.10**	**1,603.51**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1,603.51**
Gravity Production	**794.23**	**1,374.63**	**2,243.07**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

Purchased Water - Upl. City to Dom. Sys.	-	-	-	-	-	-	-	-	-	-	-	-	-

Total Production	**1,040.12**	**889.17**	**1,074.88**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**3,004.17**
Total Cumulative Production	**1,040.12**	**1,929.30**	**3,004.17**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	THIS YEAR
Domestic Production	233.74	199.28	207.04	-	-	-	-	-	-	-	-	-	640.06
Irrigation Production	806.39	689.89	867.84	-	-	-	-	-	-	-	-	-	2,364.12

	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20
RainFall (Inches)	**0.17**	**0.24**	**4.69**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Cumulative (Inches)	**0.17**	**0.41**	**5.10**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

4/15/20
All units in acre-feet

2020 Consumption

DOMESTIC	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	THIS YEAR
Dom. Sys. - Base	52.51	36.97	55.30	-	-	-	-	-	-	-	-	-	144.78
Dom. Sys. - Supplemental	7.11	21.99	5.61	-	-	-	-	-	-	-	-	-	34.71
Dom Sys - Tier 3	3.97	19.97	2.36	-	-	-	-	-	-	-	-	-	26.30
Dom. Sys. - Del. to Upland(24th/Campus)	41.55	72.34	62.25	-	-	-	-	-	-	-	-	-	176.14
Dom. Sys. -Del. To Upland (Well 16/15)	-	-	-	-	-	-	-	-	-	-	-	-	-
Dom. Sys. - Del. to Upland(24th/Mtn)-installed 4/2/19	-	0.01	-	-	-	-	-	-	-	-	-	-	0.01
Tunnel meter to the Upland	-	-	-	-	-	-	-	-	-	-	-	-	-
Discharge to waste	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	**105.14**	**151.28**	**125.52**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**381.94**
Truck Loads - note only crosswall projects	-	-	-				-	-	-				-
Well 32 Hydrant Mtr. - note only(started 8/6/18)Crosswalls	127.62	9.15	3.49	-	-	-	-	-	-	-	-	-	140.25
Irr. Note only Del. to MVWD(wheeled through Upland)	-	-	-	-	-	-	-	-	-	-	-	-	-

IRRIGATION	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	THIS YEAR
Irrig. Sys.-Upland(Pump & Rec'd) (City W#15)	93.55	197.41	102.78	-	-	-	-	-	-	-	-	-	393.75
Irrig. Sys. - Upl. City - Tier 1	370.45	305.46	306.51	-	-	-	-	-	-	-	-	-	982.42
Irrig. Sys. - Upl. City - Tier 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Irrig. Sys. - Monte Vista - Tier 1	48.30	47.00	50.20	-	-	-	-	-	-	-	-	-	145.50
Irrig. Sys. - Monte Vista - Tier 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Irrig. Sys. - Ont. City - Tier 1	42.90	41.70	44.60	-	-	-	-	-	-	-	-	-	129.20
Irrig. Sys. - Ont. City - Tier 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Irrig. Sys. - Cucamonga Valley - Tier 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Irrig Sys. - Cucamonga Valley - Tier 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Irrig. Sys. - Holiday Rock Co - Tier 1	14.52	14.52	16.67	-	-	-	-	-	-	-	-	-	45.72
Irrig. Sys. - Holiday Rock Co - Tier 2	4.47	5.84	0.76	-	-	-	-	-	-	-	-	-	11.07
Irrig. Sys. - Holiday Rock Co - Tier 3	-	-	-	-	-	-	-	-	-	-	-	-	-
Irrig. Sys. - Red Hill Golf Course - Tier 1	8.60	17.66	6.68	-	-	-	-	-	-	-	-	-	32.93
Irrig. Sys. - Red Hill Golf Course - Tier 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Irrig. Sys. - Red Hill Golf Course - Tier 3	-	-	-	-	-	-	-	-	-	-	-	-	-
Irrig. Sys. - Red Hills HOA - Tier 1	0.01	-	-	-	-	-	-	-	-	-	-	-	0.01
Irrig. Sys. - Red Hills HOA - Tier 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Irrig. Sys. - Red Hills HOA - Tier 3	-	-	-	-	-	-	-	-	-	-	-	-	-
Irrig. Sys. - Minor Irrigators - Tier 1	0.58	1.88	0.51	-	-	-	-	-	-	-	-	-	2.98
Irrig. Sys. - Minor Irrigators - Tier 2	-	0.06	-	-	-	-	-	-	-	-	-	-	0.06
Irrig. Sys. - Minor irrigators - Tier 3	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	**583.39**	**631.53**	**528.71**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1,743.63**

COMPANY TOTALS	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	THIS YEAR
San Antonio Heights	63.59	78.93	63.27	-	-	-	-	-	-	-	-	-	**205.79**
City of Upland	505.55	575.21	471.54	-	-	-	-	-	-	-	-	-	**1,552.31**
Monte Vista Water District	48.30	47.00	50.20	-	-	-	-	-	-	-	-	-	**145.50**
City of Ontario	42.90	41.70	44.60	-	-	-	-	-	-	-	-	-	**129.20**
Cucamonga Valley Water District	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Holiday Rock Company	19.00	20.37	17.42	-	-	-	-	-	-	-	-	-	**56.79**
Red Hills Golf Course	8.60	17.66	6.68	-	-	-	-	-	-	-	-	-	**32.93**
Red Hill HOA	0.01	-	-	-	-	-	-	-	-	-	-	-	**0.01**
Minor Irrigators	0.58	1.95	0.51	-	-	-	-	-	-	-	-	-	**3.04**
TOTAL	**688.53**	**782.81**	**654.22**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**2,125.56**

IRRIGATORS													
Irrigator Emberton	0.12	0.21	0.27	-	-	-	-	-	-	-	-	-	**0.60**
Irrigator McMurray	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Irrigator Mistretta	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Irrigator Nisbit	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Irrigator Scheu	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Irrigator Pfister	*0.47*	*1.74*	*0.23*	-	-	-	-	-	-	-	-	-	***2.44***

2020 Spread

Cucamonga Basin	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	THIS YEAR
23rd St. (Meter) - Basin 6 - A	0.23	-	5.06	-	-	-	-	-	-	-	-	-	5.30
15th Street Basin	14.84	-	-	-	-	-	-	-	-	-	-	-	14.84
Basin 3 meter (23rd street Clock)	115.17	60.78	158.28	-	-	-	-	-	-	-	-	-	334.23
Frankish & Stamm Tunnel to Basin 3	35.45	12.40	48.64	-	-	-	-	-	-	-	-	-	96.49
Vscreen via Frankish & Stamm Meter to Basin 3	38.07	-	21.91	-	-	-	-	-	-	-	-	-	59.98
PRV Station (res 1)(basin 6)	42.65	0.90	23.07	-	-	-	-	-	-	-	-	-	66.62
Monthly Spread	**246.41**	**74.08**	**256.97**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**577.46**
Cumulative Spread	**246.41**	**320.49**	**577.46**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

Six Basins

Note: City of Upland Well Exercising may contribute to spread

Monthly Spread	**130.23**	**38.05**	**161.17**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**329.46**
Cumulative Spread	**130.23**	**168.28**	**329.46**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

Chino Basin

Monthly Spread	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Cumulative Spread	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

Company Wide

Monthly Spread	**376.64**	**112.13**	**418.14**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**906.91**
Cumulative Spread	**376.64**	**488.77**	**906.91**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

Meter to spread ponds (NOTE ONLY)	71.45	72.53	59.44	-	-	-	-	-	-	-	-	-	203.43

2020 Production v Consumption

Yearly %	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
	8%	17%	25%	33%	42%	50%	58%	67%	75%	83%	92%	100%

Consumption versus Entitlement, Company Wide Active Shares

	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	THIS YEAR
Consumption	688.53	782.81	654.22	-	-	-	-	-	-	-	-	-	
Cumulative Consumption	688.53	1,471.34	2,125.56	-	-	-	-	-	-	-	-	-	**2,125.56**
Cumulative Entitlement (straight line)	*1,047.56*	*2,095.11*	*3,142.67*	-	-	-	-	-	-	-	-	-	***12,571***
% of Entitlement*	**5.48%**	**11.70%**	**16.91%**	**22.76%**	**28.48%**	**34.24%**	**39.65%**	**45.45%**	**50.91%**	**56.69%**	**62.15%**	**67.89%**	**16.9%**

Consumption versus Entitlement, Company Wide Total Shares

	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	THIS YEAR
Consumption	688.53	782.81	654.22	-	-	-	-	-	-	-	-	-	
Cumulative Consumption	688.53	1,471.34	2,125.56	-	-	-	-	-	-	-	-	-	**2,125.56**
Cumulative Entitlement (straight line)	*1,083.33*	*2,166.67*	*3,250.00*	-	-	-	-	-	-	-	-	-	***13,000***
% of Entitlement*	**5.30%**	**11.32%**	**16.35%**	**22.01%**	**27.54%**	**33.11%**	**38.34%**	**43.95%**	**49.23%**	**54.82%**	**60.10%**	**65.65%**	**16.4%**

Production versus Consumption, Company Wide

	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	THIS YEAR
Production	1,040.12	889.17	1,074.88	-	-	-	-	-	-	-	-	-	3,004.17
Consumption	*688.53*	*782.81*	*654.22*	-	-	-	-	-	-	-	-	-	*2,125.56*
Spread	*376.64*	*112.13*	*418.14*	-	-	-	-	-	-	-	-	-	*906.91*
Total Consumption	1,065.17	894.94	1,072.36	-	-	-	-	-	-	-	-	-	3,032.47
Difference	(25.05)	(5.77)	2.51	-	-	-	-	-	-	-	-	-	(28.30)
% of Production	**-2.4%**	**-0.6%**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**-0.9%**

Production versus Consumption, Domestic System

	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	THIS YEAR
Production	233.74	199.28	207.04	-	-	-	-	-	-	-	-	-	**640.06**
Consumption	105.14	151.28	125.52	-	-	-	-	-	-	-	-	-	**381.94**
Monthly Difference	128.59	48.01	81.52	-	-	-	-	-	-	-	-	-	**258.12**
% difference	**122.30%**	**31.73%**	**64.95%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**67.6%**

Production versus Consumption, Irrigation System

	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	THIS YEAR
Production	*806.39*	*689.89*	*867.84*	-	-	-	-	-	-	-	-	-	***2,364.12***
Addition from Domestic	*128.59*	*48.01*	*81.52*	-	-	-	-	-	-	-	-	-	***258.12***
Total Production	934.98	737.90	949.36	-	-	-	-	-	-	-	-	-	**2,622.24**
Consumption	960.03	743.66	946.85	-	-	-	-	-	-	-	-	-	**2,650.54**
Monthly Difference	(25.05)	(5.77)	2.51	-	-	-	-	-	-	-	-	-	**(28.30)**
% difference	**-2.61%**	**-0.78%**	**0.27%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**-1.1%**

* - Out months are Exponential Smoothing (ETS) forecasts based on consumption to date

2020 GW Production Rights

Yearly %	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
	8%	17%	25%	33%	42%	50%	58%	67%	75%	83%	92%	100%

Chino Basin Production Water Year 19-20

	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	THIS YEAR
19-20 Production	0.23	0.26	-	-	-	-							
19-20 Cumulative Production	470.53	470.79	-	-	-	-							**470.79**
Cumulative Production Rights	718.67	821.33	924.00	1,026.67	1,129.33	1,232.00							**1,232**
% of Production Rights 2019-20	**38.19%**	**38.21%**	**-**	**-**	**-**	**-**							

Chino Basin Production Water Year 20-21

	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	THIS YEAR
20-21 Production							-	-	-	-	-	-	
20-21 Cumulative Production							-	-	-	-	-	-	**-**
Cumulative Production Rights							102.67	205.33	308.00	410.67	513.33	616.00	**1,232**
% of Production Rights 2020-21							**-**	**-**	**-**	**-**	**-**	**-**	

Chino Basin 2020 Production

Monthly	0.23	0.26	-	-	-	-	-	-	-	-	-	-
Cumulative	**0.23**	**0.49**	**0.49**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Cucamonga Basin Production

	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	THIS YEAR
Production	154.26	220.79	111.64	-	-	-	-	-	-	-	-	-	
Cumulative Production	154.26	375.05	486.69	-	-	-	-	-	-	-	-	-	**486.69**
Cumulative Production Rights	499.70	999.40	1,499.10	-	-	-	-	-	-	-	-	-	**5,996**
% of Production Rights*	**2.57%**	**6.25%**	**8.12%**	**11.12%**	**13.91%**	**16.76%**	**18.99%**	**21.91%**	**24.22%**	**27.12%**	**29.43%**	**32.24%**	**8.1%**

Six Basins Production

	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	THIS YEAR
Production	91.40	87.72	94.80	-	-	-	-	-	-	-	-	-	
Cumulative Production	91.40	179.12	273.92	-	-	-	-	-	-	-	-	-	**273.92**
Cumulative Production Rights	77.68	155.35	233.03	-	-	-	-	-	-	-	-	-	**932**
% of Production Rights*	**9.81%**	**19.22%**	**52.21%**	**70.37%**	**91.38%**	**111.60%**	**139.77%**	**159.09%**	**186.29%**	**205.84%**	**233.00%**	**253.66%**	**29.4%**

* - Out months are Exponential Smoothing (ETS) forecasts based on basin production to date

2020 Consumption Analysis

Yearly %	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
	8%	17%	25%	33%	42%	50%	58%	67%	75%	83%	92%	100%

COMPANY TOTALS Active Shares

	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	THIS YEAR
Consumption	688.53	782.81	654.22	-	-	-	-	-	-	-	-	-	
Cumulative Consumption	688.53	1,471.34	2,125.56	-	-	-	-	-	-	-	-	-	**2,125.56**
Cumulative Entitlement	984.00	1,967.99	2,968.59	-	-	-	-	-	-	-	-	-	**12,570.67**
% of Yearly Entitlement*	**5.48%**	**11.70%**	**16.91%**	**22.76%**	**28.48%**	**34.24%**	**39.65%**	**45.45%**	**50.91%**	**56.69%**	**62.15%**	**67.89%**	**16.91%**

Shares	6,178

COMPANY TOTALS All Shares

	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	THIS YEAR
Consumption	688.53	782.81	654.22	-	-	-	-	-	-	-	-	-	
Cumulative Consumption	688.53	1,471.34	2,125.56	-	-	-	-	-	-	-	-	-	**2,125.56**
Cumulative Entitlement	1,083.33	2,166.67	3,250.00	-	-	-	-	-	-	-	-	-	**13,000.00**
% of Yearly Entitlement*	**5.30%**	**11.32%**	**16.35%**	**22.01%**	**27.54%**	**33.11%**	**38.34%**	**43.95%**	**49.23%**	**54.82%**	**60.10%**	**65.65%**	**16.35%**

Shares	6,389

San Antonio Heights

	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	THIS YEAR
Consumption	63.59	78.93	63.27	-	-	-	-	-	-	-	-	-	
Cumulative Consumption	63.59	142.52	205.79	-	-	-	-	-	-	-	-	-	**205.79**
Cumulative Entitlement	68.48	136.95	215.53	-	-	-	-	-	-	-	-	-	**1,268.66**
% of Yearly Entitlement*	**5.01%**	**11.23%**	**16.22%**	**21.98%**	**27.60%**	**33.26%**	**38.49%**	**44.20%**	**49.49%**	**55.18%**	**60.47%**	**66.10%**	**16.22%**

Shares	624

City of Upland

	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	THIS YEAR
Consumption	505.55	575.21	471.54	-	-	-	-	-	-	-	-	-	
CumulativeConsumption	505.55	1,080.77	1,552.31	-	-	-	-	-	-	-	-	-	**1,552.31**
Cumulative Entitlement	765.53	1,531.06	2,296.59	-	-	-	-	-	-	-	-	-	**9,186.38**
% of Yearly Entitlement*	**5.50%**	**11.76%**	**16.90%**	**22.74%**	**28.45%**	**34.19%**	**39.56%**	**45.34%**	**50.75%**	**56.53%**	**61.94%**	**67.67%**	**16.90%**

Shares	4,514.75
Shares	4,515.00

Apr-20	**9,186.88**

Monte Vista Water District

	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	THIS YEAR
Consumption	48.30	47.00	50.20	-	-	-	-	-	-	-	-	-	
CumulativeConsumption	48.30	95.30	145.50	-	-	-	-	-	-	-	-	-	**145.50**
Cumulative Entitlement	55.91	111.83	167.74	-	-	-	-	-	-	-	-	-	**670.96**
% of Yearly Entitlement*	**7.20%**	**14.20%**	**21.69%**	**28.87%**	**36.11%**	**43.33%**	**50.71%**	**57.92%**	**65.28%**	**72.49%**	**79.86%**	**87.09%**	**21.69%**

Shares	330

City of Ontario

	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	THIS YEAR
Consumption	42.90	41.70	44.60	-	-	-	-	-	-	-	-	-	
CumulativeConsumption	42.90	84.60	129.20	-	-	-	-	-	-	-	-	-	**129.20**
Cumulative Entitlement	50.06	100.13	150.19	-	-	-	-	-	-	-	-	-	**600.76**
% of Yearly Entitlement*	**7.14%**	**14.08%**	**21.51%**	**28.63%**	**35.80%**	**42.97%**	**50.29%**	**57.44%**	**64.74%**	**71.89%**	**79.20%**	**86.37%**	**21.51%**

Shares	295

4/15/20
all units in acre-feet

2020 Consumption Analysis

Yearly %	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
	8%	17%	25%	33%	42%	50%	58%	67%	75%	83%	92%	100%

Cucamonga Valley Water District

	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	THIS YEAR
Consumption	-	-	-	-	-	-	-	-	-	-	-	-	
CumulativeConsumption	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Cumulative Entitlement	-	-	-	-	-	-	-	-	-	-	-	-	**8.14**
% of Yearly Entitlement*	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

Shares	4

Holiday Rock Company

	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	THIS YEAR
Consumption	19.00	20.37	17.42	-	-	-	-	-	-	-	-	-	
CumulativeConsumption	19.00	39.36	56.79	-	-	-	-	-	-	-	-	-	**56.79**
Cumulative Entitlement	14.52	29.05	45.72	-	-	-	-	-	-	-	-	-	**269.10**
% of Yearly Entitlement*	**7.06%**	**14.63%**	**21.10%**	**28.27%**	**35.30%**	**42.36%**	**49.06%**	**56.17%**	**62.91%**	**70.01%**	**76.76%**	**83.80%**	**21.10%**

Shares	132

Red Hills Golf Course

	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	THIS YEAR
Consumption	8.60	17.66	6.68	-	-	-	-	-	-	-	-	-	
CumulativeConsumption	8.60	26.25	32.93	-	-	-	-	-	-	-	-	-	**32.93**
Cumulative Entitlement	23.97	47.94	75.45	-	-	-	-	-	-	-	-	-	**444.08**
% of Yearly Entitlement*	**1.94%**	**5.91%**	**7.42%**	**10.48%**	**13.24%**	**16.08%**	**18.09%**	**21.03%**	**23.14%**	**26.05%**	**28.17%**	**30.96%**	**7.42%**

Shares	218

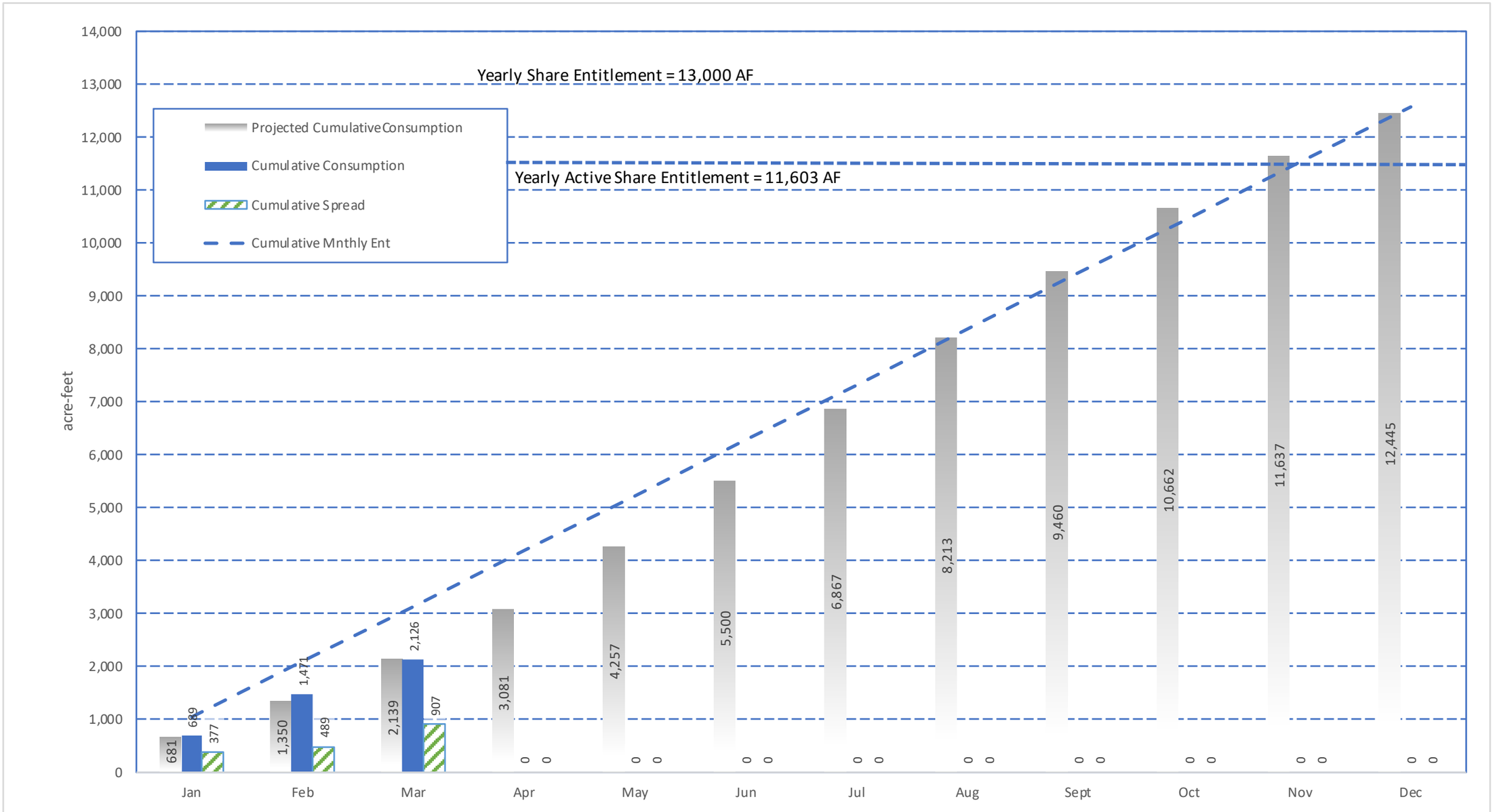
Minor Irrigators

	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	THIS YEAR
Consumption	0.58	1.95	0.51	-	-	-	-	-	-	-	-	-	
CumulativeConsumption	0.58	2.53	3.04	-	-	-	-	-	-	-	-	-	**3.04**
Cumulative Entitlement	5.52	11.04	17.37	-	-	-	-	-	-	-	-	-	**102.25**
% of Yearly Entitlement*	**0.57%**	**2.47%**	**2.97%**	**4.35%**	**5.56%**	**6.82%**	**7.61%**	**8.92%**	**9.76%**	**11.06%**	**11.90%**	**13.13%**	**2.97%**

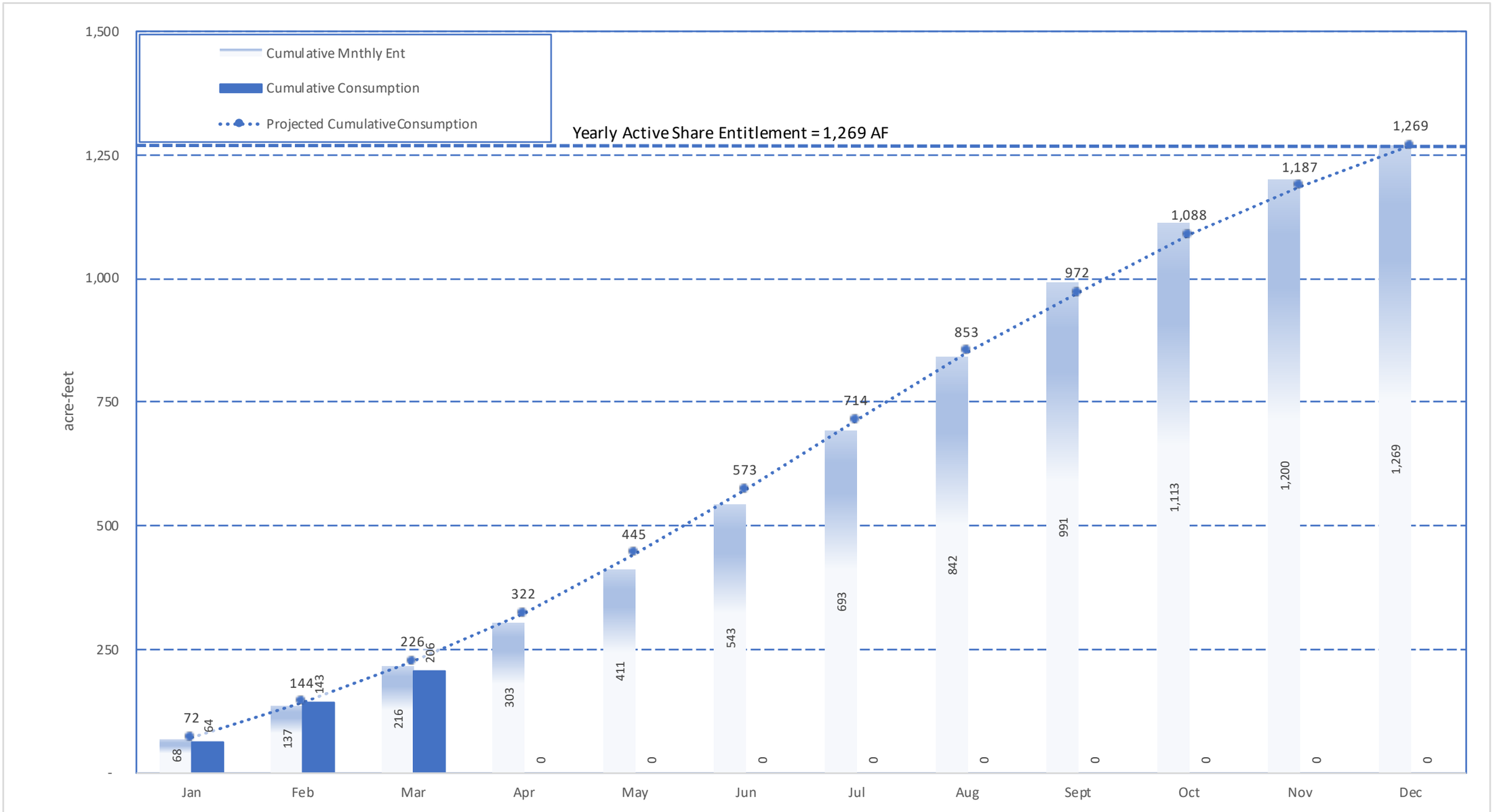
Shares	50

* - Out months are Exponential Smoothing (ETS) forecasts based on consumption to date

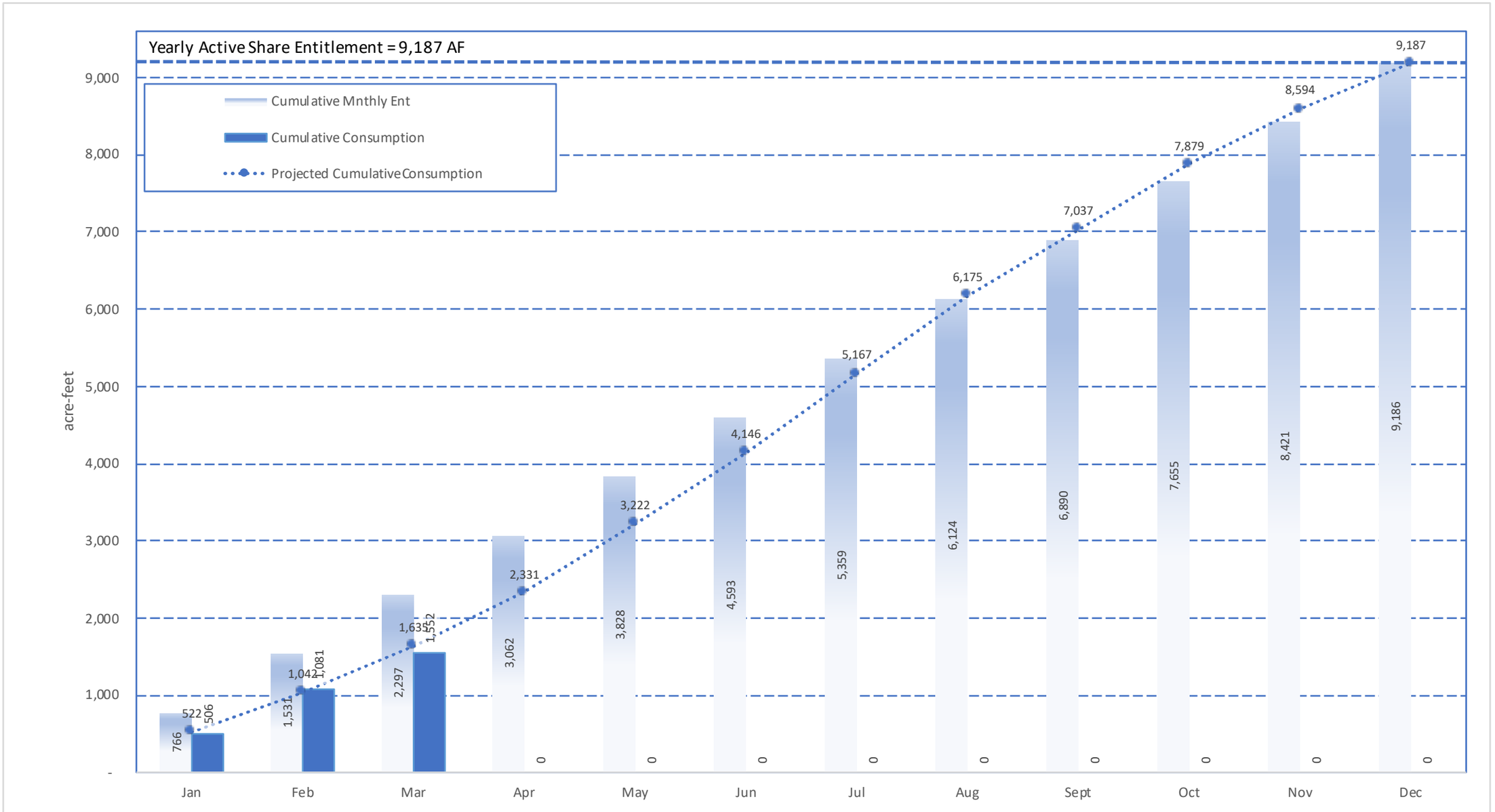
2020 Production and Consumption



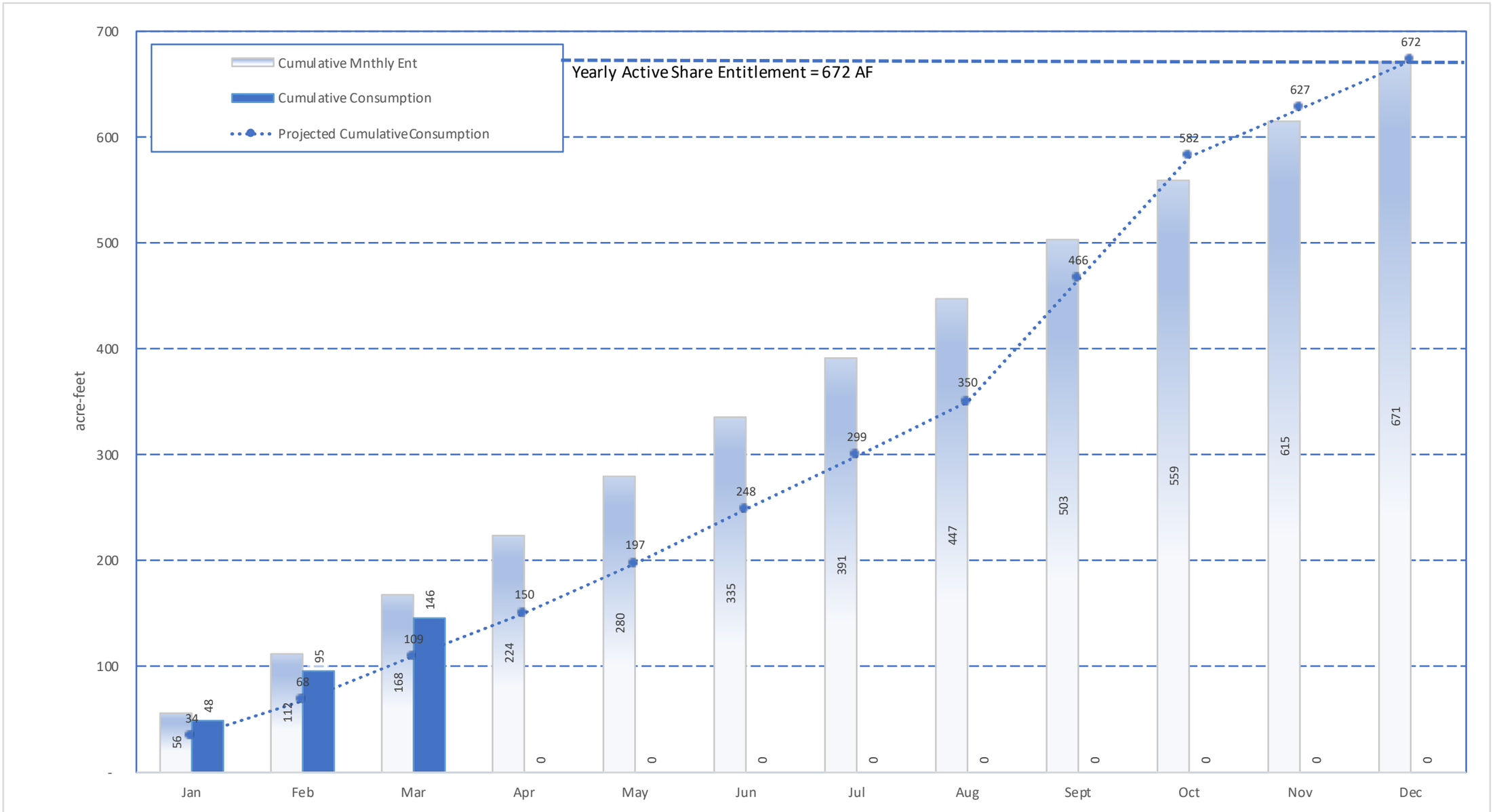
2020 Domestic Consumption



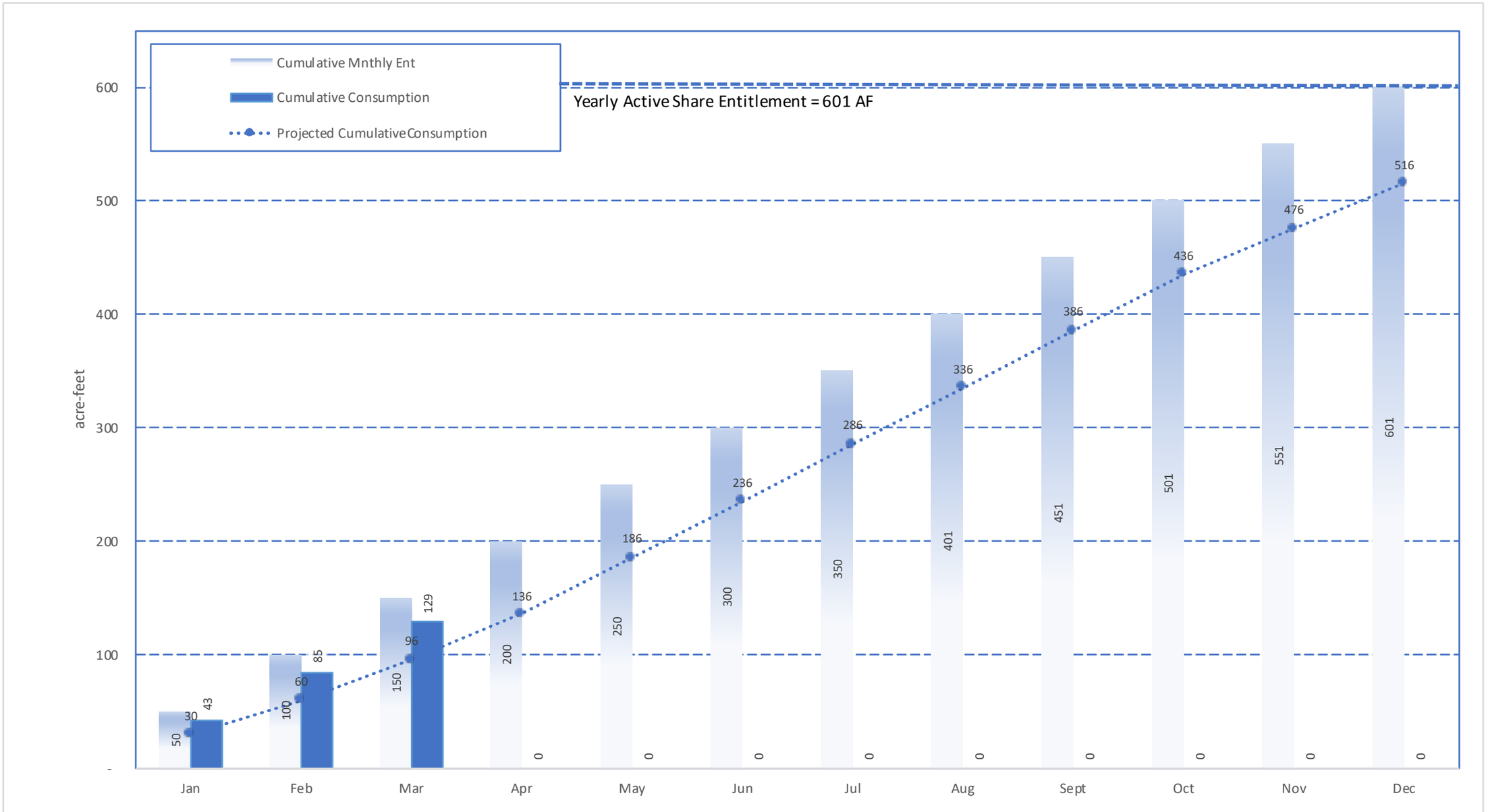
2020 Upland Consumption



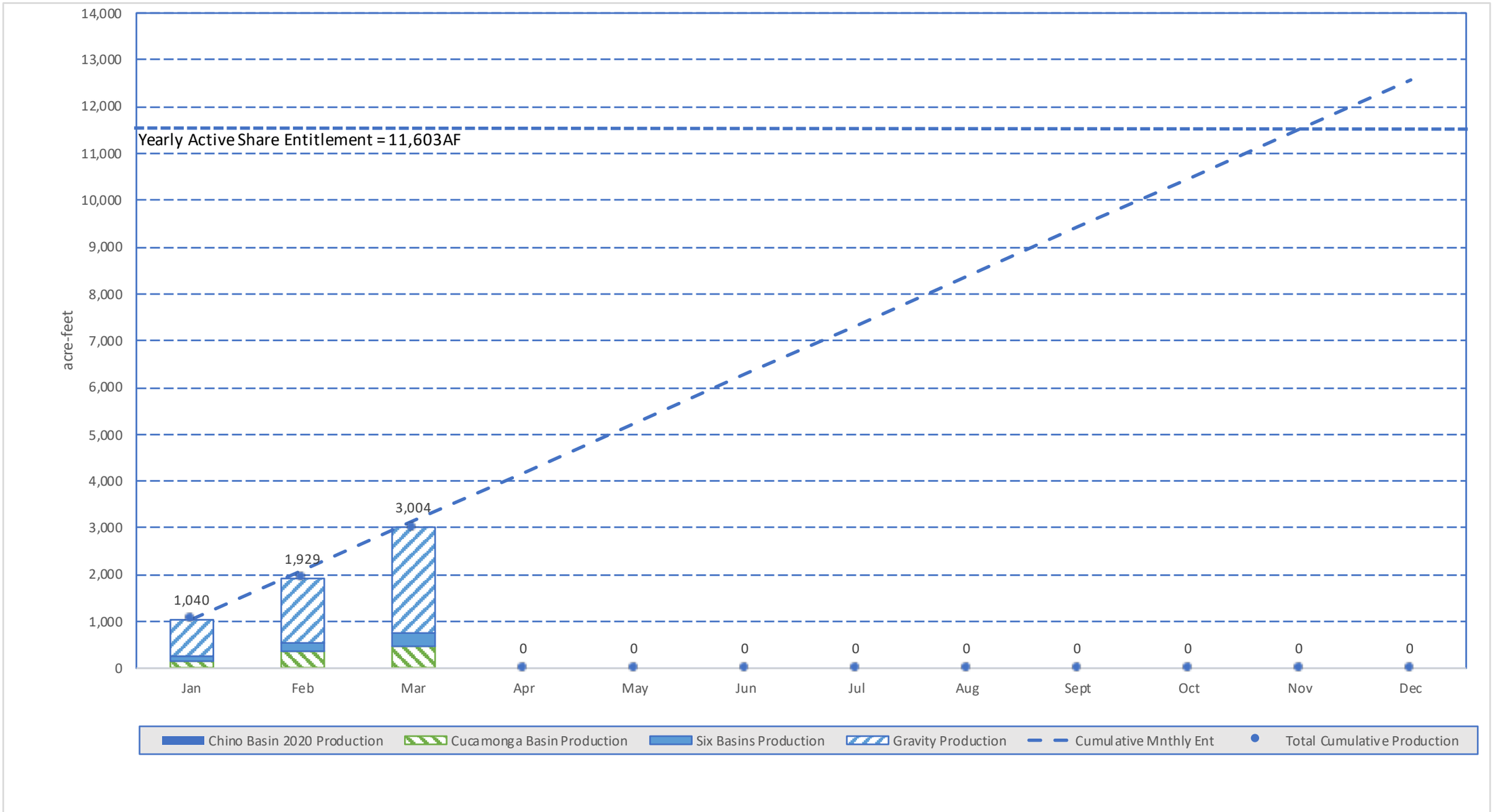
2020 Monte Vista Consumption



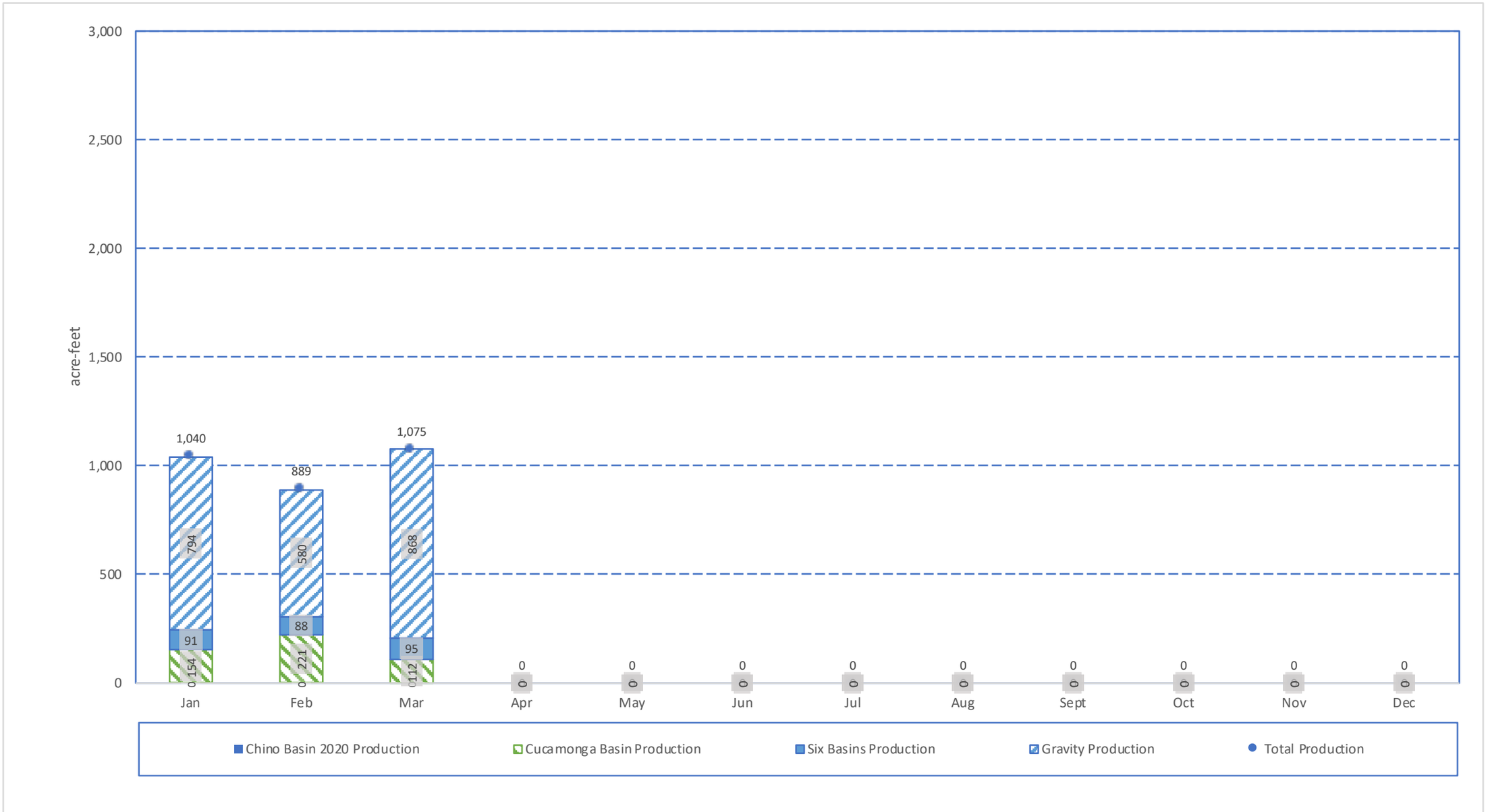
2020 Ontario Consumption



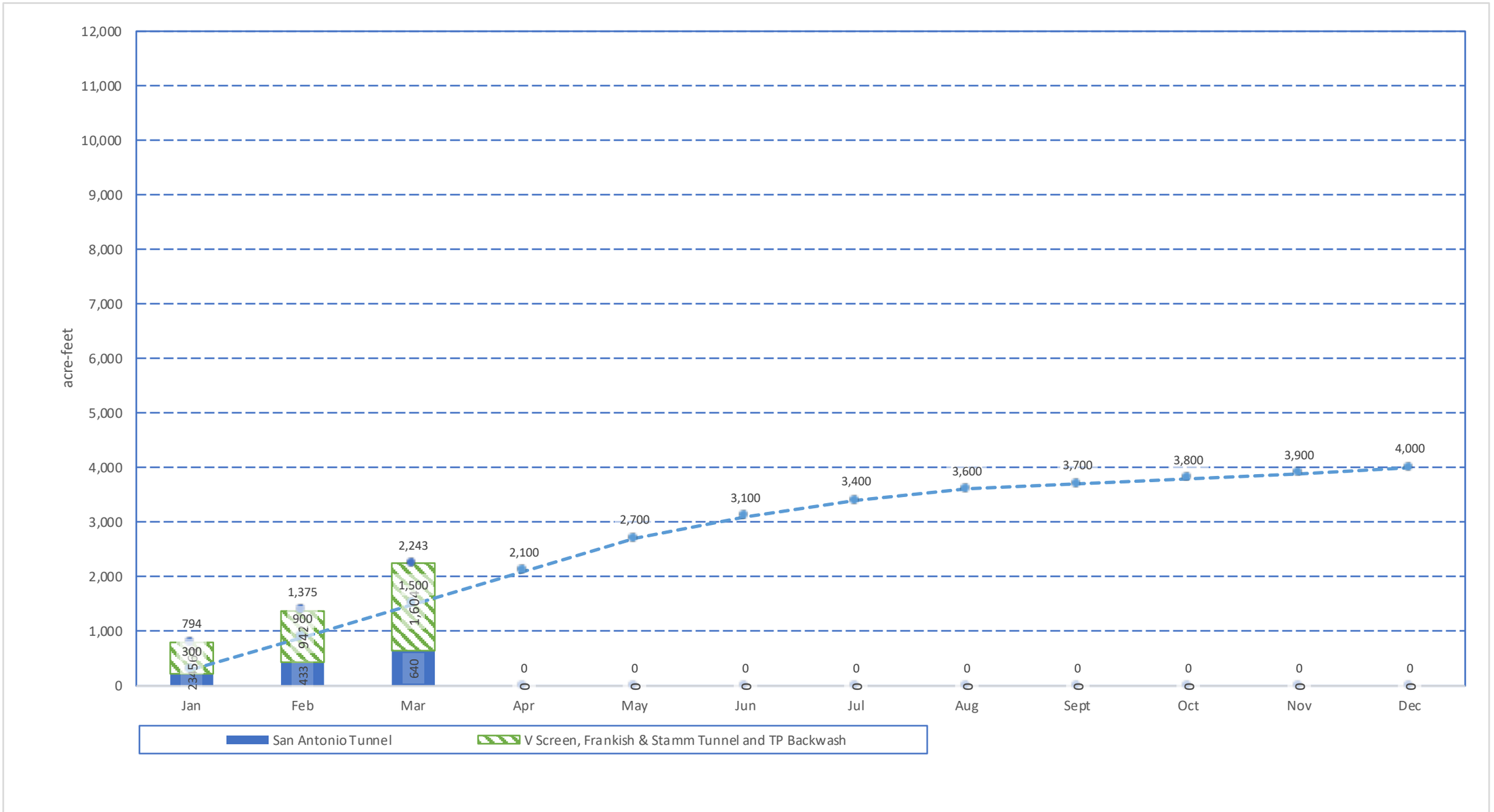
2020 Total Yearly Production



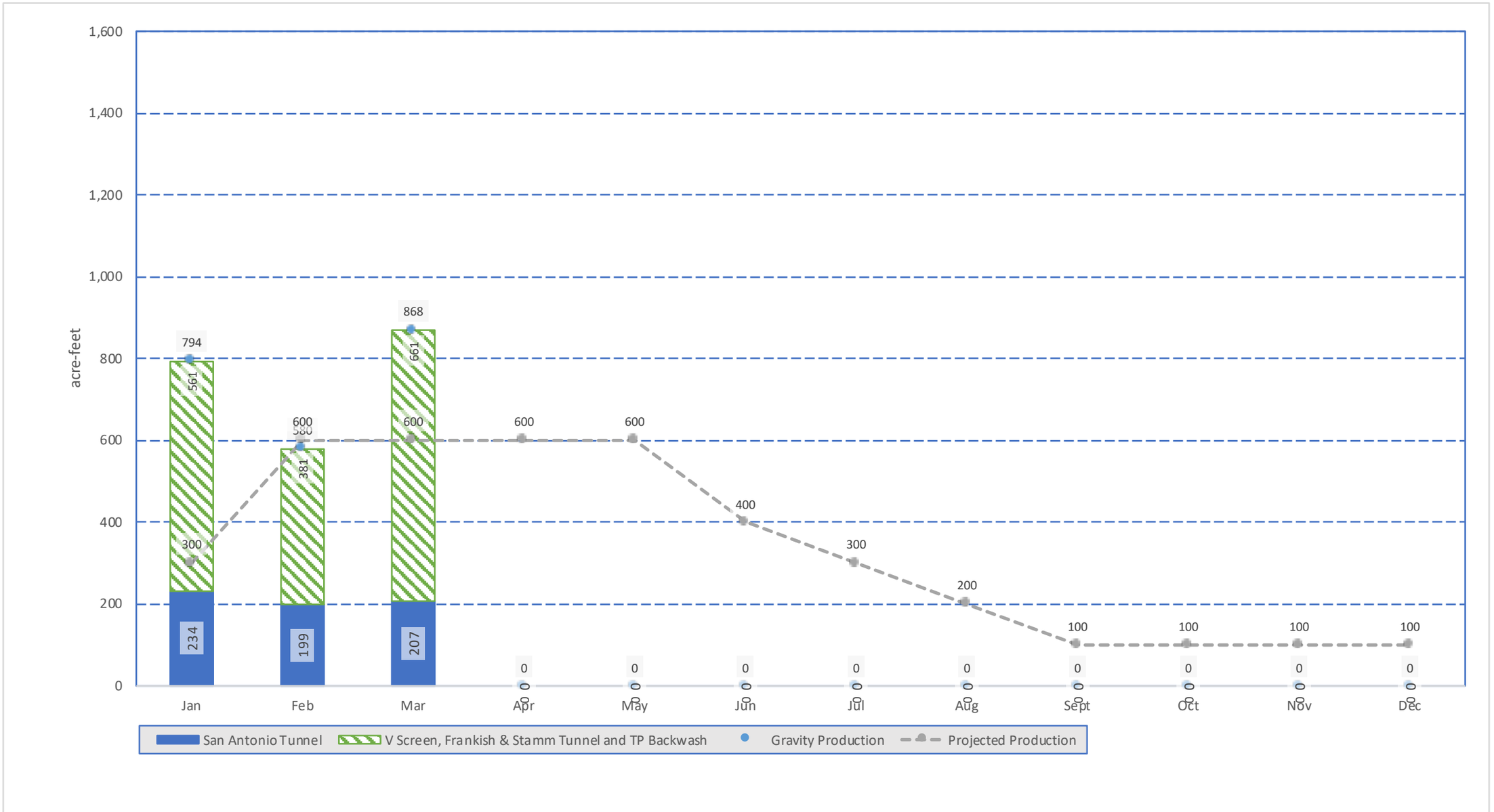
2020 Monthly Production



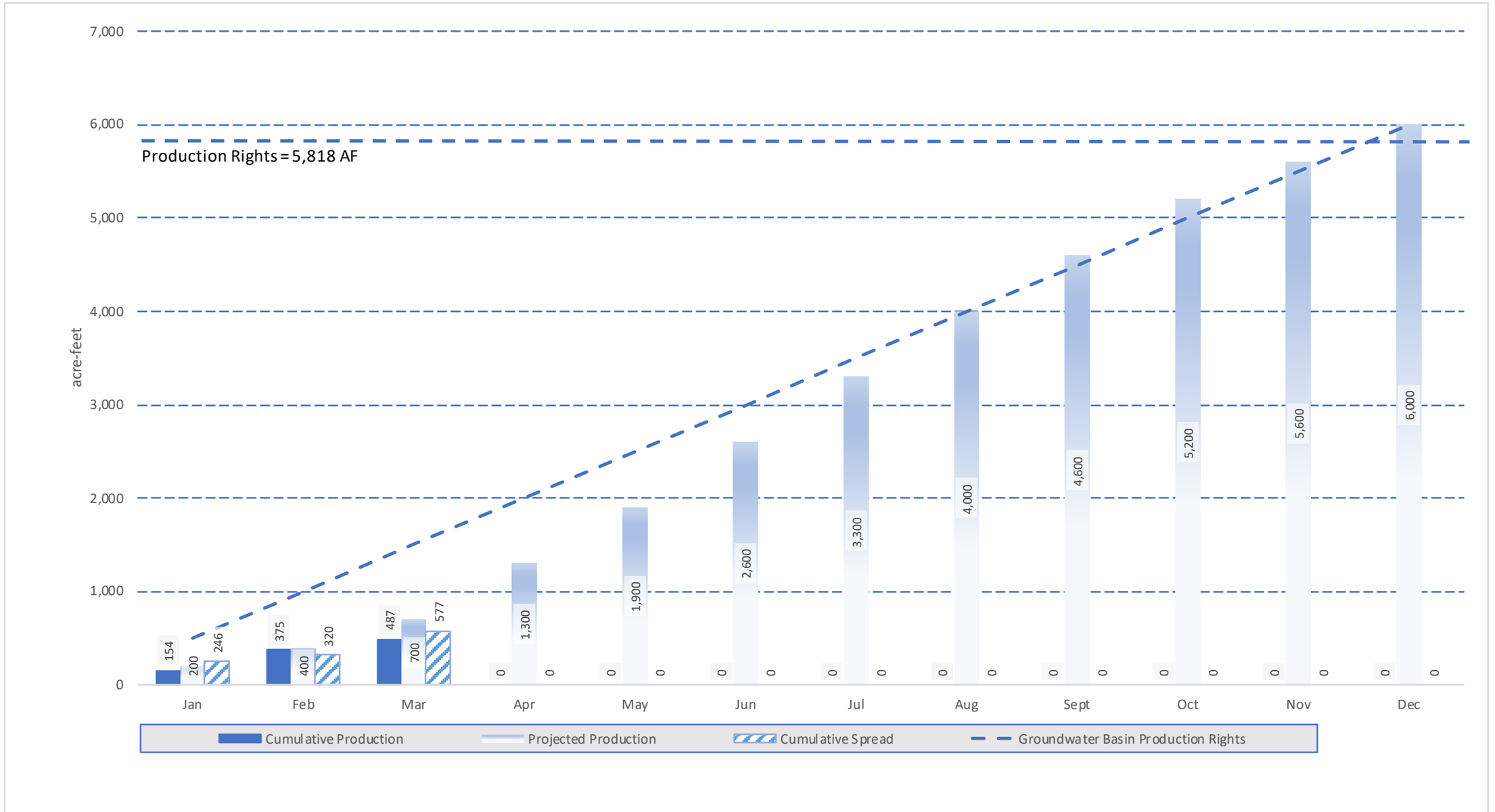
2020 Gravity Cumulative



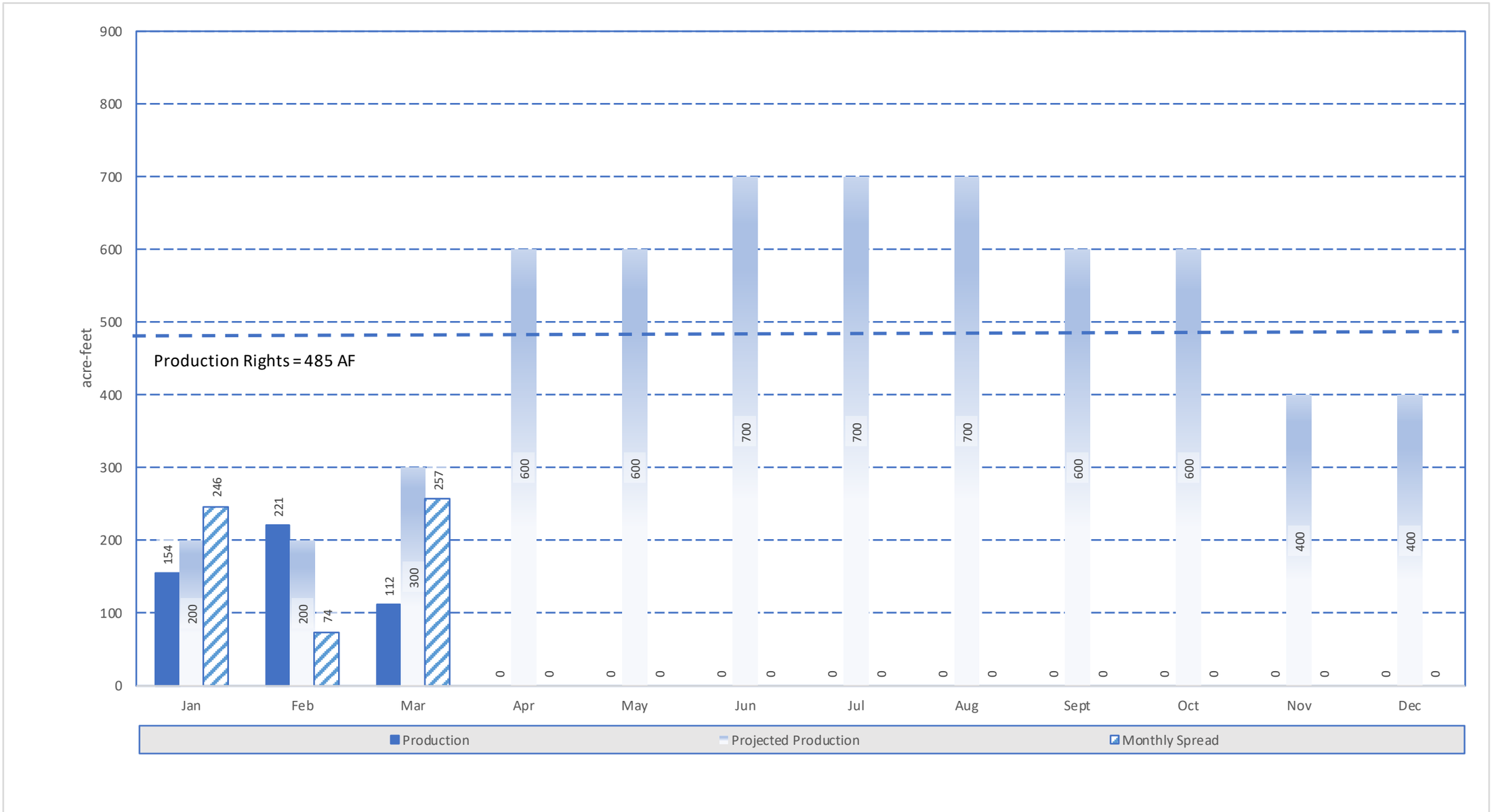
2020 Gravity Monthly



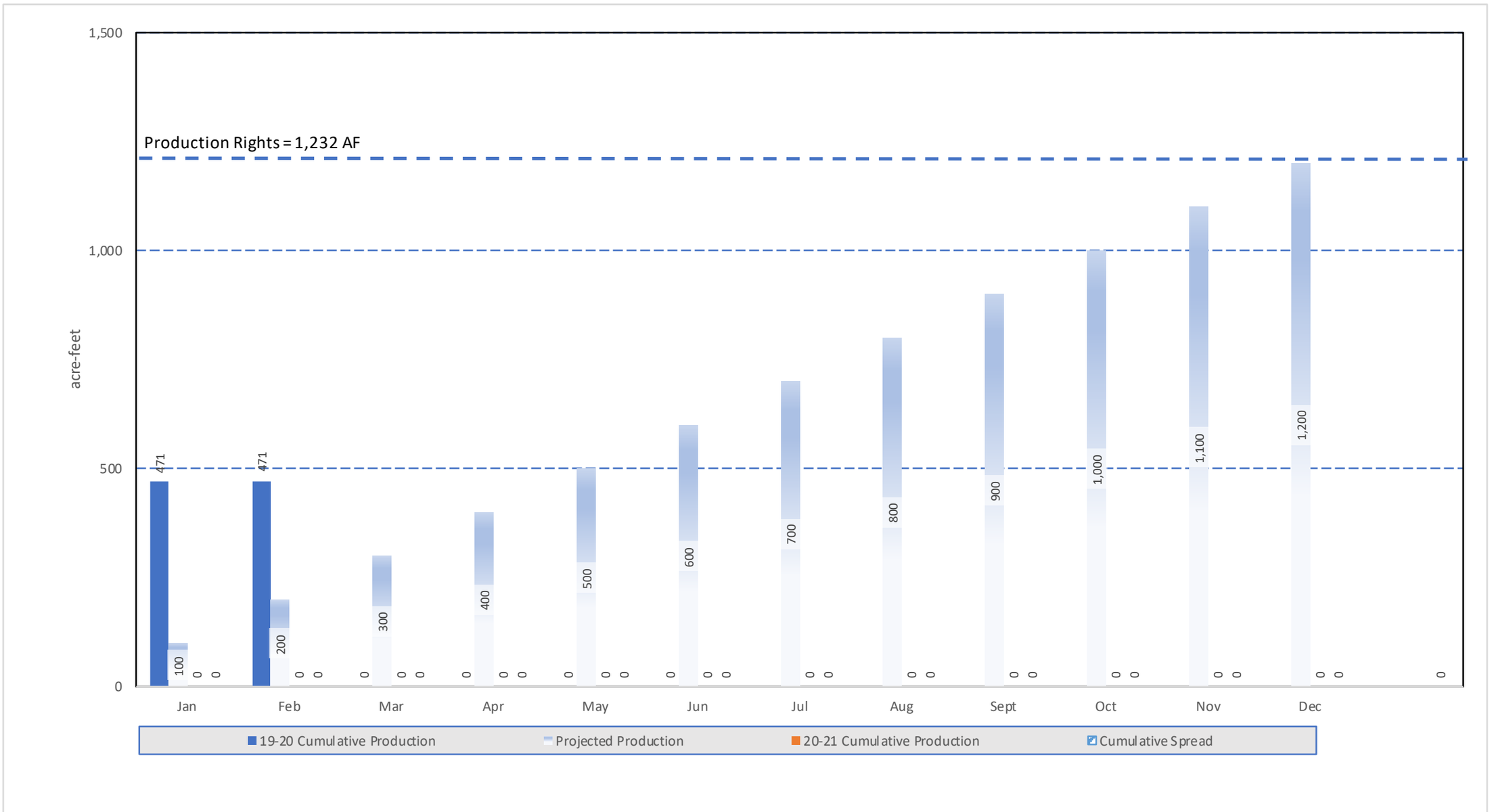
2020 Cucamonga Basin Cumulative



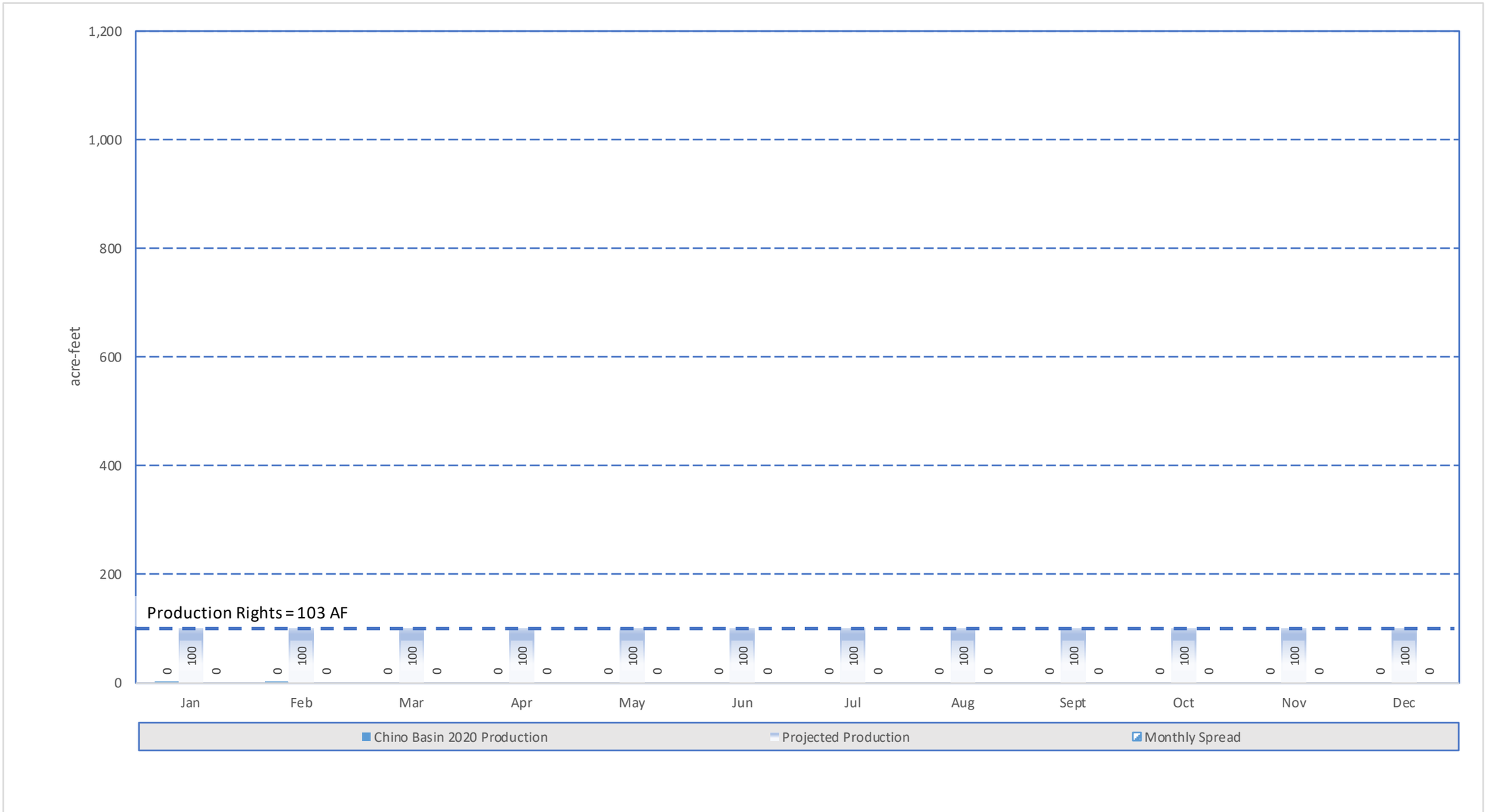
2020 Cucamonga Basin Monthly



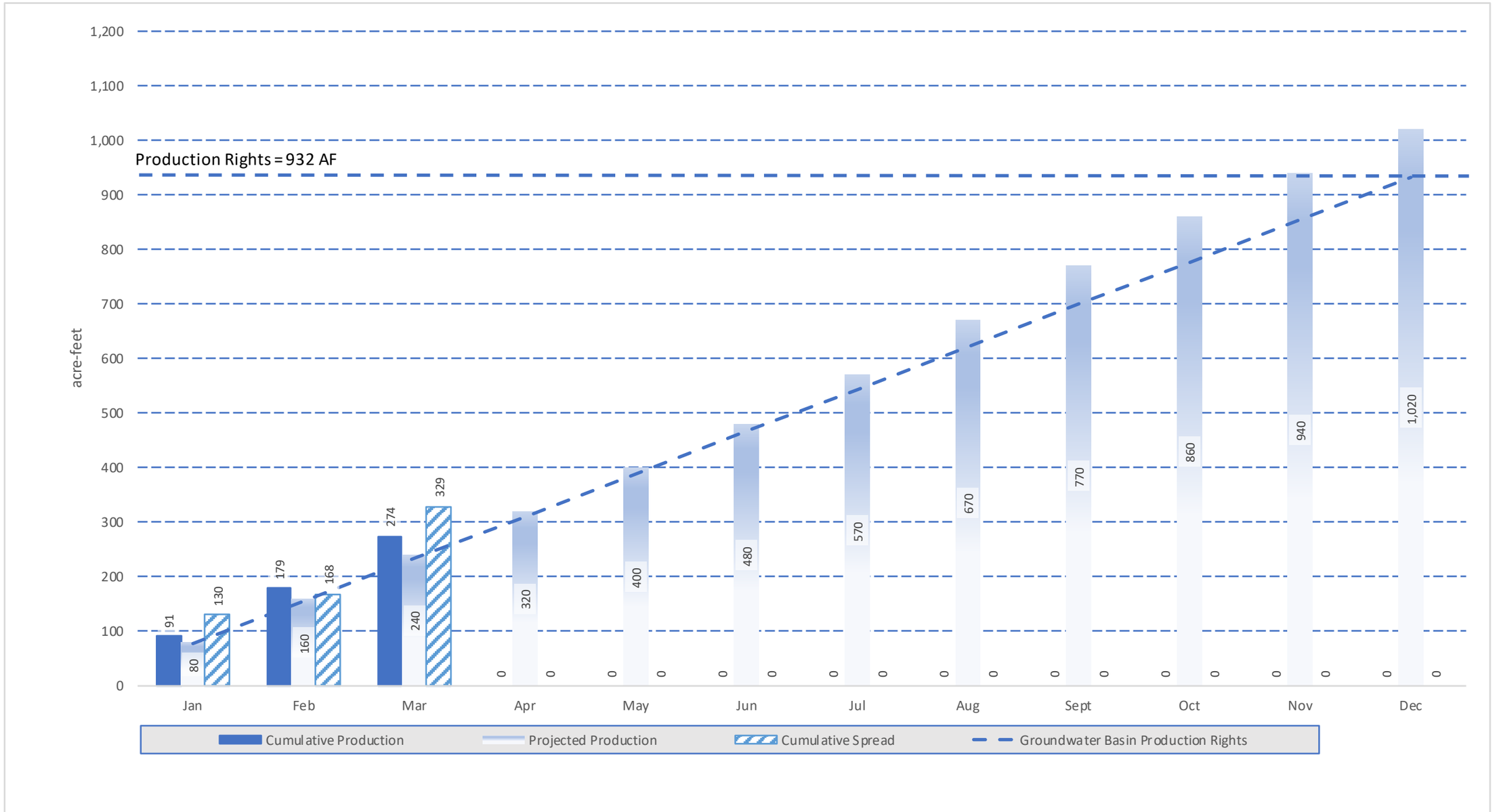
2020 Chino Basin Cumulative



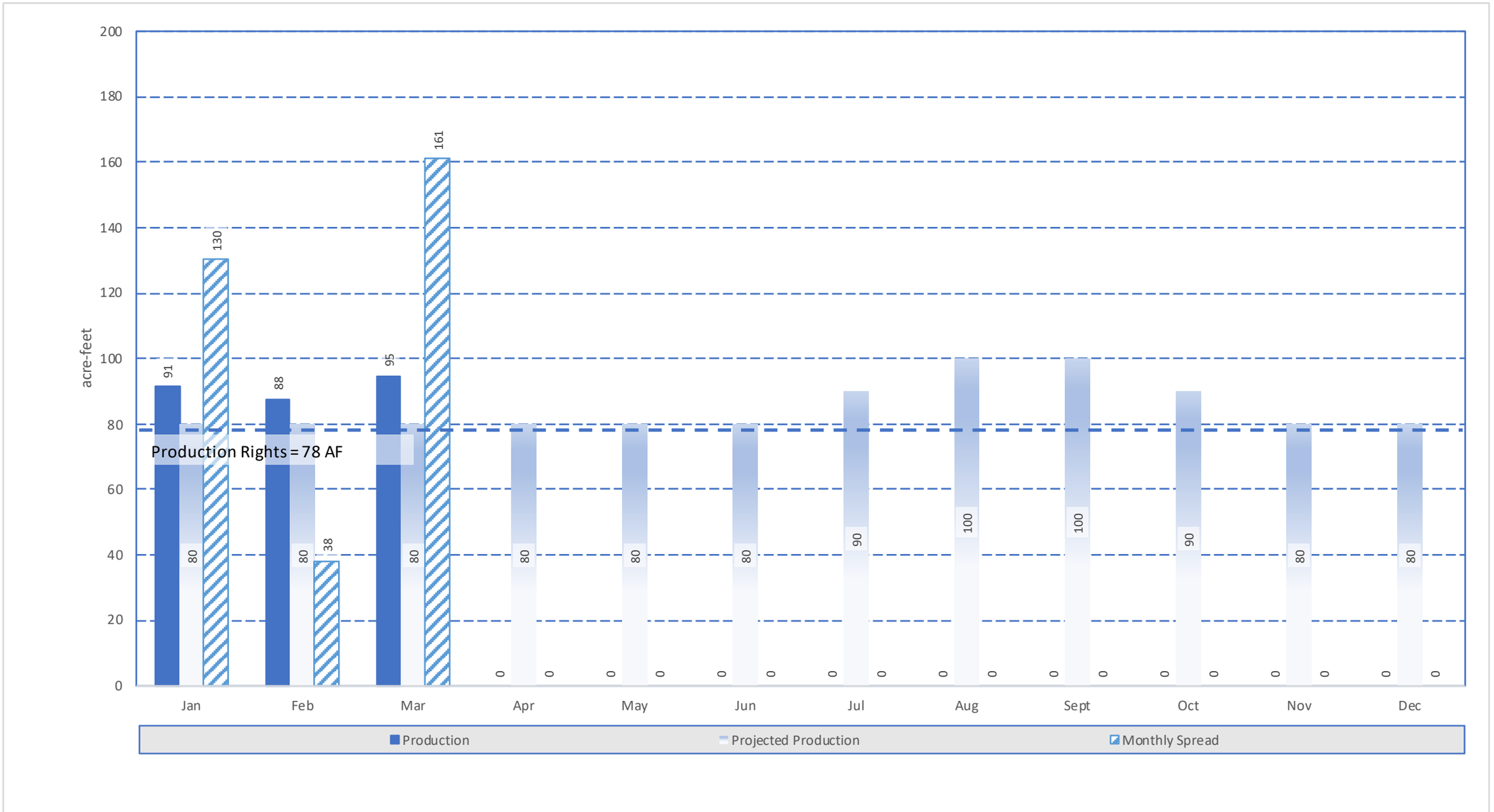
2020 Chino Basin Monthly



2020 Six Basins Cumulative



2020 Six Basins Monthly



Agenda Item No. 4G
Agenda Date: April 21, 2020

A. Water Supply through January 2020

- Annual entitlement for CY2019 is 13,000 AF
  - Cumulative yearly production was 3,004 AF
  - Cumulative yearly consumption was 2,126AF
  - Cumulative yearly spread was 907 AF
  - Cumulative unaccounted water was 2.51 AF

Six Basins Production for 2020
- Annual production right is 932 AF.
- Cumulative production was 274AF. Production is sent to the WFA treatment facility to meet City of Ontario and MVWD entitlement.
- The Company has spread a total of 329AF.

Cucamonga Basin Production for 2020
- Annual production right is 5,818 AF.
- Cumulative production was 487 AF.
- The Company has spread a total of 577 AF.

Chino Basin Production for 2020
- Annual production right is 1,232 AF.
- Cumulative production was 0 AF.
- The Company has spread a total of 0 AF.

Surface Water (San Antonio Creek) flow for 2020
Total flow was 612 AF.

Tunnel flow for 2020
San Antonio Tunnel flow was 640 AF.
Frankish and Stamm Tunnel flow was 96 AF.

B. Company Stock

One-quarter share of water stock moved from dormant to active and one-quarter share of water stock moved from active to dormant this transfer period.

C. Communication and Information Activities

Staff is communicating on our new “Facebook” page with 179 friends liking our old FB page and 64 customers have liked our new FB page. Communication is posted regularly on the new page and no new communication on the old Facebook page. Facebook is not able to merge the two Facebook pages, therefore we are in discussion of possibly deleting the old page.

D. Administration Matters

Meetings of interest:
- Monday, March 16, GM attended a CBWM OBMP Program Element 8&9 Review Workshop
- Tuesday, March 24, GM and Acting Upland PWD discussed mutual interests by telephone.
- Thursday, March 26, GM virtually attended the CBWM Board Meeting.
- Friday, March 27, GM virtually attended an CBWM AP Confidential Session
- Wednesday, April 1, GM virtually attended a CBWM AP Confidential Session
- Thursday, April 9, GM virtually attended a CBWM AP Meeting and Confidential Session

- Friday, April 10, GM virtually attended a CBWD Safe Yield Reset AP Meeting
- Wednesday, April 15, GM virtually attended a CBWM AP Confidential Session

E. Groundwater Basin Matters

Chino Basin -

Spread Water from SAWCo - SAWCo has not started spreading for the 2019/20 year into Chino Basin. Application to spread has been submitted on April 15, 2020

Storage Management Plan – Watermaster issued the final report on the 2020 Storage Management Plan on December 11th. Staff is currently reviewing. WM staff presented an update at the AP meeting on Feb. 13. WM staff are considering the Storage Management Plan (OBMP Implementation Program 8) and Storage and Recovery Plan (OBMP Implementation Program 9) singularly. At the request of the AP, Watermaster will focus on program elements 8 and 9 first, and then complete the remainder of the OBMP elements at a later date this year.

To complete program elements 8 and 9 in a timely fashion, ~~Watermaster will be holding a series of collaborative meetings through the month of March.~~ Collaborative meetings have been placed on hold due to COVID19.

WM staff intend for the OBMP Implementation Plan to be attached to the Peace Agreement and will require a Peace Agreement amendment.

Safe Yield Reset – Draft report delivered. Proposed Safe Yield is 131,000 AF. Final Report is schedule for end of April.

Restated Judgment Amendment – Ag Pool Pooling Plan - The Appropriative Pool agreed unanimously to file a response to Ag Pool's decision to update their Pooling Plan and Judgment with incomplete Peace Agreement language. The filing is meant to give clarity and understanding to the court.

Monte Vista Water District and the City of Ontario filed an opposition to the Ag Pool's amendment calling a "timeout" to discuss and understand.

~~All will be heard on the court date March 20, 2020 at 1:30pm [S35 Superior Court – 247 W. 3rd Street, San Bernardino]~~ Hearing deferred due to COVID19.

Optimum Basin Management Plan (OBMP)– Watermaster is proceeding with the OBMP update but the wish list can be expensive and not all parties agree with the implementation. The OBMP Notice of Preparation (NOP) / Initial Study (IS) was publicized by Inland Empire Utilities Agency (IEUA), the lead agency for CEQA, in early February. This issue is being heavily discussed and reviewed by the AP, as you can see from the GM's meeting schedule.

Six Basins –
AGM attended the Board meeting virtually on March 25th where the annual report was adopted. Our water transfer to the City of Pomona was also approved. The next meeting is scheduled for April 22nd.

Cucamonga Basin –
Due to the coronavirus, the working group canceled the meeting scheduled for April 7, 2020. The next meeting is scheduled for May 5th and it is most likely will be held virtually.

Agenda Date: April 21, 2020

Agenda Item No. 4H

Item Title: Projects and Operations Update

Purpose:
To update the Board and Shareholders on Company capital projects.

Updates:

1507 – Office Relocation
Project is on hold pending review of City facilities

1602 – Holly Drive Reservoir, Phase 1 & 2
Phase I was completed in 2019. Phase 2 plans and specifications are being finalized for public bidding. ~~Anticipate bid opening and award recommendation in April 2020~~. Project permit is under State review. Bidding pending State permit approval.

~~1701- Reservoir 7 Roof Repair~~
~~Project was completed in January 2020. Final invoicing and project close-out should be completed by end of March.~~

~~1807 – Campus Avenue Pipeline~~
~~The majority of the project was completed by January 2020. Awaiting pavement slurry seal. Final invoicing and project close-out should be completed by end of March.~~

1901 – Automated Meter Reading (AMR)
Staff continues to evaluate industry options.

1902 – Cucamonga Crosswalls Mitigation
First of five years of mitigation will occur Spring 2020. Contractor beginning work in April.

1904 – Geographical Information System (GIS)
First review of GIS completed. Staff is providing additional data for input. Field implementation and training should occur in Spring of 2020

1905 – 2020 Master Plan
Kick-off meeting held on April 14, 2020. Data gathering occurring.

2020 Capital Improvement Plan Projects
Seven projects included in the 2020 budget have been combined into one professional services proposal for design and construction management. Proposals up for review at tonight's meeting.

GROUNDWATER LEVELS
(feet below ground surface)

	2012				2013				2014				2015				2016				2017				2018				2019				2020			
CUCAMONGA BASIN	1qtr	2qtr	3qtr	4qtr	1qtr	2qtr	3qtr	4qtr	1qtr	2qtr	3qtr	4qtr	1qtr	2qtr	3qtr	4qtr	1qtr	2qtr	3qtr	4qtr	1qtr	2qtr	3qtr	4qtr	1qtr	2qtr	3qtr	4qtr	1qtr	2qtr	3qtr	4qtr	1qtr	2qtr	3qtr	4qtr
	-211	-192	-202	-195	-191	-199	-210.5	-213	-202	-230	-255	-238	-239	-239	-249	-259	-251	-251	-261	-280	-301	-296	-312	-298	-305	-313	-321	-324	-300	-299	-306	-308	-279			
	2012				2013				2014				2015				2016				2017				2018				2019				2020			
CHINO BASIN	1qtr	2qtr	3qtr	4qtr	1qtr	2qtr	3qtr	4qtr	1qtr	2qtr	3qtr	4qtr	1qtr	2qtr	3qtr	4qtr	1qtr	2qtr	3qtr	4qtr	1qtr	2qtr	3qtr	4qtr	1qtr	2qtr	3qtr	4qtr	1qtr	2qtr	3qtr	4qtr	1qtr	2qtr	3qtr	4qtr
	-309	-307	-341	-328	-368	-353	-341.3	-385	-357	-391	-409	-418	-423	-424	-427	-427	-430	-452	-462	-466	-451	-441	-441	-442	-450	-451	-468	-473	-458	-428	-396	-402	-396			
	2012				2013				2014				2015				2016				2017				2018				2019				2020			
SIX BASINS	1qtr	2qtr	3qtr	4qtr	1qtr	2qtr	3qtr	4qtr	1qtr	2qtr	3qtr	4qtr	1qtr	2qtr	3qtr	4qtr	1qtr	2qtr	3qtr	4qtr	1qtr	2qtr	3qtr	4qtr	1qtr	2qtr	3qtr	4qtr	1qtr	2qtr	3qtr	4qtr	1qtr	2qtr	3qtr	4qtr
Six Basins																																				
Well 26 & 27A & 25A	-282	-322	-358	-347	-380	-385	-448	-421	-477	-425	-439	-454	-450	-428	-459	-439	-467	-472	-528	-482	-447	-463	-547	-451	-525	-432	-506	-437	-337	-414	-439	-338	-380			
Well 28	-265	-268	-271	-273	-277	-278	-279.4	-280	-281	-280	-280		-277	-281	-282	-283	-283	-283	-284	-286	-283	-270	-270	-272	-267	-277	-281	-283	-228	-243	-257	-267				

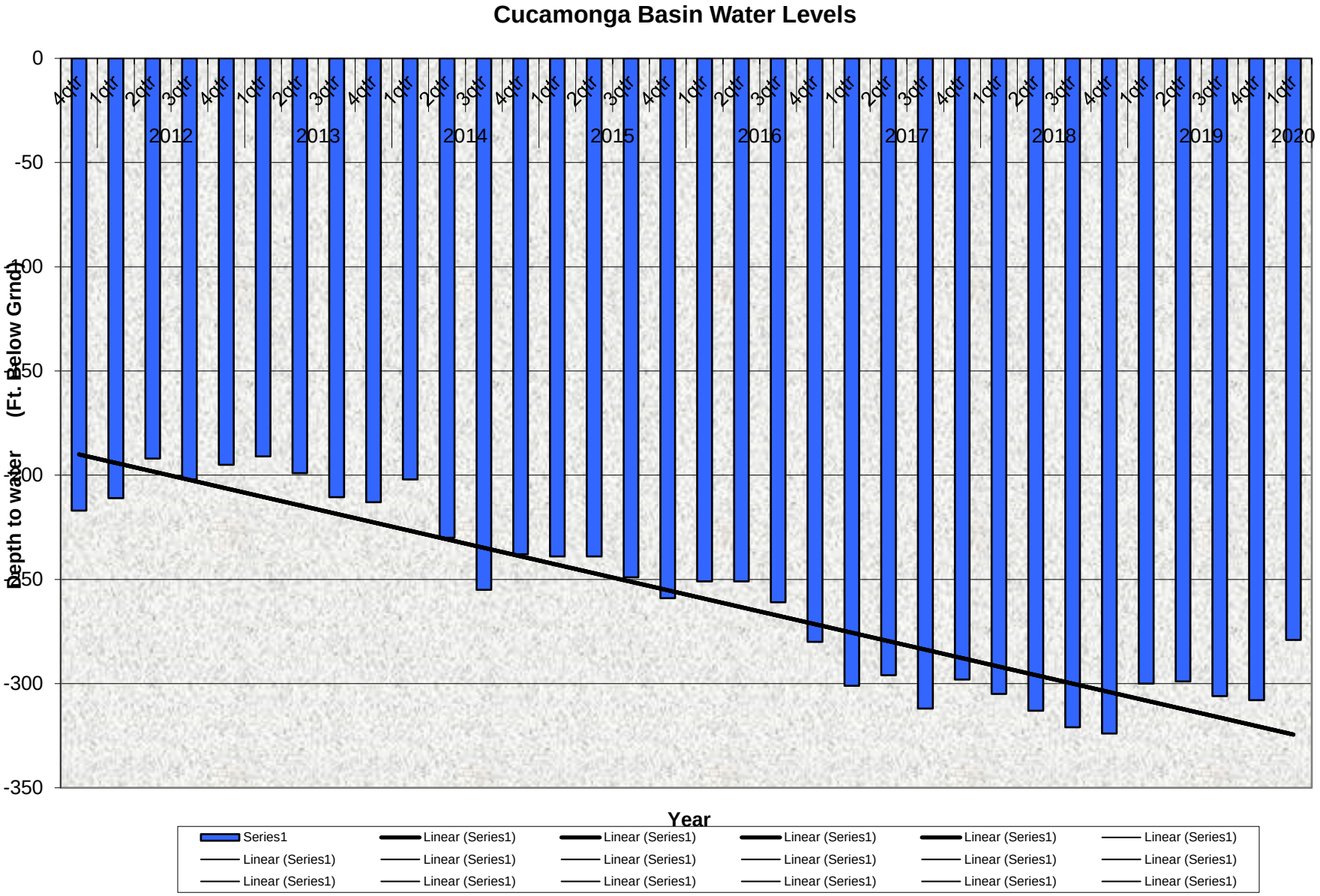
* six basin levels come from well 25A only, the other wells (26&27A) were not shut down during the third quarter 2017.

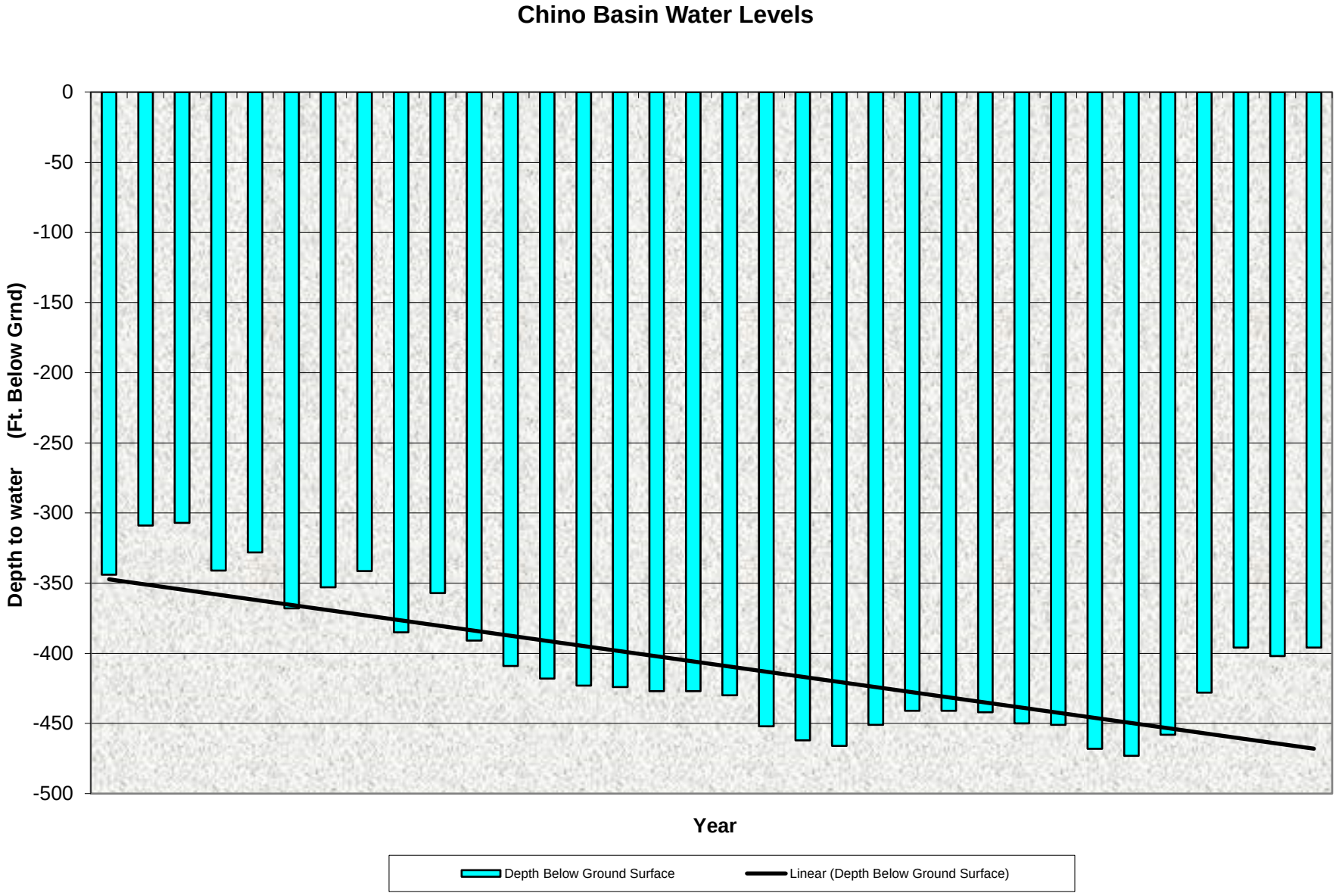
Static water levels for Cucamonga Basin wells 2, 3, 22, 24, 31, 32

Static water levels for Chino Basin wells 15, 16

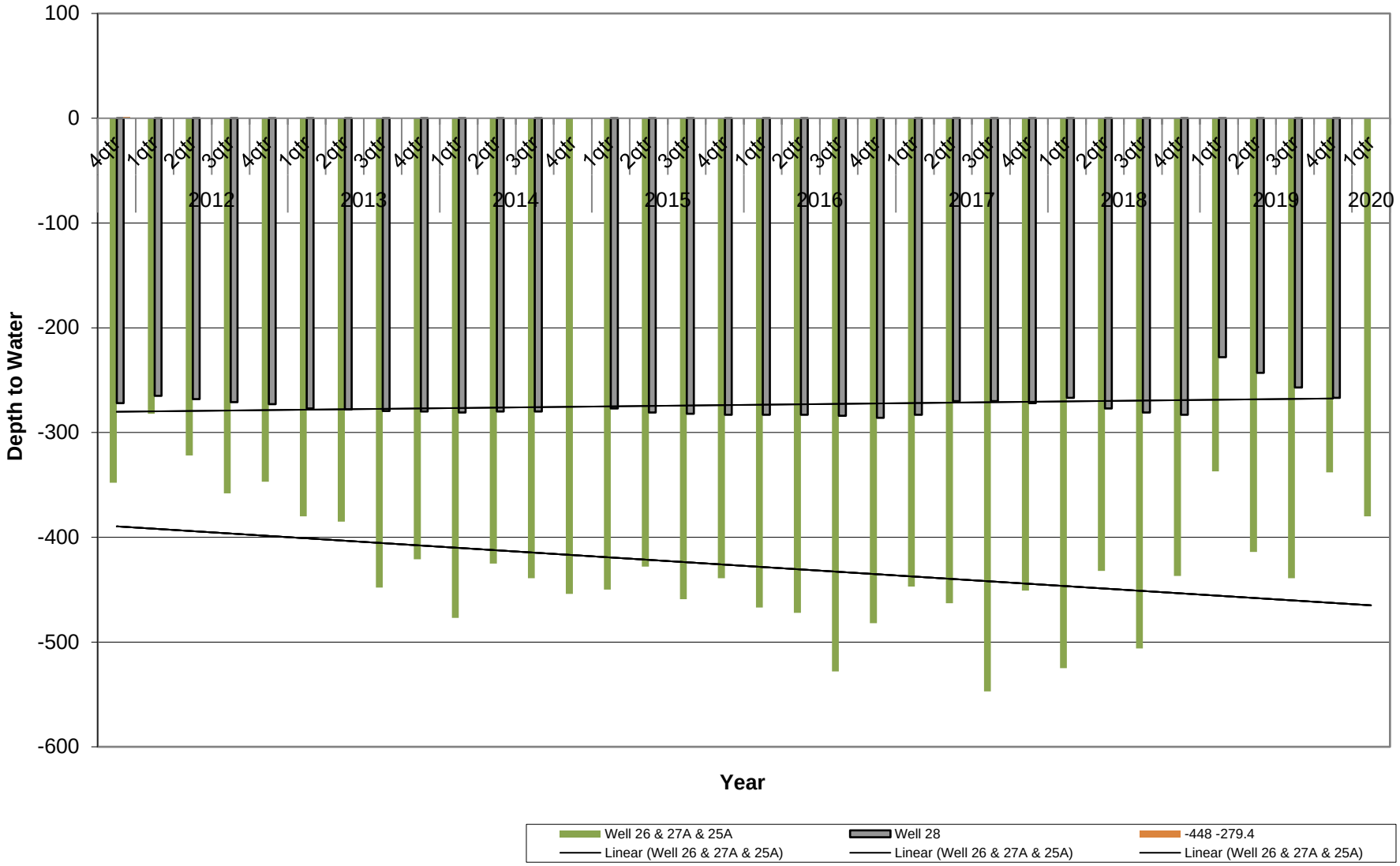
Staic water levels for 6 Basin wells 25a, 26 and 27a

Note* 10/11/2019 pumping levels for wells 26 and 27A 416'


Cucamonga Basin Water Levels
0
-50
-100
-150
-200
-250
-300
-350
Depth to water (Ft. Below Grnd)
4qtr
1qtr
2qtr
3qtr
2012
2013
2014
2015
2016
2017
2018
2019
2020
Year
Series1
Linear (Series1)


Chino Basin Water Levels
0
-50
-100
-150
-200
-250
-300
-350
-400
-450
-500
Depth to water (Ft. Below Grnd)
Year
Depth Below Ground Surface
Linear (Depth Below Ground Surface)

Six Basins


100
0
-100
-200
-300
-400
-500
-600
Depth to Water
4qtr
1qtr
2qtr
3qtr
2012
2013
2014
2015
2016
2017
2018
2019
2020
Year
Well 26 & 27A & 25A
Well 28
-448 -279.4
Linear (Well 26 & 27A & 25A)
Linear (Well 26 & 27A & 25A)
Linear (Well 26 & 27A & 25A)

SAN ANTONIO WATER COMPANY

BOARD OF DIRECTORS ORGANIZATIONAL MEETING MINUTES

Tuesday, April 7, 2020

Immediately following the Annual Meeting of Shareholders of the Company, the Board of Directors of the San Antonio Water Company (SAWCo) met at the Upland City Hall Council Chambers, 460 North Euclid Avenue, Upland, California at 6:10 p.m. Directors present were Tom Thomas, Will Elliott, Bob Cable, Jose Sanchez, Gino Filippi, Martha Goss, and Rudy Zuniga.

- Call to Order

1. Recognitions and Presentations: Mr. Lee recognized City of Upland staff for their efforts in getting SAWCo setup to broadcast the Annual Shareholder's Meeting as well as the Organizational Meeting.

2. Additions-Deletions to the Agenda: None.

3. Public Comments: None.

4. Organizational Activities:

Director Tom Thomas assigned the General Manager, Brian Lee, as temporary chairperson for election of officers.

Mr. Lee then sought nominations for the offices of President, Vice President, and Secretary/Chief Financial Officer that are up for election.

Director Elliott moved and Director Zuniga seconded to continue with Tom Thomas serving as President, Will Elliott serving as Vice President, and Jose Sanchez serving as Secretary/CFO. Motion carried unanimously.

The following is the result of the above motion:

A. President – Tom Thomas

B. Vice-President – Will Elliott

C. Secretary/Chief Financial Officer – Jose Sanchez

5. Designations and Authorities:

Director Thomas suggested voting for all designations and authorities under Item 5 together.

Director Elliott moved and Director Goss seconded to approve the recommendations for designations and authorities as presented. Motion carried unanimously.

A. Representative to the Six Basins Watermaster – Teri Layton (primary) and Tommy Hudspeth (alternate) as representatives to the Six Basins Watermaster.
B. Representative to Chino Basin Pool and Advisory Committees – Brian Lee (primary) and Teri Layton (alternate) as representatives to the Chino Basin Pool and Advisory Committees.
C. Representatives to Cucamonga Basin Management Committee – Teri Layton (primary) and Brian Lee (alternate) as representative to Cucamonga Basin Management Committee.

D. Representative to Pomona Valley Protective Association (PVPA) – Tom Thomas (primary) as representative to the PVPA.
E. Assistant Secretary/Assistant Financial Officer –General Manager, Brian Lee as Assistant Secretary/Assistant Financial Officer.
F. Representatives for the Administration and Finance Committee (AFC) – Director Sanchez, Director Cable, and Director Zuniga. Director Sanchez as chair of the committee.
G. Representatives for the Planning, Resources, and Operations Committee (PROC) – Director Filippi, Director Elliott, and Director Goss. Director Elliott as chair of the committee.
H. Company General Counsel –Tom McPeters, Esq.
I. Company Special Counsel – Fred Fudacz of the firm Nossaman LLP.
J. Company Auditor – Bowen, McBeth, Incorporated.
K. Company Depositories - That Citizens Business Bank, Local Agency Investment Funds (LAIF) and any other qualifying financial institution (FDIC insured) that conforms with the Company's Investment Policy is designated for and as a valid depository for Company funds;
L. Signatories for Company Checks, Withdrawals and Establishing Accounts – Any two (2) signatures, including that of the President, Vice President, Secretary/Chief Financial Officer, the General Manager or the Assistant General Manager are hereby authorized and required to sign checks, withdraw funds, and establish accounts on behalf of the Company with at least one Corporate Officer signing on any transaction greater than $5,000, except for fund transfers between Company accounts or on routine payments for operations expense (e.g. electrical energy usage, taxes, et al.) and as otherwise granted under authority to the General Manager. In addition, the Accounting and Personnel Clerk has authority to transfer up to $25,000 to facilitate payroll with provisions of internal accounting controls in place.;
M. General Manager's expenditure authority limitation is $50,000.
[Note: Prior to October 20, 1997, the general manager's expenditure authority was limited to $5,000. Due to the timely nature of certain repair needs, as well as the usual range of such costs, the Board acted to increase the expenditure authority limitation to $50,000. This was done with the understanding that such necessary expenditures would be reported to the Board in a timely manner].
N. General Manager's authorized to execute professional service agreements.
[Note: On November 19th and December 17th of 2001, the general manager was authorized to approve and execute professional service agreements once they had been reviewed and approved by corporate counsel and after the Board's review and approval of funding. No such action may be taken on any agreement or amendment to an agreement that would cause the expenditure to exceed any prior Board approved funding authorization.]

6. Review of Director's Fiduciary Duties and Liabilities: Due to Mr. Tom McPeters, esq. absence no review was provided.

7. Conflict of Interest Rules and AB54 Compliance for Directors: Ms. Mitchell advised Director Zuniga will be participating in an AB54 training in May. All other Directors have completed AB54 training.

8. Closed Session: None.

Adjournment: There being no further business the meeting was adjourned at 6:17 p.m.

_____
Assistant Secretary

Agenda Item No. 6A

Item Title: Workers Compensation Insurance

Purpose:

Annual renewal for workers' compensation insurance is due by May 1, 2020. California's system of workers' compensation is compulsory, meaning that employers are required to provide workers' compensation insurance for their employees.

Issue:

We received a quote from Cal Mutual JPRIMA via The Zenith, a Fairfax Insurance Company for review and recommendation.

Manager's Recommendation:

That the Board approve the automatic renewal of our Workers' Compensation with Cal-Mutual JPRIMA The Zenith, a Fairfax Insurance Company for 5/1/2020 to 5/1/2021 at an annual premium of $13,297.

Background:

In 2017, the Board approved changing the Company's Workers' compensation insurance to Cal- Mutual JPRIMA via The Zenith, a Fairfax Insurance Company.

The renewal for 5/01/2020 to 5/01/2021 is attached to this report. The base rates have decreased from prior year. Zenith has calculated an ExMod of 81% for this year which is slightly down from 84% last year.

See comparison below.

Workers Compensation
San Antonio Water Company

		5/01/2019 to 5/01/2020 Cal Mutual JPRIMA The Zenith, a Fairfax Insurance Company			5/01/2020 to 5/01/2021 Cal Mutual JPRIMA The Zenith, a Fairfax Insurance Company		
State/Class Code	**Description**	**Estimated Payroll**	**Base Rate**	**Net Rate**	**Estimated Payroll**	**Base Rate**	**Net Rate**
CA 7520	Waterworks Ops	$381,565	4.32	3.32	$373,504	4.31	3.07
CA 8742	Salespersons-Outside	$343,547	0.61	0.47	$358,069	0.53	0.38
CA 8810	Clerical – NOC	$186,379	0.46	0.35	$179,446	0.38	0.27
	Experience Modification Factor	84%			81%		
	Total Payroll	$911,492			$911,020		
	ESTIMATED ANNUAL PREMIUM	$14,319			$13,297		

The proposal from CalMutuals JPRIMA (Joint Powers Risk Insurance Management Authority) provides a 3 year program for water systems. Although, the program is for 3 years, it has an “off ramp” for those to opt out if premiums increase 15%.

Impact on the Budget:
Staff budgeted $16,000 for this year. [Savings of $2,703 due to decrease in premium]

Previous Actions:
None.

SAN ANTONIO WATER COMPANY

Workers' Compensation Insurance Proposal

Effective

5/01/2020 to 5/01/2021

Presented by:
David McNeil, ARM
Principal
909.919.7508
david.mcneil@epicbrokers.com

Shelly Birdzell
Account Manager
909.919.7904
shelly.birdzell@epicbrokers.com

License OB29370

3633 Inland Empire Blvd, Suite 600, Ontario, CA 91764
Telephone 909.919.7880 ~ Facsimile 888.789.5971 ~ www.epicbrokers.com

Premium Does Not Include State Taxes and Fees

SAN ANTONIO WATER COMPANY

Workers Compensation Comparison

		05/01/2019 to 05/01/2020 Cal Mutual JPRIMA The Zenith, a Fairfax Insurance Company			05/01/2020 to 05/01/2021 Cal Mutual JPRIMA The Zenith, a Fairfax Insurance Company		
State/Class Code	**Description**	**Estimated Payroll**	**Base Rate**	**Net Rate**	**Estimated Payroll**	**Base Rate**	**Net Rate**
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	Experience Modification Factor	84%			81%		
	Total Payroll	$911,492			$911,020		
ESTIMATED ANNUAL PREMIUM		**$14,319**			**$13,297**		

EPIC Insurance Brokers & Consultants

CALIFORNIA ASSOCIATION OF MUTUAL WATER COMPANIES
JOINT POWERS RISK AND INSURANCE MANAGEMENT AUTHORITY (JPRIMA)

WORKERS' COMPENSATION QUOTATION

PROPOSAL: J134325503	BROKER CONTACT: Mia Garza
DATE PREPARED: 03/12/2020	PRODUCER CODE: 093482A 21.0
MEMBER: SAN ANTONIO WATER COMPANY 139 N Euclid Ave Upland, CA 91786-6036	
REINSURER: Zenith Insurance Company 21255 Califa Street Woodland Hills, CA 91367 (100% Risk Bearer)	INSURANCE ADMINISTRATOR: ALLIED PUBLIC RISK, LLC 11452 EL CAMINO SUITE 250 SAN DIEGO, CA 92130 National Producer Number: 3537131

JPRIMA and Zenith Insurance Company ... a partnership of service, alignment and member advocacy...

The California Association of Mutual Water Companies Joint Powers Risk and Insurance Management Authority (JPRIMA) was established as a result of California's legislature passing AB 656 in September 2015. This legislation was initiated by CalMutuals, Valley (Central) Ag Water Coalition, California Firefighters' Association, and scores of mutual water companies as well as independent insurance agencies. It allows mutual water companies to participate alongside water-related special districts in a joint powers authority for purposes of insurance and supporting services. Technical resources and augmented advisory assistance are a critical component of this legislation and our JPRIMA. As a public agency, we are committed to providing quality insurance products that blend competitive rates with meaningful value-added services and impeccable financial security.

Our reinsurance partner, which bears all the risk, is Zenith Insurance Company. They are an indirect, wholly-owned subsidiary of Fairfax Financial Holdings Limited and have been a specialist in workers' compensation for over sixty years. Zenith has built a reputation as an industry leader through its superior customer service and continuous underwriting innovation. These attributes have created one of the largest, oldest, and most stable workers' compensation carriers in California. Zenith is committed to workplace safety and health, quality medical care, managing claim costs, returning employees to work, and fighting fraud and abuse. In June 2015, A.M. Best Company affirmed their financial strength rating of A (Excellent). For the latest rating, please access www.ambest.com. Zenith proudly distributes its products through its network of appointed insurance agents and brokers.

This quote contains a 5.0% multi-policy discount.

CALIFORNIA ASSOCIATION OF MUTUAL WATER COMPANIES
JOINT POWERS RISK AND INSURANCE MANAGEMENT AUTHORITY (JPRIMA)

Issued By

Allied Public Risk, LLC
Insurance Administrator
Attn: Mia Garza, JPRIMA Supervisor
mgarza@alliedpublicrisk.com
Telephone: 830-837-4369

This proposal is good until 05/01/2020 12:01 a.m. and is subject to the terms and conditions of the memorandum of coverage (MOC) for which this proposal is given, including any special conditions and/or exclusions that may apply. This proposal does not constitute an insurance policy, and is based on information given to us by your insurance agent or broker. Please verify the information contained in this proposal and read the Proposal Disclaimer carefully.

Policy Period:	05/01/2020 at 12:01 a.m. to 05/01/2021 at 12:01 a.m.
Group Membership:	JPRIMA

Estimated Manual Premium Calculation

Workers' compensation premium reflects the unique nature of a business. The price varies based on the amount of payroll a business has and the types of jobs its employees perform. Please review the following information carefully. Errors in classification and payroll estimates can lead to under-payments that can result in additional premium billings, or over-payments, which can affect a business' working capital.

COVERAGE							
State	From Through	Class Code	Description	Est. Payroll	No.of Employees FT/PT	Manual Rate	Est. Manual Premium
CA	05/01/20 05/01/21	7520-0	WATER COMPANIES--ALL EMPLOYEES--INCLUDING CONSTRUCTION OR EXTENSION OF LINES.	373,504	5/0	4.31	16,098
CA	05/01/20 05/01/21	8742-0	SALESPERSONS--OUTSIDE.	358,069	2/0	0.53	1,898
CA	05/01/20 05/01/21	8810-0	CLERICAL OFFICE EMPLOYEES--N.O.C.	179,446	2/2	0.38	682

Adjustments and Calculation Details

05/01/20 to 05/01/21

State Manual Premium		$18,678
Modified Premium	(81.00%)	$-3,549
Employers Liability Limits 1,000,000 Per Accident / 1,000,000 Per Disease / 1,000,000 Policy Limit	(.00%)	$0
Risk Adjustment	(-6.00%)	$-908
Premium Discount	(-6.50%)	$-924
Total Estimated Policy Premium		$13,297

Selected Payment Plan

Selected Payment Option: Billing Type: Frequency: Deposit Premium: This remaining premium will be paid in 8 installments of $1,413	Installment Plan Direct Bill Monthly $1,995 / 15%
You will be billed directly by Zenith Insurance Company on behalf of JPRIMA.	

NOTICES AND DISCLAIMERS

PROPOSAL DISCLAIMER: This proposal is subject to the information provided by you and/or the insurance agent, verification of this information and the applicable rates and underwriting guidelines applicable at the time. All proposals are for illustration purposes only; the actual premiums and coverage will be based on certain underwriting criteria, manuals, rates, rating plans and classifications. We reserve the right to change our manuals and apply the changes to the policy if authorized by law or a governmental agency regulating this insurance. The premium calculation details shown are estimates. The final premium will be determined after the policy ends by using the actual, not the estimated, premium basis and the proper classifications and rates that lawfully apply to the business and work covered by the policy. If the final premium is more than the premium you paid to us, you must pay us the balance. If the final premium is less, we will refund the balance to you. The final premium will not be less than the highest minimum premium for the classifications covered by this policy. You may be subject to a cancellation penalty in the event you cancel the policy prior to the policy expiration date. In the event any provision of this proposal and any provision of the policy, including endorsements, if any, are inconsistent or conflicting, the inconsistent or conflicting provision of the policy shall control.

NOTICE OF MEDICAL PROVIDER NETWORK/PANEL: Our medical management team maintains a comprehensive medical provider network or panel depending on the region, that includes a full range of health care providers, primary, and specialty care physicians, as well as hospitals and associated services. The health care service providers in our network have been selected based on their geographic location, specialty and credentials. All workers' compensation medical treatment provided under the policy will be administered by appropriately credentialed providers according to nationally accepted evidence-based treatment guidelines.

Your EPIC Account Team & Contact Information

David McNeil, ARM

Principal
909.919.7508
david.mcneil@epicbrokers.com
Overall Account Management

Shelly Birdzell

Senior Account Manager
909.919.7904
shelly.birdzell@epicbrokers.com
Daily Account Management

Marie Engstrom, CPCU

Claims Consultant
Property & Casualty
949.417.9118
marie.engstrom@epicbrokers.com

Max Rodriguez, WCCA, SIA

Claims Analyst
Workers Compensation
909.919.7502
max.rodriguez@epicbrokers.com

Dan Ryan, CIC

Managing Principal
909.919.7517
dan.ryan@epicbrokers.com
Overall Client Satisfaction

Certificate Requests

shelly.birdzell@epicbrokers.com
Fax: 888.789.5971
909.919.7904

Margaret Thorsen

Surety Bonds
626.583.2439
Fax 626.577.8940

General Contact Information

Main Number 909.919.7880
Fax Number.....888.789.5971
P&C Claims 949.417.9118
WC Claims.....909.919.7502
Private Client.....415.356.3940
Employee Benefits.....949.417.9176

We Are EPIC

As a full service brokerage, EPIC provides you with a wide array of risk management, commercial insurance, personal insurance & employee benefits products and services

EPIC is a premier Independent Insurance Brokerage firm with expertise in the development, coordination and marketing of insurance portfolios. We already are one of the top insurance brokers in the United States of America with premium volume in excess of $200 million.

Our client base is loyal and diversified which provides us with opportunities to trouble shoot the most complex of issues facing clients. We believe this experience makes us invaluable to our clients. Your challenges become our opportunities to prove our value to you. Our philosophy is "The client always comes first". We accomplish this through action as we do not have the corporate edits or bureaucracy many of our competitor's must endure.

With EPIC Partner's acquisition of Calco, we not only remain flexible and hands-on, we have $100 million in financial and corporate backing to provide the resources our clients need. EPIC's backing will enable our clients to have the best of both worlds! We believe this is an unbeatable combination.

The principals of EPIC each bring over 25 years of industry experience working with clients like Salesforce, Yahoo, Peoplesoft and Sanmina, to name a few. Our expansion will continue in California with a focus on Employee Benefits, Business Insurance, Technology, Wind & Energy, Construction and other specialized industry segments. Plans are in place to open several new locations including San Francisco and the East Bay, along with explosive growth in Sacramento and Southern California.

Commercial Insurance

Property, Casualty, Auto, Environmental, Directors and Officers, Employment Practices Liability, Professional Liability, Excess, Workers' Compensation, Crime, K&R, Fiduciary, Marine, Multinational, Warranty/Recall, Patent Infringement, Internet & Cyber Liability, and more …

Emphasis in particular Industry segments: Technology, Construction, Wind & Energy, Real Estate and more …

Employee Benefits

Toll free HELP Line, On-line Human Resource Services, Health & Benefits Fairs, 5500 Filing Signature Ready, Compliance Audit, COBRA Compliance Audit, Employee Communications Materials, Multinational Benefits, Benefits Management, 125 Plans, ERISA & HIPAA Compliance, Industry Surveys and more ….

Medical, Dental, Vision, Key Man Life, Executive Benefits, STD/LTD, Life/AD&D, Flex Spending Accounts, Long-term Care, 401K, Cobra Administration, EAP and more …

Private Client

Provides personalized coverage and service to protect personal assets such as Homes of any value, standard and unique Automobiles, Excess Liability (Umbrella) for that extra level of protection, Watercraft from Yachts to Sailboats, Personal Articles such as Jewelry, Fine Arts, Wine Protection Review, and more …

EPIC's Service Commitment

EPIC will provide you with the following services:

- Return all telephone calls within 24 hours.
- Issue Certificates of Insurance on a 24-hour turnaround or same day if received before 3:00 PM (as needed).
- Process requests for insurance program changes promptly.
- Track the status of all open claims.
- Review estimated payrolls and receipts.
- Review coverages with you as needed or at least.
- Present renewal insurance program in a timely manner.
- Keep you up-to-date about important insurance industry developments throughout the year.

When to Notify EPIC

It is very important that we are informed whenever a significant change in your operation takes place.

We should be notified promptly of any change, such as:

- Additional locations, new construction/projects
- Change in property values
- Change of ownership
- Sudden changes in sales/income/payroll
- Change in hazards (increase or decrease)
- Change in security or protection
- Change in product line
- New contractual obligations
- Change of vehicles/drivers
- Change of operation
- Change in shipment
- Leased, rented and borrowed equipment

The above are listed *as examples* of situations we should be made aware of; there are many others as well. If any questions arise, please call us.

EPIC's Claims Advocacy

Claim reporting is simple!

Choose the most convenient method to report your claim:

- **Telephone:** Call 909.919.7880
- **Fax:** Complete your paperwork and fax it to us at 888.789.5971

- **Internet:** Property & Casualty Claims and questions
  Email marie.engstrom@epicbrokers.com
  Direct Line 949.417.6118

- **Internet:** Workers Compensation Claims and questions
  Email max.rodriguez@epicbrokers.com
  Direct Line 909.919.7502

Your EPIC Claims Team…second to none.

We have highly effective Claims Advocacy and Specialists with extensive depth and breadth. They have held positions with insurance carriers, insurance brokers and managing general agents representing reinsurance carriers. This experience provides our clients with broad-based claims expertise in multiple areas of insurance. Because of this diversity they are successful in communicating with all parties including claims adjusters, attorneys and you.

Our dedicated team responds to all of your Commercial Insurance claims needs including:

- Assisting you with reporting of Property & Casualty claims
- Providing you with Workers' Compensation claims reviews & advocacy
- Acting as liaison between you and the insurance carrier
- Reviewing summons and complaints prior to insurance carrier submission

April 21, 2020

Agenda Item 6B

Item Title: Conservation Programs Update

Purpose:

Update on the Company's existing water conservation programs

I. Local Assistance in meeting Best Management Practices

*Conservation rebates: (**Fiscal year 2019-2020**) – **As of 3/10/2020***

Residential Rebate Programs-(Fiscal year) thru Metropolitan Water Dist.	*Devices/ Rebates*	*Est. gallons saved/ device/year*	*Total est. gallons saved per year**	*BMP*
High Efficiency Clothes Washers	0	*11,243*		*3*
Rotating Nozzles	0			
Weather Based Irrigation Controllers	0	*105,917*		
High Efficiency Toilets (premium)	0	*13,851*		*3*
Rain Barrels	0	*619*		
Turf Removal	0			
Residential Program thru Chino Basin Water Conservation District				
Landscape Audit	1	*3485*	*3485*	*3*
Total Savings for calendar year – thru 3/10/2020			***3485***	

Funding is limited and rebates issued on first come, first served basis.

II. SAWCo Efforts in meeting Best Management Practices as of 3/10/2020

SAWCo Programs-(2020)	*Total Budget: $30,000*	*Devices/Rebates*	*Est. gallons saved per device per year*	*Total est. gallons saved per year*	*BMP*
Toilet Direct Installation for SAWCO customers	*$10,000*		***15,600***		*1.2*
SAWCo Wholesale Agencies Assistance-Toilet Direct installation	*$20,000 Cost to date: $2,210*	***8***	***15,600***	***124,800***	
TOTAL		***8***		***124,800***	*1.1.3*

Action: The Leak Detection Program utilizing American Leak Detection's services is no longer available. Management has dropped the Leak Detection Program at this time.

BMP 1.1.2 Water waste prevention:
On 12/17/2019, the board approved the reduction from the "Moderate Shortage Stage" to the "Year Round Stage" which includes the following:

- No Outdoor Watering between 10 am and 6 pm
- Handheld hose with nozzle required when washing automobiles
- No washing off driveways, sidewalks, or walkways
- Repair leaks within 72 hours of discovery
- No Excessive water run-off or unreasonable spray of areas being watered

Agenda Item No. 6C

Item Title: Request for Proposals, Professional Design & Project Management for Capital Projects

Purpose:

Discussion and Possible Action Regarding Possible Award Contract for Professional Design & Project Management Services for 2020 Capital Improvement Projects.

Issue:

Discuss and possibly authorize the General Manager to negotiate and execute a contract for design services for the 2020 CIP Program.

Manager's Recommendation:

Authorize the General Manager to negotiate and execute a contract for design services for the 2020 CIP Program.

Background:

The Company has an aggressive Capital Improvement Program scheduled for 2020. A Request for Proposals was sent to 11 design firms in late February (attached). The Company received six proposals (attached). Proposed design fees ranged from $271,835 to $432,150. All proposing firms appear very capable and staff would gladly work with any of them.

2020 CIP Proposals		
	Firm	Proposed Fee
1	IEC	$ 271,835
2	TKE	$ 295,200
3	ERSC	$ 325,656
4	Civiltech	$ 327,000
5	WSC	$ 352,516
6	KWC	$ 432,150

The PROC has had an opportunity to review and comment on the received proposals without knowledge of the proposed fees, submitting their top three firms. The one firm that consistently appeared in in the top three was Civiltech.

Civiltech has worked with the Company on prior projects and provided good professional services.

Civiltech's proposed professional services fee was $327,000 for all seven projects. Civiltech's proposal separated all projects into their own schedule and costs. Staff would like to negotiate with Civiltech to bring estimated professional service fees down by combining select projects into larger bid packages.

Impact on the Budget:

Time and Material professional services contract not to exceed $327,000. Professional services budget for the seven projects was $240,000, roughly 20% of total estimated construction cost.

Previous Actions:

Seven Projects included in the 2020 Budget for $1,380,000 total cost.

San Antonio Water Company
Incorporated October 25, 1882
Serving the original Ontario Colony lands

A REQUEST FOR PROPOSALS

TO PROVIDE CONSULTING SERVICES TO THE SAN ANTONIO WATER COMPANY

PROJECT TITLE:

PROFESSIONAL DESIGN AND PROJECT MANAGEMENT SERVICES FOR MULTIPLE CAPITAL FACILITY PROJECTS

RESPONSE DUE BEFORE 3:00 PM

ON March 20, 2020

139 North Euclid Avenue ● Upland, California 91786 ● 909.982.4107 ● Fax 909.920.3047 ● Website: sawaterco.com

Introduction

The San Antonio Water Company is soliciting proposals from qualified firms to assist in the design and construction of multiple capital facility projects for the 2020 calendar year.

The Company has seven pipeline replacement projects with a combined budget of $1.38M scheduled for the 2020 calendar year:

Project	Priority
• Reservoir 9 Pipeline Replacement ($488k budget)	1
• Frankish Tunnel Pipeline Repair and Meter Install ($50k budget)	2
• Cliff near Euclid Crescent and Cliff ($280k budget)	3
• Glendale Road between Mountain and Park ($42K Budget)	4
• Linda, North of 24th ($134k budget)	5
• Primrose, North of 25th ($105k budget)	6
• Viewpoint, Canyon View to Campus ($276k budget)	7

Each project is more-fully described on its attached budgetary project sheet. The Company anticipates bidding each project separately at the time that project's design is completed. At Consultant's recommendation, the Company will consider combining select projects for bidding to achieve expediency or value. A key consideration of award will be the consultant's ability to multitask design commitment and complete the projects in a timely fashion. Company will require a commitment from consultant to work expediently toward having all projects under individual construction contracts by December 31, 2020.

The Company proposes to retain a single consultant to design replacement pipelines for the above projects, as well as construction management services, including bidding support and construction inspection. Lacking sufficient staff bandwidth, the Company is expecting 'cradle to grave' consulting services for the above project. Consultant's Proposal shall include all seven projects. Individual project proposals will not be considered.

All distribution and transmission mains shall be designed in accordance with CA-DDW Waterworks Standards. All material, appurtenances, installation and testing procedures shall comply with ASTM and/or AWWA standards, as well as the Company's water system construction standards.

General Company Information

In 1882 Canadians George and William Chaffey purchased 8,000-acres of the Cucamonga Rancho, including the water rights, and established an irrigation colony which they named Ontario, in honor of their homeland. On October 25, 1882 they also established the San Antonio Water Company under the General Corporation Laws of the United States. Rancheria water rights established way back in the 1700's transferred to the Company in support of the newly

established irrigation colony. The brother's vision was to develop a Mutual Water Company whose members shared equally in the locally available water supply.

The brothers sold irrigation colony land in 10-acre blocks, primarily intended for the booming citrus industry. Along with the land, the brothers sold shares in the Company, one share for each purchased acre. Each shareholder was entitled to a portion of available local water, distributed equally by the company amongst all the shareholders. The Company was responsible for distributing water on a non-profit basis to the shareholders.

Since 1882 the San Antonio Water Company has consistently provided water service to its shareholders. Although the local citrus industry has largely disappeared, the Company maintains delivery to current shareholders utilizing the same successful 'per share' distribution plan established over 135 years ago.

The Company does not import any water. Instead we are dependent on our local San Antonio Canyon and Cucamonga Canyon watersheds and downstream groundwater basins.

Currently, our shareholders include most residents of the unincorporated area of San Antonio Heights, the Cities of Upland and Ontario, the Monte Vista Water District, local quarries and the proud heritage of remaining grove irrigators.

The Company provides water through two separate systems; domestic and irrigation.

The domestic system receives the majority of its water through the San Antonio tunnel. The tunnel is built into the head of the San Antonio Canyon about 90 feet below the ground surface. The tunnel consists of 5,400 feet of 36" concrete pipe and 600 feet of a six-foot square shaft built into the bedrock below the alluvium. Portions of the shaft are supported by redwood beams. There are ten access hatches spaced about 600 feet apart. Groundwater percolating through the alluvium collects in the tunnel and, after chlorination, is channeled into the Company's potable water system. Two wells supply the remainder of our domestic supply. Domestic water is distributed by six booster pump stations through 25 miles of pipeline to five reservoirs.

The domestic water system provides service to the San Antonio Heights, also known as our Basic Service Area. Consisting primarily of large residential lots, the Heights is an unincorporated area of San Bernardino County approximately 2.6 square miles in size located immediately north of the City of Upland. The Company provides water to individual residential lots through 1,200 domestic meters.

The irrigation system primarily receives water from surface water diversions in the San Antonio Canyon. Additional irrigation water is supplied through seven wells located in three groundwater basins; Cucamonga Basin, Six Basins and Chino Basin. Irrigation water is distributed by three booster pump stations through 21 miles of pipeline to four reservoirs.

The irrigation system provides service to the Company's 'extended' service area. Shareholders in the extended service area include municipal and private companies. A majority of the distributed irrigation water is treated by municipal shareholders and then delivered to their customers as

domestic water. The remaining irrigation water is used for farming, landscaping and commercial use (quarry).

Project Scope of Services

Task 1 – Project Management

Provide overall project management services including:

- Preparing a proposed schedule for each project and an overall schedule for entirety of consultant's work related to this contract.
- Teleconferences and meetings at appropriate intervals to keep Company staff updated on progress and address any needed management level decisions.
- Quality assurance/ quality control
- Present recommendations for Company selection regarding material selection, scheduling, etc.

Task 2 – Preliminary Design Phase for each project

- Prepare preliminary design phase documents consisting of final design criteria, preliminary drawings, outline specifications and preliminary cost estimate.
- Provide necessary field surveys, topographic and utility mapping for design purposes. Utility mapping will be based upon information obtained by consultant from utility owners and field locates.
- Furnish one review copy of the preliminary design phase documents and any other deliverables to Company
- Review and revise preliminary design phase documents based on Company comments.

Task 3 – Environmental Phase for each project

- Review each project and make a recommendation to Company for appropriate CEQA requirements. Because they are pipeline replacements within disturbed roadways, Company anticipates 'categorical exemptions' for all projects.
- Prepare appropriate CEQA documentation and filings as necessary.

Task 4 – Final Design Phase for each project

- Prepare final drawings, specifications and cost estimate indicating the scope, extent and character of the work to be performed and furnished by Contractor. Consultant will field locate, as necessary, existing utilities to determine crossing and connection points.
- As an agent of Company, consultant shall obtain permits or approvals from appropriate governmental authorities having jurisdiction to review or approve the final design of the project. Traffic control and pavement restoration is overseen by either County of San Bernardino or City of Upland, depending on each individual project location.

- Represent the Company in consultations with such authorities and revise the drawings and specification in response to directives from said authorities.
- Prepare and furnish bidding documents (plans, specifications and estimate) for review by the Company, its legal counsel and regulatory agencies.
- After revising the bidding documents in accordance with comments and instructions from Company, Consultant shall provide one reproducible copy and one electronic copy of all documents in their native format (Word, AutoCAD, etc.), as well as one full document set copy in Adobe Acrobat PDF format.

Task 5 – Bidding Phase for each project

- Coordinate advertising and obtaining bids for the work and maintain a record of prospective bidders to whom project documents have been issued.
- Coordinate any pre-bid conferences.
- Respond to Contractor's Prebid Request for Information (RFI) through appropriate bidding addenda as necessary to correct, clarify or change the bidding documents.
- Coordinate bid opening and review bids for acceptability of prime contractor, subcontractors, supplies and other individuals and entities proposed by prospective contractors.
- Review and advise the Company on the acceptability of substitute materials and equipment proposed by contractor during the bidding or negotiating phase.
- Prepare a bid evaluation sheet showing each bidder and their respective line item bids, along with a total proposed bid price for each bidder.
- Advise Company regarding which bidder was the 'lowest responsible bidder'.
- After Company Board awards contract the Consultant shall coordinate construction contract execution and assemble construction contract documents.

Task 6 – Construction Phase for each project

- Provide appropriate field oversight (inspection services) of construction activity to ensure contractor's compliance with contract and permits.
- Provide appropriate material testing, including soil compaction testing, to ensure contractor's compliance with contract and permits.
- Issue necessary clarifications and interpretations of the contract documents as appropriate to the orderly completion of contractor's work.
- Review and organize any shop drawings, samples and other information which contractor is required to submit to ensure conformance with contract documents and compatibility with design.
- Respond to Contractor Requests for Information (RFI) through appropriate addenda as necessary to correct, clarify or change the contract documents.
- Coordinate progress payments with contractor and forward a recommendation to Company for processing, along with appropriate contractor paperwork.
- At the appropriate completion of work, Consultant shall prepare necessary paperwork to close out project

Proposal Schedule

The Company anticipates the following timeline and key milestones for award of the project:

Proposal Due Date	**March 20, 2020**
Board Award - @ special meeting	March 31, 2020
Consultant's Notification	April 1, 2020

Proposal Requirements

The proposal shall not exceed 12 pages excluding resumes, cover letter, dividers, front and back covers. No other documents will be reviewed. Please do not submit additional material. Responses to this RFP shall be in the following order and shall include:

Executive Summary (1 page maximum)

Summarize the contents of your firm's proposal in a clear and concise manner.

Firm Background and Experience (2 pages maximum)

Brief description of the firm and subconsultants, if any, including the size of the organization, location of offices and relevant capabilities and resources in relation to the project. This section should include:

I. Experience with domestic water system design and construction services
II. Similar projects with other water companies or districts
III. Firm's local experience
IV. Procedures and/or policies associated with or related to work quality and cost control
V. Management and organizational capabilities
VI. Verification of professional liability insurance for coverage of not less than $1,000,000.

Project Organization and Experience of the Project Team (2 pages maximum, not including resumes)

Proposing firm shall identify the team to be assigned to the project, by name, including at a minimum the principal, project manager, key staff and any subconsultants. Proposing firm shall describe the project team's qualifications and experience on projects related to this specific project. Proposing firm shall explain the project team's experience regarding all tasks associated with the scope of work. This section should include:

I. Describe proposed project organization, including identification and responsibilities of key personnel, including sub-consultants. Include only one-page resumes.
II. Describe the experience of the Project Manager and the experience that the proposed personnel have working on past projects as a team.
III. Describe project management approach to the work effort, locations where work will be done, responsibilities for coordination with the Company, and lines of communication necessary to maintain project on schedule.

Project Understanding and Approach (4 pages maximum)

Proposer shall demonstrate its preliminary understanding of the project by providing a clear and concise description of the project and major issues, based on the information provided in this RFP.

Proposer shall clearly define the tasks and activities necessary to meet the objectives outlined in the scope of work of Task III. This section should include:

I. A statement committing the necessary resources to work expediently toward having all projects under construction contract by December 31, 2020.
II. Description of the tasks and activities, the methodology that will be used to accomplish them.
III. Description of the products that would result from each task and activity.
IV. Identification of points of input and review with Company staff.
V. Proposed project schedule identifying key tasks, their expected duration, and milestone dates. Schedule shall consider individual project priority and Company's desire to get each project bid and constructed as soon as possible.
VI. Proposers are invited to suggest additional (optional) work tasks that could be performed in conjunction with or subsequent to the scope of work. Any such tasks are to be described as optional and the benefits of performing such tasks shall be described.

Past Projects (3 pages maximum)

Proposer shall provide project descriptions of up to three similar projects. Include the following information:

I. Owner contact name and phone number
II. Project team members
III. Project size and description

Proposed Total Professional Fee and Fee Schedule Submitted Under Separate Sealed Cover

Proposed fee shall not be the sole basis of award but will be used to evaluate the Consultant's understanding of the Scope of Work.

Include the hourly rates of all staff that will charge to the project.

Fee schedule shall show design and construction effort broken down by specific capital project (7 projects total), then combined into a total proposed fee. Company expects to award a 'time and material, not to exceed' contract.

Exceptions to this RFP

The Consultant shall certify that it takes no exceptions to this RFP including, but not limited to, the Consultant Services Agreement (attached).

Evaluation Criteria

The evaluation criteria and the respective weights that will be given to each criterion are as follows:

a) 25% Understanding and approach to the work to be done
b) 25% Experience of firm with similar kinds of work
c) 20% Experience of staff for work to be done
d) 10% Overall clarity and presentation of Proposal
e) 5% Firm's Local Experience
f) 15% Proposed Project Fee

Selection Process and Schedule

The Company will enter into negotiations with the top ranked firm. At this time, the Company contemplates the use of a Time and Material Not to Exceed contract for the services requested. Negotiations will cover scope of work, contract terms and conditions, attendance requirements, and appropriateness of the proposed fee.

After negotiating a proposed agreement that is fair and reasonable the General Manager will present the contract to the Company's Board for authorization to execute a contract with the most responsive firm.

Related Documents

- Seven Budgetary Project Sheets (attached)
- Company standard Professional Service Agreement (attached)

Submittal Requirements

One (1) executed original marked "ORIGINAL" in red ink and 6 copies of the Proposal shall be submitted. One single sealed Proposed Fee Estimate marked "FEE ESTIMATE – 2020 CIP" in red ink shall be submitted separate from the proposal. Emailed proposals will not be accepted. Submit one electronic copy of the proposal in PDF format. The Response shall be signed by an individual, partner, officer or officers authorized to execute legal documents on behalf of the Firm.

The Response Proposal must be received no later than **3:00 p.m.** local time, on or before **March 20th, 2020** at the office of:

PROPOSAL – 2020 CIP
San Antonio Canyon Water Company
139 North Euclid Avenue
Upland, CA 91786
Attn: Brian Lee

Failure to comply with the requirements of this RFP may result in disqualification. Questions regarding this RFP shall be submitted in writing to blee@sawaterco.com.

Project Title: **Reservoir 9 Pipeline Replacement**
Total Budget: **$488,000**
Engineering: $80,000
Construction: $408,000

Schedule:
Design: April – July 2020
Construction: October – December 2020

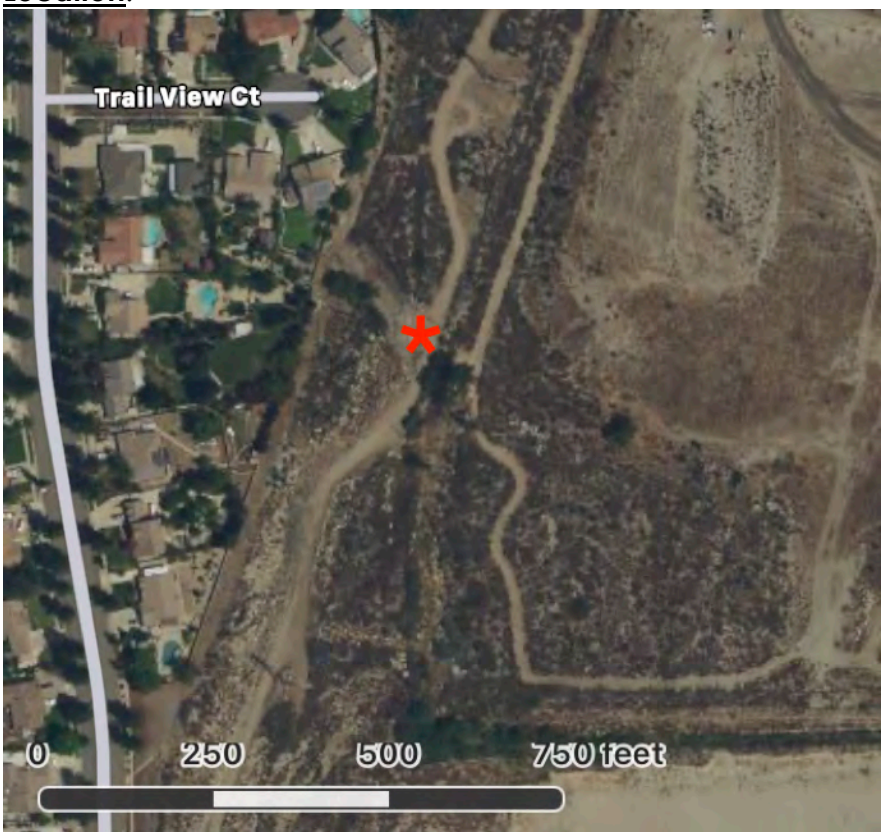
Location:

Justification:
Replace pipeline on 25th Street and along backside of Burt Street homes to Reservoir #9. Abandon pipeline installed in backyard along Electric Avenue and Newman Street. The 24" concrete pipeline was installed before 1976 and has exceeded its useful life. Identified by staff as a high maintenance root-bound pipeline.

Project Title: **Frankish Tunnel Pipeline Repair and Meter Install**
Total Budget: **$50,000**
Engineering: $10,000
Construction: $40,000

Schedule:
Design: June – July 2020
Construction: September – October 2020

Location:



Justification: The metering arrangement at the Frankish Tunnel outflow is not set to the appropriate hydraulic grade and the Company is unable to meter all waterflow from the tunnel. Additionally, this location is a transfer point for spread water from the forebay into Basin 6A. To improve metering and accounting for all available water, staff would like to upgrade the tunnel outfall and install an additional meter.

Project Title: **Cliff near Euclid Crescent and Cliff**
Total Budget: **$280,000**
Engineering: $56,000
Construction: $224,000

Schedule:
Engineering: January – March 2020
Bidding: March-April 2020
Construction: May – August 2020

Location:

Justification: Upgrade small diameter pipeline in Cliff Road, from 25th Street to Euclid Crescent. Install new laterals to five homes on Cliff Drive, connecting them to the new upper zone pipeline. The existing FH does not meet available fire flow. Pipeline has exceeded its useful life. Identified in the 2017 Master Plan as a medium priority project.

Project Title: **Glendale Road between Mountain and Park**
Total Budget: **$42,000**
Engineering: $8,000
Construction: $34,000

Schedule:
Engineering: January - March 2020
Construction: June – July 2020

Location:

Justification: There are currently two pipelines in Glendale Road; an old 2" and a new 6". This project abandons the small diameter pipeline between Mountain Avenue and Park Boulevard. Connect existing 3 service laterals to existing 6" pipeline. Identified in the 2017 Master Plan as a high priority project.

Project Title: **Linda, North of 24th**
Total Budget: **$134,000**
Engineering: $22,000
Construction: $112,000

Schedule:
Engineering: March-May 2020
Bidding: May-June 2020
Construction: August-November 2020

Location:

Justification: Replace pipeline on Linda Lane, north of W 24th Street and Lamplighter Lane, west of Sierra Drive. Abandon pipeline located in backyards between Linda and Lamplighter. Install flushing hydrants at end of Linda and Lamplighter. The existing pipeline was installed before 1976 and has exceeded its useful life. Identified in the 2017 Master Plan as a low priority project.

Project Title: **Primrose, north of 25th**
Total Budget: **$105,000**
Engineering: $18,000
Construction: $87,000

Schedule:
Engineering: February - March 2020
Bidding: District Forces
Construction: May 2020

Location:

Justification: Replace pipeline on Primrose Lane, north of West 25th Street. The pipeline was installed before 1976 and has exceed its useful life. Also will relocate one service lateral from a backyard run into Mountain Avenue. Identified in the 2017 Master Plan as a low priority project.

Project Title: **Irrigation Pipeline Viewpoint, Canyon View Ave to Campus Ave**
Total Budget: **$276,000**
Engineering: $46,000
Construction: $230,000

Schedule:
Engineering: January - April 2020
Construction: July – September 2020

Location:

Justification:
Replace pipeline on Viewpoint St. between Canyon View Ave and Campus Ave. The pipeline was installed before 1976 and has exceeded its useful life. Identified by operations staff as a high maintenance pipeline.

PROFESSIONAL SERVICES AGREEMENT
BETWEEN
SAN ANTONIO WATER COMPANY
AND
X

THIS AGREEMENT ("Agreement") is made this X day of X, 2020, by and between San Antonio Water Company, a California Corporation, located in Upland, California, hereafter referred to as ("Client") and X, a California Corporation, located in X, California, hereafter referred to as ("Consultant"). This Agreement consists of the following terms and conditions, all exhibits and attachments, and any written and approved modifications hereto.

RECITALS

Whereas, Client requires professional engineering services to design and construct various capital improvement projects, and

Whereas, Client and Consultant desire to enter into a contract for the provision of professional engineering services subject to the terms and conditions of this Agreement.

Now therefore, in consideration of the promises and covenants hereinafter set forth, the parties hereto mutually agree as follows:

1. Scope of Services:

The scope of services to be provided by Consultant is as described in and attached hereto as Attachment "A" and entitled "Scope of Services." The scope of services defines the specific work to be performed and the resulting work product(s) to be delivered. The corresponding schedule for performance of the work will be presented at the initial "kick off" meeting.

During the term of this Agreement, Client may request subsequent and related engineering services at its discretion. Such services to be performed by Consultant shall be stated in a separate "Letter of Authorization" setting forth the specific work to be performed, the resulting work product(s) to be delivered, the corresponding schedule for performance of the work, the compensation terms for the work to be performed, and signed by Client and Consultant. The provisions of this Agreement shall be incorporated into the Letter of Authorization by specific reference.

2. Professional Services Charges:

Client agrees to pay for services provided by Consultant each month, as charges accrue and applicable invoices are received, in accordance with the Consultant's current schedule of hourly rates, as defined in and attached hereto as Attachment "B." Charges shall not exceed $X for the services and deliverables referenced in Attachment "A" or any subsequent and related Letter of Authorization without prior written approval by the Client and written concurrence by the Consultant. For other services, which may be requested by Client, compensation to Consultant shall be as mutually negotiated in writing between both parties and set forth in a Letter of Authorization. The Consultant's current schedule of hourly rates would be the basis for negotiating such compensation. Any changes to the Consultant's schedule of hourly rates must be submitted to

Client in written form prior to any negotiation for services to be billed at rate(s) other than those shown on Attachment "B".

3. Independent Contractor Status:

In performing its services under this Agreement, Consultant is an independent contractor to the Client. No other relationship exists between Consultant and Client. Consultant and Client also agree that Client has no contractual relationship with any Sub-Consultants who are engaged solely by Consultant to perform supporting services and who shall be in all respects the responsibility of Consultant.

4. Standard of Care:

Consultant's services shall be conducted, within the limits prescribed by this Agreement, in a manner consistent with that level of care and skill ordinarily exercised by members of the same professions currently practicing under similar conditions within the surrounding regional area of the State. No other guarantee, warranty, or representation, either express or implied, is included or intended herein or in proposals, contracts or reports. Client agrees to provide Consultant prompt written notice of any defect or suspected defect in its services.

5. Delays:

Neither the Client nor Consultant shall be liable for delays in or failures to perform services caused by circumstances beyond their reasonable control, including, but not limited to, acts of God, acts and/or omissions by federal, state and local government authorities and regulatory agencies, strikes, riots, civil unrest, war, lockouts, and accidents. For delays in providing services hereunder, resulting from actions or in actions of Client or third parties, Consultant may be given an appropriate time extension and may be compensated for those delay related costs of labor, equipment and other direct costs incurred by Consultant and clearly caused by circumstances beyond Consultant's control.

Client acknowledges that delays related to processing of properly and fully completed permit applications, the subsequent approval of permits or required reviews by governmental agencies are beyond the direct control of Consultant. However, Consultant agrees to diligently pursue any such required reviews and approvals for any item(s) of work within Consultant's scope of services, but makes no warranties and Client waives any claims against Consultant relating to the timeliness or the success of approvals of permit applications or required agency reviews which are properly and fully prepared and pursued under this Agreement.

6. Breach of Agreement:

If the Consultant defaults in the performance of any of the terms or conditions of this Agreement, It shall have ten (10) calendar days after receipt of written notice of such default in which to cure the default by rendering a satisfactory performance. If Consultant fails to cure the default within the specified time, the Client shall have the right, notwithstanding any other provision of this Agreement, to terminate this Agreement without further notice and without prejudice to any other remedy to which it may be entitled.

7. Termination/Suspension of Services:

Either party may terminate or suspend this Agreement at any time upon fifteen- (15) calendar day's written notice. Upon termination or suspension, the Client shall compensate Consultant for all authorized services performed up to the date of termination or suspension. Said compensation shall include payment for completed tasks and payment of applicable hourly rates as indicated in Attachment "B" for all uncompleted tasks. Payment will be made within thirty calendar days of receipt of an invoice for all authorized services performed and all expenses directly attributable

thereto, including, but not limited to, any previously acknowledged cancellation charges by Sub-Consultants and/or contractors, if any. In the event that the period of Client initiated suspension exceeds one hundred and eighty-two calendar days; the Consultant's fee shall be equitably adjusted by mutual agreement prior to the resumption of services.

8. Notice:

Any notice or instrument required to be given or delivered by this Agreement may be given or delivered by depositing same in any United States Post Office, registered or certified, postage prepaid, addressed to:

San Antonio Water Company	X
139 No. Euclid Avenue	X
Upland, CA. 91786	X
(909) 982-4107 // Fax (909) 920-3047	X

9. Ownership of Documents:

Unless expressly agreed otherwise, Client is the owner of all final documents, including, but not limited to, reports, investigations, written analysis, plans and specifications and opinions of cost generated by Consultant within the scope of services. Consultant is the owner of all other documents, including, but not limited to, all proposals, draft documents and other written communications generated within the scope of services. Consultant may retain copies of all final documents owned by Client. However, any reuse of the final documents by the Client for other than their specific intended purpose shall be at the sole risk of the Client and without liability or legal exposure to the Consultant.

Except as provided in Section 10, "Confidentiality", Consultant agrees that all project documents shall not be made available to any individual or organization, private or public, without the prior written consent of the Client.

10. Confidentiality:

Consultant and Client shall hold confidential all business or technical information obtained from the other or its affiliates under this Agreement and shall not disclose such information without the other's written consent except to the extent required for (1) performance of services under this Agreement; (2) compliance with professional standards of conduct for preservation of the public safety, health and welfare; (3) compliance with any court order or other legitimate governmental directive; and/or (4) protection of the disclosing party against claims or liabilities arising from performance of services under this Agreement. The parties' obligations hereunder shall not apply to information in the public domain or information lawfully acquired on a non-confidential basis from others.

11. Insurance:

Consultant agrees to maintain Comprehensive General Liability, Automobile Liability plus Errors and Omissions policies against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the services hereunder by the Consultant, its officers, employees, agents, invitees and subcontractors. An insurer admitted to conduct business in the State with an A.M. Best & Co. rating of at least B+7 must issue these policies. Insurance endorsements shall be furnished to the Client within seven (7) days following the execution of this Agreement by both parties. Notwithstanding any inconsistent statement in the policy or any subsequent endorsement attached thereto, the protection offered by the Liability policy shall name the Client, its officers, directors, employees, and agents as additionally insured.

The Consultant shall maintain the following limits of liability:

- General Liability: $1,000,000 per occurrence for bodily injury, personal injury, and property damage.
- Automobile Liability: $1,000,000 per accident for bodily injury and property damage.
- Errors and Omissions: $ 1,000,000 in the aggregate.

The Client, its officers, directors, employees and agents shall not be responsible for any claims in law or equity occasioned by failure of the Consultant to comply with Section 3700 of the State Labor Code. By execution of this Agreement, the Consultant certifies to the following:

> "I am aware of and will comply with Section 3700 of the State Labor Code which requires every qualifying employer to be insured against liability of Workers' Compensation or to undertake self-insurance before commencing any services hereunder."

For any claims related to this Agreement, the Consultant's insurance coverage, as evidenced by an endorsement to its policy, shall be primary insurance as respects the Client, its officers, directors, employees, and agents. Any insurance or self-insurance maintained by the Client, its officers, directors, employees, and agents shall be excess of the Consultant's insurance.

All such insurance shall bear an endorsement or shall have attached a rider whereby it is provided that, in the event of expiration or proposed cancellation of such policy, the Client shall be notified by registered mail, postage prepaid, return receipt requested, not less than thirty (30) calendar days before expiration or cancellation is to become effective.

12. Limitation of Liability:

A. Neither the Client nor Consultant shall be liable for indirect or consequential damages, incurred by either or by their subsidiaries or successors except as stated in Section 13A, applicable to Consultant.

B. In addition to the limitations provided in Section 12A and notwithstanding any other provision herein, Consultant's liability shall be limited to bodily injury/death, property damage and economic loss (hereinafter collectively referred to as "Loss") caused by the negligence of Consultant, its officers, employees, agents, invitees, and subcontractors hereunder.

13. Indemnity:

A. Consultant agrees to indemnify, and hold harmless Client, its officers, directors, employees and agents, to the fullest extent permitted by law from and against any and all actual or alleged loss, cost, damage, expense and liability (including reasonable attorneys' fees and other costs of defense and/or settlement), for bodily injury/death, property damage and economic loss arising from the negligent acts, errors or omissions or the willful misconduct of Consultant, its officers, employees, agents, invitees or subcontractors in the performance of services rendered under this Agreement.

B. Client agrees to indemnify and hold harmless Consultant, its officers, employees, agents, invitees, and subcontractors to the fullest extent permitted by law from and against any and all actual or alleged loss, cost, damage, expense and liability (including reasonable attorneys' fees and other costs of defense and/or settlement), for bodily injury/death, property damage and economic loss arising from the negligent acts, errors or omissions or the willful misconduct of Client, its officers,

directors, employees, and agents, contractors or subcontractors in matters relative to this Agreement.

14. Right of Entry and Property Responsibility:

Client shall grant, or cause to be granted at Client's expense, free access to any property upon which services are to be performed. The Client shall notify the owners and possessors of such property, whether they are lawfully or unlawfully in possession, that Client has granted Consultant free access to such property. Client shall secure permission and any permits necessary to allow Consultant free access to such property at no charge to Consultant unless otherwise specifically agreed to in writing.

Consultant shall be responsible for its own activities at the property including the safety of its employees, subcontractors, agents and invitees, but shall not assume control of or responsibility for the property.

15. Severability:

Any provisions of this Agreement held in violation of any law or ordinance shall be deemed stricken and all remaining provisions shall continue valid and binding upon the parties. Client and Consultant shall attempt, in good faith, to replace any invalid or unenforceable provisions of this Agreement with provisions which are valid and enforceable, and which come as close as possible to expressing the intention of the original provisions.

16. Assignments and Third-Party Beneficiaries:

This Agreement and all of the terms, conditions, and provisions hereof shall inure to the benefit of and be binding upon the parties hereto, and their respective successors and assigns; provided, however, that no assignment of this Agreement shall be made without written consent of the parties to this Agreement. Any attempt by Consultant to assign or otherwise transfer any interest in this Agreement without the prior written consent of the Client shall be void.

This Agreement shall not create any rights or benefits in any person or entity other than Client and Consultant, nor is it intended to create any third-party beneficiaries to it.

17. Governing Law and Remedies:

Unless otherwise provided, this Agreement shall be performed and construed under the laws of the State of California without regard to that State's conflict of laws provision. In the event of any claim, dispute or other matter in question between the parties, Client and Consultant agree to submit the matter to binding arbitration in accordance with the then-existing rules of the American Arbitration Association. Arbitration shall be held in westerly San Bernardino County, California unless otherwise agreed to by the parties hereto. Before the invocation of such arbitration, or promptly after the invocation of such arbitration, if such invocation is reasonably needed to protect either party against the running of a statute of limitations or similar defense, the parties shall meet to discuss, in good faith, the possible resolution of the matter without formal proceeding. Either party may ask for the use of non-binding mediation with a third party or other alternative dispute resolution procedures, which shall be pursued in good faith until either party determines them to be unlikely to produce a resolution.

18. Attorneys' Fees:

In the event of mediation, arbitration or litigation between Client and Consultant arising out of the Agreement, each party shall be entitled to all reasonable costs and attorneys' fees to the extent that party prevails.

The signatories to this Agreement represent that they have the authority to execute this Agreement on behalf of the parties first named above.

San Antonio Water Company:	X:
_____	_____
Brian C. Lee General Manager/CEO	X Principal in Charge
_____	_____
Date	Date

San Antonio Water Company
Since 1882

Proposal for Professional Design and Project Management Services for Multiple Capital Facility Projects

Submitted By: Civiltec Engineering, Inc.

March 20, 2020

CIVILTEC engineering inc.

CIVILTEC
engineering inc.

Civil, Water, Wastewater, Drainage, Transportation and
Electrical/Controls Engineering ● Construction Management ● Surveying
California ● Arizona

San Antonio Water Company
139 North Euclid Avenue
Upland, CA 91786

March 23, 2020

Attention: Brian Lee, General Manager

Subject: Proposal for Professional Design and Project Management Services for Multiple Capital Facility Projects

Dear Mr. Lee:

San Antonio Water Company (Company) is seeking design and construction services for seven capital improvement projects: four pipeline replacement projects, two pipeline abandonments, and Frankish Tunnel modification. These pipelines have reached the end of their useful lives and will be replaced. The projects will be cradle to grave, which includes research, design, bidding support, construction management, and construction observation services.

In the last 5+ years, ***Civiltec Engineering, Inc. (Civiltec***) has planned, designed and/or replaced more than 400,000 feet of pipelines, working primarily with water agencies and public entities throughout Southern California. Our team brings a diverse knowledge of planning and design of various pipeline sizes, system reliability issues, constructability reviews and value engineering. We understand water engineering activities, water system planning and water system evaluations for municipal, district and private water purveyors.

Our firm has a 14+ year collaborative history with the Company and possesses an in-depth understanding of your water system. ***Civiltec*** completed the Company's most recent Water Master Plan and the 2015 Urban Water Management Plan Update. Several of these projects were identified in the Water Master Plan for replacement. We understand that time is of the essence and that all projects need to be under contract for construction by December 31, 2020. We pride ourselves on our ability to meet tight deadlines and will work closely with you to ensure we meet your needs.

We are confident that we are the right firm for this project and extremely excited to continue serving your community. Feel free to contact me or Project Manager, Greg Ripperger, PE at 626.357.0588 or by email at dbyrum@civiltec.com / gripperger@civiltec.com with any comments or questions.

Sincerely,

W. David Byrum, PE
President, Principal Engineer

TABLE OF CONTENTS

ATTACHMENTS

EXECUTIVE SUMMARY

Civiltec enjoys developing strong working relationships with our clients. In fact, 80% of our work is from repeat clients. Designing various sizes of pipeline, as well as water main replacements and improvements, is a cornerstone of our company. ***Civiltec*** has performed more than 150 pipeline projects throughout the last 10 years. As such, we look forward to continuing working with the Company and providing quality value engineering services.

Our professionals are energized by the commitment to provide you with innovative, consistent, superior engineering and cost-effective solutions. Our team produces plans, specifications and estimates (PS&E) reports and documents by communicating and troubleshooting early to identify and avoid fatal flaws, construction problems and/or delays in the field. Our management style provides a hands-on approach to ensure decisions are made quickly and projects are delivered timely within budget. We have extensive experience in delivering projects on a tight timeline, having delivered full design in less than one month, and the project in construction shortly after, by combining projects into sensible bid packages for the contractor.

Civiltec promotes a thorough decision-making process based on the consensus of ideas and information from the entire project team. This helps to ensure that sound and intelligent recommendations and solutions are reached so the project has the best chance for success. Knowledge and communication are what we believe to be the foundation for successful problem avoidance and, sound decisive problem resolution.

Designing water mains and replacing aging infrastructure is what we do! Our team is committed to innovative, high-quality infrastructure and will provide field work and design that maintains the quality of life your residents expect. This project will be led by Greg Ripperger, PE and supported by W. David Byrum, PE, Terry Kerger, PE and Gretel Nhac, EIT. This team has approximately 100 years of combined experience and has worked together for more than 5 years. We have ample resources to complete this project on time and on budget. Our personnel are highly trained in all aspects of water main design and improvements and we maintain an extensive QA/QC process. There are very few water distribution problems that we have not encountered throughout our 33+ years in business.

We also understand the importance of utility research, communication and robust design to minimize change orders and construction time frames. We will use our pipeline design experience and expertise to foresee potential issues and address them early in the design phase. This will include utility coordination and thorough records research; providing extensive detail in the drawings to ensure the contractor understands the intent; providing plan drawings to minimize utility conflicts; and performing continuous reviews to ensure all aspects of design can be easily constructed. We are certain that we will be able to complete projects within expected timelines with high-quality service.

Our in-house survey team combines advanced technology with traditional techniques to provide solid data and measurements with expertise. We have extensive experience completing surveys for public infrastructure projects and will provide well-identified site characteristics and accurate measurements to deliver high-quality design.

FIRM BACKGROUND & EXPERIENCE

Established in 1986 on the principles of innovative thinking and premier quality, ***Civiltec*** has 9 registered civil engineers, 1 registered electrical engineer, 4 registered land surveyors, 2 certified floodplain managers (CFM), 7 engineers-in-training (EIT) and support staff that includes project managers, designers, CADD technicians, surveyors and administrative personnel in three office locations: Monrovia, California (headquarters) and Peoria and Prescott, Arizona. We are not too big; we can and will be there when needed in an efficient and affordable fashion. We are not too small; we will provide you with the depth needed to guarantee quality service with adherence to your project schedule.

Designing water main replacements and improvements is what we do! We have designed pipelines from 6- to 42-inches throughout Southern California. A large portion of this experience comes from serving as district/city utility engineer or through on-call/annual service type contracts. The consistent renewal of these contracts is proof of our dedication to quality, timely projects and customer service and satisfaction.

QA/QC

Civiltec's project manager is responsible for the oversight, management and implementation of the QA/QC process. All documents, including but not limited to, reports, drawings, sketches, specifications, technical provisions, calculations, etc., are subject to internal QA/QC. Design inputs, such as applicable municipal, county, state and federal codes and standards, contract documents and other applicable quality and technical requirements are reviewed for applicability and incorporated, as needed.

Local Experience

Client	Total Length (ft)	Size Designed	Original Size
California American Water	10,400	8", 14" & 8"	14", 12", 8" & 4"
City of La Verne	15,000	8", 10", 12", 16 & 20"	4", 6", 8"
Golden State Water Company	150,000	8" & 6"	8" & 6"
Los Angeles County Public Works	6,900	6"	4"
Liberty Utilities	12,000	6", 8" & 12"	4", 6", 8" & 10"
City of Pomona	20,000	12" & 6"	12" & 6"
La Habra Heights County Water Dist.	9,059	20", 16", 14", 8" & 6"	4"
Rowland Water District	16,140	24" & 12"	N/A
Three Valleys Municipal Water Dist.	6,080	42", 24" & 12"	N/A
Valley County Water District	27,075	16", 12", 10" & 8"	8", 6" & 4"

Insurance

Civiltec maintains one million dollars ($1,000,000) combined single limit personal injury and property damage insurance with a five million-dollar ($5,000,000) umbrella which names the client as additionally insured and professional liability insurance in the amount of five million dollars ($5,000,000) which provides coverage for any damages or losses suffered by the client as a result of any error, omission, or neglect by our company. We also maintain worker's compensation insurance in compliance with state law and automobile liability insurance in the amount of one million dollars ($1,000,000).

Civiltec Service Areas

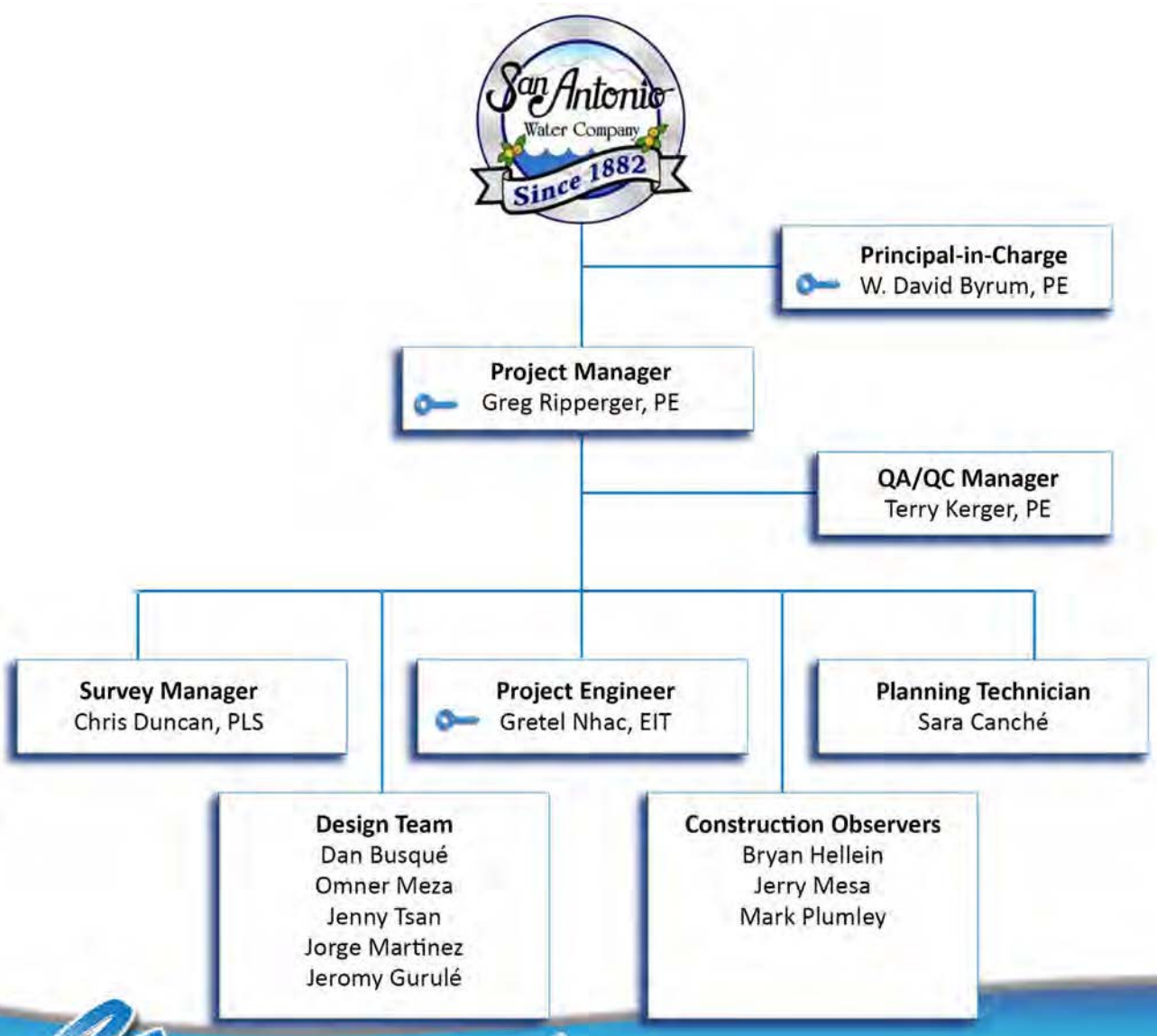
- Water Engineering
- Wastewater Engineering
- Electrical/Controls Engineering
- Drainage Engineering
- Transportation Engineering
- General Civil Engineering
- Land Surveying/Mapping
- Construction Management

Project Organization & Experience of the Project Team

Personnel in our Monrovia office are experienced surveyors, public works engineers, construction managers and qualified observation staff with combined 345+ years of technical experience. All work assigned to us will be managed out of this office. **Key staff proposed will not be reassigned or replaced without your prior written authorization.** ***Civiltec*** is committed to building the right team for each project, tailored to your specific needs.

We use state-of-the-art computer technology to assist in project design and communication, including AutoCAD with Civil 3D, various technical engineering and survey programs, and the latest versions of Microsoft Office, Microsoft Project and Adobe Creative Cloud.

An organizational chart of our proposed team is shown below followed by key team members' qualifications. Key team members' resumes are included in Attachment A.



Additional Engineering Team Members

Additional staff will be assigned to the project as needed. Our project engineers and designers have combined 173+ years of experience. Administrative staff has combined 50+ years of experience producing reports, specifications and graphics utilizing the latest version of Microsoft Office and Adobe Creative Cloud. There is tremendous flexibility in our team organization to allow for primary team members and backups.

Project Management Approach

Civiltec follows a simple four-part philosophy to promote the timely and effective completion of all projects; (1) we do our homework, (2) we listen, (3) we commit the best technical and personnel resources at our disposal, and (4) we communicate. This philosophy minimizes the need for amendments to contracts and/or change orders. The process starts with development of the project understanding and continues with informative communication throughout the project. Only with a complete understanding of your goals, the project requirements, potential utility conflicts and stakeholder/ other agency requirements and concerns can we prepare what we believe will be the most efficient, economical and practical work plan. We then design an approach with the best available technical expertise and resources to satisfy all the goals and bring the project to a timely and successful completion.

UNDERSTANDING & APPROACH

Project Understanding

Reservoir 9 Pipeline Replacement

The existing surface water pipeline from 25th Street to Reservoir No. 9 is deteriorating and has been damaged by large tree roots and old age. The section of existing pipeline between 25th Street and W. Newman Street runs across private property between residential homes. The section of existing pipeline between Burt Street and Reservoir No. 9 runs along the property line between two residential properties. The pipe material deterioration and root intrusion make this pipeline a potential hazard to the adjacent properties if any significant leakage should occur. This pipeline replacement project will construct a new pipeline from 25th Street to Reservoir No. 9.

There are several potential alignments for the replacement pipeline within existing public street right-of-way and existing or new right-of-way. The preferred alignment would be to place the replacement pipeline in public right-of-way as much as possible. Some sections of the replacement pipeline will require alignment in the existing right-of-way or newly acquired right-of-way within the existing undeveloped San Bernardino County property.

Critical Issue – Crossing Private Property

The construction of the replacement pipeline could be in or adjacent to the backyards/side yards of several residents. This requires coordinating directly with the adjacent residents as well, as the owners of the undeveloped land adjacent to the homeowners, for easements and permitting. This could be difficult and result in additional time and expense if the easements don't exist.

Since Reservoir 9 is behind several homes, it will still be necessary to analyze a route for the pipeline to go between the reservoir and Burt Street. The pipeline could potentially be in the existing easement between Reservoir 9 and Burt Street. An alternate to this alignment would be to align the pipeline west from Reservoir 9 to the undeveloped County property and run the relocated pipeline in the undeveloped County property north to 25th Street.

Frankish Tunnel

This project would include a field investigation of the current operations of the Frankish Tunnel discharge piping configuration, hydraulic grades and flow metering facilities. Currently the discharge piping and meter provide some increased hydraulic head on the Frankish Tunnel collection box. High tunnel water flows overflow the collection box and bypass the surface water discharge flow meter. The surface water discharge meter needs to measure all the water that discharges to recharge basins. Additional separate metering facilities are required to measure surface water flows from the system forebay source when operations require surface water from the forebay source to be released for spreading at this location. Independent metering of the recharge water releases at this location are required.

Critical Issue – System Understanding

Currently, the Frankish Tunnel spread water discharge piping can be valved to measure the release from the Frankish Tunnel or the system forebay source. The existing piping configuration requires separate accounting of each source release measured though the single meter. Separate meters are required to facilitate accurate accounting of the source spread.

Cliff Road Pipeline

As identified in the Master Plan, the existing 4-inch lower zone pipeline in Euclid Crest between Prospect Drive and Cliff Road is recommended for replacement. The hydrant on Cliff Road near Cypress does not meet fire flow. This project will replace the existing 4-inch pipeline from Prospect Drive to Cliff Road, reconnect the existing fire hydrant to the upper zone 12-inch pipeline, and transfer 5 residential services on Cliff Road to the existing upper zone 12-inch pipeline. The upper zone service area has adequate service pressure and flow to meet the fire flow requirements for this location and increase the residential service pressure. Service pressure regulators may be required on the five transferred services.

Glendale Road Pipeline

As identified in the Master Plan, the old 2-inch pipe in Glendale Road between Mountain Avenue and Park Boulevard is aged and insufficient in providing flow or pressure to customers. This project will replace the service laterals to reconnect three existing customer services to the existing 6-inch water main. The existing 2-inch main line will be abandoned in place. The existing 2-inch blow off and 2-inch valve will be removed.

Linda Lane to Lamplighter Lane Pipeline

As identified in the Master Plan, there is a cross-country pipe that connects the dead ends of Linda Lane and Lamplighter Lane. The pipeline has exceeded its useful life and is not essential for water circulation in the system. This project will abandon the section of cross-country pipeline between the west end of Lamplighter Lane and the east end of Linda Lane. New blow off assemblies will be installed at the end of both streets.

Primrose Lane Pipeline

As identified in the Master Plan, the high zone pipeline in Primrose Lane has exceeded its useful life. This project will construct a new replacement pipeline. Existing services and fire hydrants will be connected to the new pipeline. Any existing services that can not be connected to the new pipeline will be reconnected between the customers residence and the high zone pipeline in Mountain Avenue.

Critical Pipeline Issues – Alignment Selection

The streets in this portion of the service area are narrow residential streets with sewer lines and other utilities. As a result, it could be challenging to find an alignment that allows for the required water line separation from existing utilities for constructability purposes as well as standard traffic control during construction. All utility as-builts will be obtained so the proposed pipeline alignment considers both utility and separation concerns from existing utilities. Instances may

Figure 3: Case 2 New Water Main Parallel Construction *No Scale*

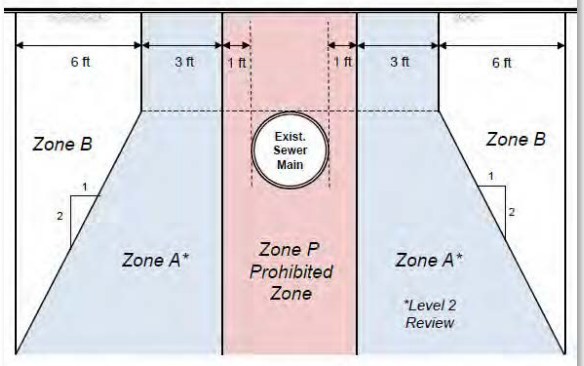
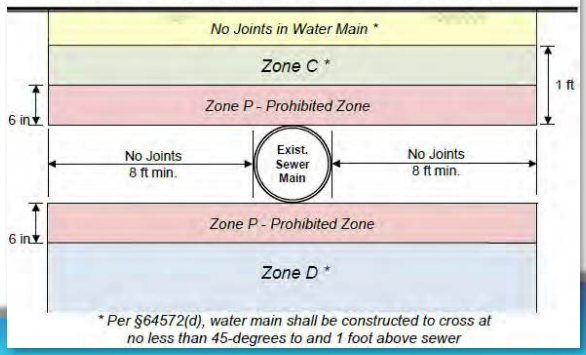


Figure 4: Case 2 New Water Main Perpendicular Construction *No Scale*

Note: To maximize the length of water main pipe without joints, an 18 to 20+ foot pipe length can be centered above/below a non-potable main with a diameter of less than 24 inches.



* Per §64572(d), water main shall be constructed to cross at no less than 45-degrees to and 1 foot above sewer

occur where the new proposed water mains cannot meet separation requirements from non-potable pipelines. We have extensive experience submitting CA-DDW documents and forms and we have obtained waiver approval on all projects that required it.

Viewpoint Street Irrigation Pipeline

This project includes the construction of a new surface water pipeline in Viewpoint Street from Campus Avenue east to Scenic View Street. This section of pipeline will replace the existing surface water pipeline. The existing surface water pipeline will be abandoned in place. Appropriate connections and valves will be added as required.

Approach

It is a priority for the Company to complete the projects by the end of the year. To accomplish this, we recommend starting with the Reservoir 9 pipeline and Viewpoint pipelines. They are the two largest projects and will potentially require pipelines in private property. Due to the additional time that this step may require, we would start these projects as soon as possible.

We recommend starting the design for the Frankish Tunnel and Cliff Road projects next as Cliff Road is the next largest project. The Frankish Tunnel project will require some upfront investigation, field survey and preliminary design work to find a metering solution that meets the Company's requirements. Once all projects have begun, we recommend combining the remaining smaller projects (Glendale, Linda and Primrose) into one large project and bidding them together. Design time for these projects should be short, so these could be done last and still fit within the Company's timeline.

Based on this approach, we believe that all the projects can be completed within the Company's desired goal of beginning construction by the end of the year.

Scope of Work

Civiltec's will follow the scope of work included with the request for proposal (RFP). A summary of key items is provided below.

Project Management
Civiltec will schedule a kick-off meeting to discuss project information, goals, schedules, potential conflicts and requirements. We will also schedule meetings following every design submittal to discuss the Company's comments and ensure the project is progressing with complete satisfaction.
Utility and Records Research
Civiltec will conduct complete utility research and contact each utility company requesting verification of location, size and depth of facilities within the project limits. Utility research performed may include, but is not limited to, existing water, sewer, storm drain, gas, telephone, electrical, cable TV, fiber optic and oil. We will perform a record and data search consisting of survey information (assessor maps, parcel maps, records of survey, right-of-way maps, easement documents, etc.). A project base map will be prepared utilizing information received from the utility and records research efforts.
Field Survey and Investigation
Civiltec will perform a field investigation to locate manholes, water valve covers, water meter boxes, fire hydrants, drainage features, air/vac cans, blow-offs, telephone poles and other visible aboveground facilities within the street right-of-way. Sewer manholes and storm drain catch basins will be dipped and inverts recorded. Additionally, we will use these survey points to improve the accuracy of the topographic map provided by the Company.
Base Map and Preliminary Plans
Civiltec will prepare preliminary plans in collaboration with the Company, then compile all data from record mapping, utility record drawings and field investigation

into a comprehensive utility base map as a basis for the draft construction plans. A preliminary 60% plan showing the pipe alignment and existing utilities will be submitted for review.

We will also complete the CEQA documentation. We agree with the Company's opinion that these projects are categorically exempt from CEQA and will prepare this document and submit it on the Company's behalf.

Design Plans

90% Plans. The 90% plans will address all comments from the 35% submittal and include notes, dimensions, large-scale details, connection details, and all other information required for a complete set of plans.

100% Final Plans. The final plan sets will address any outstanding comments from the Company. The plans will be signed by a California Registered Civil Engineer and delivered as hard copies to the Company. Plan drawings will be prepared in AutoCAD, Version 2019 on 24-inch by 36-inch sheets with 1-inch equals 40-feet horizontal scale. Sheets will be prepared on Company title block and drawings prepared in accordance with its drafting standards.

Design Deliverables

Preliminary Construction Plans. One (1) hard copy of the preliminary plans will be provided.

90% Construction PS&E. One (1) hard copy of the 90% plans will be provided. The specifications and estimate will be provided in electronic format.

Final Construction PS&E. One (1) hard copy of the sealed (with wet signatures) construction drawings and specification. We will also provide final drawing and document files in PDF, Microsoft and AutoCAD formats.

Specifications and Cost Estimate

Civiltec will prepare the cost estimate and special/ technical specifications in accordance with the Company's requirements. The specifications will include all sections necessary for the construction of the project. The cost estimate and specifications will be submitted for review with the 90% design plan submittal. We will address all comments provided by the Company and resubmit them with the final design submittal.

Bidding / Construction Phase Support

Civiltec will provide a bidders list and coordinate advertisement, obtain bids for the work, maintain a record of prospective bidders to whom project documents were issued, coordinate pre-bid conferences, respond to contractor's request for information (RFI), evaluate bids, and advise the Company of the lowest responsible bidder.

During construction appropriate field oversight (observation services) of construction activity will be provided to ensure contractor's compliance with contract and permits. We have estimated the observation hours that will be required by estimating the length of the project and proposing observation services 50% of the time. We will also issue necessary clarifications and interpretations of the contract documents, shop drawings and RFIs as appropriate. Progress payments will be coordinated with the contractor and a recommendation forwarded to the Company for processing, along with appropriate contractor paperwork. At completion, ***Civiltec*** will prepare project close-out paperwork.

Tasks Required by SAWCo Staff

- Collaboration on design alternatives.
- Review and comments on submittals.

Proposed Project Schedule

We utilize the most up to date project management technologies to manage the production of our projects simultaneously. Based on man-hour estimates and staff availability, project schedules are established for every task using Microsoft Project. These schedules are used to communicate with our clients and staff, so all expectations and budgets are met. On schedule projects are on budget projects! **The proposed schedule in Attachment B is based on our similar experience and our understanding of your project milestones.**

PAST PROJECTS

Civiltec will provide field work and design that maintains the quality of life your residents expect through quality, innovative design to replace the aging infrastructure. Throughout the past 5 years, we have averaged 200+ new projects annually in California. Projects range in size from small to large and have included various sized pipelines, along with construction management to ensure the project runs smoothly.

Our reputation and the quality of our work is paramount to us. Feel free to contact any of the references included with our select relevant project experience to verify our dedication to providing quality, cost-effective solutions. We want you to feel confident knowing that this project is in good hands.

North Hills East Water Main Replacement

Client: City of Brea
Reference: Michael Ho, PE | Director of Public Works/City Engineer | (e) michaelh@cityofbrea.net | (p) 714.990.7667
Similar Project Team: David Byrum, PE | Greg Ripperger, PE | Chris Duncan, PLS | Sara Canché

Civiltec is designing multiple water main replacement projects as identified in the seven-year CIP for FY 2018-19 through FY 2024-25 in conjunction with street improvements according to the 2017 Pavement Management Plan.

Approximately 26,000 linear feet (LF) of existing water mains are being replaced, split into four PS&E construction projects are being prepared under one design contract. This includes fire hydrants, valves, services, pavement rehabilitation, signage and striping. Design and engineering services include utility research and notification, topographic survey, hydraulic water modeling and analysis, potholing, geotechnical review, soil corrosivity analysis and bidding support services.

Pre-Construction Photo

Monrovia Renewal Pipeline Replacements

Client: City of Monrovia
Reference: Tina Cherry | Director of Public Service | (e) tcherry@ci.monrovia.ca.us | (p) 626.932.5513
Similar Project Team: David Byrum, PE | Greg Ripperger, PE | Gretel Nhac, EIT | Sara Canché

This water main renewal project included removal and replacement of asphalt paving, trenching and shoring, and installation of 8- and 6-inch DIP water mains, wedge gate valves, 8-inch hot tapping sleeves, 6-inch fire hydrants, new water services with new meters, new water services without meters, removal of existing fire hydrants, reconnecting 1-inch water services with taps, cut and plug pipe, cut and cap pipe, abandonment of existing water valves, removal of valve cans, and repaving. More than 4,000 LF of pipes were replaced along Greystone Avenue, Mauna Loa Drive, Highland Place, Linwood Avenue, Lime Avenue, Palm Avenue and Peck Road.

Pre-Construction Photo

CIP Water Main Replacements

Client: Valley County Water District
Reference: Tom Mortenson | Operations & Maintenance Manager| (e) tmortenson@vcwd.com | (p) 626. 856.5990
Similar Project Team: David Byrum, PE | Greg Ripperger, PE | Gretel Nhac, EIT | Sara Canché

Civiltec completed design and construction management services for Phases 1 through 5 of Valley County's CIP for water main replacements. Design consisted of more than 17,000 LF of 8-inch and 12-inch DIP, replacement of service connections, fire hydrants and street improvements. We will soon complete 12,000 LF of 8-inch and 12-inch pipeline for their 2019 CIP. We continue to enjoy a healthy working relationship with Valley County as their District Engineer, which began in 1998. Other projects have included pump stations, wells, reservoirs, water master planning and hydraulic modeling and analysis.

Proposed Total Professional Fee & Fee Schedule

Our proposed total fee and rate schedule have been submitted in a separately sealed envelope included with this proposal package.

Exceptions to This RFP

Civiltec does not take any exceptions to this RFP or the Company's Consultant Services Agreement.

ATTACHMENT A
KEY TEAM MEMBERS' RESUMES

Greg Ripperger, PE – Project Manager

Education: B.S., Civil Engineering, Oklahoma State University, 2008
Registration: Professional Engineer California No. 79499

Mr. Ripperger has 11+ years (6+ with ***Civiltec***) of experience in water engineering and construction management. His water experience includes hydraulic modeling, water system simulation, master planning, pipelines booster stations, surge protection and water distribution planning for large development projects. As a construction manager, he has been responsible for the full scope of construction management, including quality, sustainability, safety and budgets. Mr. Ripperger's ability to quickly understand a water system and solve system problems with simple solutions makes him an excellent asset to the team.

Select Relevant Experience

Northwest and South Areas, Infrastructure Improvements, City of Monrovia

Project Manager. To address aging infrastructure, deferred maintenance concerns and keeping these systems fully operational moving forward, new 8-inch ductile iron pipe (DIP) water mains were required to replace 8- and 6-inch DIP. This project included replacing all hydrants, meters and laterals and abandoning services in the alley and reconnecting them to the new pipelines in the street. The project included more than 4,400 LF of pipes, 70 new connections, bidding assistance and post design services. Design was prepared as two separate bidding packages.

Water Main Replacement Projects, City of Brea

Project Engineer. Designed multiple water main replacement projects as identified in the seven-year capital improvement program (CIP) for Fiscal Year 2018-19 through 2024-25 in conjunction with street improvements according to the 2017 Pavement Management Plan. CIP budgets have been allocated for design, construction and construction engineering into four construction projects. Funding sources for this project are predominately from the 420 Water Fund with a portion also coming from the 220 Gas Tax Fund. Design and engineering services include utility research and notification, topographic survey, hydraulic water modeling and analysis, potholing, geotechnical review, soil corrosivity analysis fire hydrants, valves, services, pavement rehabilitation, signage, striping and bidding support services.

Loma Linda (Pressure Zone 8) Pipeline Upgrade, City of Beverly Hills

Project Engineer. Upgrade to the existing 6-inch pipeline located in a 10-foot wide easement is necessary to improve hydraulic conditions. The new pipeline is approximately 700 liner feet of 8-inch pipe and may require replacement of the existing sewer pipeline located within the same easement. The scope of work includes survey, development of design with alternatives, bidding and construction support services. The design commenced but has been stalled by an adjacent developer.

Primrose and Cypress Avenues Water Main Improvements, City of Monrovia

Project Manager. To address aging infrastructure, design, bidding and construction services were provided for 2,057 LF of 8-inch DIP to replace the existing 8-inch steel pipe. Replacements were completed on Primrose Avenue from Huntington Drive to Central Avenue and Cypress Avenue from shamrock Avenue to Sherman Avenue.

W. David Byrum, PE – Principal-in-Charge

Education: B.S., Mechanical Engineering, University of California, Los Angeles, 1977

Registration: Professional Civil Engineer California No. 43296

Mr. Byrum has 40+ years (27+ with ***Civiltec***) of experience as a systems planner, design engineer, project manager, principal engineer and construction manager. He is an expert in the planning and design of water distribution and transmission pipelines, water treatment plants, booster pumping stations, steel and concrete reservoirs, groundwater wells, specialty valving stations, wastewater lift stations, flow equalization stations, wastewater treatment plants, storm drains and street improvement projects. He also prepares regulatory agency compliance reports and technical studies to ensure water purveyors remain in compliance with current regulations.

Select Relevant Experience

Skyline Ranch Water System Infrastructure, Santa Clarita Water Division

Project Manager/Principal. Responsible for the entire water system infrastructure design spanning three pressure zones. This project included pipelines, reservoirs, and pump stations. Phase 1 included the in-tract pipeline design of approximately 23,000 feet of 8-inch, 12-inch and 16-inch poly-vinyl chloride (PVC) pipe for distribution and transmission. Phases 2 and 3 included an additional 60,000 feet of 8-inch to 16-inch distribution and transmission pipelines, two 2.5-million-gallon steel reservoirs, two 0.6-million-gallon steel reservoirs, and two booster pump stations.

Alondra and Pioneer Pipeline Replacement, City of Norwalk

Principal. Responsible for the design of approximately 1,900 LF of water main replacement. Alondra Boulevard from Maidstone Avenue to Pioneer Boulevard was approximately 1,410 LF of a new 12-inch pipeline. Pioneer Boulevard from Alondra Boulevard to 160th Street is approximately 490 LF of new 12-inch pipeline.

Lincoln, Washington, Telephone and Monte Vista Avenues Water Main Replacements, City of Chino

Principal. Responsible for the design of approximately 8,656 LF of 8- to 12-inch PVC pipeline replacement including fire hydrants, domestic services and abandonments. The project was located on Lincoln Avenue from Monte Vista Avenue to 7th Street and Russell Avenue to Monte Vista Avenue; Washington Avenue from 3rd Street to Telephone Avenue; Telephone Avenue from Riverside Drive to Walnut Avenue; and Monte Vista Avenue from Riverside Drive to Walnut Avenue.

San Gabriel, Sheffield and Vista Pipelines, Sunny Slope Water Company

Principal. Project included approximately 4,680 LF of 12-inch distribution mains in street right-of-way in San Marino and Los Angeles County. The project was split into two phases to accommodate an elementary school on Sheffield Boulevard. Service connections, water meters, fire hydrants, street improvements and complete traffic control plans were also part of the scope of work.

Terry Kerger, PE – QA/QC Manager

Education: B.S. Civil Engineering, California State University, Los Angeles, 1985
Registration: Professional Civil Engineer California No. 34896

Mr. Kerger has 45+ years (15+ with ***Civiltec***) of experience in project management, design and construction of civil engineering projects. His experience includes flow computations for master plans, hydraulic calculations, more than 50 miles of water transmission mains (ranging from 6- to 30-inches), flow control facilities, pump stations, reservoirs, wells, treatment plants, sewerage, water containment, investigations of wellhead water treatment and well water blending, hydraulic modeling, capital improvement planning, telemetry system design, feasibility studies for purchase of adjacent mutual water systems, including system appraisal, financial options and identifying system upgrades, flood control facilities, water master plans and agency plan check programs.

Mr. Kerger has designed pipelines for the cities of Arcadia, Alhambra, Ontario, Huntington Park, Manhattan Beach, Cerritos, El Monte and Industry as well as Kinneloa Irrigation District, Orchard Dale Water District, and Rowland Water District. He has been responsible for the design and project administration of over 100,000 LF of distribution and transmission pipelines that included construction traffic control design, pump stations, wells and reservoirs. He has also been responsible for securing permits for projects with public agencies and cities located in Los Angeles, Orange, and Ventura Counties and with the California Department of Public Health and Caltrans.

Select Relevant Experience

Lincoln, Washington, Telephone and Monte Vista Avenues Water Main Replacements, City of Chino

QA/QC Manager. Design of this project included approximately 8,656 LF of 8- to 12-inch PVC pipeline replacement including fire hydrants, domestic services and abandonments. The project was located on Lincoln Avenue from Monte Vista Avenue to 7th Street and Russell Avenue to Monte Vista Avenue; Washington Avenue from 3rd Street to Telephone Avenue; Telephone Avenue from Riverside Drive to Walnut Avenue; and Monte Vista Avenue from Riverside Drive to Walnut Avenue.

Tract 72216 Candlelight, Suburban Water Systems

Project Manager. This project included approximately 630 LF of 12-inch, 2,125 LF of 8-inch and 2,260 LF of 4-inch PVC pipes, four 6-inch fire hydrants, ninety-two 1-inch meter assemblies, three 1-inch meter assemblies for irrigation and eighteen 2-inch blow-off assemblies within La Mirada. Services included records review, weekly progress meetings, observation, managing the contractor's requests for information, change of conditions and preparation of an as-built package.

Phases 1-5 Water Improvement Projects, Valley County Water District

Project Manager & QA/QC Manager. Projects included design and construction administration for numerous capital improvement water main replacement projects. Designed approximately 16,500 LF of 8-inch and 12-inch DIP replacement including service connections, fire hydrants and street improvements over 5 phases.

Gretel Nhac, EIT – Project Engineer

Education: M.S., Civil Engineering, Emphasis in Transportation Engineering, California State Polytechnic University, 2015
B.S., Civil Engineering, California State Polytechnic University, 2012
Registration: Engineer-in-Training No. 145451

Mrs. Nhac has 7+ years (5+ with ***Civiltec***) of experience in civil engineering. Her experience includes water modeling/analysis using InfoWater and design of pipelines and roadway improvements. She prepares technical memos, water master plans and other reports and calculations. She understands the importance of working together with the team to produce a great product, on time and on budget. Software expertise includes Civil3D, ArcGIS, InfoWater and Global Mapper.

Select Project Experience

Water Main Replacement Projects, City of Brea

Staff Engineer. Designed multiple water main replacement projects as identified in the seven-year CIP for Fiscal Year 2018-19 through 2024-25 in conjunction with street improvements according to the 2017 Pavement Management Plan. CIP budgets have been allocated for design, construction and construction engineering into four construction projects. Funding sources for this project are predominately from the 420 Water Fund with a portion also coming from the 220 Gas Tax Fund. Design and engineering services include utility research and notification, topographic survey, hydraulic water modeling and analysis, potholing, geotechnical review, soil corrosivity analysis fire hydrants, valves, services, pavement rehabilitation, signage, striping and bidding support services.

Skyline Ranch Water System Infrastructure, Santa Clarita Water Division

Staff Engineer. Responsible for the entire water system infrastructure design spanning three pressure zones. This project included pipelines, reservoirs and pump stations. Phase 1 included the in-tract pipeline design of approximately 23,000 feet of 8-inch, 12-inch and 16-inch PVC pipe for distribution and transmission. Phases 2 and 3 included an additional 60,000 feet of 8-inch to 16-inch distribution and transmission pipelines, two 2.5-million-gallon steel reservoirs, two 0.6-million-gallon steel reservoirs, and two booster pump stations.

Pressure Zone 8, Pipeline Upgrade, City of Beverly Hills

Staff Engineer. Designing upgrades to the existing 6-inch pipeline located in a 10-foot wide easement is necessary to improve hydraulic conditions. The new pipeline is approximately 700 liner feet of 8-inch pipe and may require replacement of the existing sewer pipeline located within the same easement. The scope of work includes survey, development of design with alternatives, bidding and construction support services. The design has commenced but has been stalled by an adjacent developer.

Amethyst Road Water Turnout Pipeline, City of Victorville

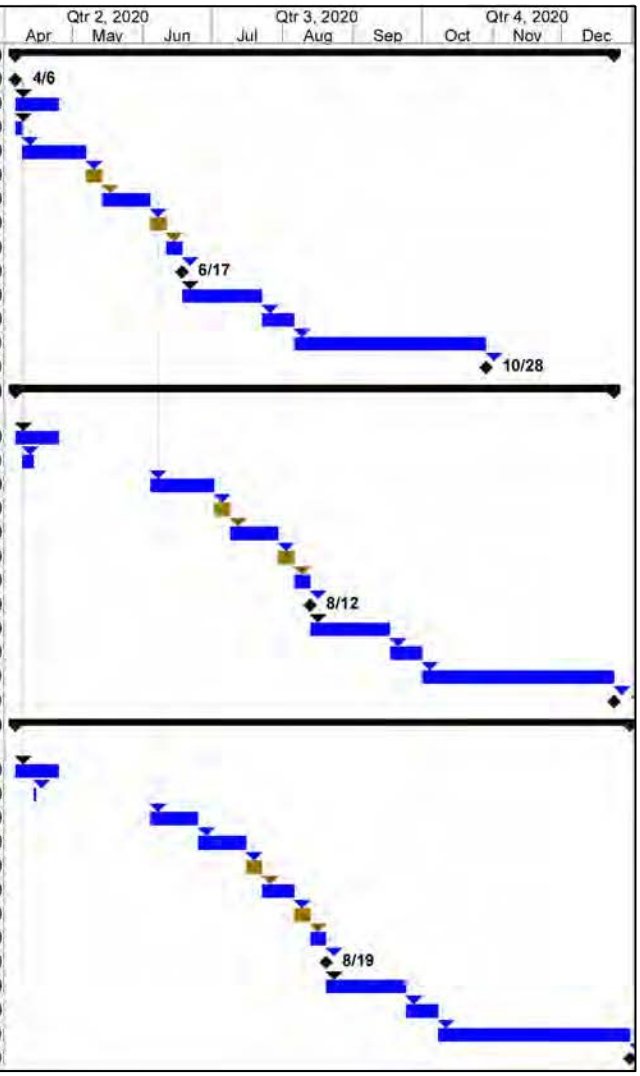
Staff Engineer. Designed approximately 5,425 LF of 24-inch pipeline. Project scope items included hydraulic analysis to determine the required pipe size, alignment analysis, utility coordination/ relocation and project stakeholder coordination. Permit coordination included the State Water Resource Control Board, U.S. Army Corps of Engineers, State Fish and Game and County of San Bernardino.

ATTACHMENT B

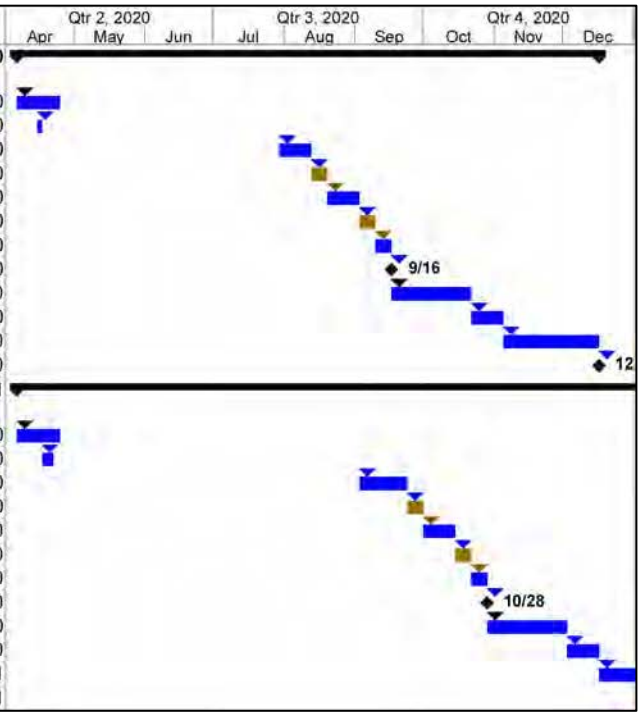
PROPOSED PROJECT SCHEDULE

Proposed Project Schedule

ID	Task Name	Duration	Start	Finish
1	**Project 1 - Reservoir 9 Pipeline**	**188 days**	**Mon 4/6/20**	**Wed 12/23/20**
2	Kick-Off Meeting	0 days	Mon 4/6/20	Mon 4/6/20
3	Utility and Records Research	15 days	Mon 4/6/20	Fri 4/24/20
4	Field Survey	3 days	Mon 4/6/20	Wed 4/8/20
5	Preliminary Plans	20 days	Thu 4/9/20	Wed 5/6/20
6	Company's Preliminary Plan Review	5 days	Thu 5/7/20	Wed 5/13/20
7	90% Plans	15 days	Thu 5/14/20	Wed 6/3/20
8	Company's 90% Plan Review	5 days	Thu 6/4/20	Wed 6/10/20
9	Final Plans	5 days	Thu 6/11/20	Wed 6/17/20
10	Signed Construction Plans	0 days	Wed 6/17/20	Wed 6/17/20
11	Issue RFP and Advertise	25 days	Thu 6/18/20	Wed 7/22/20
12	Bidding and Award	10 days	Thu 7/23/20	Wed 8/5/20
13	Construction	60 days	Thu 8/6/20	Wed 10/28/20
14	Project Close-out	0 days	Wed 10/28/20	Wed 10/28/20
15	**Project 7 - Viewpoint, Canyon View to Campus**	**188 days**	**Mon 4/6/20**	**Wed 12/23/20**
16	Utility and Records Research	15 days	Mon 4/6/20	Fri 4/24/20
17	Field Survey	3 days	Thu 4/9/20	Mon 4/13/20
18	Preliminary Plans	20 days	Thu 6/4/20	Wed 7/1/20
19	Company's Preliminary Plan Review	5 days	Thu 7/2/20	Wed 7/8/20
20	90% Plans	15 days	Thu 7/9/20	Wed 7/29/20
21	Company's 90% Plan Review	5 days	Thu 7/30/20	Wed 8/5/20
22	Final Plans	5 days	Thu 8/6/20	Wed 8/12/20
23	Signed Construction Plans	0 days	Wed 8/12/20	Wed 8/12/20
24	Issue RFP and Advertise	25 days	Thu 8/13/20	Wed 9/16/20
25	Bidding and Award	10 days	Thu 9/17/20	Wed 9/30/20
26	Construction	60 days	Thu 10/1/20	Wed 12/23/20
27	Project Close-out	0 days	Wed 12/23/20	Wed 12/23/20
28	**Project 2 - Frankish Tunnel Pipeline Repair & Meter Install**	**193 days**	**Mon 4/6/20**	**Wed 12/30/20**
29	Utility and Records Research	15 days	Mon 4/6/20	Fri 4/24/20
30	Field Survey	1 day	Tue 4/14/20	Tue 4/14/20
31	Site Investigation and Understanding	15 days	Thu 6/4/20	Wed 6/24/20
32	Preliminary Plans	15 days	Thu 6/25/20	Wed 7/15/20
33	Company's Preliminary Plan Review	5 days	Thu 7/16/20	Wed 7/22/20
34	90% Plans	10 days	Thu 7/23/20	Wed 8/5/20
35	Company's 90% Plan Review	5 days	Thu 8/6/20	Wed 8/12/20
36	Final Plans	5 days	Thu 8/13/20	Wed 8/19/20
37	Signed Construction Plans	0 days	Wed 8/19/20	Wed 8/19/20
38	Issue RFP and Advertise	25 days	Thu 8/20/20	Wed 9/23/20
39	Bidding and Award	10 days	Thu 9/24/20	Wed 10/7/20
40	Construction	60 days	Thu 10/8/20	Wed 12/30/20
41	Project Close-out	0 days	Wed 12/30/20	Wed 12/30/20

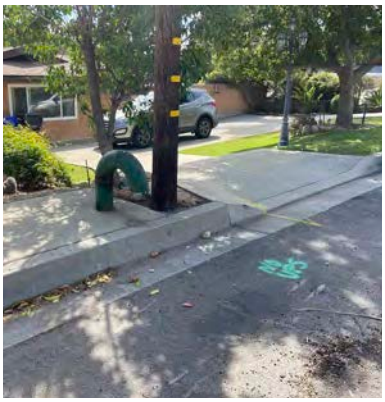


ID	Task Name	Duration	Start	Finish
42	**Project 3 - Cliff near Euclid Crescent & Cliff**	**183 days**	**Mon 4/6/20**	**Wed 12/16/20**
43	Utility and Records Research	15 days	Mon 4/6/20	Fri 4/24/20
44	Field Survey	2 days	Wed 4/15/20	Thu 4/16/20
45	Preliminary Plans	10 days	Thu 7/30/20	Wed 8/12/20
46	Company's Preliminary Plan Review	5 days	Thu 8/13/20	Wed 8/19/20
47	90% Plans	10 days	Thu 8/20/20	Wed 9/2/20
48	Company's 90% Plan Review	5 days	Thu 9/3/20	Wed 9/9/20
49	Final Plans	5 days	Thu 9/10/20	Wed 9/16/20
50	Signed Construction Plans	0 days	Wed 9/16/20	Wed 9/16/20
51	Issue RFP and Advertise	25 days	Thu 9/17/20	Wed 10/21/20
52	Bidding and Award	10 days	Thu 10/22/20	Wed 11/4/20
53	Construction	30 days	Thu 11/5/20	Wed 12/16/20
54	Project Close-out	0 days	Wed 12/16/20	Wed 12/16/20
55	**Combined Projects - Glendale, Primrose, and Linda**	**223 days**	**Mon 4/6/20**	**Wed 2/10/21**
56	Utility and Records Research	15 days	Mon 4/6/20	Fri 4/24/20
57	Field Survey	3 days	Fri 4/17/20	Tue 4/21/20
58	Preliminary Plans	15 days	Thu 9/3/20	Wed 9/23/20
59	Company's Preliminary Plan Review	5 days	Thu 9/24/20	Wed 9/30/20
60	90% Plans	10 days	Thu 10/1/20	Wed 10/14/20
61	Company's 90% Plan Review	5 days	Thu 10/15/20	Wed 10/21/20
62	Final Plans	5 days	Thu 10/22/20	Wed 10/28/20
63	Signed Construction Plans	0 days	Wed 10/28/20	Wed 10/28/20
64	Issue RFP and Advertise	25 days	Thu 10/29/20	Wed 12/2/20
65	Bidding and Award	10 days	Thu 12/3/20	Wed 12/16/20
66	Construction	40 days	Thu 12/17/20	Wed 2/10/21
67	Project Close-out	0 days	Wed 2/10/21	Wed 2/10/21



CIVILTEC
engineering inc.

Civil, Water, Wastewater, Drainage, Transportation and
Electrical/Controls Engineering • Construction Management • Surveying
California • Arizona



Proposal to Provide Professional Design and Project Management Services for Multiple Capital Facility Projects

Submitted: March 23, 2020
San Antonio Water Company

Engineering Resources of Southern California

Engineering Resources of Southern California, Inc.

1861 W. Redlands Blvd. | Redlands, CA 92373
(909) 890-1255 | info@erscinc.com | www.erscinc.com

March 23, 2020

San Antonio Water Company
139 North Euclid Avenue
Upland, California 91786
Attn: Brian Lee

Responsible Office for Project:
1861 W. Redlands Blvd.
Redlands, CA 92373
Ph: 909/890-1255, info@erscinc.com

Contact During Evaluation Period:
Ms. Joanna Rembis, PE
Principal Engineer
Ph: 909/890-1255 x130
email: jrembis@erscinc.com

RE: Proposal – 2020 CIP, Professional Design and Project Management Services for Multiple Capital Facility Projects

Dear Mr. Lee:

Engineering Resources of Southern California, Inc. (ERSC) is pleased to submit our Proposal to San Antonio Water Company for Professional Design and Project Management Services for Multiple Capital Facility Projects. Based on our review of the RFP, site reconnaissance, and consulting of available supporting documents, we have developed a thorough understanding of the project to provide outstanding service to the San Antonio Water Company (SAWC).

ERSC was founded in 1996 to provide Engineering, Design, and CM/Inspection services to the public sector. The firm has delivered a proven record in Engineering Design Services, not only to local municipalities, but to numerous agencies and special districts throughout Southern California. The key staff who would be assigned to your projects have served clients with similar needs.

ERSC has selected Ms. Joanna Rembis, PE, to serve as the Project Manager for this project. Joanna has over 20 years of Civil Engineering and Construction Management experience. As a Project Manager, managing annual revenues in excess of $1M, she oversaw 20 to 25 projects simultaneously in different phases of development: evaluation, design, and construction. Any project can be trusted to be executed to your expectations while under Joanna's guidance.

ERSC is confident in our team and its capabilities and due to their diverse experience in public sector and water purveyors, we guarantee a team that will not only maintain SAWC goals but also understands the complexities and regulations that each water resources project faces.

The strength behind ERSC is found in our staff of professionals. Many of our engineers and technicians have a significant amount of experience as municipal and public agency employees. As a result, ERSC can approach your project with first-hand knowledge of agency culture and how an agency envisions the planning and processing of a well-executed project. ERSC staff work daily to create partnerships with our clients to transform their projects from the broadest level of general scope to their final planning, design, implementation and construction resolution.

By selecting ERSC, San Antonio Water Company will benefit from a wealth of knowledge and experience that our team possesses and we are confident in our abilities to go above and beyond to deliver an exceptional project to SAWC.

ERSC takes no exceptions to the RFP and this proposal shall be valid for the period specified from the closing date and time for receipt of proposals. I am authorized to negotiate and sign contractual agreements for ERSC. ERSC has read the San Antonio Water Company indemnification and insurance requirements and shall meet these requirements upon selection.

Respectfully submitted,

John M. Brudin, PE
President

Joanna Rembis, PE
Principal Engineer – Project Manager

Table of Contents

ERSC

Executive Summary

Executive Summary

Engineering Resources of Southern California (ERSC) is pleased to submit this Proposal for Professional Design and Project Management Services for Multiple Capital Facility Projects to San Antonio Water Company (SAWC). ERSC, an engineering consulting firm operating since 1996, provides engineering design, project management, construction management and administration for water and sewer public works projects. ERSC understands that SAWC desires to improve its water system by replacing existing pipelines, services, and meters at seven various locations within its service area. ERSC is ready and capable to meet the December 31, 2020 deadline for having all projects under construction by developing a critical path schedule that highlights items that can cause delays so we can apply focus and initiate project tasks at the appropriate time. In addition, all ERSC team members are equipped to work remotely, considering the recent COVID-19 pandemic, to not delay the project deadline. Based on our review of the RFP, together with conducting a comprehensive visit of all 7 sites, desktop review, subsequent discussions and correspondence with staff, we believe that we have a thorough understanding of the project requirements.

ERSC recognizes the SAWC's desire to preserve their facilities and minimize long-term maintenance. ERSC's experience with water main replacement projects includes pipelines as small as 4-inches and as large as 42-inches, which has enabled us to develop practical and cost-effective solutions for planning and designing of same. Your project will benefit from a partner who keeps your goals and vision at the forefront of each decision. There are usually several ways to accomplish the same objective and it is reasonable and wise to choose the most cost-effective solution. All the pipelines, except Frankish Tunnel, will be replaced in residential areas therefore it will be of paramount importance to adequately locate individual services and meters, provide for proper reconstruction of the service laterals and to ensure adequate communication with homeowners for the water main reconstruction and service tie-over.

As for the Frankish Tunnel project, due to the limited records and understanding of system operations, determining the resolution will require exploratory research to accurately identify the current operation and function of the existing system. Please see the Understanding and Approach Section where ERSC provides a thorough explanation of our understanding of the tunnel's estimated location, potential functioning, and the recommended exploratory procedure based on ERSC's site visit and preliminary research.

ERSC also provides customized bid and construction support services to address the main issues for pipeline replacement projects. ERSC will prepare agendas and meeting minutes for the Pre-bid meeting and Pre-Construction meeting to address questions and key issues. In addition, we work to provide SAWC with quick and efficient review of submittals, procedures, RFI's, and approval of invoices. As a result of our efficient construction management, progress meetings are kept to a minimum, which saves SAWC personnel time to work on other pressing matters. With our local presence, extensive experience, and broad resources, the ERSC team is the right choice.

The following are the 7 site locations, also identified on the Table of Contents, with the approximate length, services, and appurtenances required.

Priority	Site Name	Approx. Pipe Length	Pipe Size	# Services	# Hydrants
1	Reservoir 9	2400 ft.	24" Concrete	0	0
2	Frankish Tunnel	Unknown (+ 2 Meters)	36" & 24" Conc./Steel	0	0
3	Cliff Road	1,100 ft.	4" CI	16	2
4	Glendale Road	800 ft.	6" CI	3	2
5	Linda Ln & Lamplighter Ln	510 ft.	4" CI	11	2
6	Primrose Ln	480 ft.	4" CI	12	1
7	Viewpoint St	1700 ft.	16" Steel	0	0

Firm Background and Experience

Firm Background and Experience

Engineering Resources of Southern California, Inc. (ERSC) was formed in 1996 with the asset purchase of NBS/Lowry, Inc. Since formation, ERSC has been committed to serving the Southern California region's public sector such as Special Districts, Regional Agencies, and Municipalities. ERSC currently staffs over 40 engineers, designers, construction observation personnel, and administrative support staff in four offices located in Palm Desert, Redlands, Temecula, and Irvine.

ERSC Capabilities

ERSC has concentrated throughout its history on servicing public agencies. As a result, our strengths have been established to provide solutions and professional services to agencies throughout the public sector.

- Water/Wastewater Engineering
- Construction Management and Inspection
- Civil Site Design
- Transportation Engineering
- Independent Plan Review
- Flood Control and Drainage Engineering
- Water Quality/NPDES
- Traffic Engineering
- Survey and Mapping
- Environmental Services

ERSC's range of capabilities performed in-house allows us to meet the needs of clients throughout the life of any potential project.

ERSC Professionals

The strength behind ERSC is found in our staff of professionals. ERSC hosts a qualified and experienced staff of engineers, designers, construction observation personnel, and administrative support staff. We strive to match the exceptional skills, technical abilities, character, and attitude of our team members to the needs of our clients. ERSC staff work daily to create partnerships with our clients to transform their projects from the broadest level of general scope to their final planning, design, implementation and construction resolution.
Many ERSC professionals have significant previous experience as municipal and public agency employees. As a result, ERSC can approach your project with first-hand knowledge of agency culture and how any agency envisions the planning and processing of a well-executed project.

ERSC Reliability

We believe that our long-standing service to a variety of public agency clients throughout California, many on a continuous basis throughout our 23 years in business, is a testimonial to the quality of services we provide. Many of our clients have continually sought our services since our first year of business.
Throughout years of service, ERSC has developed significant financial resources and organizational efficiencies. Development of proficiencies in these areas has allowed ERSC to continually deliver projects that routinely exceed client expectations.

Experience with Domestic Water System Design and Construction Services

ERSC was founded on the premise of the planning, design, construction administration and management of domestic water systems. In 1996, ERSC's first clients were water regional water agencies and we continue to serve many of these clients today, providing planning design and construction management for their water systems.

Similar Projects with Other Water Companies or Districts

ERSC has completed hundreds of assignments for municipal water departments, regional water agencies, and privately held water companies. Some ERSC clients include EVWD, WVWD, WMWD, EMWD, Riverside-Highland Water Company, Veolia NA, and Western Heights Water Company.

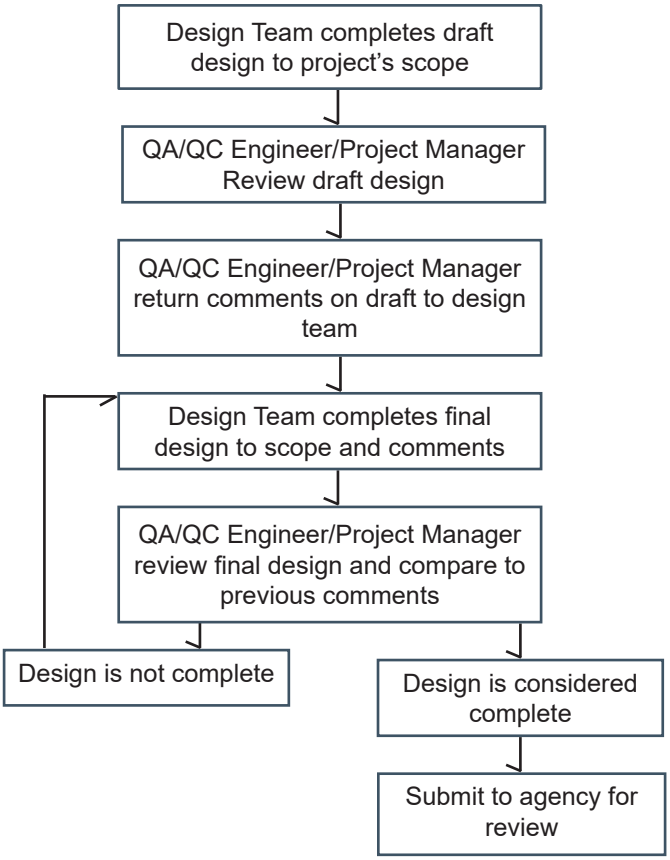
Firm's Local Experience

ERSC has served the Inland Empire region for throughout 23 years of business. In addition to those mentioned above, local clients include the Cities of Upland, Ontario, Rialto, Colton, Highland, Fontana, Redlands, San Bernardino, and Chino.

Firm Background and Experience

Quality Control/Quality Assurance

An additional and important facet of the success of any project is the quality of the work submitted. Quality design can ensure accurate bidding, minimization of change orders, and on-schedule completion. The following flow chart summarizes the ERSC QA/QC process:



Involvement

Part of any successful project at ERSC is remaining involved. Remaining familiar with projects, maintaining open communication with clients and team members, and participating in major design decisions are regular tasks of any project manager assigned to a project. With these basic principles in mind, ERSC is able to ensure a complete project is delivered keeping in mind the goals of the project, the impact to the community, and the constructibility of the final design.

ERSC Corporate Information

Contact Information
Joanna Rembis, PE
1861 W. Redlands Blvd.
Redlands, CA 92373
Telephone: 909.890.1255 ext. 130
Fax: 909.890.0995
Email Address: jrembis@erscinc.com

The above contact has the authority to bind the organization.

Number of employees

ERSC maintains a staff of over 40 professionals throughout 4 offices in Southern California.

ERSC Insurance Coverage Levels	
Professional Liability	$ 1.0 Million Per Occurrence; $ 2.0 Million Aggregate
General Liability	$ 1.0 Million Per Occurrence; $ 2.0 Million Aggregate
Automobile	$ 1.0 Million Combined Single Limit
Workman's Comp	Maintained at levels required by law.

Project Organization and Experience of the Project Team

Project Organization and Team Experience

When establishing a consulting team, our goal is to provide potential clients with the opportunity to work with engineers and technicians that understand the environment in which they work. This requires a thorough knowledge of the Client's policies, practices and procedures while, also, understanding the project requirements, budget limitations and goals. Our management team will be supported by staff engineers and technicians with equally significant experience related to water resources engineering, planning, and construction management.

ERSC team members are familiar with the demands, expectations, and accountability required to successfully execute projects in a public works environment. The expertise of ERSC's individual team members in municipal engineering and public works disciplines is well renowned in local agencies, as evident by the number of clients that have continued to utilize ERSC's services year after year. Summaries of ERSC's proposed staff, as well as their qualifications, certifications, and recent assignments are available herein for your review.

ERSC Project Management

Joanna Rembis, PE - Project Manager

Joanna will server as the project manager during the term of a potential agreement with the SAWC. Joanna has an accomplished career of over 20 years providing engineering and construction management primarily for water agencies and municipal water departments with over 500 projects completed.

Erik Howard - Principal in Charge

Erik Howard PE, PLS will serve as ERSC's Principal-in-Charge during the term of a potential agreement with SAWC. With over 25 years providing design engineering services in the water resources discipline, Erik has guided the design of hundreds of similar projects in the region. Erik will provide design guidance and industry expertise to the ERSC team.

Teamwork Experience

ERSC has worked with the internal team and the selected subconsultants in multiple different assignments. ERSC is currently teamed with the selected team in similar assignmnts in Victorville, WMWD, WVWD, EVMWD, and EMWD.

PROJECT PRIME CONSULTANT

Erik Howard, PE, PLS
Principal-in-Charge

Joanna Rembis, PE
Project Manager

John Egan, PE
Senior Principal Engineer, QA/QC Review

Trent Brudin, PE
Project Engineer, Engineer III

Stephania Hernandez
Project Engineer, Engineer I

Katherine Hernandez
Project Engineer, Engineer I

Jazz Goodie
Project Designer, Engineer Associate II

PROJECT SUBCONSULTANTS

J.D. Cole & Associates, Inc. - Survey

Contact: Jim Cole, PLS, Principal Surveyor
jdclandsurveying@aol.com
(909) 797-2074

Converse Consultants - Geotechnical

Contact: Hashmi Quazi, PhD, PE, GE, Regional Manager
2021 Rancho Drive, Suite 1 | Redlands, CA 92373
(909) 796-7675

DownStream Services, Inc. - CCTV Inspection

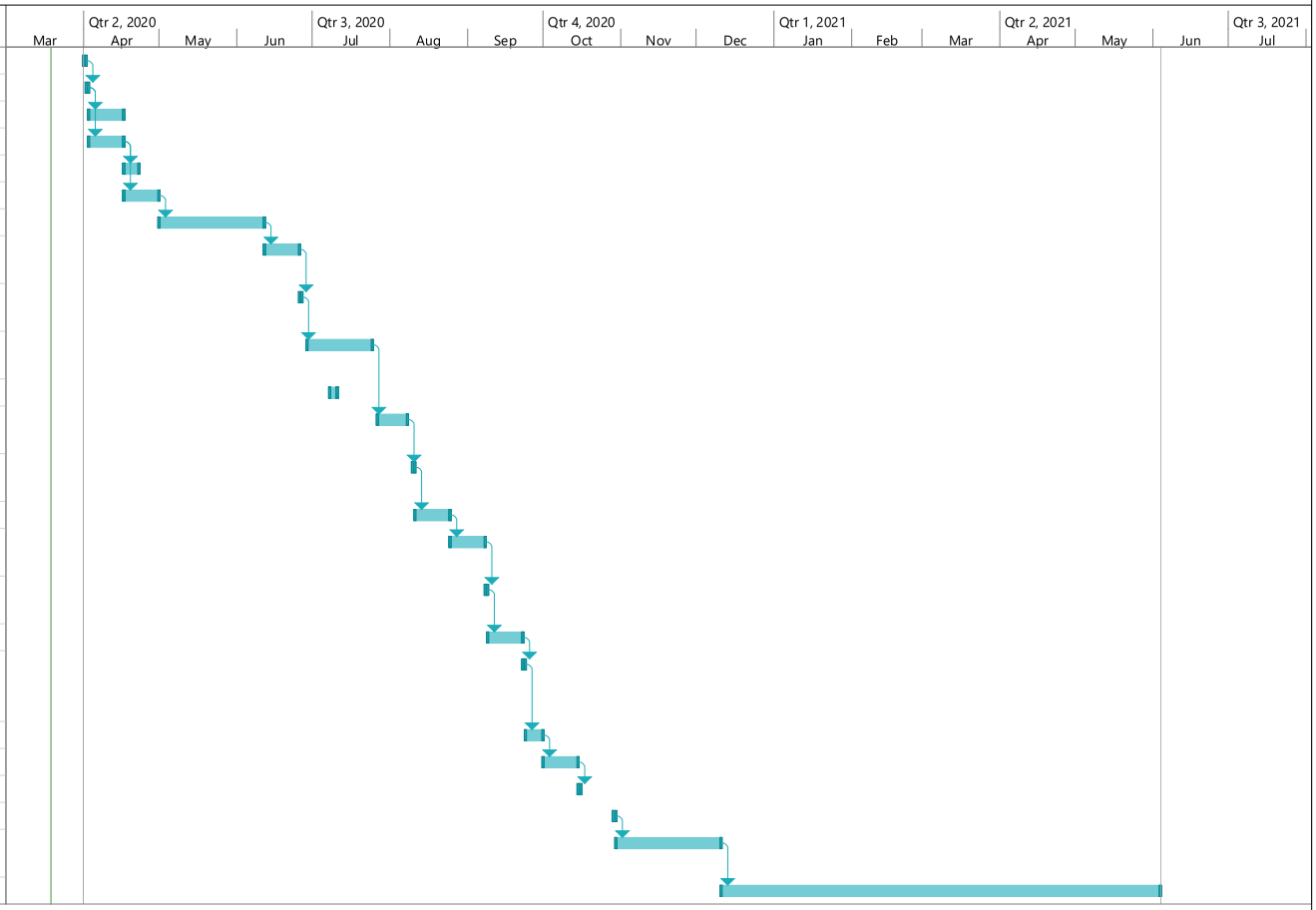
Contact: Richard F. Yeager, Jr.,
Principal Corrosion Engineer
2855 Progress Place | Escondido, CA 92029
(760) 746-2544

VCI Construction - Potholing

Contact: Joseph A Claveau, Senior Estimator
1921 W. 11th Street | Upland, CA 91786
(909) 946-0905

SAN ANTONIO WATER COMPANY
PROFESSIONAL DESIGN AND PROJECT MANAGEMENT SERVICES FOR MULTIPLE CAPITAL FACILITY PROJECTS
PROJECT SCHEDULE

ID	Task Name	Duration	Start	Finish
1	Notice to Proceed	1 day	Wed 4/1/20	Wed 4/1/20
2	Kick-Off Meeting	1 day	Thu 4/2/20	Thu 4/2/20
3	As-Built Research & Record	10 days	Fri 4/3/20	Thu 4/16/20
4	Utility Research & Notification	10 days	Fri 4/3/20	Thu 4/16/20
5	Frankish Tunnel Investigation	4 days	Fri 4/17/20	Wed 4/22/20
6	Survey	10 days	Fri 4/17/20	Thu 4/30/20
7	Prepare Design Base Maps (35%)	30 days	Fri 5/1/20	Thu 6/11/20
8	Water Company Review of Base Maps	10 days	Fri 6/12/20	Thu 6/25/20
9	Meeting with Water Company to Review Base Maps	1 day	Fri 6/26/20	Fri 6/26/20
10	Prepare 60% Design Plans, Specifications, and Estimate	20 days	Mon 6/29/20	Fri 7/24/20
11	Utility Potholing	3 days	Wed 7/8/20	Fri 7/10/20
12	60% Submittal of PS&E to Water Company for Review	10 days	Mon 7/27/20	Fri 8/7/20
13	Meeting with Water Company to Review 60% Submittal	1 day	Mon 8/10/20	Mon 8/10/20
14	Revise 60% PS&E	10 days	Tue 8/11/20	Mon 8/24/20
15	90% Submittal of PS&E to Water Company for Review	10 days	Tue 8/25/20	Mon 9/7/20
16	Meeting with Water Company to Review 90% Submittal	1 day	Tue 9/8/20	Tue 9/8/20
17	Revise 90% PS&E	10 days	Wed 9/9/20	Tue 9/22/20
18	Submit 100% Submittal Signed and Stamped Plans and Specificaitons	1 day	Wed 9/23/20	Wed 9/23/20
19	Complete Bid Documents	5 days	Thu 9/24/20	Wed 9/30/20
20	Advertise Bid	10 days	Thu 10/1/20	Wed 10/14/20
21	Pre-bid Conference	1 day	Thu 10/15/2C	Thu 10/15/20
22	Bid Date	1 day	Thu 10/29/2C	Thu 10/29/20
23	Award and Process Contract Documents	30 days	Fri 10/30/20	Thu 12/10/20
24	Construction	125 days	Fri 12/11/20	Thu 6/3/21



Project:SAWC
Date: March 23, 2020

Task
Split
Milestone
Summary
Project Summary
Inactive Task
Inactive Milestone
Inactive Summary
Manual Task
Duration-only
Manual Summary Rollup
Manual Summary
Start-only
Finish-only
External Tasks
External Milestone
Deadline
Progress
Manual Progress

Erik Howard, PE, PLS | Senior Principal Engineer

Erik Howard has 26 years of complex project surveying, engineering and management experience civil engineering including below ground waterlines, welded steel reservoirs, well and booster pumping plants, groundwater recharge facilities, and street improvements including records searches, surveying, utility verification, design, review, preparation of contract documents (construction drawings and specifications), and construction observation (inspection).

His civil engineering portfolio includes site design and access roadway design for various civil projects including site selection and evaluation, hydrology studies, determination of grading requirements, piping layout, utility relocation, and cost estimates.

His professional surveying portfolio includes preparation of records-of-survey, legal descriptions, conveyance documents, topographic surveying, construction staking, boundary surveying, and monumentation. He has also performed contract administration and construction management for various projects, as well as provided expert witness services, legal testimony, and assisted in forensic studies on an as-needed basis.

Education
BS, Civil Engineering,
California State Polytechnic Univ.,
Pomona, CA

Registrations / Certifications
CA, Civil Engineer No. C53318
CA, Professional Land Surveyor
No. 7648

Affiliations
California Land Surveyors Association
American Water Works Association
American Society of Civil Engineers

Areas of Expertise
Water/Wastewater Engineering
Project Management
Forensic Evaluations
Survey/Geomatics
Quality Control

2019 CIP Water Pipeline Replacement Project, City of Redlands, Redlands, CA – Project Manager for the design and construction of approximately 55,000 linear feet (LF) of 8-inch potable water main and 3,000 LF of 12-inch potable water main in various parts of MUED's services area, encompassing 45 different streets and five (5) different Pressure Zones. Said Pressure zones range in elevation from the 1570 Pressure zone (lower lying areas in the North) up to the 2340 Pressure zone (upper Redlands Heights area to the South). In total, Project is included 55,000 LF of pipe; about 10.4 miles.

San Gorgonio Pass Water Agency, Beaumont, CA – Since 2005, has served as project manager, engineer and surveyor for study, design and construction of various projects and service connections from the East Branch Extension, a reach of waterline off of the State Water Project aqueduct. As a State Water Contractor, projects allow SGPWA to provide water to local water districts within its service areas to supplement groundwater supplies and reduce pumping overdraft. Projects include the Noble Creek and Mountain View Channel Turnout Connections and the Beaumont Avenue Recharge Facility Pipeline and require coordinating directly with SGPWA general manager/chief engineer and the State Department of Water Resources (DWR) staff. Extensive permitting coordination has also been required with the Riverside County Transportation Department, Riverside County Flood Control and Water Conservation District, and the City of Beaumont.

Quail Valley Sewer Conversion Project, Eastern Municipal Water District, Quail Valley, CA – Project manager, engineer and surveyor for an ongoing alternatives study, preliminary and final designs to convert the community from septic to gravity sewer. For the alternatives study, coordinated preliminary mapping effort and developed concept of breaking the total area (containing over 3,500 parcels) into nine manageable subareas with reasonably common development characteristics. Developed potential easement alignments and associated costs to maximize gravity sewer options and provided technical oversight of deep versus shallow constructability matters. For the Subarea 9 Preliminary and Final Designs, managed all detailed mapping efforts, provided technical review of alignment options, and developed final construction documents.

Joanna Rembis, PE | Principal Engineer

Ms. Rembis has more than 20 years' experience in the field of Project Engineering/Project Management, Field Inspection and Customer Support - 12 of which she spent as a Project Manager. Her experience includes preparing specifications, plans, and bid packages for rehabilitation and design of new tank projects. Ms. Rembis has also provided quality control inspection and construction management services for various projects including water tanks, pipelines, and cathodic protection.

She developed the specifications and plans for the rehabilitation of over 500 welded steel, bolted steel, and concrete reservoirs and for the construction of 20 plus new welded steel and bolted steel tanks. Technical specifications have included earthwork, masonry, concrete, rebar, tank construction, Cal/OSHA safety, coatings, piping, valves, cathodic protection, electrical, and roofing.

She prepared and provided cost estimates to clients for new projects. Conducted QA/QC for the projects and reviewed all major deliverables before delivered to clients. Maintained regular communication with clients to ensure compliance with the established project goals and execution.

Education
California State Polytechnic University, Pomona

Registrations / Certifications
Registered Civil Engineer, C75535

Affiliations
American Water Works Association

Current Secretary of the Tanks, Reservoirs, Structures, Maintenance Committee

Inland County Water Association

Southern California Water Utility Association

American Society of Civil Engineers

Areas of Expertise
Municipal Engineering Services
Construction Management
Structural and Welding Inspection

Coachella Valley Water District, Coachella, CA – Over the past 20 years, provided engineering and construction management services to the District on various projects. The following are highlights of the services and projects provided for the District:

- Evaluated and prioritized 64 reservoirs in the District's system for maintenance and rehabilitation.
- Prepared specifications and plans for Cal/OSHA safety upgrades on 64 reservoirs, provided bid support and in the process of providing construction management for the upgrades.
- Formulated specifications and plans for the design of nine new reservoirs and rehabilitation of 18 reservoirs.
- Provided bid support, construction management, and quality control inspection for 25 of the reservoirs.
- Prepared specifications and plans for the installation of a new concrete ringwall under an existing 5.0 MG reservoir and provided construction management for the rebar placement and concrete pour.
- Managed over $10M in project costs for the District.

Long Beach Water Department, Long Beach, CA – Over the past 20 years, provided engineering and construction management services on multiple projects for the Water Department.

- Prepared technical specifications, plans, and bid packages for 13 tank rehabilitation projects and provided construction management and quality control inspection, for all 13 rehabilitation projects.
- Supplied the design and construction management for the installation of cathodic protection systems in 34 of the tanks.
- Prepared specifications, plans, and construction management for Cal/OSHA safety upgrades on all 36 tanks.
- Ensured quality control inspection on two separate projects for the installation of cathodic protection anode beds throughout the city for their pipeline systems.
- Provided construction management for three separate projects for the installation of 10 fiberglass chemical tanks at the water treatment plant.
- Additional projects consisted of evaluating 34 bridge pipeline crossings at various locations throughout the city and prepared the specifications and plans for the exterior painting of 10 pipe crossings.

Bloomington Area Waterline Replacements, West Valley Water District, Rialto, CA – Project Manager during the construction inspection of 5,600LF of 8" CML&C waterline in the Bloomington Area of the District's service area. This project was executed in conjunction with relations of water meters and services from abandoned alley ways behind residences to the street side. This required careful coordination between the District, the Contractor, and ERSC's inspector to ensure disruptions to private property was kept to a minimum.

Zone 3 Waterline Improvements (Valley Blvd, Larch Ave, Pomona Ave & Adjacent Streets); West Valley Water District – Design engineer for 8,400± LF of 12-inch, 8-inch and 6-inch waterline replacement project including utility research, potholing, permit coordination and preparation of contract documents. Project is currently at the 90% design completion level with preliminary bid and specification documents submitted and under review. Also includes 105 water service replacements, 11 mainline connections, 14 fire hydrants, and miscellaneous appurtenances.

John G. Egan, PE | Sr. Principal Engineer

With over 50 years of experience, Mr. Egan has been extensively involved in planning and design of water and wastewater facilities consisting of pipelines, pumping stations and treatment facilities. Representative are reservoir grading, foundation and access road design for water purveyors in Yucca Valley, Idyllwild, Yucaipa, and the City of Colton; design of a new irrigation pumping station for Yucaipa Regional Park, and potable water pumping stations for Hi-Desert Water District in Yucca Valley and Eastern Municipal Water District, near San Jacinto.

City of San Bernardino Municipal Water Department, San Bernardino, CA – As a team member with Camp, Dresser, and McKee, served as Project manager responsible for route planning and design of 4,000 feet of 24-inch and 36-inch transmission pipeline in Cajon Boulevard and Medical Center Drive, designated the Enhanced Reliability Schedule of Improvements.

City of San Bernardino, Enhanced Reliability Schedule of Improvements, San Bernardino, CA – As a team member with Camp, Dresser, McKee, Mr. Egan served as Project Manager responsible for route planning and design of 4,000 feet of 24-inch and 36-inch transmission pipeline in Cajon Boulevard and Medical Center Drive, and 7,500 feet of 42-inch transmission pipeline from the Baseline Feeder to the 19th Street Water Treatment Plant, through urbanized portions of City streets.

City of Loma Linda, Distribution Pipeline Replacements, Loma Linda, CA – Project Manager for research, survey, design, and preparation of PS&E for replacement of ±6,000 linear feet of undersized distribution pipelines in congested and/or heavily trafficked streets in the City. The two projects involved research/location of existing utilities, connections to existing pipelines, and reconnecting/replacement of service laterals.

Education
BS, Civil Engineering, Iowa State University, Ames, IA

MS, Business Administration, University of Southern CA, Los Angeles, CA

Environmental Options, Graduate School of Civil Engineering, University of Southern CA

Registrations / Certifications
CA, Civil Engineer No. C14853

Affiliations
American Public Works Association
American Water Works Association
American Society of Civil Engineers
American Academy of Envir. Engineers

Areas of Expertise
Transportation
Lift/Booster Stations
Quality Control
Project Management

Running Springs Water District, Lone Pine and Deer Lane Distribution Pipeline Replacements, Arrowbear Lake, CA – Responsible for design and preparation of PS&E for replacement of 21,000 linear feet of undersized distribution pipelines for Arrowbear Park County Water District. Projects, consisting of four phases, included connections to existing pipelines, consideration for hard excavation and high groundwater, location of appurtenances, State Highway Crossing, and re-connection/replacement of service laterals.

Cooley Drive Pipeline, Loma Linda, CA – Project Manager during an analysis performed for the City of Loma Linda to determine the route sizing and material analysis for collection of discharge from three of the City's wells into a common discharge header. The project as designed included approximately 2,600 feet of pipeline ranging in size from 12- to 20-inches in diameter, connections to well discharges and to a 20-inch transmission pipeline.

Western Heights Water Company, Yucaipa, CA – Mr. Egan has been responsible for numerous water source planning and conveyance projects for the Company. Included are a Master Plan and energy efficiency analysis, planning for service to undeveloped areas, and design of ±15,000 LF of new replacement pipelines, including crossings of Interstate 10 at three locations, two in new Caltrans bridges and one via a jacked casing.

Trent Brudin, PE | Engineer III

Mr. Brudin was introduced to the industry in 2012 as an intern at Lake Hemet Municipal Water District. Since then, he has held positions as Assistant Project Engineer and Project Engineer at C.W. Driver, a general contracting firm, until shortly after his graduation in 2015 when he took a position as Associate Civil Engineer at Parsons Corporation. Trent joined the ERSC team as Engineer II in early 2016.

Mr. Brudin's time in the industry has been spent providing hydrology studies, drainage design, site grading, geometric site layout, WQMP and SWPPP documentation and so on.

Education
BS, Civil Engineering, Loyola Marymount University,
Los Angeles, CA

Registrations / Certifications
CA, Civil Engineer No. 90924

Areas of Expertise
Site Layout & Geometrics
Hydrology & Drainage
AutoCAD Civil 3D

Similar Related Experience:

2019 CIP Water Pipeline Replacement Project, City of Redlands, Redlands, CA – Project engineer and designer for the design of approximately 55,000 linear feet (LF) of 8-inch potable water main and 3,000 LF of 12-inch potable water main in various parts of MUED's services area, encompassing 45 different streets and five (5) different Pressure Zones. Said Pressure zones range in elevation from the 1570 Pressure zone (lower lying areas in the North) up to the 2340 Pressure zone (upper Redlands Heights area to the South). In total, Project is included 55,000 LF of pipe; about 10.4 miles.

Pipeline Replacement, Alpine Water Users Association, Twin Peaks, CA – Project Engineer designer on the 1,600 linear feet pipeline replacement for Maxon Drive and Lake Forest Drive. Design pipeline replacement utilizing C900 PVC pipe, including required fittings and thrust restraint be necessary due to the significant changes in alignment of the pipeline, as well as utility research and coordination for the project.

Golden Avenue Bridge, Placentia, California — Engineer II during the development of plans for the bridge replacement project in Orange County. Plan and profile views were created for the proposed bridge layout and the existing Carbon Creek flood control channel below. Considerations during geometric layout included aligning with existing streets, identification of existing utilities and storm drains, proposing new storm drain locations, an adequate bridge width to accommodate future traffic, pedestrian and bike flows, and the placement of the OC Bike Loop that is planned to run within the Carbon Creek channel which has entrance/exit ramps on either side of the bridge. Bridge design was provided by Biggs Cardosa Associates, Inc.

La Laguna RV Resort, Lake Elsinore, CA – Project Engineer designer providing design of sewer and water systems to the roughly 230 space RV resort located on the northwestern shore of Lake Elsinore. The water and sewer system design included the layout of main distribution lines and a hookup "pedestal" to each individual RV space that provides a water, sewer and electrical connection for the RV in that space.

Sewer Line Relocation - Soboba Band of Luiseño Indians in conjunction with Eastern Municipal Water District, San Jacinto, CA – Project Engineer designer for the reconstruction of the existing 10" sewer line to a 15" gravity sewer line located on the site. The design was created in accordance to EMWD's standards regarding size, materials, as the maintenance of the line is not to be assumed by the Tribe. Sewer will connect to an existing lift station offsite and be pumped via force main to EMWD facilities.

Sewer Capacity Improvement Project C-1, C-2, C-3, City of Victorville, Victorville, CA – Project Engineer designer during the upgrading of 3,022 feet to 15-inch pipe from existing 10-inch pipe (C-1); upgrading of 1,748 feet to 12-inch pipe from existing 8-inch pipe (C-2); upgrading of 6,550 of 18-inch pipe upgraded from 12-inch pipe (C-3).

Stephania Hernandez | Engineer I

Ms. Hernandez recently joined ERSC as an Engineer I. She is proficient in identifying and solving problems related to the use of territory and its resources, able to cover the programming and development of environmental projects and sustainable development. She is also efficient in the planning and organization of geographical space and in the use of modern cartographic technologies and of Geographic Information Systems (GIS).

Education

BS, Geographic and Environmental Engineering, University of Applied and Environmental Sciences (UDCA), Bogota, Colombia

Areas of Expertise

Environmental Analysis

Similar Project Experience:

Aliso Creek Road Rehab from Aliso Viejo Parkway to SR-73, City of Aliso Viejo, CA - Project Engineer on the design of the Aliso Creek Road Rehab project, which included the grind and overlay of the roadway, localized full depth replacements, signing and striping, traffic signal loops, traffic control and Caltrans Coordination. The project involved additional detailed design of ADA ramps at the SR-73 interchange and obtaining a Caltrans Encroachment permit.

C Street Angled Parking, City of Ontario, Ontario, CA - Designer for the C Street angled parking. Work included reconfiguration of the existing roadway to allow for thirteen (13) angled stalls to accommodate parking for the existing Wells Fargo.

Sewer Capacity Improvement Project C-3, City of Victorville, Victorville, CA – Assisted designer during the project that included upgrading of 6,550 of 18-inch pipe upgraded from 12-inch pipe. The project is generally located in residential areas and crosses a park in an easement. The City of Victorville has identified the potential to construct a new sewer main in the San Bernardino County Flood Control District's (SBFCD) access road, next to the Oro Grande Wash from Austin Road to Seneca Road. This relocation eliminates a series of existing lines that traverse several properties, which requires the abandonment of any existing easements. This requires coordination with several residences, and the new alignment will require coordination with SBFCD and their approval. It is assumed that this has been discussed with SBFCD but will require appropriate reviews and permitting.

4th Street Apartments, City of Yucaipa, Yucaipa, CA - Assisted with the design of 18 apartment units on approximately 2.5 acres of land. Scope of work also includes production of the preliminary WQMP and hydrology calculations.

CIP Water Pipeline Replacement Project, City of Redlands, Redlands, CA - Assisting in the design of new water mains ranging from 8 inch to 12 inch ductile iron pipe (DIP). The purpose of the project is to eliminate undersized and aging infrastructure. The design will include the reconnection of all water service laterals to the new main. The project includes approximately 55,000 linear feet of existing pipeline that need to be replaced.

Washington Street at Fred Waring Drive Triple Left Turn Lanes, City of La Quinta, La Quinta, CA – Assisting in design of improvements to this high traffic intersection by adding a third, left turn lane in each direction of the intersection in order to alleviate traffic congestion and improve traffic flow. Ms. Hernandez also assisted on the detailed project description, plans, bid schedules, bid item descriptions, payment methods, engineer's estimate, special provisions, technical specifications, and any specification detail sheets and relevant standard plans.

Design of Murrieta Creek Bridge, City of Temecula, Temecula, CA – Assisting in the design of a bridge structure over Murrieta Creek connecting Overland Drive at the intersection of Enterprise Circle West on the east side of the Creek to Avenida Alvarado at the intersection of Diaz Road on the west side of the Creek. Ms. Hernandez is also assisting on the PS&E and utility research and coordination.

Katherine Hernandez | Engineer I

Ms. Hernandez recently joined ERSC as an Engineer I. She is proficient in geographic and environmental engineering, able to identify and solve problems related to environmental, geographical and territorial resources, interrelated with social processes and territorial ordering through sustainable development. Qualified to make cartography with modern technologies related to geographic information systems (GIS).

Education
BS, Geographic and Environmental Engineering, University of Applied and Environmental Sciences (UDCA), Bogota, Colombia

Areas of Expertise
Environmental Analysis

Similar Project Experience:

Aliso Creek Road Rehab from Aliso Viejo Parkway to SR-73, City of Aliso Viejo, CA – Project Engineer on the design of the Aliso Creek Road Rehab project, which included the grind and overlay of the roadway, localized full depth replacements, signing and striping, traffic signal loops, traffic control and Caltrans Coordination. The project involved additional detailed design of ADA ramps at the SR-73 interchange and obtaining a Caltrans Encroachment permit.

Sewer Capacity Improvement Project C-3, City of Victorville, Victorville, CA – Assisted designer during the project that included upgrading of 6,550 of 18-inch pipe upgraded from 12-inch pipe. The project is generally located in residential areas and crosses a park in an easement. The City of Victorville has identified the potential to construct a new sewer main in the San Bernardino County Flood Control District's (SBFCD) access road, next to the Oro Grande Wash from Austin Road to Seneca Road. This relocation eliminates a series of existing lines that traverse several properties, which requires the abandonment of any existing easements. This requires coordination with several residences, and the new alignment will require coordination with SBFCD and their approval. It is assumed that this has been discussed with SBFCD but will require appropriate reviews and permitting.

CIP Water Pipeline Replacement Project, City of Redlands, Redlands, CA – Assisting in the design of new water mains ranging from 8 inch to 12 inch ductile iron pipe (DIP). The purpose of the project is to eliminate undersized and aging infrastructure. The design will include the reconnection of all water service laterals to the new main. The project includes approximately 55,000 linear feet of existing pipeline that need to be replaced.

Washington Street at Fred Waring Drive Triple Left Turn Lanes, City of La Quinta, La Quinta, CA – Assisting in design of improvements to this high traffic intersection by adding a third, left turn lane in each direction of the intersection in order to alleviate traffic congestion and improve traffic flow. Ms. Hernandez also assisted on the detailed project description, plans, bid schedules, bid item descriptions, payment methods, engineer's estimate, special provisions, technical specifications, and any specification detail sheets and relevant standard plans.

Design of Murrieta Creek Bridge, City of Temecula, Temecula, CA – Assisting in the design of a bridge structure over Murrieta Creek connecting Overland Drive at the intersection of Enterprise Circle West on the east side of the Creek to Avenida Alvarado at the intersection of Diaz Road on the west side of the Creek. Ms. Hernandez is also assisting on the PS&E and utility research and coordination.

Jazz Goodie | Engineering Associate III

Ms. Goodie has extensive AutoCAD, Total Station drafting and field survey experience. With over 32 years' experience in the civil engineering field, she has processed field survey data for base map preparation, drafted grading plans for tract maps, prepared street improvement plans, and record maps from base sheets to final recordation.

Ms. Goodie also has extensive experience in the preparation of cost estimates and quantities, interpretation of legal descriptions for the preparation of lot splits, grants of easement, dedications, vacations and quality assurance plan checking. She has designed pipelines, traffic signal systems and interconnect system operations plus preparation of street striping and median plans.

Registrations / Certifications
AutoCAD Certification
Land Development
Desktop Certification

Areas of Expertise
Wells, Pump/Lift Stations Design
Street Improvement Design
Sewerlne Design
Waterline Design
Street Striping
Traffic Control

Similar Project Experience:

2019 CIP Water Pipeline Replacement Project, City of Redlands, Redlands, CA – Project Manager for the design and construction of approximately 55,000 linear feet (LF) of 8-inch potable water main and 3,000 LF of 12-inch potable water main in various parts of MUED's services area, encompassing 45 different streets and five (5) different Pressure Zones. Said Pressure zones range in elevation from the 1570 Pressure zone (lower lying areas in the North) up to the 2340 Pressure zone (upper Redlands Heights area to the South). In total, Project is included 55,000 LF of pipe; about 10.4 miles.

Project Designer for the following West Valley Water District Projects:

- 1,800 feet of 16-inch transmission waterline on Duncan Canyon Road and 700 feet of 18-inch waterline on Lytle Creek Road
- 4,300 feet of 30-inch transmission waterline and 1,580 feet of 12-inch waterline on Pepper Avenue
- 3,000 feet of 30-inch transmission waterline on Base Line Road and Pepper Avenue
- 3,900 feet of 30-inch transmission waterline on Terrace Road
- Pump Station 8-2, 30-inch Zone 3A transmission pipeline; Pressure Zone 2, 12-inch pipeline, and 16-inch pipeline to Well No. 6
- Agua Mansa Road 12-inch waterline
- Highland Avenue Extension, West Valley Water District, Rialto, CA
- 1.0 Million Gallon Welded Steel Reservoir, West Valley Water District, Rialto, CA
- Pump Station Zone 4-3, West Valley Water District, Rialto, CA
- Bloomington Area Watermain Relocations, West Valley Water District, Rialto, CA
- Zone 6-2 Pumping Station, West Valley Water District, Rialto, CA

Project Designer for the following Arrowbear Park County Water District Projects:

- 1,700 feet of 8-inch waterline
- 3,200 feet of 8-Inch waterline
- CLAWA Pump Station, Arrowbear Park County Water District

James D. Cole, PLS | Principal Surveyor

Mr. Cole of JD Cole & Associates has over 45 years' experience in land surveying, including 43 years as a Party Chief. He has provided land surveying services for major developments and agencies. Mr. Cole is experienced in all types of survey including, but not limited to Boundary, Topographic, Construction, Cross sectioning, aerial mapping and G.P.S. with survey data linked to AutoCAD files.

Mr. Cole utilizes the latest and most technically advanced surveying equipment, providing accurate coordinate geometry calculations for all survey needs. He has provided Airtouch Cellular and Pactel with boundary, topographic and construction surveying including solar azimuth layouts for antennas, roof top surveys for microwave units and F.C.C. certifications at all sites.

Through extensive experience working with Caltrans, an in-depth knowledge of Caltrans standards and specifications has been developed. This includes right-of-way and construction surveying for various projects in Southern California as well as bridge as-builts, cross sections, right-of-way surveys, all phases and types of construction and horizontal and vertical control.

Education

Survey Classes:
Southern California Joint Apprenticeship Committee Program
Cal Poly Pomona
San Bernardino Valley College
Santa Ana College
Riverside City College

Registrations / Certifications

CA, Land Surveyor No. LS5613
Certified Party Chief for Subdivision, Boundary Surveys, Construction Surveying and Topographic Surveys

Areas of Expertise

Caltrans Standards and Procedures
Land Survey

Similar Related Experience:

- Elsinore Valley Municipal Water District, Lake Elsinore, CA- Provided survey to the ERSC team during the design of a new parking lot for the District.
- Riverside County Fire Station 34, Winchester, California – Design survey for parking and safety improvements.
- Riverside County Fleet Maintenance Facility, Moreno Valley, California – Design survey for maintenance building addition and parking redesign and expansion.
- County Line Road Widening, Calimesa, California – Design survey and base sheet for street improvements.
- Cawston Gardens, Hemet, California – Design survey for 28 unit senior living facility.
- 4th Street Apartments, Yucaipa, California – Design Survey for 13 unit apartment complex.

Hashmi Quazi, PhD, PE GE | Geotechnical Services

Dr. Quazi works out of our Redlands office and has over 31 years of experience providing geotechnical engineering services and has earned a reputation for providing quality work in an honest and ethical manner, on time and within budget. Dr. Quazi provides quality control, budget oversight, and technical assistance on various types of bridges, grade separations, roadways, streets and other related studies.

EDUCATION

- Ph.D., Civil Engineering, University of Arizona, 1987
- M.S., Civil Engineering, Arizona State University, 1982
- B.S., Bangladesh Engineering University, 1978

REGISTRATIONS/CERTIFICATIONS

- California, Civil Engineer, #46651
- California, Geotechnical Engineer, #2517

Relevant Experience

I-10 & Monroe Street /Interchange, *Indio, CA.* Principal in Charge. Provided technical oversight and budget control for the geotechnical services in PSR/PA/ED and PS&E phases. The I-10/Monroe Street interchange is located between Jefferson and Jackson Streets in Indio, California. The segment of I-10 within the project limits is a six-lane freeway. The project consisted of the reconstruction of Monroe Street at the I-10 bridge crossing from one lane to three lanes in each direction and includes two left turn lanes at each ramp intersection for access to I-10. Monroe Street will be reconstructed from one lane to three lanes in each direction. I-10 eastbound and westbound off-ramps will be reconstructed with additional turn lanes at the ramp termini.

I-10 & Jackson Street /Interchange, *Indio, CA.* Principal in Charge. Provided technical oversight and budget control for the geotechnical services in PSR/PA/ED and PS&E phases. There are two bridges along Jackson street near the Interstate 10 freeway crossing in the City of Indio. The southern bridge, which spans across the Whitewater River channel to the south of the freeway, is 552 feet long and 47 feet wide, and begins at the intersection of Jackson Street and 43rd Avenue. This bridge extends north until it connects with the eastbound on and off ramps of the freeway. The northern bridge, which crosses the Interstate 10 freeway, is 264 feet long and 47 feet wide, and begins approximately 250 feet north of the northern end of the river channel bridge. The improvements to the existing bridges consist of reconfiguring the existing interchanges and widening or reconstructing the bridges that cross the Whitewater River channel.

Orange Street Bridge, *Redlands, CA.* Principal in Charge. Provided technical oversight and budget control for the geotechnical investigation. The crossing of the Santa Ana River at Orange Street was washed out in 1993 and again in 1995. The original structure was replaced with a dip crossing with concrete box culverts at the Orange Street crossing. The bridge parameters are 100 meters long, 20 meters wide, 3 spans, 4 lanes, and 124 meters of approach lane length.

Alabama Street Bridge, *Redlands, CA.* Principal in Charge. Provided technical oversight and budget control for the geotechnical investigation. The crossing of the Santa Ana River at Alabama Street was washed out in 1993 and again in 1995. This original structure was replaced with a dip crossing with a series of large corrugated metal pipes to carry flow at the Alabama Street crossing. The bridge parameters are: 120 meters long, 20 meters wide, 3 spans, 4 lanes and approximately 390 meters of approach lane length.

Ramon Road Widening, *Palm Springs, CA.* Principal in Charge. Provided technical oversight and budget control for the geotechnical investigation. This project consisted of widening the Ramon Rd. Bridge at the Whitewater River, in Palm Springs. The project widened Ramon Rd. Traffic operation improvements were completed at the intersections of Ramon Rd. at Crossley Rd. and Landau Blvd. by adding one exclusive left-turn lane in the westbound and the eastbound directions, respectively. The Ramon Rd. Bridge at the Whitewater River was widened from 4 to 6 lanes.

Converse Consultants

Downstream Services | Flow Monitoring

Downstream Services has continuously provided critical solutions in environmental compliance. We are the defenders of our water resources and the life it supports. Our highly skilled personnel and substantial fleet of specialty equipment serves the needs of California communities, delivering quality service and customer experience that is centered on the client's goals and objectives. By taking the time to truly listen and understand our customers, we ensure the best possible outcome on every project, regardless of its size or complexity.

Downstream Services specializes in the assessment, maintenance and rehabilitation of stormwater, wastewater and underground utility systems.

Downstream Services provides efficient and safe solutions for waste removal and is endorsed to handle, transport and dispose of contaminated and non-contaminated waste. Contact us for a complete list of current licenses and certifications.

With its extensive fleet of CCTV inspection vehicles, equipment and certified, highly skilled team members, Downstream Services has the resources and expertise to inspect and assess wastewater collection and stormwater conveyance systems accurately and efficiently.

Our NASSCO PACP, LACP and MACP certified technicians deliver real-time video/audio documentation and analysis reports to assist our clients in planning needed maintenance and rehabilitation projects.

Downstream Services inspection systems are capable of articulating in adverse pipe conditions ranging from 3 to 200 inches in diameter and up to 6,000 feet in length. Our long range CCTV and sonar equipment extends assessment capabilities to provide detailed information on charged pipelines with cross-sectional scans and calculation of a structure's total volume of sediment and debris in varying flow conditions—information that is critical to assessing the performance and health of large diameter pipelines.

Technicians are available 24/7 to respond to emergency pump station and instrumentation issues. We have the latest in flow monitoring technology that allows us to monitor and record flows for all fluid process and waste flows. We can temporarily or permanently monitor both gravity and forced main applications.

Downstream Services provides emergency services for stormwater, wastewater and water systems 24 hours a day, seven days a week. With the ability to mobilize vehicles and equipment within two hours or less, we can provide:

- Confined Space and SCBA Entries
- Hydro-Jetting, Vacuum Cleaning and Containment
- Real-Time CCTV Inspections
- Location, Assessment and Remediation of Breaks, Blockages and Overflows
- Investigation of Sink Holes
- Storm Drain Cleaning from Illicit Dumping
- Emergency Bypass Pumping
- Assessment, Replacement and Repair of Underground Utilities
- Instrumentation Analysis and Repair
- Pump and Process Systems Analysis and Repair

VCI Construction | Potholing

Founded in 1991, VCI Construction is headquartered in Upland, California, which strategically offers us a unique perspective to best meet the needs of the geographic markets we serve. As a full service contractor, we specialize in providing all types of turnkey OSP/ISP telecommunications services as well as utility construction including, but not limited to:

- Aerial Construction & Make Ready
- Underground substructure
- Engineering & Permitting
- Fiber Splicing & Testing
- Wireless communications
- Project Management
- Network Repair & Maintenance
- Water, Sewer & Storm drainage

Possessing a deep understanding of industry requirements, VCI's skilled team of experts remains on the forefront of technical innovations in a fast-paced, rapidly changing industry. We take great pride in providing customers quality work at a competitive price. Over the course of the last 25 years, we have completed thousands of miles of complex network construction and countless high profile projects. This experience has given us a deep and comprehensive understanding to consistently meet (and exceed) our clients' high expectations for safety, quality and service.

At VCI, we continually work to expand our geographic footprint and the services we provide. In addition to our headquarters in Upland, we also have several field offices from which our 400 employees serve customers in the western U.S.

Telecommunications Services

VCI Construction is well positioned to meet the challenging requirements of today's evolving networks with a variety of services for telecommunications providers. From signal origination to distribution systems, these comprehensive services include turnkey OSP construction such as trenching, directional drilling, aerial pole line placement, cable placement, plus conduit and manhole installations. We offer fiber splicing and testing services including single fusion and mass fusion splicing, fiber characterization services along with end-to-end network analysis. Our customers represent key industry players from a wide range of telephone and CATV providers including incumbent providers and new entrants alike.

Utility Services

VCI Construction is uniquely equipped to offer a host of services for area utility customers. Relying on our extensive experience in this area, we provide customers civil services such as Rule 20 undergrounding projects, joint trench, major duct system relocation, grade separation projects, bridge crossings, directional drilling, manhole construction and much more. This civil division of VCI also installs and maintains water, sewer and storm drainage systems for private and public entities.

Wireless Services

With the race to offer speeds of 5G and beyond, VCI remains at the forefront of wireless transmission technology to help our customers offer uncompromising performance with a full array of professional, technical, and construction services to support the industry's exponential growth demands. Wireless service providers depend on our expertise and experience to achieve end-to-end solutions for even the most challenging technical issues. Our wireless construction services include site backhaul, network modifications, small cell deployment, indoor and outdoor DAS, towers, and general construction. Trust our team of wireless professionals to help you improve service to wireless customers by maximizing capacity efficiently and effectively while also saving time and money.

Project Understanding and Approach

Project Understanding and Approach

Based on the RFP for Professional Design and Project Management Services for Multiple Capital Facility Projects, ERSC understands that the San Antonio Water Company desires to improve its water system by replacing the old and deteriorating pipe in 5 of the 7 site locations, services at 4 of the 7 site locations and 2 meters at the Frankish Tunnel Overflow. Upon completion, the final design will encompass approximately 6200 feet of pipeline to replace the existing lines, 31 services and meter boxes, 7 fire hydrants and two propeller meters. In addition, ERSC will perform investigation studies for the Frankish Tunnel site to confirm system operation for the design and installation of two new meters.

Based on ERSC's understanding of the proposed water main replacement projects and experience with projects of similar nature, we have developed the following approach, or work plan, for the completion of requested plans, specifications, estimates, and related services. ERSC's first objective will be to review all existing reports, plans, and technical information and meet with SAWC to verify all their concerns are adequately addressed. Upon review of the as-builts and the information received from the existing utilities, ERSC will arrange for the sites to be surveyed. Once all technical information for the site has been collected, reviewed, and organized, ERSC will prepare the base map and then schedule for potholing at locations where utilities conflict with the proposed new lines. The final outcome of the required professional services will be plans, specifications, and estimates for the water main replacements, services, and meters. ERSC will be able to provide SAWC with a realistic cost estimate for the recommended pipeline replacements, based on numerous similar completed projects in the last year.

ERSC understands the success of a project is based, in part, on the quality of management and controls implemented during the entire design phase. Therefore, ERSC's design engineer is directly involved in the field visit of the project site and collection of field data to ensure the plans accurately represent field conditions for each project. In addition, during the design phase, ERSC's project manager works closely with the principal engineer, design engineer, and SAWC and maintains constant communication. All design deliverables are thoroughly reviewed by the project manager and principal engineer for accuracy, industry standards and codes, and compliance with SAWC's requirements prior to being submitted to SAWC. ERSC's internal communication on our design projects allows the engineering staff to be readily available to respond to any of SAWC's questions or concerns. ERSC will work quickly and efficiently to resolve any of SAWC's pressing issues. The project manager will continually keep SAWC abreast of the status of the design project schedule. Once the bid documents are complete, ERSC will assist SAWC in advertising the bids, conducting pre-bid meetings, and analyzing the bids for award.

ERSC will assist SAWC in executing the Contract documents with the selected contractor and provide the appropriate field oversight to ensure the Contractor's compliance with the project documents.

The following outlines the project's top three challenges.

Challenge No. 1 – Frankish Tunnel Pipeline Repair – SAWC desires to upgrade the tunnel outfall and replace two (2) existing propeller meters to account for all available water being delivered to the Basin 6A. Based on a limited field review and due diligence review of available survey and USGS mapping records, ERSC understands that said meters are located about 370 feet southeasterly from the easterly terminus of Trail View Court. Using both Google Earth and said USGS maps, the nominal ground elevation at the meters is approximately 1,830 feet. Both meters are adjacent to one another and discharge into a common pipeline (size unknown) that conveys the spreading water approximately one-mile due south to Basin 6A (located south of the 210 freeway; at the intersection of N. Campus Ave and E. 19th Street). The nominal elevation at said intersection is around 1,585 feet.

The Water Company's atlas sheets show water from its Forebay System in the west is delivered to the first meter via a 24-inch RCP / Steel pipeline. Similarly, the atlas sheets show water from the Frankish Tunnel (Tunnel) in the north delivers water to the second meter via a 36-inch pipeline. Since little is known about the Tunnel, ERSC offers the following summary of how we believe it may function.

As shown on USGS maps, Frankish Peak and Frankish Canyon (north of San Antonio Heights) are approximately midway between the Cucamonga and San Antonio Canyons. Based on comments from Staff, the Tunnel recently started flowing water after many years of being dormant. The change coincided with the completion of the Cucamonga Crosswalls Maintenance Project that removed approximately 200,000 CY of aggregate material from the north side of Cucamonga Dam. The actual location of the Crosswalls Project also appears to coincide with a historic percolation basin site within Cucamonga Creek, generally located between 25th and 26th Streets on the east side of San Antonio Heights. We suspect that the intake for the Tunnel is some form of an infiltration gallery adjacent to the basins, and the reformation of the basins allowed water to again be captured

Estimating the lowest basin elevation at 2,000 feet and approximately 4,000 linear feet northerly of the meters (at 1,830 feet), we compute a nominal slope of 4.2% for the Tunnel. The Tunnel alignment is likely along the westerly edge of the creek bed. The flows within the Tunnel would vary greatly depending on the gallery's infiltration rate. For comparison, the 36-inch pipe at 20% full would flow 4,600± gpm, and at 40% full would flow 18,000 gpm. As such, propeller meter sizing could vary from 16-inch to 36-inch respectively (to be properly sized). For this reason, ERSC is proposing to perform an investigative study to confirm system operation in advance of the design.

ERSC's proposed scope of work included the following efforts:

- Excavate and expose both meter vaults and associated piping (with conventional excavation equipment) to assess existing configurations.
- Make appropriate initial entry into the 36-inch Frankish Tunnel to trace and inspect pipeline (1,000± LF) using closed-circuit television (CCTV) technology.
- Continue locating, entry and tracing efforts at four additional locations; up to 2,000 foot elevation mark (4,000± LF).
- Develop a Summary and Condition Assessment Technical Memorandum (TM).
- Meet with Staff on TM to refine desired design approach moving forward.
- Assuming propeller meters are deemed appropriate, design replacement metering and piping upgrades near current location.

Challenge No. 2 – Reservoir 9 Pipeline Replacement: The RFP indicates the new line is to be installed along backside of Burt Street Homes to Reservoir No. 9, however this route will have an environmental impact and require extensive environmental research, permits, and also have a higher cost for installation. Therefore, ERSC recommends rerouting the new pipeline down Burt Street to Reservoir No. 9 where there will be little to no environmental impact and the cost of construction will be less.

Challenge No. 3 – Throughout the course of the project, customers will be affected by construction efforts and service interruptions. During the water main replacements, street access will be impacted. Open trenches during work hours may require vehicle parking temporarily out of the area. During non-work hours, temporary AC paving or trench plating may affect the condition of the streets. During the course of connecting existing residences to the new services, customers will experience temporary shut offs. While necessary, these temporary shut downs may be a source of complaints during the project. ERSC's inspectors will work to alleviate as much inconvenience as possible to SAWC's customers. ERSC's selected inspector(s) also have extensive experience in pavement and pipeline projects. Drawing from previous experience, ERSC's inspectors will work with residents and the contractor to minimize complaints.

Scope of Services and Deliverables

Task 1 – Project Management

Project Manager Joanna Rembis, PE will be managing the Multiple Capital Facility Project from the Notice of Award until the submission of Record Drawings. ERSC will work with SAWC and each subconsultant partner to lead the Project Kickoff Meeting immediately following the Notice to Proceed. ERSC is committed to providing and obtaining the necessary resources to work advantageously toward having all projects under construction by December 31, 2020. In accordance with the proposed project schedule, we will perform the following steps in managing the project:

- Plan, coordinate, and manage the Project in order to achieve Project goals within the approved budget and schedule.
- Effectively communicate Project status via email, written correspondence, phone, and meetings. ERSC is committed to a culture of ensuring constant and high-level communication with SAWC Staff at all stages of design to minimize any design/drafting defects on the drawings and during construction to assure the project stays on schedule.
- Provide the QA/QC for the Project and review all major deliverables before delivered to SAWC.
- Sound engineering will be administered throughout the project and all calculations preformed on the project will be checked for accuracy.
- Allocate and meet labor hours committed to each task and subtask. Actively monitor and control labor, expenses, and progress on a weekly basis.
- ERSC will take into consideration service life, material types, diameters, pressure classes, constructability, and O&M and present a recommendation to SAWC regarding material selection, scheduling, and feasibility.

Formal Deliverables: Project Design Schedule (as Baseline Schedule), Kick-off and Progress Meeting Agendas, and Meeting Minutes.

Task 2 – Preliminary Design

A. Research: ERSC will conduct a search of available record drawings for the various project locations. The search will include obtaining accessor parcel maps, records of survey, tract maps, and improvement plans for utilities and improvements along the project alignment. In addition, obtain and review as-built documents available from SAWC.

B. Utilities: ERSC will contact all franchises and municipal utilities that may have facilities in the projects areas, including SAWC itself, electric, cable television companies, and telephone, among others. Utilizing the information received from the utility owners ERSC will develop a detailed, comprehensive, and accurate base map for each of the seven (7) sites.

C. Survey: ERSC will team with JC Survey to perform a detailed aerial and ground survey of the seven (7) sites. The surveying work activities will include research, obtaining record maps, and other pertinent data from the County of San Bernardino, City of Upland and SAWC. The survey will include utilizing basis of bearings information (based on NAD 83 coordinate system or appropriate record data) and County of San Bernardino and City of Upland standard benchmarks (NGVD29 and NAVD88 as available). Record centerline,

easements, right-of-way lines, portions of property lines interesting with R/W and existing utilities will be complied to create a comprehensive base map for each site to prepare the design.

JC Survey will provide aerial photography and base mapping services using the aforementioned control information above. The 150' to 200' wide strip mapping (centered on the proposed alignment) will provide base mapping at a scale of 1" = 40' with 1-foot contours and showing plannimeteric features as well. The plannimeteric features will show the outlines of all buildings, dirt or paved roads, trees, and brush, in addition to any utility pre-marks. Said base mapping will be supplemented with all centerline, right-of-way, and property information to generate the base construction drawings. We will also supplement our preliminary utility search and any pre-marking by field locating and surveying additional utilities as necessary. ERSC objective is to comprehensively present base mapping and design drawings that, to the best of our ability, accurately and completely reflect that which exists in the field and the conditions in which a contractor find this project.

Deliverables: Utility Information Request, Utility Conflict Notices, Utility Base Map, Photos of Utility Markings along preferred alignment.

Task 3 – Environmental Phase

ERSC will evaluate each individual site at it relates to environmental work and make a recommendation to the Company for appropriate CEQA requirements and prepare appropriate CEQA documentation and filings as necessary. In accordance with the RFP, SAWC anticipates all sites will be classified as "categorical exemption". A Notice of Exemption (NOE) can be filed if the project can be defined under the following circumstances and a reasonable possibility that the activity will not have a significant effect on the environment can be determined.

Section 15301 – Existing Facilities; consisting of the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of existing or former use. Examples include but are not limited to: …. (b) Existing facilities of both investor and publicly owned utilities used to provide electrical power, natural gas, sewerage, or other public utility services.

Section 15302 – Replacement or Reconstruction; where the new structure will be located on the same site as the structure replaced and will have substantially the same purpose and capacity as the structure replaced, including but not limited to: ...(c) Replacement or reconstruction of existing utility systems and/or facilities involving negligible or no expansion of capacity.

Based on the preliminary review, and since the various projects fall within the Section stated above, they should qualify under a Categorical Exemption.

Task 4 – Final Design

A. Preliminary Engineering and Design: Once the base map has been developed from the information received from the as-builts, USA and surveying, ERSC staff will visit the project locations to filed verify the base map to conform the location of the existing utilities and to pick up any features that may be pertinent to the plans or missed throughout the process.

B. Potholing: Once the utility research has been completed, USA has marked out all the known utilities, and ERSC has developed a base map that included the approximate location of the existing utilities, the next step will be develop a potholing plan. Any utility issues of significance that may affect the selection of the horizontal of vertical alignment, will be potholed. The potholing plan will need to be approved by SAWC prior to commencement of any potholing activities. It is anticipated that potholing will be undertaken after the 35% submittal (base map) but prior to the 60% submittal.

C. Upon receipt of the potholing information and SAWC's comments from the base map review, ERSC will prepare and submit separate technical specifications, plans, and engineer's estimates for each site and update them on successive submittals based on SAWC's feedback. The cost estimates will be based on previous projects of similar scope. In addition, on behalf of SAWC ERSC will obtain permits or approvals from the appropriate governmental authorities having jurisdiction to review or approve the final design of the project.

ERSC will review the comments and feedback received from SAWC and other entities during the 60% submittal. The feedback will then be incorporated into the 90% submittal of the PS&E. The 90% PS&E submitted will be reviewed by SAWC.

D. Upon receipt of SAWC's comments the 90% submittal will be updated accordingly and ERSC will prepare a complete set of 100% design PS&E. Upon receipt of SAWC's standard front-end documents, ERSC will update the standards to correlate to the project specifics including bid schedules, measure and payment section, special conditions, project time, and other related documents for bid. ERSC will make all SAWC's requested changes, additions, deletions, and corrections to the Final Design Plans so as long as they are not in conflict with the requirements of public agencies, or inconsistent with earlier SAWC's direction. ERSC shall perform routine and final review prior to signing the plans to ensure accuracy, conformance, and integrity of all the plans. Sound engineering will be administered throughout the project and all calculations performed on the project will be checked for accuracy.

Deliverables: Design Plans, Specifications, Engineer's Estimate (65%, 90% and 100%), Plan Review Comments and Responses Log (30%, 65%, 90% and 100%), Final Design Plans with all recommended incorporated, stamped and signed mylar plans (100%)

Task 5 Bidding Phase

Upon approval of the specification documents, ERSC will assist SAWC in the bid period for each project by providing the following services:

- Furnish agency with a list of potential bidders and forward Notice of Inviting Bids to qualified contractors and maintaining a record of prospective bidders to whom the project documents have been issued.
- Provide telephone liaison with potential bidders as regards all matters concerning bidding of the project and prepare formal responses to RFI's and addenda as required to document design changes or clarifications.
- Assist Agency in facilitating Pre-Bid Conference to ensure prospective bidders are totally aware of scope of work and local conditions. ERSC will prepare the agenda and attendance sheet for the meeting.
    - Prepare minutes of Pre-bid conference covering all aspects of contractor's questions and clarifications of project and submit to all attendees. The minutes will become a part of the contractor documentation.
- Perform bid analysis including preparing spreadsheet containing all number from bids received and perform full evaluation of all bids received, verify contractor's license, conduct background check of the lowest responsive bidder, and make a recommendation for award of the construction contract.
- ERSC will help SAWC staff with technical details required for staff report provided to the Water Board.
- Following receipt and SAWC award of the bid, ERSC will then issue a Notice of Award to the selected Contractor, monitor submittal of the agreement, bonds and insurance document and submit to SAWC for review and signature when acceptable.

Task 6 – Construction Phase

ERSC will assist SAWC during the construction phase of each project to ensure the projects are completed in accordance with the project documents.

- Assist SAWC in conducting (1) Pre-Construction Conference for each project to enable all relevant parties to comprehend scope of work, implementation of specifications and SAWC's requirements. Prepare minutes of Pre-construction conference which would include written clarification of all issues discussed in the meetings, as needed.
- Provide appropriate field oversight to monitor construction progress and attend meetings with SAWC and Contractor. Inspector shall monitor Contractor activities and maintain daily inspection reports of Contractor's personnel, materials used, equipment working at the job site, construction progress, and photos.
- Review all construction shop drawings and project procedures for complete and strict conformance with the construction drawings, specifications, and documents. ERSC shall make its recommendation and review with SAWC's staff all substitutions and receive SAWC's concurrence prior to approving any substitution. Submit to SAWC two (2) copies of all preliminary and final shop drawings that have been reviewed for conformance. Rejected submittals would be supplemented with an explanation of the reason for rejection and requirements for re-submittal.
- Provide as-needed testing services for certified laboratory and field testing of soil compaction and other soil/concrete tests. Provide professional guidance in tests to be made at locations determined by the Project Manager.
- Provide assistance with request(s) for information, clarifications, and change orders, as needed. The modifications communicated by change order will be fully documented with drawings and/or written description of the work required. Assist with determination and/or negotiations for compensation and prepare the change order(s).
- Review all contractor invoices, inspection reports, inspector estimates of percent completion and make recommendations to SAWC for payment of contractor, as appropriate.
- Assist SAWC with the coordination of temporary shutdowns of the utility, interruptions in utility services, and diversions of utility service to existing customers, as required.
- Upon completion of work, a full inspection will be conducted, and a punch list of deficiencies will be generated and distributed to the Contractor and SAWC. ERSC will re-inspect the repair or re-work and provide recommendations for acceptance when full compliance is achieved.
- At the completion of the project, ERSC will prepare record drawings by marking all changes on original mylar and submit one (1) full size copy of record drawings along with return of said mylar drawings. Update the existing electrical drawing files in AutoCad 2016 format and include all field changes.

Past Projects

Past Projects

2019 CIP Water Pipeline Replacement Project, City of Redlands, Redlands, CA

This large project included design and construction of approximately 52,000 linear feet (LF) of 8-inch potable water main and 3,000 LF of 12-inch potable water main in various parts of MUED's services area, encompassing 45 different streets and five (5) different Pressure Zones.

The City of Redlands is a mature City in the Inland Empire. Much of the City was developed upon the hillside areas during the early 20th century. As such, many streets and ROW are narrow and curved with little room for additional utility corridors.

Redlands required design in plan-view only with no design survey to be performed. Plans were developed with stacked plans to reduce the amount of sheets needed to complete the design. Without performing a design survey to establish ROW, ERSC was reliant on the City's record data and GIS information. When this information was insufficient, ERSC performed field measurements and created data from the County assessor's GIS.

Redlands also expected delivery in a short time frame. The project was to be completed prior to the pavement replacement program to avoid the need to trench in newly paved streets. The pavement to be replaced needed to be completed by year end and this meant design needed to be completed during summer, roughly 90-days.

City of Redlands
Goutam Dobey
(909) 798-7584 ext. 2
gdobey@cityofredlands.org

ERSC Project Team:

Erik Howard, PE, PLS	Jazz Goodie
Trent Brudin, PE	Stephania Hernandez

Bloomington Area Water Main Relocations, West Valley Water District, Rialto, CA

West Valley Water District's Bloomington area is an older region of Rialto, CA. The original water layout of the residential areas consisted of public street access in the front of residential lots with a utility easement or alley at the rear of the lots. This utility easement was used for water line and water services to each residence. The location of the waterline and services created difficulties for District staff in maintenance and in reading each residence's meter.

ERSC was retained by the District to relocate the water lines from these utility easements to the public ROW. ERSC staff prepared PS&E for roughly 2100 LF of 12" waterline, 10000 LF of 8" waterline, and 236 water service connection relocations during phases I and II replacement projects.

When relocating water services to the front of residences, it was determined that lots would also need to be re-piped to accommodate a new service location. ERSC coordinated efforts to install new waterlines on properties where it was required. An inspector worked with the contractor to ensure that impacts to properties were minimized.
ERSC also provided construction management services during the construction phase of both projects.

West Valley Water District
Linda Jadeski
Manager of Engineering Services
(909) 820-3713
ljadeski@wvwd.org

ERSC Project Team:

Moe Ahmadi, PE	Reza Toorzani, PE
Ron Worthington, PE	Jazz Goodie

Village Center Waterline Replacement, Idyllwild Water District, Idyllwild, CA

ERSC provided design services to the Idyllwild Water District during the design of the Districts water line replacement program. This project is an extension of a project completed by a different consultant.

The project included replacement of 2864 lf of 8-inch c-900 PVC waterline in the center of Idyllwild's Village area. Due to the number of existing commercial services in the area, the existing 8-inch waterline to the north of the proposed alignment is to be abandoned in place to avoid service interruptions.

The design also included replacement of all outdated services. Replacement of services would provide for more accurate and efficient meter reading operations. New services would include updated "Touch Read" meter equipment mounted to permanent above-grade stakes to allow for easy meter location and quick reading during periods of snow.

ERSC also performed work to replace fire hydrants, valves, blow offs, prepare traffic control plans for use during construction, obtain an encroachment permit from the County Transportation Department, and to verify locations of existing sewer and electrical infrastructure in the proposed pipe alignment.

Idyllwild Water District
Jack Hoagland
(951) 659-2143
jack@idyllwildwater.com

ERSC Project Team:

Erik T. Howard, PE, PLS	Ben Booth, EIT

Professional Design and Project Management Services for

Multiple Capital Facility Projects

March 23, 2020

IEC

San Antonio Water Company
Since 1882

March 23, 2020

San Antonio Water Company
139 North Euclid Avenue
Upland, CA 91786
Attn: Brian Lee, General Manager

REFERENCE: PROPOSAL – 2020 CIP

Dear Mr. Lee and Selection Committee Members:

Infrastructure Engineering Corporation (IEC) is pleased to have the opportunity to provide the San Antonio Water Company (Company) with engineering and Project Management services to support the Company's needs. Our enclosed Proposal demonstrates that we will provide the Company with seasoned design experts to successfully complete the seven projects, as outlined in the RFP.

IEC OVERVIEW

IEC provides engineering services to assist our clients from preliminary planning through project completion. Our in-house capabilities include project management; civil and mechanical engineering; water, wastewater and stormwater master planning and hydraulic modeling; and environmental compliance and regulatory permitting. We also have established relationships with recognized specialty firms that support us with additional disciplines and services as needed.

IEC BENEFITS

- **Hands-on, Dedicated Project Manager Supported by a Team Who Will See the Project Through from Start to Finish –** As Project Manager, Ms. Dolores Salgado, PE, will be a single point of contact for the duration of the contract. We understand the value of team continuity and the proposed team for will remain dedicated to this project from beginning to end. Dolores will be supported by a can do team of water facility design experts.
- **Our Experienced Staff Brings Sound Solutions and Cost Saving Ideas –** IEC's support staff provides resources that have the right mix of experience to produce cost effective solutions in accordance with Company's standards and guidelines. In addition to our core water facilities design talents, our team includes experts in trenchless construction technologies, rehabilitation/replacement design, environmental compliance, permitting, and right-of-way. If needed, we also have ready access to specialists that can augment our team in the areas of hydraulic transient analysis, facility condition assessment, environmental resource assessments, and project funding/financing.
- **On-Going Experience with Neighboring Agencies –** Our team is currently designing a major water transmission main on San Antonio Avenue in the City of Upland. We are familiar with the regional geology and the City's re-paving and encroachment permit requirements and have developed good working relationships with City staff.

The proposed budget has been compiled based on a thorough approach to the Company's proposed scope of services. We are open to discussions with the Company on potential alternative approaches that would yield a similar product however result in cost savings. One such area to consider is the field design survey work, which has been estimated based on establishing control using State Plane Coordinates and the NAVD88 vertical datum. The survey cost can be reduced if the Company is open to the use of localized assumed coordinate systems and vertical control.

Our commitment is sincere and goes beyond this proposal, and we look forward to working with the Company. Should any questions arise, please feel free to reach me at 661.529.2190 ext. 101 or by e-mail at dsalgado@iecorporation.com. Thank you for your consideration.

Sincerely,

Dolores Salgado
Senior Project Manager

Robert Weber, PE
Principal-in-Charge

EXECUTIVE SUMMARY

THE COMPANY

IEC has been providing exceptional water, wastewater, and recycled water engineering and related services to the Southern California region for the last 18 years. Our success is based on long-term working relationships with public agencies, developed through our design expertise and cemented with our commitment to quality products and an unmatched dedication to responsive client services. We are excited at the possibility of working on this and future projects.

PROJECT TEAM

The IEC team is robust, technically savvy, responsive, and dedicated to supporting the District. The team, under the leadership of Dolores Salgado, PE, is well prepared to deliver a project on-time and within budget. Supporting Ms. Salgado are Robert Weber, PE and Aric Gnesa, PE, DBIA as Principal-in-Charge and QA/QC & Technical Review, respectively. With a combined 50+ years of experience, Mr. Weber and Mr. Gnesa will provide guidance, resources, and technical oversight to the team, and will ensure a successful project is delivered.

EXPERIENCE

IEC's experience is in the execution of municipal water, wastewater, and recycled water capital improvement projects. Recent experience includes multiple large diameter gravity sewer replacement projects, waterline replacement and abandonments, water pump stations, sewer pump stations and force mains, recycled water pipelines and treatment facilities that are relevant to potential the projects identified in the RFP.

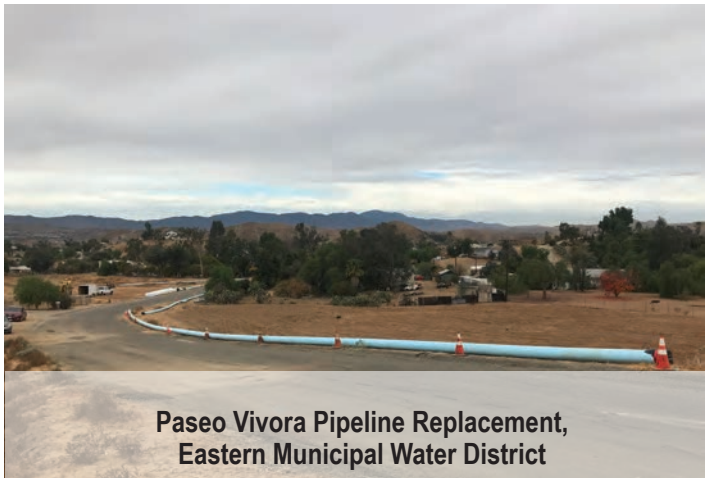
AWARD WINNER!

ASCE - Region 9
Outstanding Project Award, 2013

ASCE San Diego Section
Award of Merit, 2012

6.0 MG Pala Mesa Tank,
Rainbow Municipal Water District

Upas Street Pipeline Replacement,
City of San Diego



Paseo Vivora Pipeline Replacement,
Eastern Municipal Water District

FIRM BACKGROUND AND EXPERIENCE

FIRM BACKGROUND

OVERVIEW

Infrastructure Engineering Corporation (IEC) is a professional services organization primarily serving public agency clients since 2002. Our founding philosophy is to build the firm based on exceptional client service and employee satisfaction. We offer our clients an unmatched commitment to responsiveness and quality, and exceptional professional opportunities to our staff.

IEC has a full staff of engineering, environmental, and construction professionals including project managers, construction managers, engineers, environmental compliance specialists, designers, and construction inspectors. We believe that our staff is our greatest resource and we continue to grow to meet the needs of our clients. We strive to develop close working relationships with our clients, and as a mid-size firm, we can move quickly in response to client needs — our size allows us to provide on-the-spot assistance with an emergency situation or a fast-track project, while maintaining sufficient staff and resources to manage large multi-discipline projects.

SERVICES WE PROVIDE

IEC provides engineering, environmental compliance, and construction management services to assist our clients from preliminary planning through project completion. From our substantial experience in the planning, design, and management of public infrastructure undertakings, we understand that projects today are driven by a balance of economic, environmental, social, and political factors. We believe working in partnership with our clients is the best way to meet these challenges. With six (6) offices in California, we are conveniently situated to serve clients throughout the state.

Our in-house capabilities include: project management; civil and mechanical engineering and design; as-needed municipal "staff extension" services; water and wastewater master planning and hydraulic modeling; CEQA/NEPA compliance; regulatory permitting; GIS design and implementation; sewer flow monitoring; survey; and construction management and inspection services. We also have established relationships with a number of recognized specialty firms that support us with additional disciplines and services as needed. Our experienced construction management staff is capable of managing a wide variety of complex infrastructure projects.

EXPERIENCE

Our pipeline experience encompasses water and recycled water pipes, gravity sewers and forcemains, with sizes up to 96-inch diameter and all pipe types including commonly used welded steel, PVC, and DI, as well as pipe materials selected for special applications such as FRP, and HDPE and fusible PVC for trenchless construction. Our services have spanned hydraulic analyses, alignment studies, preliminary and final design, and construction support. We are experienced at designing and constructing pipelines under emergency conditions, through sensitive habitats and creeks, in highly developed residential areas, across open rural property, and within existing pavement traveled by daily commuters. The following table highlights some of our pipeline projects and their respective types and sizes:

PIPELINES – WATER *(AWARD WINNING PROJECTS IN BOLD)*		
District 1, 4, & 6 Water Main Replacement	11,127 lf 6"/16"/18" ductile iron	City of Pomona
Upas Street Pipeline Replacement	**14,980 lf 8" - 12" PVC 8,160 lf 24" CML&C 1,640 lf 30" HDPE HDD**	**City of San Diego**
I-215 Water Main Relocations - Segments 1, 2, & 3	3,300 lf 16" ductile iron 3,500 lf 8" - 24" DIP; auger bore	City of San Bernardino – Water Department
Paseo Vivora Pipeline Replacement	2,200 lf 12" fusible PVC waterline	Eastern Municipal Water District
Moreno Valley Cactus II Feeder Planning Study	6.7 miles 36" - 48" CML&C	Eastern Municipal Water District
Santa Margarita Conjunctive Use Project Pipelines	2 miles 24" CML&C	Fallbrook Public Utility District
Unit X Pipelines	10,000 lf 24" CML&C; auger bore	Olivenhain Municipal Water District
640-1 and 640-2 Pipelines	11,000 lf 42" CML&C	Otay Water District
Pala Mesa Tank Pipelines	**400 lf 24" steel transmission main 550 lf 16"/18" steel inlet/outlet**	**Rainbow Municipal Water District**

PIPELINES – WATER *(AWARD WINNING PROJECTS IN BOLD)*		
West Feeder (ID-A) Pipeline Replacement	2,039 lf 12" DIP 269 12" fusible PVC 270 lf 16" fusible PVC	Rincon del Diablo Municipal Water District

PIPELINES – RECYCLED WATER *(AWARD WINNING PROJECTS IN BOLD)*		
Expansion Segment IA & 7	14,200 lf 4"/6"/8" PVC	City of Carlsbad
La Costa Recycled Water Pipeline	5,800 lf 8" PVC	City of Carlsbad
Recycled Water Phase III – Pipeline Extension 18	2,300 lf 6"/8" PVC	City of Carlsbad
Camino Del Mar Recycled Water Pipeline Extension	1,500 lf 6" PVC	City of Del Mar
Carmel Valley Recycled Water Pipeline	10,000 lf 8"/12" PVC	City of San Diego
Recycled Water Pipeline Extension – Phase 1	5,900 lf 4" - 6" PVC	City of Solana Beach
Recycled Water System, Phase 1	3 miles 14" PVC	Lake Arrowhead Community Services District
Recycled Water Pipeline Repair Project	381 lf HDD 14" fusible PVC	Leucadia Wastewater District
La Posta Recycled Water Pipeline Extension	160 lf 8" PVC	Olivenhain Municipal Water District
Recycled Water Connection No. 2	2,800 lf 8" PVC	Olivenhain Municipal Water District
Village Park Recycled Water Pipeline	6.5 miles 4"/6"/8"/12" PVC	Olivenhain Municipal Water District
ID-1 South Pipeline Replacement & Improvements	4,710 lf 12" recycled water distribution	Rincon del Diablo Municipal Water District

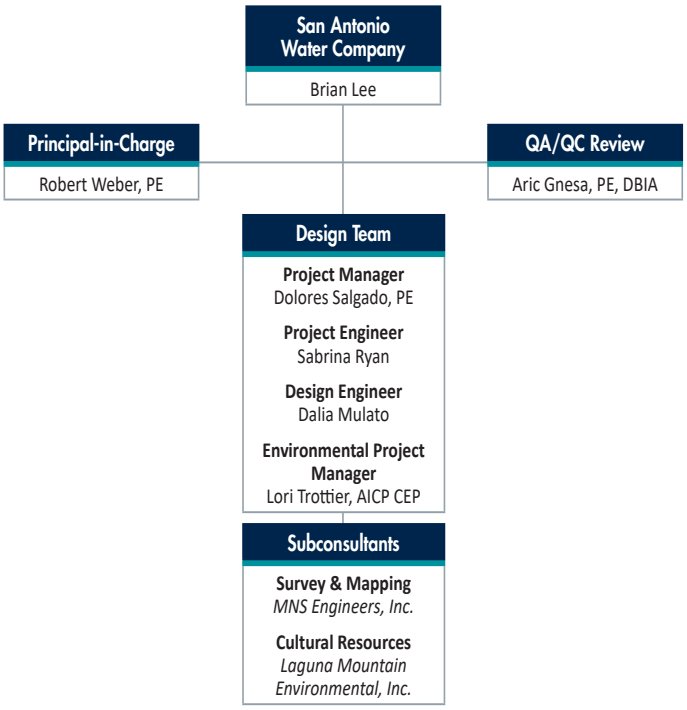
PIPELINES – SEWER		
Sewer Replacement for Nevada Avenue and Bodger Street Area	Approx 4,000 lf of 8" PVC sewer 1,500 lf of 12" PVC sewer Rehabilitation of several existing manholes Relocation of over 100 sewer laterals to new sewer main	City of El Monte
District 3 & 4 Sewer Main Replacement	10,000 lf 12"-15" VCP sewer	City of Pomona
Olivenhain Trunk Sewer Improvements	2,800 lf 15" trunk sewer	City of Encinitas
Myers/Tait Street Sewer Replacement	2,120 lf 16" CIPP sewer 1,077 lf 30" PVC sewer 3,200 lf 27" PVC sewer	City of Oceanside
B1/B2 Sewer Force Main Replacement	8,500 lf of 24" sewer force main 1,300 lf cured-in-place of 21" VCP trunk sewer	Leucadia Wastewater District
B2/B3 Forcemain	2,600 lf 24" PVC sewer 1,400 lf 14" PVC sewer	Leucadia Wastewater District
2017 Gravity Pipeline Rehabilitation and La Costa Gravity Sewer Alteration	2,793 lf cured-in-place pipe lining 55 lf 8" gravity replace-in-place sewer main 210 lf new 8" gravity sewer main	Leucadia Wastewater District
Force Main Replacement	9,000 lf 6"/10" PVC sewer	Leucadia Wastewater District
Discovery Street Sewer Replacement	4,000 lf 12"/15" gravity sewer	Vallecitos Water District

PROJECT ORGANIZATION AND EXPERIENCE OF THE PROJECT TEAM

TEAM ORGANIZATION

IEC's team for the Professional Design and Project Management Services for Multiple Capital Facility Projects has the resources, capabilities, experience, and commitment to deliver a successful project. The team, under the leadership of Dolores Salgado, PE as Project Manager, is well prepared to tackle the design challenges and provide solutions all while working in partnership with the San Antonio Water Company staff throughout the project. Our Principal-in-Charge, Robert Weber, PE, with 30 years of major pipeline design experience and also a seasoned leader, will assist Dolores with corporate support and technical guidance.

The organization chart depicts the roles and reporting structure for the key staff assigned to the project; resumes are included in at the end of this section. Sabrina Ryan and Dalia Mulato will focus on the technical and production facets of the project while working closely with Dolores on team and subconsultant management.



KEY STAFF

PROJECT MANAGER

The Project Manager for this project will be **Dolores Salgado, PE.** Dolores has built her career serving public-sector clients. For the past 20 years, she has managed complex, multidiscipline water and wastewater projects throughout California. She brings a wealth of practical project management skills and technical expertise, dedicating herself to solving challenging technical issues for clients. She commits to understanding her clients' needs and preferences and systematically maneuvers her clients' projects through the varying project phases, such as permitting, community acceptance, and ultimately gaining approval taking the project through to completion. Similar projects include:

- **San Antonio Ave 30-inch Diameter Transmission Water Main,** *City of Ontario* – Project Manager/Design Team Leader. Design for 2,900 linear feet of new 30-inch cement mortar lined and coated welded steel pipe (CML&C WSP); abandonment of approximately 3,700 linear feet of existing 18-inch steel pipe.
- **Stage Ranch Road,** *Elsinore Valley Municipal Water District* – Project Manager for design of approximately 2,400 linear feet of 8-inch diameter potable water pipeline. The project required approximately 300 linear feet of special material (CML&C Welded Steel Pipe) due to the Elsinore Fault Zone, which has a high probability of fault rupture. A hydraulic analysis was performed to determine if the new 8-inch diameter pipeline can supply fire flows of 1,500 gallons per minute at 20 pounds per square inch residual pressure without exceeding the maximum flow velocities of 10 feet per second to minimize potential for system hydraulic surge and to limit pressure drops during fires.
- **Canyon Del Rey CMP Sewer Line Replacement Project,** *Seaside County Sanitation District* – Project Manager for the replacement and upsizing of three sewer segments of corroded sewer main totaling approximately 850 lf of 12" and 15" PVC. Project also consisted of four 48" diameter sewer manholes, and reconnection of three sewer laterals; two of which serve major users, the State Department of Motor Vehicles and the City of Seaside City Hall Complex.

QA/QC REVIEW

Aric Gnesa, PE, DBIA is highly experienced water/wastewater project manager and specializes in the preparation of plans, specifications and cost estimates for pipelines, pump stations, flow control facilities, and reservoirs. With over 18 years of hands-on experience, he has gained a thorough knowledge and understanding of design standards, practices, and methods.

PROJECT ORGANIZATION AND EXPERIENCE OF THE PROJECT TEAM

PRINCIPAL-IN-CHARGE

Rob Weber, PE is a highly accomplished project manager with 30 years of civil engineering and project management experience on a variety of municipal and public works water, wastewater, and recycled water projects. Mr. Weber is a Registered Civil Engineer in the State of California whose specific project experience includes extensive conveyance pipeline design experience and gravity sewer rehabilitation experience (gravity sewers, force mains, transmission and distribution pipelines of all types); reservoirs and tanks, water pump stations, and sewer lift stations. Relevant sewer projects where Mr. Weber was the Project Manager include the City's Olivenhain Trunk Sewer, Discovery Street Sewer for Vallecitos Water District, Myers Street Sewer for the City of Oceanside, Batiquitos Gravity Sewer for Leucadia Wastewater District, and the Oak Knoll Trunk Sewer for the City of Poway. On each of these projects, Mr. Weber directed the multi-disciplinary team to successfully accomplish the project goals and objectives. He will bring the same level of expertise, commitment, and dedication to client service to your project in order to meet your expedited schedule.

PROJECT ENGINEER & DESIGN ENGINEER

Sabrina Ryan's background in the civil engineering field encompasses the planning, design and construction project management of water resources. Her design experience includes pumping, storage, and treatment facilities with sewage collection systems and reclamation facilities. **Dalia Mulato's** experience includes water/sewer distribution and sewer collection facilities. She is knowledgable with AutoCAD, Revit, Google SketchUp, and GIS.

DOLORES SALGADO, PE
SENIOR PROJECT MANAGER

Professional Registration
Registered Professional Engineer
California No. C67536

Education
San Diego State University
B.S. Civil Engineering, 1999

Affiliations
Board of Governance, Self-Help Enterprises Since 2018

Industry Advisory Board Member, Bakersfield College MESA Program 2016-current

Summary of Current Roles with Volunteer Organizations
American Council of Engineering Companies, Water Resources Committee Member

American Council of Engineering Companies, Kern County Chapter, Secretary

American Council of Engineering Companies, Kern County Chapter, Membership

American Society of Civil Engineers, Los Angeles Section, Water Policy Committee, Chair

Bakersfield College MESA Program, Board Chair

Self-Help Enterprises, Board Member

Water Association of Kern County, Board Member

Qualifications
Ms. Salgado has over 20 years of experience in the planning and design of civil transportation and water and sewer projects.

Project Experience
San Antonio Ave 30-inch Diameter Transmission Water Main, *City of Ontario* – Project Manager/ Project Engineer. Design for 2,900 linear feet of new 30-inch cement mortar lined and coated welded steel pipe (CML&C WSP); abandonment of approximately 3,700 linear feet of existing 18-inch steel pipe.

Stage Ranch Road, *Elsinore Valley Municipal Water District* – Project Manager for design of approximately 2,400 linear feet of 8-inch diameter potable water pipeline. The project required approximately 300 linear feet of special material (CML&C Welded Steel Pipe) due to the Elsinore Fault Zone, which has a high probability of fault rupture. A hydraulic analysis was performed to determine if the new 8-inch diameter pipeline can supply fire flows of 1,500 gallons per minute at 20 pounds per square inch residual pressure without exceeding the maximum flow velocities of 10 feet per second to minimize potential for system hydraulic surge and to limit pressure drops during fires.

Canyon Del Rey CMP Sewer Line Replacement Project, *Seaside County Sanitation District* – Project Manager for the replacement and upsizing of three sewer segments of corroded sewer main totaling approximately 850 lf of 12" and 15" PVC. Project also consisted of four 48" diameter sewer manholes, and reconnection of three sewer laterals; two of which serve major users, the State Department of Motor Vehicles and the City of Seaside City Hall Complex.

Upas Street Pipeline Replacement Project, *City of San Diego* – Permits/Reviews/Approvals Coordinator for the replacement of an aging 5-mile long potable water transmission main in the City of San Diego's North Park, Uptown, and Midway-Pacific Highway communities. The project alignment crosses canyonlands along the Highway 163 corridor and runs immediately adjacent to Balboa Park, in proximity to numerous residences, a middle school, a monastery, Boy Scouts and Girl Scouts of America facilities, which are in use year-round, and the Upas Street Pedestrian Bridge, a listed structure; trenchless construction will be used along portions of the alignment to reduce disturbance, and construction will be phased to further limit disturbance impacts.

CWC Final Water System Improvements – Club Ave Bridge Waterline Replacement, *Elsinore Valley Municipal Water District* – Project Manager for the design to relocate an existing 8-inch diameter potable water main on Club Ave in the City of Wildomar, CA. The project upsized the existing 8-inch diameter water main to a 10-inch diameter main, the approximate length was 270 linear feet. The water main was originally installed attached to a bridge structure. The existing bridge structure was utilized by local residents to traverse a small stream. The bridge was failing structurally therefore compromising the water main. The designation of the watercourse under the bridge was Waters of the United States and regulated by the U.S. Fish and Wildlife Service. To avoid costly permitting and delays, IEC determined that instead of rehabilitating this small bridge structure and reattaching the waterline, it was more cost effective and expedient to relocate the waterline outside the jurisdictional limits. By utilizing horizontal directional drilling (HDD) construction methods, the team avoided the stream.

I-215 Segments 1 and 2, Water Main Relocations and Abandonment, *City of San Bernardino Municipal Water Department* – Senior Project Engineer for final design of approximately 3,500 lf of new 8 thru 24-inch ductile iron pipe waterlines, abandoning various 3 thru 12-inch water mains, fire hydrants, water vaults, and other appurtenances as a result of Caltrans' Interstate 215 (I-215) widening project. Project challenges included three 30-foot deep bore and jacks under the I-215 freeway and railroad tracks, maintaining the existing water mains in service, congested utility corridors, locating tie-

in locations, and identifying future Caltrans ROW and freeway improvements. Multiagency coordination included Caltrans District 8, Burlington Northern Santa Fe (BNSF) Railroad, City of San Bernardino Public Works Department for new sewer improvements, and California Division of Occupational Safety and Health (CalOSHA) Mining and Tunneling Unit.

Wolf Store Road 12-inch Waterline Inter-tie, *Rancho California Water District* – Project Manager for approximately 5,000 lf of new 12-inch PVC potable water main along privately owned Wolf Store Road within the City of Temecula. The new waterline provides redundancy and improved water quality to the Vail Ranch Business Park. The waterline is adjacent to the existing Temecula Creek owned by the Riverside County Flood Control and Water Conservation District (RCFC&WCD). Wolf Store Road is a privately owned road within the Vail Ranch Business Park. Plat and legal documents are necessary, as well as coordination with the District's real estate agent for property acquisitions. Project challenges include crossing major storm drain facilities owned by RCFC&WCD, including an existing 7'x12' RCB and a 96" RCP. Multiple agency coordination includes RCFC&WD, Vail Ranch Property Owner's Association, and City of Temecula. Other project challenges include high groundwater and various utility crossings.

Mohawk Street Extension Project, Water and Sewer Improvements, *Dokken Engineering* – Project Engineer for final design of approximately 8,500 lf of 16-inch potable waterline and 1,800 lf of 18-inch gravity sewer pipeline for the City of Bakersfield's Mohawk Street Extension Project. The new roadway traverses the Kern River, an existing City Park, and ancient oil fields. Project challenges included an extremely expedited schedule in order to meet State funding requirements, protecting the new potable waterline from various hot oil lines with temperatures exceeding 100-degrees Fahrenheit, poor soil conditions, waterline installation depths over 20-feet deep in order to cross the Kern River below the scour depth modeled, and bore and jack installation in order to cross existing railroad tracks. Other project components included coordinating with the bridge engineer to ensure the waterline crossing was within the roadway bridge tolerances and met Caltrans' design criteria. Other project challenges requiring thorough evaluation were the new anticipated fill depths over a portion of an existing sewer line. Since the new fill depths would be increased to approximately 50-feet in some locations, pipe deflection, crushing, and buckling were potential problems. Deflection calculations were performed using the Deep Installation Method and buckling was evaluated using the Moore-Selig Equation to determine the critical buckling pressure. Multiagency coordination included Caltrans District 6, Burlington Northern Santa Fe (BNSF) Railroad, Tulare Railroad Company, California Division of Occupational Safety and Health (CalOSHA) Mining and Tunneling Unit, City Water Department, City Department of Public Works.

Temescal Canyon Road Improvements – Water Main Relocations, *Elsinore Valley Municipal Water District* – Project Manager for the preparation of plans and specifications to relocate approximately 100 linear feet of this major 42-inch diameter CML&C potable water main. The complexities of relocating such a major facility required the installation of an access manway for maintenance, an extensive dewatering plan to discharge 400,000 gallons of chlorinated water to drain the line, and oversized casing to avoid point loading the water main. Some key project challenges included expediting the preparation of the plans and specifications since the Temescal Canyon Road Widening Project had already been advertised for bid. IEC quickly executed the project, preparing calculations for the steel pipe design per AWWA M11, loading calculations for casing plate thickness, sizing air/vacuum release valve and blowoffs, and dewatering. IEC provided construction management and inspection services during the construction phase for this segment and other relocations along the entire roadway project where EVMWD's facilities were impacted.

Home Avenue Sewer Rehabilitation Project, *City of Fresno* – Project Manager for the rehabilitation of 636 feet of 8-inch concrete gravity sewer. The project entailed cured in place pipe lining of this critical reach of sewer. A segment of the alignment crosses under a railroad track operated by the San Joaquin Valley Railroad so trenchless construction will be utilized to avoid disrupting service on this active railroad track. Responsibilities included project coordination, quality control, preparing project specifications, prepare and submit SJVR permit application, project management, and construction phase services.

Rock Springs Sewer Project, *Vallecitos Water District*– Project Engineer to prepare a planning and alignment alternatives study, followed by the design PS&E and preparation of environmental documents for CEQA compliance. The final project is comprised of 2,700 ft of 12"-15" gravity sewer alignment to replace an existing 8" sewer, cured-in-place pipe lining of 300 ft of 8" gravity sewer, new and rehabilitated manholes, improved access paths for sewer system operators, and improvements to the HOA greenbelt hardscape and landscaping.

SABRINA RYAN
PROJECT ENGINEER

Education
California State University, Long Beach
B.S., Civil Engineering, 2015

Qualifications
Ms. Ryan's background in the civil engineering field encompasses the planning, design and construction project management of water resources. Including experience in pumping, storage, and treatment facilities with sewage collection systems and reclamation facilities.

Project Experience
Upper Salada Emergency Bypass Project, *MNWD* – Associate Engineer responsible for Sewer Bypass Project plans, specifications, and field inspections.

Oso Trabuco Sewer CIPP Rehabilitation, *MNWD* – Associate Engineer who assisted the project engineer with field inspections and evaluations for a proposed temporary pump station and pipeline in preparation for temporary flow diversions for the construction of a new 39-inch sewer main and railroad expansion projects.

Alta Vista Pipeline Project, *City of Redondo Beach* – Associate Engineer responsible for Camino Real Sewer Project plans and field inspections. Phase 1 of the project alleviated sewage backup into homes, a new sewer pipeline and sewer laterals were constructed along Camino Real and in the parking lot into the existing Community Center Pump Station, located in Alta Vista Park adjacent to the Community Center.

Sewer Lining, *MNWD* – Associate Engineer who assisted the project engineer in evaluating damaged, FOG, and rooted sewer pipelines at 13 locations within the District for sewer lining and pipe rehabilitation proposals for construction. Responsibilities for the sewer lining evaluation was to review the Closed Circuit Television (CCTV) Inspection videos of filmed sewers, create an AutoCAD design to demonstrate the defects in the sewer pipelines per the field inspection videos in conformance with the Pipeline Assessment Certification Program (PACP) standards.

Paseo De Valencia Wastewater Feasibility Study, *MNWD* – Flow Monitoring Data from average flows in 2011, 2012, 2013, 2014, 2015 for El Paseo 01, El Paseo 02, and Treatment Plant Flows for Average (gdp), Difference from prior year (gdp), and % increase or decrease evaluations and verifications for possible future flow diversions.

Beach Boulevard Sewer Replacement Project, *City of Huntington Beach* – Staff Engineer responsible for assisting the project engineer with street improvement plans and Caltrans permits.

R&R Lift Station #10 Algonquin, *City of Huntington Beach* – Staff Engineer involved in field checking project dimensions, uploading plans and specifications, and verification of bids.

Sewer Lining Project, *City of Huntington Beach* – Staff Engineer responsible for the creation of sewer location maps for City use.

Linda Vista Drive Location Map, *Moulton Niguel Water District* – Electronic files are in the folders CCTV and Record Drawings, and CAD file CIPP lining for sewer mains at six project, contact sewer contractors and collection to provide the District with a budgetary estimate for the work. Technical memorandums.

DALIA MULATO
DESIGN ENGINEER

Education
University of California, Davis
B.S. Civil & Environmental Engineering, 2016

Qualifications
Ms. Mulato's experience includes sewer/water distribution and sewer collection facilities. She is knowledgable with AutoCAD, Revit, Google SketchUp, and GIS.

Project Experience
San Antonio Ave 30-inch Diameter Transmission Water Main, *City of Ontario* – Design Engineer. Design for 2,900 linear feet of new 30-inch cement mortar lined and coated welded steel pipe (CML&C WSP); abandonment of approximately 3,700 linear feet of existing 18-inch steel pipe.

Stage Ranch Road, *Elsinore Valley Municipal Water District* – Design Engineer for design of approximately 2,400 linear feet of 8-inch diameter potable water pipeline. The project required approximately 300 linear feet of special material (CML&C Welded Steel Pipe) due to the Elsinore Fault Zone, which has a high probability of fault rupture. A hydraulic analysis was performed to determine if the new 8-inch diameter pipeline can supply fire flows of 1,500 gallons per minute at 20 pounds per square inch residual pressure without exceeding the maximum flow velocities of 10 feet per second to minimize potential for system hydraulic surge and to limit pressure drops during fires.

Canyon Del Rey CMP Sewer Line Replacement Project, *Seaside County Sanitation District* – Engineer for the replacement and upsizing of three sewer segments of corroded sewer main totaling approximately 850 lf of 12" and 15" PVC. Project also consisted of four 48" diameter sewer manholes, and reconnection of three sewer laterals; two of which serve major users, the State Department of Motor Vehicles and the City of Seaside City Hall Complex.

Sewer Replacement Nevada Avenue and Bodger Street Area (CIP No. 005), *City of El Monte* – Engineer. The City's existing sewer mains and manholes within the area of Nevada Avenue and Bodger Street were constructed in 1938 and are approaching the end of their useful life. In addition, many of the mains and manholes are in easements located in the back yards of private residential properties, making it difficult for the City to access and conduct maintenance. As a result, approximately 4,500 linear feet of existing small diameter (8- and 12-inch) sewer is being replaced and relocated into the public ROW. The project also includes construction of new sewer laterals for each of the affected properties, approximately 140 in total. This was particularly challenging because the existing sewer connections are in the back yard, requiring realignment of laterals from the rear of properties to the street.

Chromium-6 Mitigation Project, *Phelan Piñon Hills Community Services District* – Design Engineer for preliminary and final design of new water facilities to reduce hexavalent chromium (CR-6) levels below the State Water Resources Control Board Division of Drinking Water (DDW) MCL of 8 ppb for blended sources, while meeting water demands in the service area. The most cost-effective method for the District to achieve compliance is to blend chromium-6 impacted well water with low chromium-6 well water prior to distribution to water customers. Final design includes equipping four (4) existing ground water wells, design of three (3) new water booster stations, design of a new 3 million-gallon steel tank, and over 12-miles of new transmission main. The project is within environmentally sensitive habitat and jurisdictional drainage-ways regulated by the California Department of Fish and Wildlife (CDFW). In addition, a portion of the transmission line is within the preferred alignment for the High Desert Corridor being proposed by Caltrans District 7. During preliminary design, Value Engineering was implemented for each project component (transmission mains, booster stations, and reservoir) to determine the best long-term and sustainable solution for the project. Project challenges include gaining approval from DDW for the blending plan, and obtaining permits from multiple jurisdictions and stakeholders, including CDFW, County of San Bernardino, Caltrans District 8, Caltrans District 7, Union Pacific Railroad, the County of Los Angeles, and Los Angeles Department of Water and Power for facilities crossing their right-of-way.

County Water Company (CWC) – Final Water System Improvements, *Elsinore Valley Municipal Water District* – Project Engineer responsible for developing the design drawings. The project consisted of the following:

- The design of approximately 140 LF 10-inch HDPE pipeline via Horizontal Directional Drilling (HDD) method
- Abandonment of existing 8-inch CML&C
- Connection to existing 8-Inch CML&C
- Installation of air release/vacuum valve assemblies
- Removal of existing 12-inch HDPE highline on Bundy Canyon Road and its appurtenances

ROBERT WEBER, PE
PRINCIPAL-IN-CHARGE

Professional Registration
Registered Professional Engineer
California No. C59312
Idaho No. 12930

Education
State University of New York at Buffalo
B.S. Civil Engineering, 1990

Professional Affiliations
American Society of Civil Engineers

American Water Works Association

American Consulting Engineers Council – California (Water Resources Committee)

Awards
San Elijo Hills Pump Station – ACEC CA Engineering Excellence Merit Award, 2015

Pala Mesa Tank –
ASCE San Diego Section: Award of Merit, 2012
ASCE - Region 9: Outstanding Water Project Award, 2013

Carmel Valley Recycled Water Pipeline –
APWA San Diego-Imperial Counties Chapter: Project of the Year, 2013

Gano Reservoir and Unit X Pipelines –
ASCE San Diego Section: Award of Merit, 2004
CELSOC (now ACEC CA) Engineering Excellence Merit Award, 2006

4S Ranch Water Reclamation Facility, Plant 'A' and 'B' Modifications –
APWA San Diego-Imperial Counties Chapter: Project of the Year, 2007

Qualifications

Mr. Weber has 28 years of civil engineering and project management experience on a variety of municipal and public works water, wastewater, and recycled water projects. Specific project experience includes conveyance pipelines; reservoirs and tanks, water pump stations, and sewer lift stations. He has also successfully managed several as-needed services contracts for municipalities and water/wastewater utilities. Mr. Weber is thoroughly familiar with design standards, techniques and analytical methods, bid specifications, and cost estimating. His experience extends beyond civil engineering to include securing required project permits, fostering cooperative interagency approvals, and gaining community project acceptance.

Mr. Weber's project success based is on his ability to understand the client's needs and objectives and translate them into actions during execution of the project. He prides himself in involving the client in the project, and ensuring the technical staff understands the critical issues of the project. His engineering decisions and designs are based on careful considerations of project needs and specific site characteristics. His dedication to quality effectively manages project risks and controls construction and operational costs.

Project Experience—Pipelines

Designing and sizing pipelines is a relatively simple task for an experienced professional engineer. Constructing the pipeline under emergency conditions, through sensitive coastal beaches and creeks, in highly developed residential areas, across open rural property, within existing pavement traveled by daily commuters, and requiring multiple agency approvals can be extremely difficult. Mr. Weber has applied his engineering and project management talents in all of these settings to construct water transmission and distribution lines, forcemains, and gravity sewers. Mr. Weber has an ability to anticipate problems, is poised with solutions, and understands that responsiveness is critical to every construction project. He has developed plans to provide continuous uninterrupted service and peak hour uncongested traffic flow during construction.

PIPELINES		
Olivenhain Trunk Sewer	2,800 lf 15-inch trunk sewer	City of Encinitas
South Oceanside Water & Sewer Main Replacement	7,400 lf 8-inch PVC water 2,771 lf 8-inch PVC sewer	City of Oceanside
Upas Street Pipeline	14,980 lf 8-inch - 12-inch PVC 8,160 lf 24-inch CML&C 1,640 lf 30-inch HDPE HDD	City of San Diego
Village Park Recycled Water Project	6.5 miles 4-/6-/8-/12-inch PVC	Olivenhain Municipal Water District
Wolf Store Road 12-inch Inter-tie	5,000 lf 12-inch PVC	Rancho California Water District
West Feeder (ID-A) Pipeline Replacement	2,039 lf 12-inch DIP 269 12-inch fusible PVC 270 lf 16-inch fusible PVC	Rincon del Diablo Municipal Water District
Non Destructive Testing of Three Sewer Force Mains	14-inch DIP, 4-inch DIP, 6-inch ACP	City of Encinitas
Johnston Road Transmission Main	2,800 lf 24-inch PVC/DIP	Rincon del Diablo Municipal Water District
Avenida del Diablo Pipeline	1,000 lf 12-inch DIP 2,400 lf 8-inch DIP	Rincon del Diablo Municipal Water District
B2/B3 Forcemain	2,600 lf 24-inch PVC 1,400 lf 14-inch PVC	Leucadia Wastewater District
Balszburg Neighborhood Sewer & Water Pipelines	15,000 lf 8-inch PVC	City of Blythe
Myers Street Sewer Replacement	2,000 lf 21-inch/24-inch PVC	City of Oceanside

PIPELINES		
Lift Station No. 1 Force Main Alignment Study	12,000 lf PVC	City of Escondido
Carmel Valley Reclaimed Water Pipeline	10,000 lf 8-inch & 12-inch PVC	City of San Diego
Unit X Pipelines	10,000 lf 24-inch steel	Olivenhain Municipal Water District
Tait Street Waterline Replacement	2,000 lf 8" PVC	City of Oceanside
711 Pipelines	1,500 lf 30-inch steel	Otay Water District
680 Pipelines	1,000 lf 24-inch steel	Otay Water District
Sewer and Water Group Job 530	3,700 lf 8-inch PVC 5,200 12-inch PVC	City of San Diego
Sewer and Water Group Job 530A	5,00 lf 8-inch PVC 3,000 lf 16-inch PVC	City of San Diego
San Elijo Sewer Crossing	24-inch steel/12-inch PVC	City of Solana Beach
Bandstand Sewer Trunk Main	3,000 lf 12-inch PVC	City of Oceanside
Gordon Hill Road Pipeline Replacement	4,500 lf 12-inch PVC	Valley Center Municipal Water District
Fortuna Ranch Pipeline	4,400 lf 8-inch/12-inch/16-inch PVC 800 lf 8-inch PVC	Olivenhain Municipal Water District
Force Main Replacement	9,000 lf 6-inch/10-inch PVC	Leucadia Wastewater District
101 Trunk Sewer Bypass	650 lf 12-inch PVC	Leucadia Wastewater District
Oak Knoll Trunk Sewer Replacement	5,500 lf 27-inch PVC	City of Poway
Batiquitos Inlet Sewer	900 lf 21-inch/24-inch PVC	Leucadia Wastewater District
Gibraltar Sewer Replacement	500 lf 12-inch PVC	Leucadia Wastewater District
Perris Valley North Pipeline Jumpers	5,000 lf steel	Eastern Municipal Water District
Mission San Luis Rey Waterline	3,000 lf 10-inch PVC	City of Oceanside
Downtown Sewer Upsizing	12,000 lf PVC	City of National City
District 1, 4, & 6 Water Main Replacements	11,130 lf 6-/16-/18-inch ductile iron	City of Pomona
Recycled Water System, Phase 1	3 miles 14-inch PVC	Lake Arrowhead Community Services District
Osborne Street Aqueduct Relocations	1,500 lf 24-inch steel	City of Oceanside
Sleepy Hollow Water System	5,000 lf 8-inch/12-inch PVC	City of Chino Hills
Lift Station 1 and Eagle Crest Lift Station Sewer Force Main Alternative Analysis	2 miles 16-inch ductile iron	City of Escondido
Well No.'s 9, 10, 11 Raw Water Collection Pipeline	5,600 lf 16"/20" PVC	City of Oceanside
I-215 Water Main Relocations - Segments 1 & 2	2,000 lf 20" / 553 lf 16" / 100 lf 12" / 1,400 lf 8" DIP	City of San Bernardino Water Department
I-215 Water Main Relocations - Segment 3	16" diameter trenchless crossing of the I-215 freeway	City of San Bernardino Water Department

ARIC GNESA, PE, DBIA
QA/QC REVIEW

Professional Registration
Registered Professional Engineer
California No. C68339

Education
California Polytechnic State University, San Luis Obispo
M.S. Civil and Environmental Engineering, 2003

California Polytechnic State University, San Luis Obispo
B.S. Civil Engineering, 2001

Certification
Designated Design-Build Professional™ from the Design-Build Institute of America (DBIA)

Affiliations
American Society of Civil Engineers

American Water Works Association

Qualifications

Mr. Gnesa has 18 years professional experience in a wide range of engineering projects and disciplines including planning, design, and construction management of large and small diameter (treated, raw water, and sewage) pipelines, pump stations, flow control facilities, and reservoirs. His experience also includes geotechnical, land surveying, and land development (3-12 months each), and Contract Consultant (design engineer and construction management) at the San Diego County Water Authority (SDCWA) for 18 months. Prior to completing his formal education, Mr. Gnesa worked in the construction industry for 8 years as a craftsman, foreman, and project manager. This combination of practical experience and highly technical education make Mr. Gnesa well suited to successfully complete this project.

Project Experience

Sleepy Hollow Water System, *City of Chino Hills* – Project Engineer for approximately 5,000 lf of 12-inch and 8-inch water pipelines, including a horizontal directional drill and a pressure reducing station. The project included utility research, base mapping, design of pipelines, design of a new interconnect with the existing Sleepy Hollow reservoir, calculations and specifications. Project issues included construction in narrow winding roads, traffic control, construction in Caltrans right of way and a horizontal directional drill.

Pipelines 3 and 4 Relining - Black Mountain to Miramar Hill, *San Diego County Water Authority* – Design Engineer and construction management support for 5 miles of 66-inch and 96-inch prestressed concrete cylinder pipe (PCCP) relining with steel. Tasks performed include design calculations, size facilities and liners, draft specifications, development of draft bid documents, prepare Storm Water Pollution Prevention Plan, conduct field investigations on existing facilities, perform field inspection of new facilities and conduct internal pipeline inspections, provide submittal and request-for-information review and response, attend weekly meetings with contractors and other construction management staff, and perform field inspections.

Pipeline 3/4 Interconnections Between Miramar Hill and SR-52, *San Diego County Water Authority* – Design Engineer and construction management support for several interconnection (60-inch welded steel pipe) sites between parallel 96-inch and 72-inch PCCP pipelines, both buried connections and vaults. Tasks performed include design calculations, size facilities and piping, layout of piping and facilities using AutoCAD, draft specifications, development of draft bid documents.

Lotus Street Sewer Replacement, *City of Oceanside* – Project Manager. The project proposes various improvements to the existing Lotus Street sewer system including: removal of approximately 250 linear feet of 6-inch cast iron sewer line, and replacement with 8-inch PVC sewer line; construction of approximately 340 linear feet of new 8-inch PVC sewer line east; manhole rehabilitation/replacement in conjunction with the proposed new and replacement pipelines; abandonment of approximately 600 linear feet of existing sewer line and associated manholes, and construction of an approximately 50-linear foot extension of new 8-inch PVC sewer lateral line.

Jones Road Sewer Extension, *City of Oceanside* – Project Manager for design of approximately 1,500 lf of new 15-inch PVC sewer along Jones Road and the City's public works yard. The new sewer is needed to relieve current surcharging caused by high flow discharges by a nearby membrane plant. The new sewer is a dedicated line picking up the membrane's facility's lateral and connection to the City's Roymar Lift Station (LS) located in the City's public works yard. Another component of the project includes modifying the old Roymar LS to eliminate the sump conditions and instead allow for the wastewater to flow through to the new Roymar Lift Station. Project challenges include high groundwater, numerous utility crossings, and a deep connection to the lift station wet well.

Well No.'s 10 and 11 Raw Water Collection Pipeline, *City of Oceanside* – Project Engineer for the design of 5,000 lf of 20-inch PVC transmission pipeline, consisting of (2) jack-and-bore crossings, pipeline to be constructed in City streets, under Highway 76, within an engineered fill, in undeveloped areas adjacent to existing Army Corp of Engineers flood control levee, and finally connecting to the City's existing Mission Basin Desalting Facility. Project included coordinating with and obtaining permits from several agencies including Caltrans, SDG&E, FAA, and OSHA Mining and Tunneling Unit. An alignment study which examined several possible alternatives was performed as part of this project.

Downtown Sewer Upsizing, *City of National City* – Project Engineer for the upsizing of approximately 12,000 lf of existing gravity sewers located in the downtown area of the City of National City. The project was prompted by expected future redevelopment of the area which will alter sewer flows, thereby requiring the existing infrastructure to be upgraded. New alignments were required for several.

Gano Reservoir and Unit X Pipelines, *Olivenhain Municipal Water District* – Reservoir and Site design development using AutoCAD, prepare SWPPP for 6.5 MG AWWA D-110 Type I prestressed concrete reservoir and 10,000 lf of steel transmission pipelines.

Design-Build of Water Production Wells for Emergency Water Supply at Eleanor Pardee Park and Library/Community Gardens, *City of Palo Alto* – Project Engineer for the design of two fully operational emergency supply water wells connected to the City of Palo Alto's water distribution system. The well sites are highly visible to the public; one is at the City's Main Library, adjacent to an important community garden facility, and the other is at Eleanor Pardee Park, a neighborhood park that provides children's playgrounds, picnic areas, and an additional community garden. At both sites, design challenges included the need to develop wellhead facilities that would blend into their surroundings and avoid introducing inappropriate "industrial" aesthetics into recreational greenspace. In addition, because of City regulations prohibiting loss of recreational lands, it was essential to minimize the above-ground footprint of the finished facilities. Effective public outreach and construction noticing were identified as particularly important for the success of this project, which kicked off immediately following the controversial removal of a number of mature trees on California Avenue in the City's central business district.

PROJECT UNDERSTANDING AND APPROACH

MANAGEMENT AND TECHNICAL APPROACH

PROJECT MANAGEMENT APPROACH

IEC uses a well-developed and time-tested management approach which entails preparing a detailed scope of services and corresponding budget and schedule along with clear team staffing assignments. We will confirm goals and objectives of the project with San Antonio Water Company (SAWC) at the onset of the project. We will ensure the IEC Team has a clear understanding of SAWC's desires and expectations for the task order the first time around and is well prepared for a successful execution of the project. This preparation and attention to detail in the pre-project phase also serves to minimize effort that SAWC must expend to keep the project on task later. In effect, we make it easy for SAWC to manage us.

PROJECT KICK-OFF MEETING

This initial meeting is meant to accomplish several objectives, including:

- Review project objectives, scope and schedule;
- Confirm staff roles/responsibilities;
- Establish lines of communications;
- Discuss specific project criteria or requirements;
- Identify key issues and discuss the approach to addressing issues; and
- Confirm schedule for draft submittals and quality review process.

PROGRESS REVIEWS

At preliminary and final design levels of the project, progress submittals will be provided for SAWC review and comment. The frequency and level of these reviews will be confirmed and agreed to as a part of initial project scoping however for this project we suggest progress submittals at preliminary (30%) completion and during final design we suggest 60%, 90% and final submittals. Submittals shall consist of:

- For pipelines, the horizontal alignment and outline specifications will be submitted at the first progress review. For the tunnel metering project, a conceptual plan and section will be submitted;
- Horizontal alignment with profile, along with specifications and cost opinion for 60% and subsequent submittals;
- IEC staff will meet with SAWC staff to receive SAWC review comments; and
- IEC staff will provide prompt and clear written responses to SAWC review comments.

KEY TECHNICAL ISSUES

Some of the key issues that will be encountered in this project and our team's approach to these issues is presented as follows:

Utility Research and Data Collection – Central to our technical approach to any underground project is a time-tested, methodical, and detailed utility research and plotting procedure that provides for a high level of confidence with respect to the locations of subsurface utilities. Accurate and detailed utility research and plotting is the key to any successful water/wastewater/recycled water project. We have designed literally hundreds of miles of pipeline in San Diego County using our thoroughly documented utility research procedures and have an excellent track record of avoiding conflicts with existing utilities.

Designing or Planning Around Existing Facilities – IEC is accustomed to designing facilities in congested utility corridors. In tandem with a time-tested, methodical, and detailed utility research and data collection program, IEC has a proven track record of developing innovative and elegant solutions to limited space constraints. We have an excellent record of performance for the many miles of pipelines we have designed with minimal changes due to unforeseen conditions.

Environmental Impacts – In today's day and age we understand the need to minimize the impact to both the environment and the community through innovative design techniques in without sacrificing the project budget and schedule.

Interruption of Service – IEC understands the need to keep facilities in service at all times. IEC has a proven track record of developing detailed phasing plans and highlining plans to minimize impacts to existing facilities or service.

Property or Easement Issues – During preliminary design we will research easement or right of way needs and bring those to SAWC's attention. Although we have not included plat and legals in the project scope at this time we can easily add that service if needed.

Outside Agency Coordination – We will coordinate with any jurisdiction agencies regarding encroachment permits, traffic control, paving, or other requirements. We recently coordinated a major pipeline project with the City of Upland on behalf of Ontario Municipal Utilities Company and have a good understanding of the City of Upland's requirements.

Maintenance and Operations Considerations – Consideration of maintenance and operations needs is always an integral part of IEC's design efforts. Our approach is to include SAWC staff early in the project to determine and design for maintenance and operations concerns. Uniformity and adherence to SAWC standards also contributes to the ease of maintenance and operations post construction.

QUALITY ASSURANCE/QUALITY CONTROL DURING DESIGN

Quality assurance and control at IEC focuses on two concepts: (1) No project is too small for quality; and (2) everyone is responsible for quality. As noted in our organization chart, we have assigned appropriate senior level staff to function as the quality review team for the project. At IEC, the work environment places quality as a top priority through clear definition of and conformance to requirements and procedures, raising awareness, and doing things right the first time around.

IEC's quality assurance and control consists of a systematic sequence of tasks applied to all phases of design from preliminary reports to final plans, specifications, cost estimates and calculations. All documents are checked for:

- Consistency with project goals;
- Inclusion of accurate and thorough information;
- Verification of assumptions;
- Grammatical or spelling errors;
- Incorporation of all comments received;
- Consistency between plans, specifications, cost estimate and calculations;
- Inclusion of outside/permitting agency requirements;
- Conformance of the cost estimate to current market conditions; and
- Inclusion of claims avoidance procedures as summarized in the following section.

ENVIRONMENTAL SERVICES

IEC's approach emphasizes identification of opportunities and constraints as the foundation for environmental compliance. Project objectives and environmental commitments for protection of natural resources in place will be incorporated as project design elements to avoid regulatory triggers and CEQA thresholds of significance while still accomplishing SAWC goals. This is an IEC trademark service, and we are uniquely positioned to deliver results in this regard. We will also stress early conversation and good relations with agency staff if necessary; we have found that reaching out early to explain the project, share information on the project, and obtain agency input is invaluable in building the trust that helps to obtain concurrence or speed review of discretionary applications.

PHASE I – KICK-OFF MEETING, RESEARCH, CEQA PROJECT DESCRIPTION, AND TECHNICAL ENVIRONMENTAL ASSESSMENT

IEC will prepare a project description for CEQA clearance and will research of existing available databases with agencies having purview over the project. A site visit will be conducted to review and document existing conditions of the project location with photos. The project description will be the basis for environmental review and will describe: Permits needed for project approval, and the scope of temporary construction activities, permanent changes resulting from the project, and long-term project operations. A comprehensive database review will be conducted to document existing baseline conditions and environmental commitments for the project. IEC will present our Draft CEQA project description and findings from background research to SAWC.

IEC will finalize the project description and will kick-off technical studies that may be needed for a CEQA Notice of Determination. Deliverables will consist of technical memos documenting baseline conditions from records search and field surveys, applicable

ordinances, and thresholds of significance for the project and any conditions of approval that are needed to protect natural resources. Based on the information found, a memorandum summarizing findings will be provided to SAWC documenting whether further technical studies should be conducted to support the CEQA Determination for a Notice of Exemption based on the information found.

IEC will incorporate information on biological and cultural resources and tribal consultation if needed for the CEQA Environmental Determination. Technical memos will clearly describe conditions and assumptions.

PHASE II – NOTICE OF EXEMPTION (NOE)

IEC will incorporate the CEQA Project Description and the description of the project location, which were generated in Phase I, into the CEQA NOE for each project. Conceptual Project Plans will be reviewed to confirm applicability of a CEQA exemption for each project and statements of findings with supporting information on the applicability of the CEQA Exemption will be drafted for each NOE. For these projects, a Categorical Exemption could be applicable under Article 19, Section 15301, Class 1 (b) Additions to existing facilities provided that the addition will not result in a substantive increase in capacity. Section 15302, Class 2 (c), replacement or reconstruction of existing utilities. Section 15303, Class 3 (d) Water main, sewage and other utility extensions, and associated street improvements, of reasonable length to serve such construction. IEC will review existing technical screening reports for issues of concern and Best Management Practices will be finalized to address and lessen any environmental concerns and presented in as a separate appendix to the NOE.

Each Notice of Exemption will contain a concise and thorough final project description that has been approved by SAWC, the finding of exemption, along with the guideline citation of the exemption, and statements of reasoning to support the exemption. This document will be given to the District for one round of comments, then finalized. The Notice of Exemption will be completed and printed in a PDF format and delivered to the District. Notice of Exemption and Notice of Determination Forms will then be filed with the County Clerk.

BID PHASE SERVICES

IEC will continue to provide services through the bid phase. In addition to assisting SAWC in quickly preparing Addenda to answer questions that might arise from Contractor's, IEC will prepare a Bid Review Memo identifying the lowest responsible and responsive bidder. A well-prepared Bid Review Memo can provide a smooth award process, keeping the project on schedule and on track.

CONSTRUCTION SUPPORT SERVICES

IEC will bridge the gap from preliminary and final design to successful project completion. IEC understands the necessity to work with SAWC as an integral part of SAWC's team to provide a cohesive and united front when interacting with the Contractor. During the construction phase IEC will:

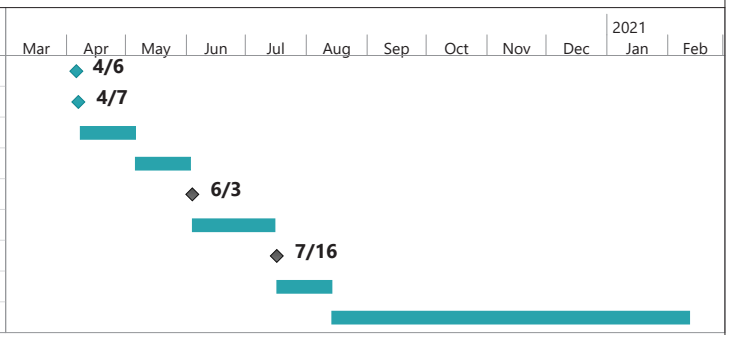
- Perform prompt submittal reviews and quickly responding to RFIs;
- Attend progress meetings as necessary;
- Work with the Contractor and SAWC to ensure that any problems that do arise do not escalate;
- Collectively work towards solutions towards engineering problems that arise during construction;
- Proactively ensure that claims avoidance measures included in the contract documents are recognized and implemented, such as mitigation measures and potholing requirements; and
- Provide detailed documentation of paperwork, phone conversations and all correspondence.

CLAIM AVOIDANCE AND RESOLUTION DURING CONSTRUCTION

All aspects of construction support services can be considered as in support of claims avoidance. IEC's philosophy is to not provide any basis of a claim to the Contractor. We will work collectively towards quickly seeking solutions and maintain responsive, open and supportive communications to the fullest extent possible. However, in the event of a claim we will work quickly, methodically and thoroughly with SAWC to obtain a successful resolution.

PROJECT SCHEDULE
San Antonio Water Company
Professional Design and Project Management Services for
Multiple Capital Facility Projects

ID	Task Name	Duration	Start	Finish
1	Notice to Proceed	0 days	Mon 4/6/20	Mon 4/6/20
2	Kickoff Meeting	0 days	Tue 4/7/20	Tue 4/7/20
3	Survey/Mapping	4 wks	Wed 4/8/20	Tue 5/5/20
4	Preliminary Design/Environmental	4 wks	Wed 5/6/20	Tue 6/2/20
5	Review Meeting	0 days	Wed 6/3/20	Wed 6/3/20
6	Final Design/Environmental	6 wks	Thu 6/4/20	Wed 7/15/20
7	Review Meeting	0 days	Thu 7/16/20	Thu 7/16/20
8	Bid Phase	4 wks	Fri 7/17/20	Thu 8/13/20
9	Construction Phase	26 wks	Fri 8/14/20	Thu 2/11/21



PAST PROJECTS

SAN ANTONIO AVE 30-INCH DIAMETER TRANSMISSION WATER MAIN

Client/Location:	Ontario Municipal Utilities Company 1425 S Bon View Avenue, Ontario CA 91761	**Client Contact:** **Phone:** **E-mail:**	Cynthia Heredia-Torres 909.395.2647 ctorres@ontarioca.gov
Project Dates:	July 2019 - March 2022	**Total Project Value:** **IEC's Contract Amount:**	$2,232,500 $293,429
Key Personnel:	Rob Weber - Principal | Dolores Salgado - Project Manager | Dalia Mulato – Design Engineer		

The Ontario Municipal Water Company (OMUC) owns a 20-million-gallon (MG) Reservoir 1212-1A and 2 MG Reservoir 1212-1B, both located at Fern Reservoir Park on 8th Street between Euclid Avenue and San Antonio Ave in the City of Upland, CA. The reservoirs serve pressure zone (PZ) 1212 via an existing 18-inch diameter steel pipeline. The Project proposes to construct a new 30-inch diameter pipeline that connects to the Reservoir 1212-1A outlet and abandon the existing 18-inch diameter pipeline in-place.

The Project consist of approximately 2,900 linear feet of new 30-inch cement mortar lined and coated welded steel pipe (CML&C WSP); abandonment of approximately 3,700 linear feet of existing 18-inch steel pipe.

KEY PROJECT COMPONENTS & ISSUES

- Multi-agency coordination included Caltrans, City of Upland, Riverside County Flood Control District, and over 10 utility companies; phasing the project resolved the issue with concurrent construction projects in the Project area
- Bore and jack required to cross underneath a 144-inch diameter concrete culvert used for flood control
- Highly congested utility corridor required preliminary investigations by conducting over 40 utilities potholes to find an available corridor for the 30-inch diameter water main
- Geological conditions included hard material and cobbles, indicating that site excavation would be difficult; IEC recommended classifying the material characteristics and included pay items for rock removal

STAGE RANCH ROAD PIPELINE

Client/Location:	Elsinore Valley Municipal Water District 31315 Chaney Street, Lake Elsinore, CA 92530	**Client Contact:** **Phone:** **E-mail:**	Shawnele Morelos, PE 951-674-3146 Ext. 8320 smorelos@evmwd.net
Project Dates:	October 2019 - November 2020	**Total Project Value:** **IEC's Contract Amount:**	$960,000 $145,570
Key Personnel:	Rob Weber - Principal | Dolores Salgado - Project Manager | Dalia Mulato – Design Engineer		

The Elsinore Valley Municipal Water District (District) owns an existing 10-inch diameter cement mortar lined and coated welded steel water pipeline that serves an area zoned as Mountainous Terrain. The existing pipeline was installed in 1977 and has reached the end of its useful life. Project is located in the City of Wildomar, CA along a privately-owned dirt road, named Enderlein Road. The existing 10-inch diameter water main connects Pump Station No. 1, located on Hixon Street, and the lower Stage Ranch Reservoirs 1a and 1b. The reservoirs are twin steel tanks. Pump Station No. 1 pumps water up to the lower Stage Ranch Reservoirs 1a and 1b at a flow rate of 930 gpm and discharge pressure of 205 psi. The Reservoirs also feed the lower zone by gravity via the pressure reducing valve with settings that breaks pressure from 202 psi to 65 psi. Slopes along the existing 10-inch diameter pipeline vary with steepest slopes reaching 44%.

The Project proposes to downsize the existing 10-inch diameter pipeline to an 8-inch diameter pipeline due to low demands and water quality problems. The total length of the new 8-inch diameter PVC pipeline is approximately 2,100 linear feet and the portion of 8-inch diameter CML&C WSP is approximately 300 linear feet. A hydraulic analysis was performed to determine if the new 8-inch diameter pipeline can supply fire flows of 1,500 gallons per minute at 20 pounds per square inch residual pressure without exceeding the maximum flow velocities of 10 feet per second to minimize potential for system hydraulic surge and to limit pressure drops during fires.

KEY PROJECT COMPONENTS & ISSUES

- Project is located within the Elsinore Fault Zone where the probability of fault rupture is high; IEC recommended welded-steel pipe due to the potential seismic activity in this zone
- Geological conditions included hard material and cobbles, indicating that site excavation would be difficult; IEC recommended classifying the material characteristics and included pay items for rock removal
- Narrow and tight curvature of the existing dirt road required numerous bends
- Steep hillside slopes that exceeded 20% grade required slope anchor walls
- Recorded 10-ft wide utility easement was not locatable using available easement documents/maps; IEC recommended recording a new 20-ft wide easement for long-term maintenance and operations
- New 8-inch diameter pipeline included both PVC and CML&C WSP to meet the project requirements

CANYON DEL REY CMP SEWER LINE REPLACEMENT PROJECT

Client/Location:	Seaside County Sanitation District 440 Harcourt Avenue Seaside, CA 93955	**Client Contact:** **Phone:** **E-mail:**	Scott Ottmar 831.899.6885 sottomar@ci.seaside.ca.us
Project Dates:	Construction to begin April 2019	**Total Project Value:** **IEC's Contract Amount:**	$736,900 $130,900
Key Personnel:	Rob Weber - Principal | Dolores Salgado - Project Manager | Dalia Mulato – Design Engineer		

IEC completed the design of the Canyon del Rey CMP Sewer Replacement Project. The Project replaced and upsized three sewer segments totaling approximately 850 lineal feet of an existing sewer main that was severely corroded and identified in the District's Sewer Master Plan CCTV inspection reports to be in poor condition and in need of upsizing. The sewer new main will provide sufficient capacity to meet future flow conditions. Some key project challenges included high groundwater and poor soils prone to sloughing during trenching activities. IEC proposed to characterize dewatering activities during the design phase by obtaining baseline groundwater samples. Using this approach, IEC developed a performance specification, which defined the water quality and estimated the quantity of water expected during trench dewatering activities. By proactively coordinating with Monterey One Water using the baseline groundwater samples, IEC determined that discharging into the sewer line would be acceptable without pretreatment therefore the groundwater discharge permit process would be streamlined saving the District time and permitting costs. Another challenge was crossing over the top of an existing 60-inch storm drain pipeline with a minimal 6-inches of cover. IEC performed 11 utility potholes to obtain positive location for each utility prior to finalizing the design. IEC coordinated with Caltrans District 5 to obtain the Encroachment Permit on behalf of the District. IEC proposed a parallel alignment keeping the existing sewer main in service and continual service to Department of Motor Vehicles and City Hall.

KEY PROJECT COMPONENTS & ISSUES

- 850-lf of 12-in diameter and 15-in diameter PVC Sewer Main
- Four 48-in diameter sewer manholes
- Reconnection of three sewer laterals, two serving major users, the State Department of Motor Vehicles and the City of Seaside City Hall Complex
- High groundwater conditions and poor sandy soils
- Performed 11 utility potholes during design

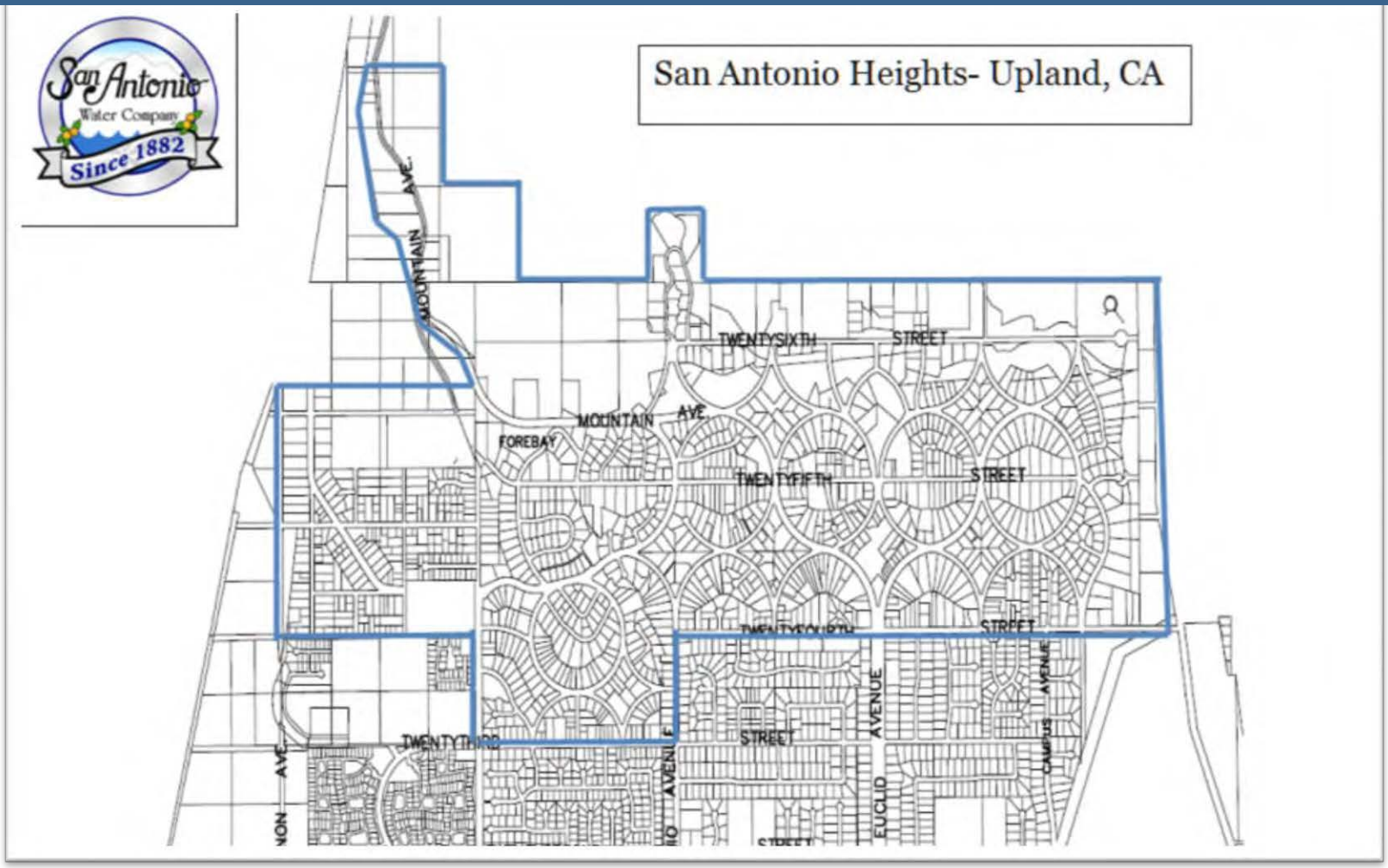
EXCEPTIONS TO THIS RFP

EXCEPTIONS

IEC has reviewed the Company Standard Agreement, and we respectfully request the opportunity to discuss proposed changes prior to executing the Agreement upon selection for the Project.

PROPOSAL

PROFESSIONAL DESIGN AND PROJECT MANAGEMENT SERVICES FOR
MULTIPLE CAPITAL FACILITY PROJECTS – 2020 CIP
SAN ANTONIO WATER COMPANY



PREPARED FOR:

San Antonio Water Company
139 N. Euclid Avenue
Upland, CA 91786

Attn: Brian C. Lee
General Manager
Blee@sawaterco.com

PREPARED BY:

KWC ENGINEERS
CIVIL ENGINEERS • PLANNERS • SURVEYORS

KWC ENGINEERS
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March 23, 2020

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March 23, 2020

San Antonio Water Company
139 N. Euclid Avenue
Upland, California 91786

Attention: Brian C. Lee, – General Manager

Regarding: Professional Design and Project Management Services for Multiple Capital Facility Projects
San Antonio Water Company RFP – 2020 CIPs

Mr. Lee,

KWC Engineers (KWC) appreciates the opportunity to submit this Proposal for Professional Design and Project Management Services to the San Antonio Water Company (SAWCo) for the Multiple Capital Facility Projects with SAWCo's Service Area in the western area of San Bernardino County, California. We have prepared this proposal in accordance with the SAWCo's Request for Proposal dated March 2020.

KWC understands the SAWCo desires to improve and upgrade the existing potable water system and other critical facilities by replacing older waterlines with new waterlines within the street right-of-way including all necessary valving and appurtenances. In order to meet this objective, SAWCo proposes to design and construct new potable water pipelines within the seven (7) project street segments listed below and as per identified in RFP. SAWCo proposes to cap and abandon, in-place, the existing waterlines after construction of the proposed waterlines per SAWCo's latest standards and the Department of Health Services separation requirements. Existing fire hydrants and water services will be reconnected to the proposed waterlines after acceptance of the new mainline. The existing meters and boxes will be replaced after construction of new water services off the proposed waterlines. The proposed water pipeline projects are as follows:

1. Reservoir 9 Pipeline Replacement;
2. Frankish Tunnel Pipeline Replacement and Meter Installation;
3. Cliff near Euclid Crescent and Cliff Road;
4. Glendale Road between Mountain Ave. & Park Blvd.;
5. Linda Lane, north of 24th;
6. Primrose Lane, north of 25th; and
7. Irrigation Pipeline Viewpoint Street, Canyon View Ave. to Campus Ave.

We have thoroughly read the RFP, performed the necessary research, and conducted a site visit. We also understand that this proposed water improvement project is to be designed in accordance with CA-DDW Waterworks Standards, ASTM, AWWA, and San Antonio Water Company Standards. KWC will work collaboratively and expeditiously with San Antonio Water Company staff to have all projects completed and under construction by December 31, 2020.

Below are three (3) reasons why the City should hire KWC for this project:

1. KWC has built a team (in-house and subconsultants) that has the expertise and qualifications to perform this work based on our recent experience working on similar waterline replacement projects.
2. KWC has experience facilitating the completion of City waterline replacement projects with aggressive schedules.
3. KWC is known as a company that uses strategic approach, teaming, service, trust and respect to complete similar projects with excellence.

We propose to hire, manage and oversee the following subconsultants:

- **C Below, Inc**. for Potholing
- **GeoCon West, Inc**. for Geotechnical services
- **First Carbon Solutions** for Environmental CEQA Services

All charges for subcontracted services shall be in the same amount as actually invoiced to and paid by the engineer plus an allowable 5% markup.

The design survey work will be performed by our own survey crew.

The cost of printing, mileage, telephone, mailing, and other expenses incidental to the performance of the main items of the Engineering Services to be rendered are included in the proposal, and there will be no additional charges.

On behalf of KWC, Mike Taing will be the contact person during the proposal evaluation phase. His contact information is:

Mike C. Taing, P.E. – Director of Engineering
The KWC Companies, Inc. dba KWC Engineers
1880 Compton Avenue, Suite 100, Corona, CA 92881
Tel: (951) 734-2130, Ext 235 | Cell: (951) 901-5405
Email: Mike.Taing@KWCEngineers.com

It is with our company qualifications, experience and project approach that we have assembled a talented team of professionals with a strong desire to successfully complete this project on time and on budget. We look forward to the possibility of working with you and City staff on this project. Please feel free to call Mike, if you have any questions regarding our proposal or qualifications.

This proposal shall remain valid for 90 days from this date of submittal, March 23, 2020. We have included our exceptions to the Professional Services Agreement as currently written at the end of this proposal. By signing this Transmittal Letter, I acknowledge that all information found within the attached proposal is true and correct and that I am an authorized person to bind KWC to the terms of the proposal.

Sincerely,

KWC ENGINEERS

Brandon M. Barnett, PE., PLS
President
Direct: 951.808.7311
Phone: 951.734.2130 ext. 203
Email: brandon.barnett@kwcengineers.com

CONTENTS

Executive Summary

KWC Engineers (KWC) appreciates the opportunity to submit this proposal for Professional Design and Project Management Services to San Antonio Water Company (SAWCo). We understand that SAWCo will be selecting a single consultant to design replacement pipelines including construction management services, bidding support, geotechnical observations & testing, environmental processing, and construction inspections for the seven (7) projects listed in the RFP.

KWC Engineers has been in business for over 36 years providing strategic project planning, professional civil engineering, and surveying consulting services to our public and private clients in the Inland Empire. Our firm has a current volume of work of 19 full-time equivalent engineering and surveying staff.

KWC has two locations throughout the Inland Empire. Our office in Corona is located along the 15 Freeway directly off of Ontario Avenue and our Murrieta office is located along the 15 Freeway directly off Kalmia street. Because of our longstanding ties with the community, our team has a personal investment to make sure your projects are completed on time, on budget and with no surprises. KWC has developed a company culture that values a high level of service, responsiveness, and consistent communication with our clients as requirements for all projects. We believe that our local knowledge of the area, understanding of our client's expectations, and relationships with the community will provide you with a superior project.

Over the years KWC has invested significant time working with local public agencies to plan, design, process, and develop engineering/surveying projects contributing towards upgrading their aging and deficient infrastructures including water, sewer, storm drain, and roadway systems. We have the resources and staff availability to meet your project budgets and schedules. **KWC is committing to providing the necessary resources to work expediently towards having all projects under construction contract by December 31, 2020**. KWC specifically operates ready to address project related tasks and issues regardless of current volume of work. KWC adheres to the belief that most project issues can be anticipated or avoided at the front-end of a project through active planning and project development. This proactive approach means that the Principal is involved at a "hands-on" level at project inception in order to ensure that issues have been investigated and that design alternatives have been studied.

Within this proposal, we have provided KWC's Background and Experience and Project Team Organization Chart having worked on similar type potable waterline project for various City's and Water Districts within the Inland Empire. We believe we have assembled a great team to work with San Antonio Water Company to create a successful project. In addition, we have outlined the project team's Understanding and Approach to tackling the seven (7) water line projects. This section describes the project assumptions, detailed tasks, methodology and anticipated project schedule to move the project forward and accomplish the goals and vision of SAWCo. The remaining pages of the proposals includes a description of past projects, and resumes. **KWC's professional fee schedule is submitted under separate seal and cover.**

Firm Background and Experience

Company Profile

KWC Engineers has been providing professional civil engineering, planning, and surveying consulting services to both public and private clients in Riverside, San Bernardino, and Orange Counties since 1981. KWC is a S-Corporation with a staff of 25 professionals working within one office located in the City of Corona.

Our long-term success is based upon understanding the needs of our clients by establishing lasting relationships while providing vision based strategic engineering. In addition, we have invested significant time working with various local agencies to develop a unique strategic approach in ways that meet the technical, economic and political needs of projects and stakeholders.

Because of our longstanding ties with the community, our team has a personal investment to make sure that our services are completed on time, on budget and with no surprises. KWC has developed a company culture that values a high level of service, responsiveness, and consistent communication with our clients. We believe that our local knowledge of the area, understanding of our Client's expectations, and relationships with the community will provide you with superior services.

Experience

WATERLINES IN THE SOUTHWEST QUADRANT OF GRAND BOULEVARD

City of Corona Public Works Department
Contract Amount: $146,450

KWC finalized waterline replacement improvement plans and technical specifications for phase 1 (5,000 lf) and prepared 90% plans for the remaining portion (8,500 lf) in 2015. The project required coordination of proposed facilities with Corona Regional Medical Center, Library, Schools and Public Buildings. Project was design to disrupt water service to customers for less than 2 hours. KWC coordinated over 200 crossings of existing utilities with a combination of potholing and utility locating, as well as preparation of Soil's Report, CEQA documents, Traffic Report, technical specifications, bid documents, as-built plans and Traffic Control Plans. Phase 1 of the SW Quadrant of Grand Waterline Replacement Project is complete as of 2016.

COUNTRY CLUB HEIGHTS WATERLINE IMPROVEMENTS

Elsinore Valley Municipal Water District
Contract Amount: $143,317

KWC recently (2013) designed waterline replacement improvement plans for seven (7) sites in older neighborhoods with existing narrow, hilly, curved streets to improve the hydraulic looping and connectivity of the water system. Work effort included research, preliminary alignment study, potholing, final plans, **Jack and Bore Plans under State Route 74** that required a CalTrans permit, cost estimate and specifications. Project was design to disrupt water service to customers for less than 2 hours. This proposed project is very similar to the Country Club Heights project.

ONTARIO AVENUE ZONE 4 WATERLINE

City of Corona Public Works Department
Contract Amount: $70,927

KWC recently (2011-2012) worked with the City staff for the installation of approximately 2,600 lineal feet of a 12-inch Zone 4 pipeline located in Lincoln Avenue, Ontario Avenue, and Buena Vista Avenue. This pipeline recently constructed provides higher pressure to the City's customers located primarily along the south side of Ontario Avenue including two (2) church sites. Our work scope included utility research, survey, preliminary alignment studies, potholing, waterline design, and preparation of a bid schedule, bid support, and construction support. Project was design to disrupt water service to customers for less than 2 hours. KWC designed the pipeline to minimize utility crossings and impacts to traffic during construction. The project was constructed on-time and under budget.

KWC recently (2016) completed the 2nd of 3 sites, the second being from Kellogg to Fullerton Avenues approximately 2,600 lineal feet in the same fashion as phase 1. Project is currently under construction.

FOOTHILL PARKWAY WATERLINES

TRI Pointe Homes
Contract Amount: $30,000

KWC recently prepared plans for a proposed 16" offsite waterline in Foothill Parkway between Bedford Canyon Road and State Street as well as revisions to the existing offsite 16" reclaimed waterline to add fire hydrants, service laterals and to avoid a proposed storm drainpipe. KWC also prepared offsite sewer improvement plans including **Jack and Boring under Interstate 15**, onsite water and sewer plans and coordinated preparation of onsite reclaimed water system for approvals through the City of Corona, County of Riverside, MWD and Caltrans.

Project Organization and Experience of the Project Team

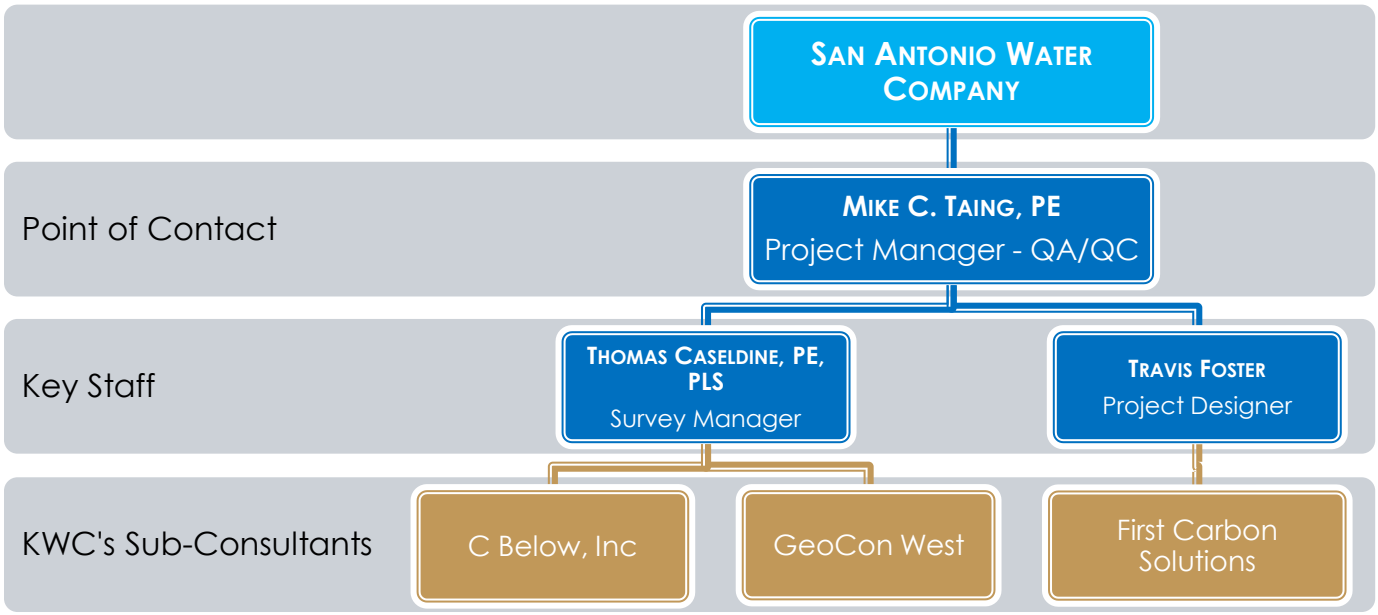
Key Personnel

KWC's team of professionals has a high level of commitment, enthusiasm, and experience working together on waterline projects to meet the Client's needs. We believe in building relationships with our clients based on trust, respect, and integrity. It is our goal to create a partnering process which encourages clear and open communication among all team members. Our collective waterline replacement project experience, solid working relationship, technical abilities, and passion are the strength behind our team and the reason we deliver successful waterline replacement projects.

Our waterline design team is wrapping up our current projects and therefore will be available to be FULLY DEDICATED to the production of this project.

Our proposed design team of professionals has the experience and qualifications to meet the City's needs. **All key personnel will be available to the extent proposed for the duration of the project. KWC understands that no person designated as "key" to the project shall be removed or replaced without the prior written concurrence of the City.**

Organization Chart



Project Understanding & Approach

The San Antonio Water Company proposes to retain a single consultant to design replacement pipelines including construction management services, bidding support, geotechnical observations & testing, environmental processing, and construction inspections. for the seven (7) projects listed in the RFP. The proposed waterline replacement projects are mostly designated within existing road right-of-ways and will include a project site-specific construction plans and specifications for public bid and construction purposes. The waterline shall be designed to avoid existing utilities while minimize impacts to the community. The design shall be in accordance with CA-DDW Waterworks Standard, ASTM and /or AWWA Standards, and shall conform to "Green Book" and SAWCo's Standards Plans and Specifications. KWC will also work quickly and collaboratively with SAWCo's staff to complete the project on time and within approved budget. Below we have outlined a snapshot of our assumptions and understanding of each of the project.

KWC commits the necessary resources to work expediently toward having all projects under construction contract by December 31, 2020.

Project 1 – Reservoir 9 Pipeline Replacement

- Propose to construct approximately 2500 LF of 24-inch transmission waterline from Reservoir 9 to existing 24-inch line in 25th Street just east of Beck Street. This new line will replace an aging and high maintenance line that was installed before 1976 requiring the abandonment of the existing 24-inch line in place.
- RFP identifies the potential pipeline alignment along the back of existing homes, possibly along the USA-DOA property. From initial review, this alignment may be a critical path item as it will require coordination with this agency, dedication of easement, and grading with geotechnical investigation. As an alternative, we have proposed on an alignment going southerly down existing Burt Street and connecting into a portion of the existing 24-inch line at Beck Street. This is something to look at and discuss at design kickoff meetings.
- Budgeted for a maximum of ten (10) potholes to located critical utility crossings and connection points along the proposed pipeline.
- Alignment option must be defined prior to drone survey as topo budget has been set for a limited amount of pipeline area.

Project 2 - Frankish Tunnel Pipeline Replacement and Meter Installation

- Propose to reconstruct the Frankish Tunnel Outlet pipe to correct hydraulic grade and install a meter to obtain better flow readings at the outlet. This will allow for more accurate accounting and reporting of SAWCo's water supply and use.
- Grading for this project is limited to the area near the outlet and does not require agreements, easements or other permitting with other agencies or property owner.
- Budgeted for a maximum of one (1) pothole to located critical utility crossings and connection points along the proposed pipeline.
- Topography is limited to a 200' x 200' area near outlet structure. Limits must be defined prior to drone flight.
- Details of outlet structure to be provide by SAWCo or per SAWCo Standard Plans. Scope does not include structural calculations or extensive details for this outlet system.

Project 3 - Cliff near Euclid Crescent and Cliff Road

- Propose to construct approximately 1000 LF of 6-inch distribution waterline along Cliff Road from Prospect Drive to Euclid Crescent and installation of new laterals to existing five homes along Cliff Road to upper zone pipeline. This new line will replace an aging and deficient line that was installed before 1976 requiring the abandonment of the existing 4-inch line in place.

- Budgeted for a maximum of five (5) potholes to located critical utility crossings and connection points along the proposed pipeline.
- Drone flight will extend out the full limits of Cliff Road from Prospect Drive to Cypress Drive, however, the limits of the detail topo will only be provided along the new proposed pipeline segment approximately 1000 LF.

Project 4 - Glendale Road between Mountain Ave. & Park Blvd.

- Propose to abandon in place an existing 2-inch waterline that was installed before 1976 while keeping an existing 6-inch line along the same segment. SAWCo proposes to connect existing lateral services to existing 6-inch line.
- Budgeted for a maximum of two (2) potholes to located critical utility crossings and connection points along the proposed pipeline.
- KWC proposes to only provide drone survey of Glendale Road to obtain aerial ortho photo and to field survey existing meter locations and above ground features. Given the scope of work for this project, detailed topography is not needed for design. However, a cost is provided in the fee schedule or this work effort if SAWCo requests it.
- Design does not include profile of waterline.

Project 5 - Linda Lane, north of 24th Street

- Propose to construct approximately 240 LF of 6-inch DIP distribution waterline in Linda Lane and 360 LF of 6-inch DIP waterline in Lamplighter Lane. This new line will replace an aging and deficient 4-inch line that was installed before 1976 requiring the abandonment of existing 4-inch and portion of 2-inch branch line in place.
- New lateral services will also be constructed from the new 6-inch line.
- Budgeted for a maximum of three (3) potholes to located critical utility crossings and connection points along the proposed pipeline.

Project 6 - Primrose Lane, north of 25th Street

- Propose to construct approximately 500 LF of 6-inch DIP distribution waterline in Primrose Lane. This new line will replace an aging and deficient 4-inch line that was installed before 1976 requiring the abandonment of existing 4-inch line in place.
- New lateral services will also be constructed from the new 6-inch line including relocating one lateral service from backyard to front yard at Mountain. SAWCo to provide alignment of private water pipeline to house for this lot.
- Budgeted for a maximum of five (5) potholes to located critical utility crossings and connection points along the proposed pipeline.

Project 7 - Irrigation Pipeline Viewpoint Street, Canyon View Ave. to Campus Ave

- Propose to construct approximately 1400 LF of irrigation waterline along Viewpoint Street between Canyon View Ave and Campus Ave. This new line will replace an aging line that was installed before 1976 requiring the abandonment of existing line in place.
- RFP is unclear as to where this line is connected into or servicing and appears to be impacting a residential lot. KWC will need discuss with SAWCO whether other potential alignments are available prior to drone and field survey work.
- Budgeted for a maximum of eight (8) potholes to located critical utility crossings and connection points along the proposed pipeline.

For each of the projects and in order to design the waterline to avoid existing utilities and improve SAWCo's aging and deficient water system KWC's general approach will be to:

- Research right-of-way maps: parcel maps, tract maps, records of survey, etc. on the County database. We will send out dry utility map request letters to be placed on SAWCo's letterhead to all dry utility companies who have facilities in the vicinity in order to receive the latest information from the dry utility companies on the location of their existing utilities. We will compile the dry utility maps received from the dry utility companies and prepare a log of maps received. KWC will organize the existing plans and maps into an 11"x17" binder to use as reference and to provide to SAWCo with the first submittal.

- KWC, Thomas Caseldine, PE, PLS, will utilize the City of Upland benchmark system to establish survey control and the street centerline for the project base files. In lieu of 50' section interval field surveys, we recommend the use of a combination of drone survey and convention field topo surveys providing minimal disruption to traffic while also providing safe surveying conditions for our survey crews. Our survey crews will set aerial targets for the aerial drone topographic survey to be utilized in the preparation of the aerial topographic file in NAD83 Coordinate System and NAVD88 Vertical Datum. The aerial topography, including one-foot contours, curbs & gutters, driveway approaches, above ground utilities, manholes, valves, streetlights, signage, and traffic stripes, will extend over the entire project limits (approximately 20' beyond road right-of-way and 100' beyond limits) in order to ensure that we have sufficient design topography. The drone survey will not only provide a higher level of accuracy but at the same time produce a detail color ortho image to be utilized in the design phase to foster SAWCo's collaboration in identifying potential water alignment corridors, locating water connection and above ground appurtenances, and potential construction issues. In addition, KWC's survey crew will walk with Mike Taing both sides of each street and survey all above ground features including every existing water meter, fire hydrant, blowoff and air vac to ensure a complete and accurate record of conditions. KWC staff will utilize the as-built street and utility improvement plans, right-of-way maps, and GIS database to prepare the project base map for the alignment.
- Next, KWC, Travis Foster, EIT will draft the existing utilities into the base file per the researched documents offset from the calculated centerline, verified with SAWCo's GIS Atlas maps and a field walk to make sure existing utilities are all accounted for. At this site, we anticipate underground: water, sewer, gas, and overhead electric, telephone and cable lines along each of the streets. To determine the alignment alternatives, KWC, Travis Foster with Mike Taing's supervision will prepare a preliminary alignment study to review with SAWCo's staff at the Design Workshop Meeting.
- At the DESIGN WORKSHOP MEETING Mike Taing and Travis Foster will meet with SAWCo's staff and walk through each of the sites existing features, research, dry utilities and proposed design alternatives. The alignment alternatives will be evaluated at the meeting and decided upon prior to preparing the final preliminary alignment plan.
- Once a preliminary alignment has been selected KWC, Travis Foster will prepare a pothole plan showing tie-in connection and critical utility crossings locations with a pothole table including: pothole number, type of utility, size to be verified and approximate depth for SAWCo's staff to review. Potholing the utilities can be the longest lead item for the project if not managed properly. KWC, Mike Taing will manage C Below's schedule of Traffic Control and Permit Application preparation. Mr. Taing will kickoff C Below to be prepared to pull a pothole permit, and to have crews ready as soon as feasible. Prior to potholing the existing utilities to determine the type, size and location of existing utility crossings, Mr. Taing will walk the locations with C Below's superintendent to make sure the correct potholes are dug and extra potholes are avoided. C Below will also dip the sewer and storm drain manholes with traffic control measures. Once potholed KWC's two-man survey crew will field survey, as needed, the nails set by C Below above the found utility which will give us survey accuracy on the location of existing utilities at the crossings.
- Once KWC receives the pothole results from C Below, KWC, Travis Foster will prepare the design and set the waterline inverts on the plan as necessary to vet out any utility crossing conflicts and potential construction issues.
- KWC, Mike Taing will review Travis Foster's preliminary design, and coordinate with City, if necessary, prior to submitting final plans. Once the preliminary design alignment has been reviewed, the construction plans, consisting of cover sheet, index sheet, detail sheet, if necessary, plan and profile sheets, will be prepared by KWC, Travis Foster with Tom Caseldine's supervision. KWC, Mike Taing will review plans prior to each submittal as well as one of our other project managers not familiar with the project for contractor constructability review.

THE KEY TO DESIGNING THIS PROJECT is to clearly demonstrate, on the plans, the tie-in connections to the existing waterlines by locating shutdown segments with valves for tie-in connections, avoiding the existing waterlines during construction in order to keep service to the customers with minimal shutdowns, locating all existing Lines, meters, fire hydrants, blowoffs and air vacs to minimize disturbance during construction. In addition, it will be important to develop detailed base maps from aerial topography and field survey so that strategic recommendations can be made to improve existing facilities while minimizing impacts to residences in the community.

- Mike Taing will prepare the technical specifications in Greenbook format based on SAWCo's standard specifications and recent waterline projects. KWC will also prepare the standard contract documents, appendices, and final bid package.
- The engineer's construction cost opinion and bid schedule will be prepared once the plans are ready for second submittal. Upon final plan approval, KWC will continue providing engineering and construction support for Bidding and Construction Phase of the project. KWC will also provide construction staking services up to contract budget amount.
- Upon project construction completion, KWC will provide project closeout support and as-built plans to SAWCo for approval.

Scope and Services

We have listed the work activities that are needed in order to complete the design effort for the proposed waterline improvement projects including Bidding and Construction Phase. Our activities are based upon our understanding of the general guidelines identified by SAWCo in its RFP as well as other tasks needed in our experience working on other similar pipeline projects. The required work tasks each of the projects are as follows:

Task 1 – Project Management

Subtask 1a: Project Investigation, Review & Site Visits

KWC will meet with SAWCo staff to identify background information to ensure incorporation of SAWCo suggestions, recommendations, directions and other requirements. KWC will review SAWCo's plans and documents and perform a site visit to understand site conditions and design constraints.

Subtask 1b: Meetings, Coordination and Processing

KWC will meet with SAWCo staff to identify background information to ensure incorporation of SAWCo suggestions, recommendations, directions and other requirements. Upon award of the contract, KWC will meet with City Staff at a kick off meeting to meet and introduce City Staff and KWC's project team. KWC will be prepared to discuss the City's goals, review the approach, confirm the schedule, and discuss any research the City and KWC has or need to be completed for the project area. KWC has budgeted for a maximum of three (3) meetings attendance and additional time for coordination collaboration and resolving project design issues including submittal packages.

Subtask 1c: QA/QC

Prior to each submittal to SAWCo, KWC's Project Manager will review plans and documents being submitted to ensure accuracy and constructability of design plans. Work to be completed up to contract budget amount.

Subtask 1d: Scheduling & Project Management

KWC will collaborate with SAWCo's staff to development a detailed schedule with project milestones and deliverables. Budget includes appropriate time for regular communication to keep SAWCo's staff updated on progress, meeting minutes or follow up, and overall management of project. Work to be completed up to contract budget amount.

Task 2 – Preliminary Design Phase

Subtask 2a: Project Research and Base Maps

KWC will perform our own research of record survey maps to determine the right-of-way and easements within the project limits. KWC will coordinate with SAWCo to obtain the existing as-built plans and wet utility research at the SAWCo. Dry utility research is performed by mailing letters to the utility companies on SAWCo's letterhead to limit fees from the utility companies. It is understood that upon receipt of the research, SAWCo staff will typically forward the dry utility maps to us to compile. KWC will review the record drawings and field investigate to verify the location of existing utilities. KWC will review all research documents and prepare project base maps to use in design and for preparation of construction documents.

Deliverables: One (1) electronic version of all research in PDF (via email) to the Company and a hard copy in an 11"x17" binder with the 60% level plan check submittal package.

Subtask 2b: Aerial Target, Drone & Field Topo Survey

KWC will utilize the City of Upland or local agency benchmark system to establish survey control and the street centerline for the project base files. Our survey crews will set aerial targets for the aerial drone topographic survey to be utilized in the

preparation of the aerial topographic file in NAD83 Coordinate System and NAVD88 Vertical Datum. The aerial topography, including one-foot contours, curbs & gutters, driveway approaches, above ground utilities, manholes, valves, streetlights, signage, and traffic stripes, will extend over the entire project limits (approximately 20' beyond road right-of-way and 100' beyond limits) in order to ensure that we have sufficient design topography. The drone survey will not only provide a higher level of accuracy but at the same time produce a detail color ortho image to be utilized in the design phase to foster SAWCo's collaboration in identifying potential water alignment corridors, locating water connection and above ground appurtenances, and potential construction issues. In addition, KWC will survey all above ground features including every existing water meter, fire hydrant, blowoff and air vac to ensure a complete and accurate record of conditions as necessary.

Subtask 2c: Aerial Topography

Upon completion of field survey, KWC will process the field survey data and drone flight and prepare a 40' scale topo base file with 1-ft contour interval and existing planimetrics as needed for design. In addition, an aerial ortho photo of Drone survey will be provided for use in project design.

Subtask 2d: Potholing

To confirm the location of underground utilities, KWC has assumed a maximum number of potholes along each project limits in order to verify crossings and tie-in connections. C Below will perform the potholing after they obtain the encroachment permit, verify the locations with Mr. Taing and setup necessary traffic control. C Below will provide a summary report detailing the findings of the potholing. KWC will survey the results of the potholing prior to finalizing the base files. The information obtained shall be summarized on the project base map. If there are conflicts with an existing "dry utility" and no potential alignment corridors are available, KWC will prepare notices for the City to send to utility companies for relocations if necessary. The potholing work will be done at prevailing wage.

Subtask 2e: Preliminary Design Phase

KWC will prepare a Preliminary Design Plan including all utility research, permitting requirements, traffic impacts, easement requirements, proposed and typical cross sections, proposed connections, potential pothole locations, and a preliminary construction cost estimate. KWC will perform a Design Review Workshop at SAWCo to review the conceptual alignment and proposed potholes.

Subtask 2f: Preliminary Cost Estimate

KWC will provide our construction cost opinion based on recent bid results and quantity takeoff in MS Excel format based on preliminary design concept plan. This will provide rough constructions costs to evaluate project budgets and potential alignment alternatives to explore.

Task 3 – Environmental Phase

Subtask 3a: Preparation of Draft Notices of Exemptions

Upon selection, FCS will conduct a more thorough review to confirm the appropriate categorical exemption for each project. Should any of the projects require additional analysis beyond a categorical exemption, a separate work authorization will be required.

Assuming each of the seven pipeline replacement projects is consistent with all Exemption Criteria listed under Section 15301, 15302, and 15303, FCS will prepare an NOE for each project. FCS will submit a draft version of each NOE for the Company's staff review. Each of the NOEs will include a brief project description, reasons to support exemption findings, and pertinent graphics. This Scope of Work assumes staff will provide one set of consolidated, vetted comments (made in track changes in the Word document) on each of the Administrative Draft NOE.

Deliverables: One (1) electronic version of each NOE in PDF and Word format (via email) to the Company, hard copies of each of the Administrative Draft NOEs are available upon request.

Subtask 3b: Preparation of Final Notice of Exemptions

Once FCS receives the Company's consolidated comments on each Draft NOE, FCS will complete revisions and prepare an NOE for final review.

Deliverables: One (1) electronic version of each NOE in PDF and Word format (via email) to the Company, hard copies of each of the Administrative Draft NOEs are available upon request.

Subtask 3c: Filing Notices of Exemptions

Upon finalizing each NOE, FCS will file each of the NOEs with the County of San Bernardino Clerk of the Board of Supervisors. The filing and processing fees associated with this task are included in direct costs. Should the County of San Bernardino filing fee or California Department of Fish and Wildlife processing fee increase, or additional fees be required, FCS will not be responsible for the costs and a separate work authorization may be required. Upon receipt of the conformed copies of the Final NOE from the County, FCS will post each of the NOEs with the State Clearinghouse.

- Two (2) hardcopies of each NOE to the County of San Bernardino Clerk of the Board of Supervisors.
- One (1) electronic version of each conformed NOE to the State Clearinghouse.

Subtask 3d: Public Meetings

This Scope of Work assumes that the Project Manager, Cecilia So and/or the Project Director, Kerri Tuttle, will attend up to seven public meetings (including one Planning, Resources, and Operations meeting) with the Company. Assuming two hours per meeting, a not-to-exceed budget has been established to cover attendance at the meetings. If the Company staff and/or the applicant requests additional meeting attendance by FCS staff, or if the amount of time involved in these meetings exceeds the initial budget allocation, FCS will notify the applicant of the additional costs and obtain authorization for the extra meeting time.

Subtask 3e: Project Management and Coordination

FCS will perform a variety of project management duties to ensure that the NOEs meet the Company's standards of quality, and that these are delivered on time and within budget. These duties will include team supervision and coordination, oral and written communications with the Company's staff, project accounting, and quality assurance review of all deliverable products by FCS's Project Director and Technical Editor. These services will also include ongoing support to applicant and staff, such as providing input to staff reports, regular schedule updates, and discussions of technical issues. This task assumes 6 hours of staff time for each project.

Task 4 – Final Design Phase

Subtask 4a: Final Plan Preparation - 60%

Upon approval of Preliminary Design Concept Plan, KWC will prepare 60% level construction plans for submittal to SAWCo's review and comment. These plans will identify the proposed water improvements to be constructed and will have the necessary construction notes and quantities, connection details, valving and appurtenances, and design information needed for construction. The plans will be plan view only and provide invert elevation at critical points as applicable for small line distribution pipelines. Larger transmission pipelines or design pipelines that require more detail due to utility crossing concerns will be profiled as applicable.

Deliverables: One (1) electronic pdf copy of plans and documents being submitted sent via email and one (1) hard copy for review. 60% level Water Improvement Plan set, and Cost Estimate.

Subtask 4b: Final Plan Preparation - 90%

Upon receipt of 60% plan check comments from SAWCo, KWC will revise plans accordingly to address concerns or comments prior to resubmittal of 90% level plan set. KWC will work with SAWCo, in a timely manner, to resolve any project design issues.

Deliverables: One (1) electronic pdf copy of plans and documents being submitted sent via email and one (1) hard copy bond for review. 90% level Water Improvement Plan set, Cost Estimate, and Technical Specification.

Subtask 4c: Final Plan Preparation - 100%

Prior to each submittal to SAWCo, KWC's Project Manager will review plans and documents being submitted to ensure accuracy and constructability of design plans.

Deliverables: One (1) electronic pdf copy of plans and documents being submitted sent via email and one (1) hard copy bond for review. 100% level Water Improvement Plan set, Cost Estimate, and Technical Specification.

Subtask 4d: Final Plan Preparation - Mylar

Upon approval of 100% plans, KWC will finalize plan and provide SAWCo with final signed mylars or an approved set for SAWCo's signature. This plan set will be used for Bidding Phase purposes and construction.

Deliverables: One (1) electronic pdf copy of plans and documents being submitted sent via email and one (1) hard copy mylar for approval. Final Bid Water Improvement Plan set, Cost Estimate, and Technical Specification.

Subtask 4e: Engineer's Quantity and Cost Estimate

KWC will prepare and provide the Engineer's Quantity and Cost Estimates per plans and will be submitted as part of the 60%, 90%, and 100% stage submittals.

Subtask 4f: Technical Specifications

KWC will prepare the technical specifications in Greenbook format based on SAWCo's Standard Specifications and similar recent waterline projects. SAWCo to provide template for preparation of Technical Specifications. This will be prepared at 90% and 100% stage submittals.

Task 5 – Bidding Phase

Subtask 5a – Bid Schedule & Bid Documents

KWC will compile bid schedule and approved bid documents and coordinate advertising and obtaining bids for the work. KWC will maintain a record of prospective bidders to whom project documents have been issued. KWC will coordinate any pre-bid meetings with SAWCo and prospective bidders as requested. Work to be completed up to contract budget amount.

Subtask 5b – Bid Support & Coordination

KWC will respond to Contractor's Prebid Request for Information (RFI) through appropriate addenda as necessary to correct, clarify or change the bidding documents. KWC will coordinate bid opening and review bids for acceptability of prime contractor, subcontractors, supplies, and other individuals and entities proposed by prospective contractors. Work to be completed up to contract budget amount.

Subtask 5c – Bid Evaluation

Upon receipt of Contractor Bids, KWC will prepare bid evaluation sheet showing each bidder and their respective line item bids, along with total proposed bid price for each bidder. KWC will advise SAWCo regarding which bidder was the 'lowest responsible bidder'. After SAWCo Board awards contract, KWC will coordinate construction contract execution and assemble construction contract documents. Work to be completed up to contract budget amount.

Task 5 – Construction Specifications

Subtask 6a – Field Inspections & Construction Oversight

KWC will provide general construction oversight of construction activities to ensure project schedules are met and contractor's compliance with contract documents and permits. KWC will coordinate with Contractor, attend pre-construction meeting, and provide construction inspections throughout the construction phase as requested up to contract budget amount. This scope assumes that the services offered are subject to prevailing wage laws.

Subtask 6b – Construction Staking & Calculations

KWC will prepare survey staking calculations as required and in coordination with Contractor requests per the approved plans. KWC will provide construction survey staking of critical points and at 50' to 100' intervals along waterline and lateral locations up to contract budget amount. This will include limited survey control to about 500' interval and excludes monumentation survey and filing of a Record of Survey with this waterline project. Survey staking requests require 48-hour notice and contractor is responsible for maintaining stakes at all times during construction. Additional fees will be charge for restakes. This scope assumes that the services offered are subject to prevailing wage laws.

Subtask 6c – Geotechnical Observations & Testing

KWC will coordinate with GeoCon West to perform required observation and testing during construction assuming their technician will be needed onsite on a full-time basis during trench backfill and on a part-time as-needed basis during construction within the roadway and right-of-way. GeoCon's services will be provided on a time and materials basis and are

dependent upon the contractor's efficiency. The estimates below reflect work on one project at a time. If multiple projects are done at the same time, our services can be provided for multiple projects in each visit, increasing efficiency and reducing costs.

- Geotechnical observation and testing of soils related to:
    - Trench backfill;
    - Soil subgrade for flatwork, new equipment pads, and roadways;
    - Aggregate base;
- Materials testing for asphaltic concrete paving and for Portland cement concrete (PCC) for structures, equipment pads, other structural concrete.
- Associated laboratory testing which may include maximum density/optimum moisture content, sieve analyses, concrete compression testing, percent asphalt, stadiometer, durability of aggregate, sand equivalent, and R-value.
- Geotechnical scheduling, project management, quality control procedures, review of material submittals, response to project RFI's and project management.
- Final letter report preparation discussing the services performed for each project with respect to the project plans and specifications. The reports will include field and laboratory test results.

Because the full scope of services that will be needed is not known, the proposed budget reflects a general rule of thumb of 1 to 2 percent of the project construction cost. Actual time and materials costs could be different than this estimate and may require additional authorization once a detailed construction schedule is developed by Contractor. The budget estimates reflect work on one project at a time. If multiple projects are done at the same time, our services can be provided for multiple projects in each visit, increasing efficiency and reducing costs. Work to be completed up to contract budget amount. This scope assumes that the services offered are subject to prevailing wage laws.

Subtask 6d – Contractor RFI & Coordination

KWC will review and respond to Contractor Request for Information (RFI) through appropriate addenda as necessary to correct, clarify or change the contract documents. KWC will coordinate with SAWCo and Contractor as necessary. Work to be completed up to contract budget amount.

Subtask 6e – Shop Drawing Review & Approvals

KWC will review all contractor submitted shop drawings and provide approvals in a timely manner. Work to be completed up to contract budget amount.

Subtask 6f – Contract Administration

KWC will review contractor requests for compliance with contract documents. KWC will review contractor invoices, coordinate progress payments with contractor and forward recommendations to SAWCo for processing and payments. Work to be completed up to contract budget amount.

Subtask 6g – Project Closeout & Coordination

KWC will coordinate with Contractor and SAWCo upon completion of construction and prepare necessary paperwork for project close out.

Subtask 6h– As-builts

Upon receipt of Contractor field redline changes, KWC will prepare As-built plans for filing with SAWCo up to contract budget amount. Assumes only minor changes to be done on Original approved mylars. Major changes will require additional authorization.

Schedule

Although it can be difficult to predict what the final schedule of a project will be, KWC has been successful in meeting our portion of the waterline replacement project schedules. Below is KWC's proposed schedule:

SAN ANTONIO WATER COMPANY RFP - 2020 CIPs
Segment: Project 1 - Reservoir 9 Pipeline Replacement
Updated: 03/23/2020

MONTH:	Mar				Apr					May					Jun					Jul					Aug				Sept					Oct				Nov				Dec				
WEEK BEGINNING:	2	9	16	23	30	6	13	20	27	4	11	18	25	1	8	15	22	29	6	13	20	27	3	10	17	24	31	7	14	21	28	5	12	19	26	2	9	16	23	30	7	14	21	28
WEEK NUMBER:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
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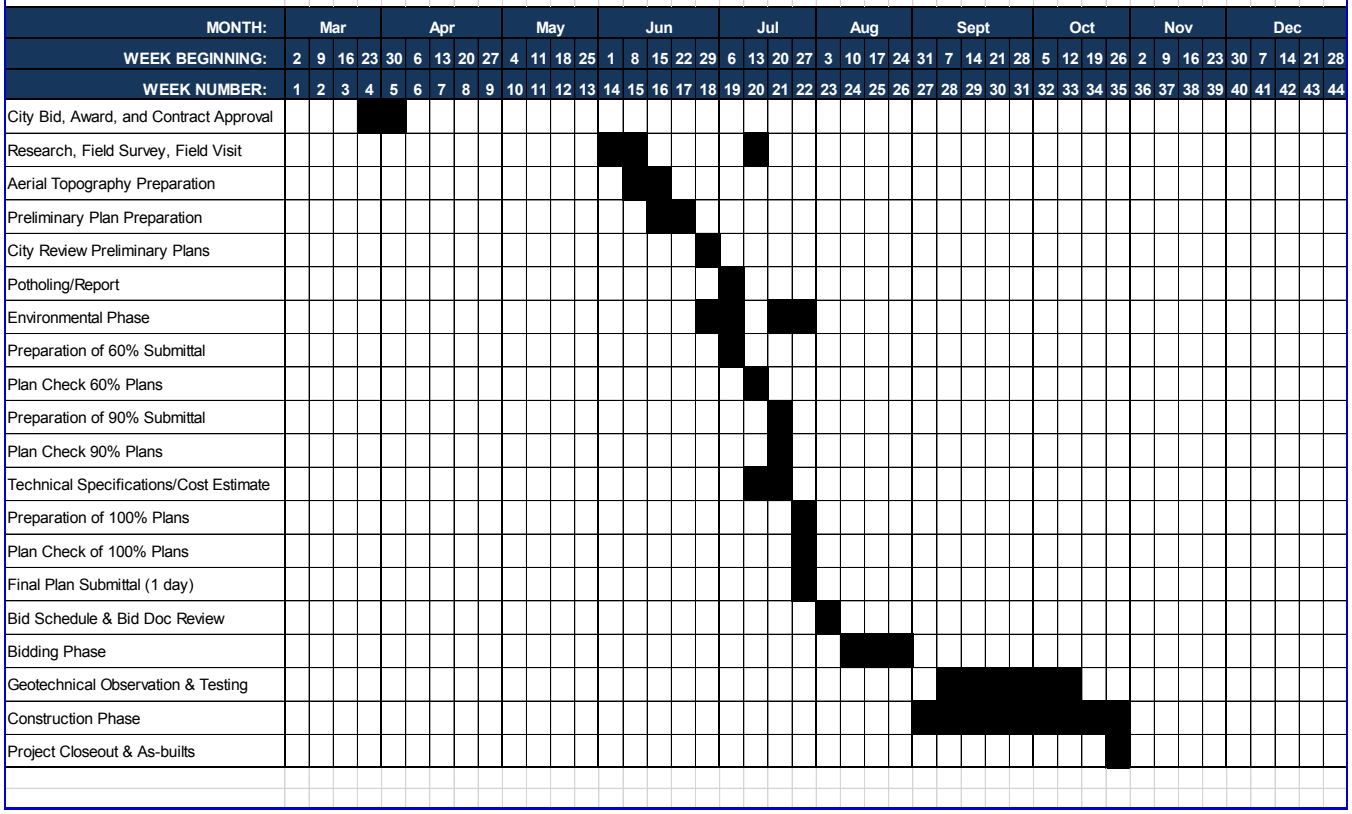
SAN ANTONIO WATER COMPANY RFP - 2020 CIPs

Segment: Project 2 - Frankish Tunnel Pipeline Repair & Meter Installation

Updated: 03/23/2020



SAN ANTONIO WATER COMPANY RFP - 2020 CIPs
Segment: Project 3 - Cliff near Euclid Crescent and Cliff Road
Updated: 03/23/2020

MONTH:	Mar				Apr					May				Jun					Jul				Aug				Sept				Oct				Nov				Dec				
WEEK BEGINNING:	2	9	16	23	30	6	13	20	27	4	11	18	25	1	8	15	22	29	6	13	20	27	3	10	17	24	31	7	14	21	28	5	12	19	26	2	9	16	23	30	7	14	21	28
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SAN ANTONIO WATER COMPANY RFP - 2020 CIPs

Segment: Project 4 - Glendale Road between Mountain Ave and Park Blvd.

Updated: 03/23/2020

MONTH:	Mar				Apr					May				Jun					Jul				Aug				Sept					Oct				Nov				Dec				
WEEK BEGINNING:	2	9	16	23	30	6	13	20	27	4	11	18	25	1	8	15	22	29	6	13	20	27	3	10	17	24	31	7	14	21	28	5	12	19	26	2	9	16	23	30	7	14	21	28
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SAN ANTONIO WATER COMPANY RFP - 2020 CIPs
Segment: Project 5 - Linda Lane, North of 24th Street
Updated: 03/23/2020

MONTH:	Mar				Apr					May				Jun					Jul					Aug				Sept					Oct				Nov				Dec				
WEEK BEGINNING:	2	9	16	23	30	6	13	20	27	4	11	18	25	1	8	15	22	29	6	13	20	27	3	10	17	24	31	7	14	21	28	5	12	19	26	2	9	16	23	30	7	14	21	28
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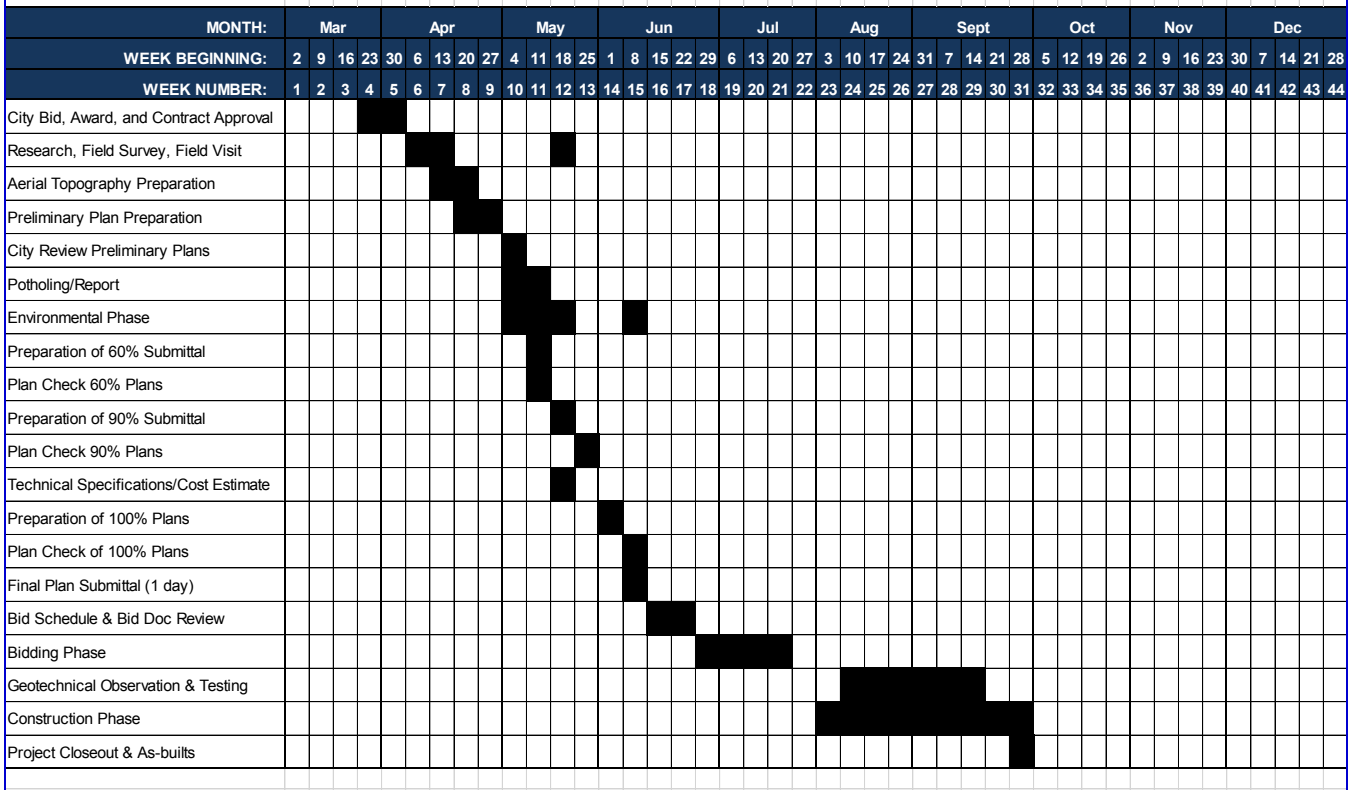
SAN ANTONIO WATER COMPANY RFP - 2020 CIPs
Segment: Project 6 - Primrose Lane, North of 25th Street
Updated: 03/23/2020



SAN ANTONIO WATER COMPANY RFP - 2020 CIPs

Segment: Project 7 - Irrigation Pipeline Viewpoint Street, Canyon View Ave to Campus Ave

Updated: 03/23/2020

MONTH:	Mar				Apr					May				Jun					Jul				Aug				Sept					Oct				Nov				Dec				
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Attachments

Resumes

Exceptions to the Professional Services Agreement

MIKE TAING, PE

DIRECTOR OF ENGINEERING

EDUCATION

B.S. Civil Engineering, California State Polytechnic University, Pomona, California

LICENSING

California Professional Civil Engineer P.E. No. C64263

Mike C. Taing is a Project Manager/Project Engineer for KWC Engineers, a graduate of California State Polytechnic University, and a Registered Civil Engineer in the State of California. Mike offers over 16 years of experience in civil engineering design, including grading, water and sewer facilities, hydrology, hydraulics, storm drain facilities, detention facilities, and roadways. As a Project Engineer/Manager, Mike oversees the preparation of engineered plans, designs, specifications, analysis, and documents associated with various land development projects ranging from the small subdivisions to large master-planned communities including commercial and industrial projects. He works closely with clients and agencies to maintain project schedules and overall engineering design support. Mike has worked with agencies such as the cities of Corona, Lake Elsinore, Rancho Cucamonga, and Riverside, Riverside County, Riverside County Flood Control and Water Conservation District, Caltrans, and Elsinore Valley Municipal Water District on water resources engineering design and project management.

RECENT PROJECT EXPERIENCE

CITY OF CORONA PLAN CHECK SERVICES – 2017 - PRESENT

PM 37203 FORD STREET & MULBERRY LANE

Mike, as Project Manager, provided plan check services to the City of Corona on a 3 lot residential subdivision project in Corona. The plan check included the review of Rough Grading Plan, Street Improvement, Hydrology and Hydraulics Report, and associated documents

PM 37022 SIXTH STREET APARTMENTS

Mike, as Project Manager, provided plan check services to the City of Corona on an Apartment Complex Development project in Corona. The plan check included the review of Precise Grading Plan & Onsite Improvements, Street Improvement, Water & Sewer Improvements, Drainage Report, Final WQMP, Water Study, and associated documents.

COTA STREET SEWER LINE – 2013 TO 2014

City of Corona Department of Water & Power

Project manager for the preparation of plans for a new 8-inch gravity sewer main in Cota Street in North Corona. Cota Street was an existing paved street in Corona with numerous existing utilities to design around and traffic control to consider. The 340-linear foot sewer line connected to an existing sewer downstream and upstream to bypass flows from Harrington Street. Plan and profile construction documents were recently processed through the City of Corona DWP with minimal plan check comments.

CALIFORNIA AVE SEWER IMPROVEMENT – 2015 TO 2017

City of Corona Department of Water & Power

Project Engineer / Manager for an 8,300-linear foot, 15-inch proposed gravity sewer main project along California Avenue with major crossings at Ontario Avenue, Chase, and Old Temescal. Project involved Jack and Bore operations and coordination with traffic control design and Metropolitan Water District. Plans have been approved as of November 2017.

REVISED FLOOD CONTROL CHANNEL DESIGN – NEC RIVER ROAD AND SECOND STREET, NORCO, CA – 2007-2013

Jacobson Family Holdings and Realty

Mike, as Project Manager, oversaw the preparation of the Channel Improvement Plans per RFCF&WCD standards through a proposed commercial/retail site. The plans included the design of a concrete channel and a triple RCB to be maintained by RFCF&WCD at the North Norco Channel at River Road and Second Street in Norco, CA. Mike coordinated directly with the Developer and RFCF&WCD to ensure the project was designed to meet the needs of both the commercial/retail site and RFCF&WCD's North Norco Channel Facility. The project included hydrology and hydraulics using WSPG and HEC-RAS as well as a CLOMR Report that was processed through FEMA. The project was approved by the City of Norco, RFCF&WCD and FEMA and subsequently constructed by the Developer.

THOMAS CASELDINE, PE., LS

VICE PRESIDENT / SURVEY MANAGER

EDUCATION

B.S. Civil Engineering, California State Polytechnic University, Pomona, California

LICENSING

California Professional Civil Engineer P.E. No. C79048
California Professional Land Surveyor, P.L.S. No. 9029

Mr. Thomas Caseldine offers over 15 years of experience in civil engineering design and surveying. As Vice President, Thomas oversees and ensures all aspects of the surveying department, including staging of field work, design surveys, construction surveys, boundary surveys, final mapping, ALTA maps, and other documents associated with various public and private projects. These projects range from route surveys, small subdivisions to large master-planned communities, including commercial and industrial projects. He works closely with staff and agencies to maintain project schedules while providing overall surveying support.

RECENT PROJECT EXPERIENCE

SURVEY MANAGER - Professional Licensed Surveyor for multiple City jobs. Responsibilities includes: coordination with Aerial consultant; scheduling of in-house survey crew for setting aerial panels; pothole and design surveys; establishment of horizontal and vertical datum.

California Avenue Sewer Project - City of Corona

City Park Reclaimed Waterline - City of Corona

Old Temescal Road Reclaimed Waterline - City of Corona

Ontario Avenue Zone 4 Waterline - City of Corona

Waterlines in the Southwest Quadrant of Grand Boulevard - City of Corona

WRCRWA Plant to Bluff Street Reclaimed Waterline - City of Corona

KERRI N. TUTTLE, MS—PROJECT DIRECTOR

Kerri N. Tuttle, MS, FCS's Senior Director of Sales/Operations and Environmental Services, has more than 24 years of professional experience leading environmental compliance teams in preparing environmental impact analyses and securing necessary environmental permits and approvals from local, State, and federal entities on behalf of private and public clients throughout California. Over the last two decades, Ms. Tuttle has overseen the preparation of hundreds of complex CEQA and NEPA (as well as joint CEQA/NEPA) documents that comply with the implementing regulations of multiple local, State, and/or federal lead agencies. Her clients have included cities and counties throughout the State, as well as the California State Water Resources Control Board and California Department of Water Resources. Ms. Tuttle currently oversees more than 50 multi-year, on-call environmental services contracts with Southern California municipalities, counties, agencies, and K–12 school districts. Ms. Tuttle received her Bachelor of Arts in Environmental Science and English from the University of Virginia in 1998. She also received her Master of Science in Ecosystems Analysis from the College of Forest Resources at the University of Washington in 2001.

- On-Call Cultural, Archaeological, Historic, and Paleontological Services for the San Bernardino County Department of Public Works and Flood Control District, 2018–2020
- Routine Maintenance and Capital Improvement Projects On-Call Biological Services for the San Bernardino County Department of Public Works and Flood Control District, 2017–2020
- On-Call Environmental Consulting Services (DWP 14-125CA) for the City of Corona Department of Water and Power, 2014–2019
- On-Call CEQA Consulting Services for the City of Rancho Cucamonga Procurement Division, 2019–2022
- Cadiz Valley Water Conservation, Recovery, and Storage Project EIR for the Santa Margarita Water District, San Bernardino County, CA
- Moon Camp Residential Subdivision Project Revised and Recirculated Draft EIR, Final EIR, and Mitigation Monitoring and Reporting Program, San Bernardino County, CA
- Joshua Basin Water District Recharge Basin Project Environmental Assessment (EA)/Finding of No Significant Impact, Community of Joshua Tree, San Bernardino County, CA
- Expedited NEPA Compliance and Regulatory Permitting for the Fast and Furious Film Project, San Bernardino and Riverside Counties, CA
- Assisted Living and Memory Care Facility Project Air Quality/GHG and Noise Studies, City of Rancho Cucamonga, CA
- General Environmental Consulting Services for the Colton Joint Unified School District, Colton, CA
- Orange Avenue Luxury Apartments Project IS/MND and Technical Studies, City of Redlands, CA
- IS/MNDs and Technical Studies for Coachella Valley Water District's Water Reclamation Plant (WRP) 4 and WRP 7 Headworks Projects, Riverside County, CA
- Eastern Municipal Water District Water Storage Upgrades/Tank Replacement, Riverside County, CA
- Santa Margarita River Conjunctive Use Project EIS/EIR for US Marine Corps Base Camp Pendleton, Fallbrook Public Utility District, and the USBR, San Diego County, CA
- El Monte Mining, Reclamation, Groundwater Recovery and Recharge Project for Helix Water District, San Diego County, CA
- Pit River Bridge on County Road 85 (Stone Coal Road) Replacement Project CEQA Categorical Exemption and NEPA Documentation and Technical Studies, Modoc County, CA
- El Dorado Canal/Flume Replacement Program Air Quality Analysis and IS/MND for the EID, El Dorado County, CA

CECILIA K. SO—PROJECT MANAGER

Cecilia K. So manages the preparation of CEQA documentation for municipalities and private clients throughout California. She is proficient in the provisions of CEQA and other State regulations and has actively overseen the compilation and completion of EIRs, Addenda, IS/MNDs, and MMRPs for mixed-use, residential, commercial, retail, transportation, industrial, and institutional projects. Ms. So specializes in transportation analysis and has performed traffic studies for various types of planned development projects, including residential, commercial, and warehousing uses. She is familiar with the analysis techniques of the Highway Capacity Manual 2010 and Intersection Capacity Utilization and is knowledgeable in using Synchro, Vistro, and HCS 2010. Ms. So received her Bachelor of Arts in Social Ecology from the University of California, Irvine in 2011.

- On-Call Environmental Consulting Services (DWP 14-125CA) for the City of Corona Department of Water and Power, 2014–2019
- Circle K Convenience Store and Gas Station Project IS/MND and Technical Studies, San Bernardino County, CA
- AT&T SR 127 Fiber Optic Project Biological/Cultural Construction Services, Baker to Fort Irwin, San Bernardino County, CA
- Oxford Preparatory Academy Charter School IS/MND, City of Chino, CA
- Jurupa Commerce Park Warehouse Project IS/MND, City of Fontana, CA
- Seefried Warehouse Project Focused EIR and Technical Studies, City of Fontana, CA
- Fontana North Walmart EIR, City of Fontana, CA
- Orange Avenue Luxury Apartments Project IS/MND and Technical Studies, City of Redlands, CA
- 1040 La Brea Avenue Categorical Exemption and Technical Memoranda/Studies, City of West Hollywood, CA
- Addendum to the Corona Groundwater Management Plan Program EIR for the Mangular Blending Facility Project, City of Corona, CA
- Nandina Street Warehouse IS/MND and Technical Studies, City of Moreno Valley, CA
- Anaheim 60 Townhomes Project IS/MND Peer Review, including Peer Review of a Drainage Study and Conceptual Water Quality Management Plan (WQMP), City of Anaheim, CA
- Avanti Anaheim Boulevard Townhomes IS/MND and Technical Studies, including Peer Review of a Preliminary WQMP and Preliminary Hydrology Study, City of Anaheim, CA
- 440 Fair Drive Project “Fast-Track” IS/MND, including Peer Review of a Preliminary Hydrology and WQMP, City of Costa Mesa, CA
- 2850 Mesa Verde Drive Project “Fast-Track” IS/ND, including Peer Review of a Hydrology and WQMP, City of Costa Mesa, CA
- Tentative Parcel Map 2015-117—Johnson IS/MND, City of Yorba Linda, CA
- Sperry Avenue Commercial Park Project and Stormwater Basin IS/MND and Technical Studies, City of Patterson, CA
- Highway 74 Community Plan Program EIR and Technical Studies, Riverside County, CA
- Trails at Corona EIR and Technical Studies, Riverside County, CA
- Stagecoach Business Park Project IS/MND, City of Banning, CA
- Addendum to the Skyline Heights Project EIR for the Skyline Heights Temporary Haul Route, City of Corona, CA
- Two Mixed-use Development Projects Due Diligence Services, City of Cathedral City, CA
- Desert Hot Springs Specific Plan (Walmart) EIR, City of Desert Hot Springs, CA
- The Centre at La Quinta IS/MND, City of La Quinta, CA

EXPERIENCE

- 20 years with Geocon
- 28 years in the Industry

EDUCATION

- MS/Civil Engineering, 1990
- San Diego State University
- BS/Civil Engineering, 1988
- San Diego State University

REGISTRATIONS

- CA: Geotechnical Engineer, No. 2401
- CA: Professional Engineer, No. 49827

PROFESSIONAL ORGANZATIONS

- ASCE

Mr. Vettel began his geotechnical engineering career in 1990. Since then, he has gained extensive experience primarily with public agency clients. His experience spans a wide variety of projects including foundation design of buildings, pipelines transmission towers, reservoirs and retaining walls and ground improvement design for marginal sites. He has also managed construction services for stone columns, soil nails, rock anchors, compaction grouting and underpinning. His relevant project experience includes:

As – Needed Geotechnical Engineering Services Contract, Padre Dam Municipal Water District, San Diego County, California: Geocon has provided on-call geotechnical engineering services for the Padre Dam Municipal Water District (PDMWD) since July 2011, projects have included reservoirs, emergency utility breaks, utility backfill, park improvements, infrastructure improvements, pump stations, etc. Mr. Vettel has provided quality assurance by establishing policies an systems with the Geocon organization as well as quality control on several project reviewing final deliverables.

Olivenhain Dam Substation, San Diego County, California: San Diego Gas & Electı is responsible to provide electricity to the pumps that transmit water from North America's tallest roller compacted concrete dam to the San Diego County Water Authority pipeline system. SDG&E turned to Geocon to perform a geotechnical investigation of the electrical substation. Mr. Vettel led the Geocon team during design and construction of the facility. Challenges included construction of deep foundations into fresh granitic rock and slope stabilization of a steep cut in fresh but highly jointed rock.

Offsite Longhorn Drive Sewer Pump Station, Canyon Lake, Riverside County, California: During development of a large master planned community, a sewer pump station was planned adjacent to the Railroad Canyon Reservoir. The planne wet well extended to a depth of 40 feet including 12 feet of soil over volcanic rock Design of the pump station included lateral loads from soil, rock, and groundwate construction criteria for rippability of rock, dewatering and excavation support. M Vettel was the project manager for the Geocon Team.

KAI B PARKER| STAFF PROFESSIONAL / FIELD SURPERVISOR

EXPERIENCE

- 14 years of experience

CERTIFICATIONS

- ACI Concrete Testing Field Technician, Grade I
- ICC Soils Special Inspector
- 40 HAZWOPER
- Nuclear Density Gauge

Mr. Kai B. Parker has more than 14 years of experience at Geocon providing client coordination and scheduling services, preparing technical reports and letters, training and maintaining technician standards, and performing soils and materials testing services during construction. He prides himself on his strong work ethic an his ability to work as an extension of clients' staff. He is able to read and understa construction plans and specifications as well as effectively communicate with contractors, engineers, and public officials. Mr. Parker has a clear understanding c construction procedures, techniques, and practices and always abides by applicab safety regulations and policies. Every client he works with greatly appreciates his diligence and professionalism and gives him rave reviews. Mr. Parker also contributes to his industry as the cartoonist for the American Society of Civil Engineers (ASCE) San Bernardino-Riverside Branch, where his comic strip is featur in their monthly newsletter. His experience includes:

Downtown Indio COD Offsite Improvements, Indio, California: Mr. Parker provided soils and concrete testing and inspection services during the City of Indic second phase of downtown revitalization referred to as COD Offsite improvement The project included grading, relocation of wet and dry utilities, installation of a subterranean stormwater retention system, paving of roadways and parking lots, and associated flatwork. Mr. Parker worked as an extension of the City's inspectio staff to provide responsive and workable solutions to project challenges. Project challenges included encountering old unknown underground utilities, isolated sof subgrade, and a-typical soils. In addition to the City's requirements, Mr. Parker als had to enforce Indio Water Authority and Imperial Irrigation District requirements

I-15/Los Alamos Road Overcrossing, Murrieta, California: The project included th widening of Los Alamos Bridge over the 15 freeway from two to four lanes, construction of retaining walls, embankment fill, subgrade, base, asphalt placement, flatwork, and minor utility relocations. Geocon prepared a Source Inspection Quality Management Plan and provided geotechnical and materials testing and inspection services during construction. Mr. Parker performed inspection and testing services for soil and concrete in accordance with Caltrans requirements and performed batch plant inspections.

LISA BATTIATO| REGIONAL MANAGER/SENIOR GEOLOGIST

EXPERIENCE

- 23 years of experience

EDUCATION

- BS, Geology, University of California, Riverside

REGISTRATIONS

- CA: Certified Engineering Geologist, No. 2316
- CA: Professional Geologist, No. 7512

CERTIFICATIONS

- Accredited Pavement Manager
- LEED Accredited Professional
- Envision Sustainability Credential

Ms. Lisa Battiato has 24 years of experience providing geologic consulting services throughout California. Her experience encompasses a wide range of projects including: transportation and water infrastructure; educational, medical, commercial, and industrial facilities; mixed-use and multi-family residential developments; and other large-scale land developments. Her technical expertise includes: seismic hazard analyses; subsurface fault, landslide, liquefaction, and geotechnical investigations and assessments; geologic mapping; pavement distres mitigation; geotechnical services during utility installation and roadway construction; geologic evaluations of levee stability; project management services for large, hillside grading projects; and supervision of materials testing services during construction. Some of her relevant project experience includes:

Eastern Municipal Water District Geocon Has been an on-call consultant to EMW since 2016: We have provided geotechnical investigations, dewatering investigations, trenching recommendations, and testing and observation during construction for the Salt Creek Sewer, Temecula Valley Recycled Water Main, and McCall Road Sewer Main projects.

RCFC & WCD, on-call Geotechnical Engineering & Ancillary Services, Riverside County, California: As the project manager for Geocon's on-call geotechnical engineering services contract, Ms. Battiato is responsible for developing the scope of work for geotechnical investigations and laboratory testing programs, performing quality control oversight of testing and inspection services, and authoring reports and letters. Geocon has performed inspection and testing services for several RCFC & WCD projects including: Arroyo Del Toro Channel Stag 1; Romoland MDP Line A, Stage 3; San Jacinto MDP Line C, Stage 2, Lines C4, C5 ar B. In addition, Geocon performed percolation and infiltration testing for two sand filter infiltration basins.

Elsinore Valley Municipal Water District, Soils & Materials Testing Services for Various Capital Improvement Projects, Southwestern Riverside County, Californi Ms. Battiato was the project manager for testing and inspection services performe for five capital improvement projects for the EVMWD. The projects included the Water Main Replacement Project, Extending Recycled Water to Five Sites Project, Valve Replacement Project, AMR Water Meter Replacement Project, and Water Pressure Zone Interconnection Project. Ms. Battiato provided project managemer services and quality control oversight of laboratory testing and inspection and testing services.

Exceptions to the Professional Services Agreement

There is one deviation to the Professional Services Agreement as follows:

Under Limitation of Liability:

~~B.~~C. Client and Consultant both acknowledge that each is a business entity, and that neither intends that either's involved individuals should be subjected to personal exposure for the risks attendant to the Project; and therefore any and all remedies with either party and its affiliated entities and individuals have or might have concerning the Project and/or this Agreement shall be sought against only the other's business entity or affiliated business entities and waived as to the affiliated individuals, and in no event shall damages or indemnification concerning this Agreement and/or the Project ever be sought against either party's affiliated individuals.

13. Indemnity:

A. Consultant agrees to indemnify, and hold harmless Client, and its officers, directors, and employees ~~and agents,~~ to the fullest extent permitted by law from and against any and all ~~actual or alleged~~third party loss, cost, damage, expense and liability (including reasonable attorneys' fees and other costs of defense and/or settlement), for bodily injury/death, property damage and economic loss to the extent arising from the negligent acts, errors or omissions or the willful misconduct of Consultant, its officers, employees, agents, invitees or subcontractors in the performance of services rendered under this Agreement.

B. Client agrees to indemnify and hold harmless Consultant, and its officers, employees~~, agents~~, invitees, and subcontractors to the fullest extent permitted by law from and against any and all ~~actual or alleged~~ third party loss, cost, damage, expense and liability (including reasonable attorneys' fees and other costs of defense and/or settlement), for bodily injury/death, property damage and economic loss to the extent arising from the negligent acts, errors or omissions or the willful misconduct of Client, its officers, directors, employees, and agents, contractors or subcontractors in matters relative to this Agreement.

~~B.~~C. The other provisions of this Agreement notwithstanding, in the event of any claim within the purview of the indemnification provisions of this Agreement, each indemnitee shall control its defense, and at the time of claim resolution the indemnitor will provide reimbursement for any defense costs caused by any negligence or other fault by or attributable to the indemnitor.

TKE ENGINEERING, INC.

March 23, 2020

Mr. Brian Lee
SAN ANTONIO WATER COMANY
139 North Euclid Avenue
Upland, CA 91786

Subject: Professional Design and Project Management Services for Multiple Capital Facility Projects

Dear Mr. Lee:

Thank you for the opportunity to present materials outlining TKE Engineering's qualifications to provide professional design engineering and project management services to the San Antonio Water Company (SAWCo). Enclosed herein is our proposal. TKE is a full service, multi-disciplinary consulting firm highly qualified to perform the services required and we are enthusiastic about the opportunity to assist the City. TKE does not have any conflicts of interest in providing the described services. Further, TKE provides services to public sector clients only, avoiding potential conflicts with the development community.

Why should the City choose TKE to provide consulting engineering services? Please consider the following:

A. Our Team – SAWCo will benefit greatly by continuing the vision, leadership, and dedication to community exhibited by TKE's project team. TKE's numerous accomplishments and management skills will help maintain continuity in the delivery of the services. In particular, Terry Renner, TKE's Senior Vice President, project manager, and primary contact, is a registered civil engineer licensed in the States of California and Arizona and a Qualified SWPPP Developer and Practitioner. Mr. Renner has a vast amount of similar experience which extends from project planning to design and bidding through construction. His excellent project and construction management skills will provide a great benefit to the SAWCo. In particular, his experience with "cutting edge" creative engineering techniques focused on cost control, ensure that projects provide the maximum value for the public's investment. Some of Mr. Renner's key strengths are communications, organization, and issues resolution. Mr. Renner's effective communication skills ensure that all stakeholders are constantly advised of project progress. His proactive organizational program effectively manages his schedule, documents action items with required follow-up, and continuous budget and schedule reviews will anticipate needs for future action items. Lastly, Mr. Renner's 'can do' approach to all project issues always results in resolution. He is non-combative with all project stakeholders, maintaining professional working relationships with each stakeholder regardless of conflict. His perseverance and vast knowledge and experience of issues will resolve challenges while protecting SAWCo's interests. SAWCO will find that Mr. Renner's team approach provides the 'best working partnership' to meet the SAWCo's engineering needs.

B. Qualifications and Experience – TKE is a firm capable of managing and delivering municipal consulting engineering services. We specialize in project management, design and construction administration of all types of pipeline projects, including all associates work with street widening, pavement restoration, street enhancements, roundabouts, pedestrian and bike enhancements, traffic signal modifications, signing and striping, storm drain, and other public works maintenance projects. TKE currently provides engineering services for several municipalities and cities and is extremely familiar with the requirements to successfully complete all of the project services listed in this RFP.

TKE's broad range of successful services includes turnkey programs, project management, and delivery for a diverse array of projects. A brief list of on-call municipal clients together with projects that TKE has successfully completed is presented in our proposal. SAWCO will benefit from our broad range of experience through our intimate understanding of the common pitfalls for each project variation, and development processing challenges, and our past history of successfully overcoming these challenges.

In addition, TKE's experience includes a comprehensive understanding of the Standard Specifications for Public Works Construction (Green Book), project scheduling programs (including critical path methodology relating to interagency and interdepartmental coordination), and Caltrans Local Assistance project processing. Finally, TKE's extensive funding administration experience will also greatly benefit the City. TKE routinely provides grant writing and administration services for numerous Cities through Southern California.

C. Our Commitment – TKE is committed to providing high quality, efficient services to meet all of the SAWCo's needs. If desired, we will meet with SAWCO staff regularly to discuss requirements and scheduling needs. In addition, we will be in contact with project stakeholders as often as required to keep projects proceeding efficiently, on schedule and within allocated budgets. It is this personal touch and contact that define our 'local service' approach. We consider ourselves community builders and take ownership of services requested from TKE, ensuring that our personnel will be allocated on an as needed basis in order to complete all projects on schedule and within budget.

Our broad array of services and in-house team provide SAWCO a trusted consultant to turn to in any challenge, no matter how simple or complex. We pride ourselves in the management and completion of special, atypical projects and thrive on challenging budgets and deadlines. It is this commitment to service and diverse array of offerings that makes us unique and drives our long-standing relationships with our client base, and it is these qualities that make us 'the right fit' for SAWCO. Understanding that all aspects of the project are important, our team brings TKE management level professionals to projects ensuring that every aspect receives full and comprehensive consideration.

D. Our Value – TKE's management team and staff are fundamentally committed to creating value in each task that we perform. As such, we have created a professional culture wherein each member of our staff constantly strives for increased efficiency, ultimately allowing us to provide highly professional services at competitive rates. This culture of constant value creation and increased efficiencies ensures that the services contracted to, and provided by TKE, will always mean good stewardship of resources.

E. Authorization – TKE's proposal is signed by a principal of the firm who is authorized to bind TKE to the terms of the proposal and shall be incorporated in its entirety as a part of this proposal.

Thank you for your consideration. TKE would very much appreciate the opportunity to interview with SAWCo and introduce our team in person, to SAWCO staff. If you have any questions, please call me at (951) 680-0440 or e-mail me at trenner@tkeengineering.com.

Sincerely,

Terry Renner, P.E., Q.S.D.
Senior Vice President
TKE Engineering, Inc.

REQUEST FOR PROPOSAL

PROFESSIONAL DESIGN AND PROJECT MANAGEMENT SERVICES FOR MULTIPLE CAPITAL FACILITY PROJECTS

for:

San Antonio Water Company
139 North Euclid Avenue
Upland, California 91786

March 23, 2020

Prepared by:

TKE ENGINEERING, INC.

2305 Chicago Avenue
Riverside, California 92507
(9 5 1) 6 8 0 - 0 4 4 0

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In addition, TKE's experience includes a comprehensive understanding of the Standard Specifications for Public Works Construction (Green Book), project scheduling programs (including critical path methodology relating to interagency and interdepartmental coordination), and Caltrans Local Assistance project processing. Finally, TKE's extensive funding administration experience will also greatly benefit the City. TKE routinely provides grant writing and administration services for numerous Cities through Southern California.

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Sincerely,

Terry Renner, P.E., Q.S.D.
Senior Vice President
TKE Engineering, Inc.

TABLE OF CONTENTS

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Prepared by:

TKE Engineering, Inc.
2305 Chicago Avenue
Riverside, CA 92507
Contact: Terry Renner, P.E., Q.S.D.
Phone: (951) 680-0440
E-mail: trenner@tkeengineering.com

EXECUTIVE SUMMARY

TKE is a full-service, local, multi-disciplinary firm with a wide range of experience in water, sewer, recycled water and public works improvement projects. TKE employs a team of 38 engineers, construction managers, surveyors, inspectors, drafters, and administration support staff. TKE is a certified small business in the state of California. More than 90% of TKE's core staff has been with us for ten years or more, creating an extremely cohesive team. TKE is a California corporation founded in 2000, and in the last twenty years has developed into one of Southern California's premier full-service consulting engineering firms.

As described in our proposal, TKE has a vast amount of pipeline, storage, delivery and treatment design experience, having designed over 100 miles of pipe, numerous reservoirs, lift stations, pumps and treatment systems over the past 20 years. We specialize in the successful completion of projects with tight budgetary and scheduling constraints. TKE's broad range of successful services includes turnkey program and project management and delivery for a diverse array of pipeline design projects, including large and small diameter CML&C WSP, DIP, and PVC for water and/or recycled water projects, and PVC, RCP and VCP for wastewater projects. TKE vast experience includes every aspect of water and sewer system construction.

TKE currently provides engineering services for several water districts and municipalities and is extremely familiar with the requirements to successfully complete all of the water and sewer services listed in this RFP. TKE's broad range of successful services includes turnkey programs, grant funding management, and delivery for a diverse array of projects. A brief list of on-call municipal clients together with projects that TKE has successfully completed is presented in our proposal. SAWCO will benefit from our broad range of experience through our intimate understanding of the common pitfalls for each project variation and our past history of successfully overcoming these challenges.

In addition, TKE's experience includes a comprehensive understanding of the SAWCO standard plans for sewer and water, American Water Works Association (AWWA), Standard Specifications for Public Works Construction (Green Book), project scheduling programs (including critical path methodology relating to interagency and interdepartmental coordination), and Caltrans Local Assistance project processing. Finally, TKE's extensive funding administration experience will also greatly benefit the City. TKE routinely provides grant writing and administration services for numerous Districts, Agencies, and Cities throughout Southern California.

Supporting Mr. Renner will be TKE's key personnel, including Michael Thornton, Steven Ledbetter, Zuzanna Rand, and Ron Musser. Each of these employees will remain in-place throughout the term of the contract. There will not be any changes in personnel during the contract duration without SAWCO's approval.

TKE is committed to assisting SAWCO in achieving its goal of delivering public infrastructure. To deliver public infrastructure SAWCO desires to partner with consultants to develop comprehensive projects, prepare cost effective designs, complete regulatory and CEQA compliance processing, comply with funding resource requirements, and deliver projects within budget and on schedule. TKE is committed to completing all project tasks working closely with SAWCO project management. The projects that SAWCO endeavors to complete will include significant challenges and requires the consultant with the 'right' experience. Challenges include, but are not limited to, coordination and permit acquisition from Caltrans, flood control, US Army Corps of Engineers, and utilities. TKE has completed similar projects requiring such permitting and is highly qualified to provide all of the services that SAWCO will require for successful project completion.

All of TKE's resources will be committed to the SAWCO's needs as they arise. We encourage SAWCO to verify our performance with our professional references provided in the proposal.

SECTION B: FIRM BACKGROUND AND EXPERIANCE

FIRM PROFILE

TKE Engineering, Inc. (TKE), a California Corporation, was established in 2000, and in the last twenty years has developed into one of Southern California's premier full-service consulting engineering, surveying, and construction and project management firms. TKE was established with the goal of providing turnkey services for Municipal Capital Improvement projects in order to benefit our community. As a result of the focus of a firm on this mission, TKE has earned a reputation for thoroughness, rapid turnaround, cost efficiency, and overall quality of work. We are a highly motivated, dynamic firm with the goal of being your preferred consultant.

TKE's only office is located in a business owned 7,000 square foot office building at 2305 Chicago Avenue in Riverside located less than 25 minutes from San Antonio Water Company allowing us to mobilize and respond to SAWCO's needs at a moment's notice.

TKE is a full-service, multi-disciplinary firm capable of managing and delivering all of the projects presented in the RFP. As described in our proposal, TKE has a vast amount of pipeline design experience, having designed 72 miles of pipe over the past 14 years. We specialize in the successful completion of projects with tight budgetary and scheduling constraints. TKE's broad range of successful services includes turnkey program and project management and delivery for a diverse array of pipeline design projects, including large and small diameter CML&C WSP, DIP, and PVC for water and/or recycled water projects. TKE vast experience includes every aspect of pipeline delivery and storage construction. Our proposal details common pitfalls related to pipeline delivery and storage projects and TKE's understanding and approach to overcome these challenges. SAWCo benefits from our broad range of experience through our intimate understanding of the common pitfalls for each project variation and our past history of successfully overcoming these challenges.

SUBCONSULTANTS

We will retain C Below Subsurface Imaging (C Below) for Utility Verification and LOR Geotechnical Group (LOR) to assist with Geotechnical Engineering.

C Below Subsurface Imaging (C Below) C Below uses Ground Penetrating Radar (GPR) for locating reinforcing steel, prestressing strand, conduit and other indications in concrete and masonry structures. They use this method because it is one of the safest, fastest and most accurate methods currently available. With the ability to penetrate up to 18 inches of concrete, their technicians can map all indications directly on the scanning surface prior to coring, cutting or drilling. The survey results can also be saved and printed in 3-Dimensional detail

Potholing is also known as vacuum excavation and is used for the purpose of identifying the axis of an underground utility. When the utility is revealed, the type of material and utility size are documented. The data collected during these excavations are beneficial in all phases of construction. Based upon the soil's conditions or scope, C Below will choose to use air or water to create the pothole. Potholes made to expose facilities encased in concrete, will stop at the encasement. The top of the encasement will then be recorded as the top of the facility. After documenting our findings, each pothole will be backfilled, compacted, and a perm-a-patch or hot patch will be provided depending upon client specifications.

LOR Geotechnical Group, Inc. LOR Geotechnical Group, Inc. (LOR) is a multi-disciplinary geotechnical, engineering, and consulting firm providing sound solutions and innovative strategies in the geotechnical, geologic, environmental, and construction inspection fields for their clients since 1988.

LOR's mission is to provide their client with quality services that meet or exceed their expectations and satisfy their project needs. Their experience includes planned communities, commercial, industrial, and residential development projects, as well as public infrastructure improvements. Their clients include developers, public and private agencies, engineers, financial institutions, contractors, and homeowners. They have developed an excellent rapport with local, state, and federal agencies while providing their services.

PIPELINE EXPERIENCE

TKE has extensive experience with an excellent reputation in both the design of and construction support of pipeline projects. Throughout our history of twenty years, we have provided design and construction support services for facilities ranging from 300 linear feet to 10 miles in length. We have successfully completed complex and challenging projects for a variety of municipal agencies who have continued to request that we partner with them in delivering much needed infrastructure to their communities. A comprehensive list of similar projects is shown below.

Our pipeline improvement projects have included the full services of civil engineering design for the completion of challenging projects. We are certain that the successful results of our past performance in the delivery of pipeline projects, along with our firm's proven ability to utilize our

experience for a complete and well-engineered project, will provide a valuable resource to SAWCo. TKE requests SAWCo confer with our references provided in this section to verify our past history of providing exemplary services.

SIMILAR PROJECTS

TKE continues to provide numerous municipalities and agencies with consulting design and construction management services and staffing for every facet of water system delivery and storage project.

A few examples of similar services provided by TKE are San Antonio Water Company, Rubidoux Community Services District, and Mission Springs Water District, Each are discussed below:

San Antonio Water Company – TKE is currently providing design and construction management services to SAWCo for the Holly Drive Reservoir project. In addition, TKE has been providing water engineering services to SAWCo for the past fourteen years on numerous pipeline, booster station and reservoir projects.

Rubidoux Community Services District – TKE is currently providing on-call design and construction management services to the Rubidoux Community Services District (RCSD) various water and wastewater infrastructure projects. The projects include distribution and transmission water pipelines, gravity and force main sewers and lift stations.

Mission Springs Water District – TKE is currently serving Mission Springs Water District (MSWD) as its District Engineer. Again, TKE is assisting MSWD with its implementation of $25 million sewer program and is working with other jurisdictions related to water use agreements.

COMMITMENT TO SERVICE

TKE has two unique advantages associated with the experience of TKE's project team. One benefit of TKE's project team is our extremely low internal turnover rate. As a result of our rigorous interview and testing procedures, coupled with our extremely high employee satisfaction rates, TKE staff has years of experience working together. The close relationships each of our staff members have with one another provide SAWCo with an extremely well rounded and experienced team. As such, TKE's project team experience directly correlates with TKE's firm experience described below.

The second benefit of TKE's project team is our internal training procedures. TKE has strived to develop techniques that reach outside the box and develop well rounded individuals committed to providing high quality, efficient services to meet all of our clients' needs. TKE trains our staff on every facet of engineering design and construction to provide a level of knowledge that can identify problems in every phase of a project, from planning through construction.

It is this commitment to service and diverse array of offerings that makes us unique and drives our long-standing relationships with our client base. Understanding that all aspects of civil engineering are important to ensure the SAWCo's interests are protected and project schedules are met, our team brings TKE management level professionals to projects ensuring that every aspect receives full and comprehensive consideration. It is this personal touch and contact that define our 'local service' approach. We consider ourselves community builders and take ownership of services requested from TKE, ensuring that our personnel will be allocated on an as needed basis in order to complete all services on schedule and within specified budget. TKE is committed to responding to our clients' needs as they arise.

QUALITY ASSURANCE / QUALITY CONTROL

TKE takes pride in our reputation for thoroughness, rapid turnaround, cost efficiency and overall quality of work, and believes that a high level of quality is needed on all PS&E packages. High quality design yields the following tangible results:

- Ease of Oversight
- Smoother Processing
- Healthy Number of Bidders
- Consistent Bids
- Minimized Construction Support Cost
- Absence of Design-Related Change Orders
- Reduced Claims and Dispute Resolution Costs

TKE's quality assurance program is vital to successful project completion. Our quality assurance program is one that is applied inherently throughout the entire design process and all design activities. This program requires not only formal procedures for checking at each intermittent project task, but encourages the conscientious effort of experienced people to always "create quality" in every task performed throughout the design process.

This program has become a natural element in all aspects of TKE's design and management activities, and will guide our work on this contract:

- Staff Training and Development
- Assignment of Experienced Staff
- Continuity of Staffing
- Project-Specific Work Plan
- Schedule Compliance
- Comprehensive Field Review and Compilation of Site Data
- Established Design Procedures
- Established Detailing Standards
- Established Checking Procedures, Including Independent In-House QA/QC Review
- Dual (Independent) Quantity Estimates
- Review by Constructability Expert

This Quality Assurance/Quality Control program is in place to ensure that PS&E documents prepared by TKE continue to exceed the standards of our clients and that we will deliver the project on schedule and within budget.

INSURANCE

TKE maintains all required insurance limits requested in the RFP and will provide certifications to SAWCO upon selection.

SECTION C: PROJECT ORGANIZATION AND EXPERIENCE OF THE TEAM

PROJECT MANAGEMENT

TKE provides effective project management services for all of our projects. We have successfully delivered extensive and highly visible water, recycled water and wastewater pipeline improvement projects for the San Antonio Water Company, Rubidoux Community Services District, Mission Springs Water District, and East Valley Water District West Valley Water District, Monte Vista Water District and numerous cities. TKE's approach has consistently allowed our partner agencies to fulfill their missions of delivering the best value for the public's investment.

TKE's management approach includes:

a. Monthly Progress Reports-TKE will document project progress in a comprehensive project management summary. The summary includes project name and related number, description of progress, budget status, schedule compliance, and anticipated upcoming accomplishments.
b. Communication-communications with agencies' staff is another important component to effective project management. In addition to the monthly progress reports, TKE will meet with SAWCo staff biweekly to ensure the project is proceeding as anticipated. We will document discussion topic or meeting with notes and electronically mail them to the project team within three days of the meeting/conference indicating action items and a schedule for completion of these items.
c. Record Keeping-TKE keeps records in an organized filing system both in hard copy and electronic forms. This organized filing system allows TKE to access records immediately should they be needed. Upon project completion TKE will provide SAWCo with a copy of the project files.
d. Meetings-TKE will meet with project stakeholders as needed including the public, City Council, board meetings, permitting and regulatory agencies, utilities, etc. We will meet with them at the project's onset and throughout the course of project design to ensure all stakeholder project needs are considered and properly adhered to. All meeting preparation (SAWCo Staff Reports, agendas, exhibits, slide shows, etc) will be prepared by TKE for each meeting. Again, meetings will be documented. TKE has provided numerous similar presentations to Councils (closed sessions, council meetings, community meetings, etc.).
e. Team Meeting-Team meetings include all parties that have any interest in the project construction. In particular, TKE will meet with the SAWCo's and any subconsultants and maintain a close working partnership with them throughout the design process.
f. Project Review-TKE's project manager meets with internal staff on a weekly basis to discuss project design challenges, team staffing and work assignments on the project, upcoming deadlines and project schedule and project budget. Each week staff will be properly allocated to ensure the project remains on schedule and proceeding in a timely manner. The project manager also meets with our internal project team as needed throughout design to review design status, details and reports in order to actively maintain an understanding of the project progress and keep the project proceeding efficiently.

TKE's project management services are enhanced by integration with our knowledge and background with pipeline design and of SAWCO specifically. Our proposed project team is able to facilitate and ensure the pipeline replacement project will be effectively managed and that the project will be constructible and operate efficiently.

PROJECT TEAM

TKE, as demonstrated in our experience section of this proposal, has the qualifications to complete the services described in our scope of services presented in this proposal. TKE has also assembled an elite team of professionals to partner with SAWCo to complete the design of the pipeline project. Our project manager has more than 14 years of history with the SAWCo projects and more than 20 years on pipeline design and remains an active member in the Upland Community. Our team has a wealth of experience working together and has developed an excellent working partnership that will be an invaluable resource to SAWCo. We intend to continue our relationship and to apply our knowledge and experience to this project. This knowledge improves overall project management, eliminates the potential for costly mistakes and delays, and allows our staff to provide very effective and efficient services to you. Each key member of our project team is presented in the following paragraphs:

Mr. Michael Thornton P.E., P.L.S., serving in the role as principal in charge, is TKE's President, oversees all TKE projects. He has over 34 years of experience in engineering planning, design, land surveying and construction management for public works projects. He has worked on a variety of public works engineering projects including water improvements, wastewater

improvements, recycled water improvements, street improvements, park improvements, bike trail improvements, and drainage improvements, and reclaimed water system improvements projects. Mr. Thornton has been responsible for managing including funding administration, planning, evaluating, and designing these projects and has provided design engineering and surveying services for many of these same projects.

Mr. Terry Renner is the Vice President of TKE and has over 20 years of experience in civil engineering infrastructure projects, including water improvement projects. Mr. Renner will serve as project manager for the project. He has designed and managed numerous projects and has delivered projects for San Antonio Water Company, Mission Springs Water District, Rubidoux Community Services District, San Bernardino Municipal Water Department, East Valley Water District, Maywood Mutual Water Company No.1 and the Cities of Redlands, Highland, Yucaipa, and Calimesa. As a project manager, Mr. Renner has been responsible for design production, supervising a staff of engineers and drafters, coordinating work between the production team and the client, and for submitting all deliverables in a timely manner. He has successfully delivered a wide variety of complex and challenging projects and is dedicated to ensuring that the design produced by TKE continue to exceed industry standards.

Mr. Steven Ledbetter Mr. Ledbetter has over 19 years of professional experience in the civil engineering industry. He has handled various critical and challenging projects from planning through design and implementation; all while ensuring that projects are executed as per specification in the stipulated time with quality. He has a well-rounded background with experience in preparation and analysis of street and utility improvement plans and specifications including potable and non-potable water, wastewater, and drainage; utility master planning including computer modeling, analysis, and report preparation; water supply planning including feasibility studies, urban water management plans, water supply assessments and verifications; storm water compliance reporting including water quality management plans and storm water pollution prevention plans and; and grant writing for various State and Federal agencies

Ms. Zuzanna Rand Ms. Rand has over 26 years experience with master planning, engineering, design, construction, and operation of water, recycled water, and wastewater infrastructure projects, ranging in construction cost up to $34 million. She specializes in engineering and operation of water and wastewater treatment plants, water distribution and wastewater collection systems. Ms. Rand has performed or managed and overseen projects involving feasibility studies (FS), preliminary design report (PDR), final design, construction support, and start-up of wastewater treatment plants, wastewater collection systems, pump stations, water and recycled water storage and distribution facilities.

Mr. Ronald Musser Mr. Musser has over 52 years of experience in performing field and office surveying and plan checking services for public and private projects including water, waste water, recycled water, drainage, roadway and highway projects. He has performed design topographic surveying and construction staking on all of TKE's respective design and construction management projects and map checking over the past 13 years. In addition, he has prepared records of survey, parcel maps, tract maps, lot line adjustments, right-of-way acquisition, easement acquisition, and lot mergers in San Bernardino County, Riverside County, Los Angeles County, Orange County, and San Diego County. He has performed boundary, topographic, ALTA, and precise level surveys as well as Global Positioning Surveys. Mr. Musser currently provides on-call survey and map checking services to the City's of Upland, Hesperia, Wildomar, Azusa, Pico Rivera, Highland, and Calimesa.

Mr. Andre Tardie Mr. Tadrie has been a staff geologist for LOR Geotechnical Group, Inc., since 1999. Mr. Tardie has been involved in all phases of geotechnical projects, ranging from initial site investigations to inspection and testing of soils/materials within the field and laboratory during construction for both the public and private sectors. Mr. Tardie has performed hundreds of geotechnical, geologic, and environmental investigations throughout the Inland Empire and surrounding areas. This work has included geophysical surveys, slope investigations, liquefaction analysis, seismic hazard analysis, including fault surface rupture, and rock fall analysis. Mr. Tardie has proposed on, planned, supervised, and conducted geotechnical projects including hillside investigations, flat land explorations, and earthwork monitoring projects in Riverside, San Bernardino, Orange, Los Angeles, and San Diego Counties as well as several municipalities. The Specialized detail in Mr. Tardie's experience has included logging exploratory borings and trenches, obtaining and documenting field samples, percolation and infiltration feasibility testing, pavement evaluation, and subsequent geotechnical report writing. Mr. Tardie holds a B.A. degree in Geology from California State University, San Bernardino.

SECTION D: PROJECT UNDERSTANDING AND APPROACH

PROJECT UNDERSTANDING

Background

SAWCo desires to retain professional engineering services for design and construction management of seven capital facility projects for the 2020 calendar year.

The first project is reservoir 9 pipeline replacement. The 24" concrete pipeline was installed before 1976 and has exceeded its useful life. Identified by SAWCo staff as a high maintenance root-bound pipeline. The project will replace pipeline on 25th Street and along backside of Burt Street homes to Reservoir #9 and abandon pipeline installed in backyard along Electric Avenue and Newman Street.

The second project is the Frankish Tunnel Pipeline Repair and Meter Install. The metering arrangement at the Frankish Tunnel outflow is not set to the appropriate hydraulic grade and SAWCo is unable to meter all waterflow from the tunnel. Additionally, this location is a transfer point for spread water from the forebay into Basin 6A. To improve metering and accounting for all available water, staff would like to upgrade the tunnel outfall and install an additional meter.

The third project is Cliff Road near Euclid Crescent and Cliff Road Upgrade small diameter pipeline in Cliff Road, from 25th Street to Euclid Crescent. Install new laterals to five homes on Cliff Road, connecting them to the new upper zone pipeline. The existing FH does not meet available fire flow. Pipeline has exceeded its useful life. Identified in the 2017 Master Plan as a medium priority project.

The fourth project is located on Glendale Road between Mountain Avenue and Park Boulevard. There are currently two pipelines in Glendale Road; an older 2" and a newer 6" pipeline. This project will abandon the small diameter pipeline between Mountain Avenue and Park Boulevard and connect 3 existing service laterals to the existing 6" pipeline.

The fifth project is located on Linda Lane, North of 24th Street. The existing pipeline was installed before 1976 and has exceeded its useful life. The project will replace then pipeline on Linda Lane, north of W 24th Street and Lamplighter Lane, west of Sierra Drive and abandon the pipeline located in backyards between Linda Lane and Lamplighter Lane and will install flushing hydrants.

The sixth project is located on Primrose Lane, north of 25th Street. The pipeline was installed before 1976 and has exceed its useful life. Replace pipeline on Primrose Lane, north of West 25th Street. Also, will relocate one service lateral from a backyard run into Mountain Avenue.

The seventh and final project is Irrigation Pipeline Viewpoint, which is located on Viewpoint Street between Canyon View Avenue and Campus Avenue. The project will replace pipeline on Viewpoint Street between Canyon View Avenue and Campus Avenue. The pipeline was installed before 1976 and has exceeded its useful life and identified by operations staff as a high maintenance pipeline.

TKE has a long history of delivering pipeline projects for numerous communities in which we live and work in on a daily basis. TKE has designed over 100 miles of water pipeline projects and been involved with more than 40 miles of pipeline construction. In addition, TKE has worked with SAWCo for the past 20 years preparing design drawings for more than 20 miles of pipeline and TKE assisted SAWCO with the preparation of their design and Auto CAD standards. From our first pipeline project in 2000 to our latest project of this type, TKE has always understood the importance of these projects. Our extensive background with water pipelines ensures our team has the knowledge to help SAWCo construct a quality project and minimize change orders during construction. We understand how important time and budget are to SAWCo. During the current economic times, construction costs are increasing and since funds are limited and time sensitive, it is important to have accurate cost estimates during the entire development of the project, as well as a proactive approach to project completion. Using TKE's proven project delivery approach, TKE is the right choice to partner with SAWCo to complete the project.

On top or our teams pipeline knowledge, our Project Manager is also intimately familiar with the Upland Area and is actively involved within the community. He has over 14 years of history within the San Antonio Water Company and provides an unmatched level of understanding that can be provided to this project.

Approach

Successful project delivery is our goal. Our definition of successful project delivery is:

- Project Completion on Schedule
- Project Completion that Meets all Project Requirements
- Project Completion within Budget

Our goal is not limited to the design of the project only, but includes the incorporation of value engineering and constructability review. Through the examination of specific pipeline alignment alternatives, we will identify the most cost-effective alignments that meets design requirements and which will provide for the greatest opportunity for expedited construction. This approach allows us to consistently deliver projects that use public resources in a very wise and responsible manner. We have developed this project approach in order to maintain an expertise in our core business of projects with tight budgetary constraints.

Figure 2. We are proud to have delivered the Ogden Reservoir Pipeline project for SAWCO. Our successful completion of this project created much needed additional capacity and redundancy in SAWCO's water system.

Our approach to your project, recognizing that both schedule and budget are of primary concern, dictates that design decisions must be made quickly but carefully. When this is coupled with the various constraints present with the project, it is critical that SAWCo choose a consultant with a proven track record of delivering. With a familiar team of senior level design and construction professionals and an in-house team, TKE is the right choice for this project.

For pipeline design projects, our approach includes early identification of critical design elements, experience with common challenges, and accurate cost estimating throughout the entire process. In preparing this proposal, our team used our experience and knowledge of the project area and project type, and carefully reviewed the RFP to establish critical issues so we can be prepared to immediately mobilize upon notice to assist SAWCo. Our knowledge of SAWCo and the City and experience with pipeline projects has enabled us to develop a complete comprehensive list of critical issues. Critical issues are presented in the following paragraphs:

1. CRITICAL ISSUES

Project Location

The majority of the replacement pipeline work is scheduled for areas within the County which are along many narrow streets with limited points of access. The members of these parts of the community will have raised expectations related to travel in and around the construction areas and particularly how it affects the ingress and egress to their properties as well as the affects to their properties during daily construction activities. For these types of project alignment alternative selection is critical to ensure to minimize the impacts to accessibility and direct impacts to private improvements. Our design includes an added level of scrutiny to ensure the alignments selected will allow for expedited construction, reduced future maintenance and limit residents accessibility issues during construction.

Pavement Restoration

The majority of the streets included in the project area have not had pavement restoration and are in fair to completely failed condition. Since the streets are generally in such poor condition, trench repair will likely lead to raveling and popping of adjacent failed pavement sections. These issues often lead to wasted costs in throwaway pavement repairs. TKE will recommend alternative paving opportunities which can potentially leverage pavement funding and repair larger portions of the project area street which will maximize project budgets and simultaneously minimize any throwaway costs for temporary street repairs.

In addition, a majority of the streets are classified as residential with a few areas of the project being within collector or arterial streets. Therefore, at least two structural sections will need to be identified for trench reconstruction. TKE will ensure the proper structural section is designed for each street classification.

Utilities

For pipeline projects, construction contract change orders are primarily attributable to inaccurate plotting of utility interferences or due to unknown utilities. Comprehensive utility research together with design potholing of critical utility interferences and potholing of all interferences prior to construction by the project contractor will ensure that contract change orders will be significantly reduced or even eliminated. It is anticipated that numerous underground utilities will be encountered in street intersections that are located throughout the project. For larger existing facilities and project connections, TKE will identify those as critical and request that SAWCo excavate them to verify both horizontal and vertical alignments. In addition, we will request that at connections existing, pipeline materials and condition be noted to properly design each connection's existing pipeline abandonments. Again, to avoid potential change orders, detailed connection and abandonment designs will be included.

Figure 3. Identification of critical design elements is vitally important to ensure construction changes are

unnecessary. A vital tool is thorough utility research, coupled with potholing of critical locations necessary to ensure clearance.

Geotechnical

To verify subsurface conditions, TKE will retain a geotechnical subconsultant to perform field testing in these areas to verify subsurface conditions and appropriate use of existing subsurface materials.

Our geotechnical subconsultant will fully document soils types and provide information for use during design and in the preparation of the construction documents. In areas where existing soils will not be appropriate for pipe zone backfill, TKE will specify these areas and specify select soil backfill materials.

> Our detailed knowledge of pipeline design and areas of likely challenges ensure that TKE is the right fit for this project.

Pipeline Pressures and Thrust Protection

A few of the proposed areas experience fairly significant vertical elevation changes. Because the pipelines will operate over a wide range of pressures, TKE will carefully examine every reach of pipeline to verify that adequate pipe class will be specified. TKE will specify appropriate pipe classes for system operations as well as thrust protection and will review system pressures to determine if reduced pressure backflow devices are required.

Thrust protection, either concrete thrust blocks or restrained joints, will also be specified for other system components including curves, tees, bends, and fittings. Any pipeline failure experienced during construction is almost always attributed to insufficient thrust protection. Thrust is created by both pressure and the movement of water within the pipeline combined with changes in direction. TKE will design the pipeline system to ensure adequate protection is provided. In particular, thrust protection is critical at connection locations because of the uncertainty of protection on the existing pipeline system to remain. In addition, thrust protection must be provided on vertical alignment changes should grade changes be large enough to create potential failures.

Appurtenances

Appurtenances include system control valves, fire hydrants, air valves, blow-offs, control valves, and services. During design, it will be important to identify appropriate locations for all appurtenances, in particular, above ground appurtenances. Considering the limited right-of-way available for some project areas, appurtenances should be carefully located to prevent post construction conflicts. Appurtenances will be designed consistent with SAWCO standards to ensure proper operations. TKE will also field verify all appurtenance locations, in particular, air valves and fire hydrants, to ensure adequate public right-of-way exists, they will not conflict with other improvements, and locations will be selected to protect them from vehicular traffic.

In addition to field locations, appropriate sizing must be determined during design. For example, air valves must be sized to ensure adequate air release during filling and emptying of pipelines. Failure to properly size such facilities may cause damage to the water system.

When placing appurtenances, TKE staff routinely provides consideration of other utilities to avoid conflicts with lateral piping of the appurtenances.

Traffic Control

Traffic impacts created by construction of the pipelines must be mitigated to the maximum extent practicable. Access to resident's property must be maintained at all times. When considering pipeline alignments, construction traffic control, property assessment, utility and mail services and emergency vehicle access needs to be considered. Once the alignments are selected, traffic control design needs to be prepared to ensure safe and convenient vehicular and pedestrian mobility during construction operations. We have extensive experience in construction traffic control plan preparation and we are intimately familiar with the WATCH, Caltrans, and MUTCD requirements. We will also review existing pavement conditions to determine if poor conditions may result in the potential for additional pavement removal and replacement during trench repair.

Construction Sequencing

To ensure that construction will not interrupt water service and to ensure extra work claims do not occur, construction sequencing will be provided as part of the project design. Sequencing will include the order in which the new pipelines, together with appurtenances and services will be constructed. In addition, the construction sequencing will include testing and disinfection procedures and the initial system connection. The existing pipelines that will ultimately be abandoned must remain in service until the proposed pipelines are tested, disinfected, connected to the existing system in at least one location, and all service connections have been transferred to the new pipelines. Typically, for pipelines of this size it is desired that a connection be completed after pipeline testing and prior to disinfection. Direct connections provide flow volumes needed to adequately flush debris from the new system. After disinfection and laboratory testing verification, the new system will then be placed into service and service connections will be completed. After all service connections are transferred to the new pipeline, the existing system can be abandoned. The abandonment of the existing pipelines will occur thereafter concurrently with subsequent pipeline connection construction.

Right-of-Way

The proposed pipeline will primarily be located within existing street right-of-way. It appears that sufficient width is available; however, many of the streets are narrow and appear to be congested with other

underground facilities. TKE will make every attempt to select alignments that will avoid the need for additional right-of-way acquisition, ensure the existing facilities remain in service throughout construction, ensure private improvements such as fences and landscaping will not be impacted, and provide sufficient space for construction equipment access for trenching, soil stockpiling, pipe installation, and backfill and compaction. Should additional right-of-way be required, TKE will identify it early in project design.

Permitting

TKE anticipates that permit acquisition will be limited to the City and County. If additional permits are required, TKE has vast experience obtaining permits from regional agencies which can be challenging and time intensive. TKE has developed a working partnership and extensive knowledge of each agencies requirements that will result in expedited permit issuance. In fact, TKE is currently working with a number of these agencies on other projects and has developed an effective working partnership that will result in expedited permit issuance.

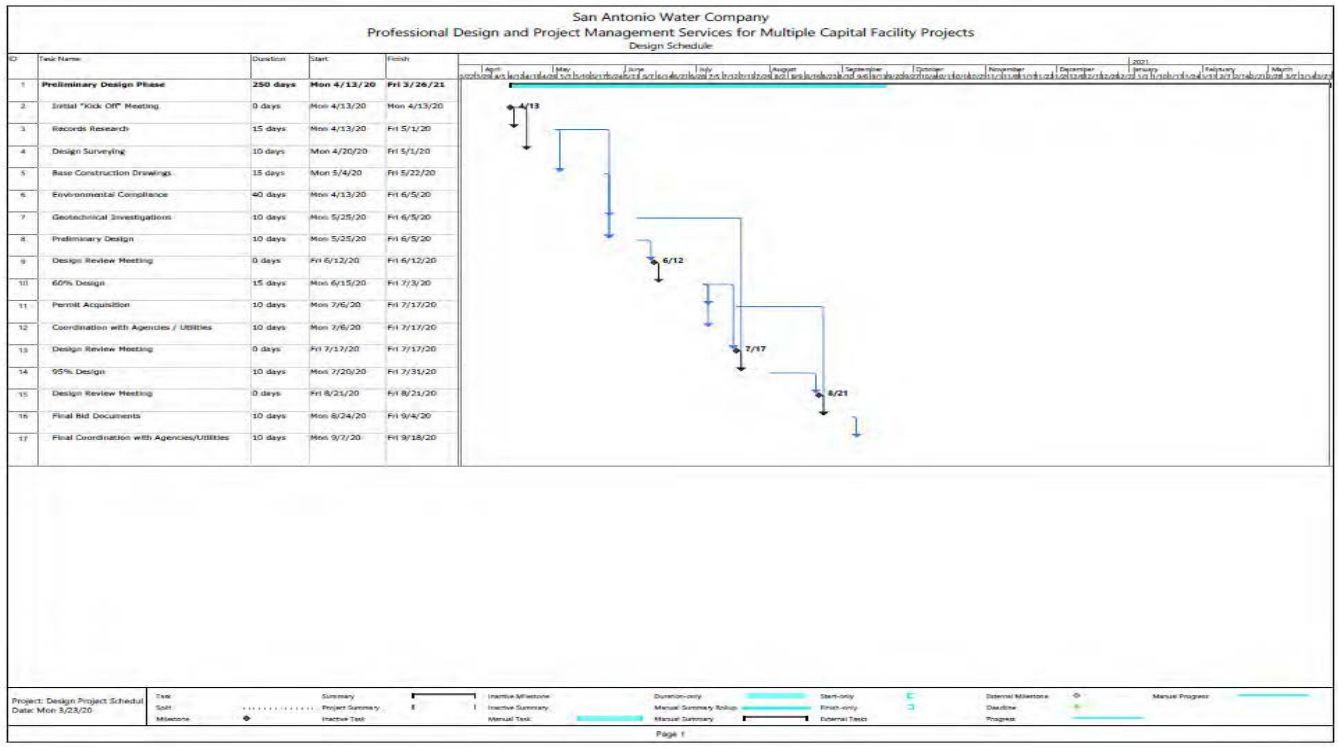
Accurate Cost Estimating

Unanticipated costs will impact SAWCO's ability to deliver the project. Therefore, it is vital to keep costs controlled. Our approach to controlling costs is to provide frequent and accurate cost estimates by using TKE's detailed cost estimating database. In addition to using this database, TKE utilizes our considerable experience with Construction Management to assist in providing constructability reviews and cost estimating based on current information from our on-going projects. Finally, with the current economic climate, construction costs are widely varying. We will also discuss the project's elements with local contractors to assure that we have the most current construction information available so that SAWCO can get the most "bang for their buck".

SCOPE OF WORK

TKE takes no exceptions to the scope of work listed in the RFP. Due to the page limits TKE can provide a detailed breakdown of our full scope of services upon request.

SCHEDULE



SECTION E: PAST PROJECTS

2017-18 Annual Water Replacement Program

City of Hesperia, CA

Client Contact: Mr. Michael Blay
Address: 9700 Seventh Avenue, Hesperia, CA 92345
Phone: (760) 947-1901 **Email:** mblay@cityofhesperia.us

Project Cost: $5.3 Million
Completion Date: Current
Project Team
Terry Renner, P.E., Q.S.D.
Michael Heath, P.E.
Zuzanna Rand, P.E., M.Sc
Steven Ledbetter, P.E.
Ron Musser, P.L.S.

Description: TKE provided design engineering services for the construction of the pipeline replacement program to replace nearly 42,600 linear feet of 4" aging pipelines with 8-inch pipe and related appurtenances. Typical pipeline appurtenances for the project include, control valves, fire hydrants, air vacuum release valves, blowoffs, and water service piping to construct to the existing water meters which will remain.
Services: Services include records research, design, hydraulic modeling, permitting, surveying, preparation of construction documents and estimates and coordination with agencies and consultants.

Recycled Water Pipeline

City of Hesperia, CA

Client Contact: Mr. Michael Blay
Address: 9700 Seventh Avenue, Hesperia, CA 92345
Phone: (760) 947-1901 **Email:** mblay@cityofhesperia.us

Project Cost: $16 Million
Completion Date: December 2018
Project Team
Michael P. Thornton, P.E., P.L.S. M.S.
Terry Renner, P.E., Q.S.D.
Michael Heath, P.E.
Zuzanna Rand, P.E.
Steven Ledbetter, P.E.
Ron Musser, P.L.S.
Stephen Biscotti

Description: TKE prepared engineering construction documents for the City of Hesperia for construction of 8 miles of recycled water pipelines ranging for 16" to 8" in diameter including, plan and profiles, specifications, cost estimates, and DWR funding management. In addition, TKE is providing construction assistance services, grant funding management and inspection for pipeline construction.
Services: Services include records research, planning, system modeling, hydraulic analysis, hydraulic modeling, report and cost estimate preparation, construction document preparation, utility coordination, right-of-way acquisition, cost estimation, construction assistance, inspection and grant fund management assistance.

1158 Zone Recycled Water Program

City of Fontana, CA

Client Contact: Mr. Chuck Hays
Address: 16489 Orange Way, Fontana, CA 92335
Phone: (909) 350-6530 **Email:** chays@fontana.org

Project Cost: $7.1 Million
Completion Date: May 2014
Project Team
Michael P. Thornton, P.E., P.L.S., M.S.
Terry Renner, P.E., Q.S.D.
Steven Ledbetter, P.E.
Ron Musser, P.L.S.

Description: TKE prepared preliminary engineering report that identified potential users, amounts each user is projected to use, alignment alternatives to provide service, environmental compliance documents (amendment to Program EIR), cost estimates, and funding application and processing with the State of California's State Water Resources Control Board. In addition, TKE provided design engineering services for the construction of the pipeline system that includes approximately 54,900 lineal feet of recycled water pipeline ranging from 6-inch to 20-inch and related appurtenances. Pipelines included San Bernardino County Flood Control District bridge crossings, DWR pipeline crossings, and Southern California Edison easement crossings.

SECTION E: PAST PROJECTS

Services: Services include records research, design, hydraulic modeling, permitting, surveying, preparation of construction documents and estimates and coordination with agencies and consultants.

Meridian Avenue Main Replacement Project

City of San Bernardino, CA

Client Contact: Mr. Miguel Guerrero, P.E.
Address: 1350 S E Street San Bernardino, CA 92408
Phone: (909) 522-3409 **Email:** miguel.guerrero@sbmwd.org

Project Cost: $0.8 Million
Completion Date: September 2014
Project Team
Michael Thornton, P.E., P.L.S., M.S.
Terry Renner, P.E.
Steven Ledbetter, P.E.
Ron Musser, P.L.S.

Description: The Meridian Avenue Main Replacement Project is located in the City of San Bernardino along Meridian Avenue from Baseline Street to Etiwanda Avenue. This project consists of the construction of 2,800 linear feet of 16-inch ductile iron pipeline and appurtenances.
Services: Services include records research, conventional topographic surveying, coordination with agencies, preliminary design, cost estimating, and preparation of construction plans and specifications.

Pacific Avenue 16" and 12" Pipeline Replacement

City of Jurupa Valley, CA
Client Contact: Mr. Ronald Young
Address: 1350 S E Street San Bernardino, CA 92408
Phone: *(951) 684-7580* ***Email:*** *ryoung@rcsd.org*

Project Cost: $1.0 Million
Completion Date: March 2016
Project Team
Michael Thornton, P.E., P.L.S., M.S.
Terry Renner, P.E., Q.S.D.
Steven Ledbetter, P.E.
Ron Musser, P.L.S.
Stephen Biscotti

Description: The Pacific Avenue 16" and 12" Water Pipeline Improvements Project extends from Limonite Avenue To Mission Boulevard and is located in the City of Jurupa Valley. This project consisted of the construction of 5,525 linear feet of 16" and 12" ductile iron and polyvinyl chloride pipe, including connection to existing system, construction of new water system infrastructure, bore and jack with 24" steel casing, meter connections, appurtenances and demolition and abandonment of required existing facilities.
Services: Services include design, permitting, surveying, construction administration, construction inspection, coordination with agencies and consultants, and construction staking.

Mountain Avenue Street Rehabilitation and Water Main Replacement

City of Upland, CA

Client Contact: Ms. Rosemary Hoerning
Address: 1370 N. Benson Avenue Upland, CA 91786
Phone: (909) 291-2931 **Email:** rhoerning@ci.upland.ca.us

Project Cost: $1.4 Million
Completion Date: January 2015
Project Team
Terry Renner, P.E., Q.S.D.
Michael P. Thornton, P.E., P.L.S., M.S.
Ron Musser, P.L.S.

Description: The Mountain Avenue Street Rehabilitation and Water Main Replacement Project is located in the City of Upland and included approximately 8,400 Linear Feet of 12" Water Main Replacement and Street Rehabilitation. The project consisted of construction of domestic water, street, median, traffic signal, and traffic signing and striping improvements on Mountain Avenue from 9th Street to 14th Street, and 16th Street to 19th Street.
Services: Services included topographic surveying, design and utility coordination.

SECTION E: PAST PROJECTS

REFERENCES

Below is a list of clients which we perform similar services as to those requested in the RFP.

AGENCY	CONTACT NAME	PHONE NUMBER/ EMAIL ADDRESS	DATES SERVICES PROVIDED (FROM/THROUGH)
SAN ANTONIO WATER COMPANY 139 N EUCLID AVENUE UPLAND, CA 91786	MR. BRIAN LEE GENERAL MANAGER	PHONE: (909) 982-4107 CMOORREES@SAWATERCO.COM	2006 – PRESENT
CITY OF SAN BERNARDINO MUNICIPAL WATER DEPARTMENT 1350 S. E STREET SAN BERNARDINO, CA 92408	MR. TED BRUNSON DEVELOPMENT SERVICES MANAGER	(909) 453-6165 TED.BRUNSON@SBMWD.ORG	2003 – PRESENT
MISSION SPRINGS WATER DISTRICT 66575 2ND STREET DESERT HOT SPRINGS, CA 92240	MR. ARDEN WALLUM GENERAL MANAGER	(760) 329-5169 AWALLUM@MSWD.ORG	2001 – PRESENT
RUBIDOUX COMMUNITY SERVICES DISTRICT 3590 RUBIDOUX BLVD. RUBIDOUX, CA 92509	MR. STEVE APPEL ASSISTANT GENERAL MANAGER	(951) 684-7580 STEVE@RCSD.ORG	2001 – PRESENT
CITY OF HESPERIA 9700 SEVENTH AVENUE HESPERIA, CA 92345	MR. MICHAEL BLAY DIRECTOR OF DEVELOPMENT SERVICES	(760) 947-1901 MBLAY@CITYOFHESPERIA.US	2016 – PRESENT
CITY OF UPLAND 1370 N. BENSON AVENUE UPLAND, CA 91786	MS. ROSEMARY HOERNING DIRECTOR OF PUBLIC WORKS	(909) 291-2931 RHOERNING@CI.UPLAND.CA.US	2000 – PRESENT

Mr. Terry Renner, P.E., Q.S.D.

Project Role
Project Manager

Education
BS, Civil Engineering, California State Polytechnic University, Pomona

Continuing Education
Caltrans SWPPP Certified QSP/QSD Training

Registration
Registered Civil Engineer, PE 69984 (CA)

Professional Civil Engineer #55194 (AZ)

Qualified SWPPP Developer and Practitioner #24329

Affiliations
Riverside-San Bernardino Counties Branch, American Society of Civil Engineers

American Public Works Association

American Council of Engineering Companies of California

Mr. Renner is the Senior Vice President of TKE and has 20 years of experience in civil engineering infrastructure projects, including water and sewer improvements, drainage improvements, transportation improvements, facilities improvements and recreation improvements. He has managed numerous projects and has delivered projects for East Valley Water District, the City of San Bernardino Municipal Water Department, Elsinore Valley Municipal Water District, Eastern Municipal Water District, Mission Springs Water District, Rubidoux Community Services District, Maywood Mutual Water Company No. 1, and the cities of Fontana, Upland, Riverside, Redlands, Rialto, Calimesa, El Monte and Corona. As a project manager, Mr. Renner has been responsible for design production, supervising a staff of engineers and drafters, coordinating work between the production team and the client, and for submitting all deliverables in a timely manner. As a construction manager, Mr. Renner has been responsible for construction coordination and scheduling, utility relocation coordination, public relations, submittal review, supervising a staff of inspectors and subconsultants, weekly progress meetings, request for information responses, storm water management, progress payments, change order review and negotiations, labor compliance, and project closeout. He has successfully delivered a wide variety of complex and challenging projects and is dedicated to ensuring that the plans produced by TKE continue to exceed industry standards.

Related Experience

- Baseline Gardens Consolidation Project, East Valley Water District, San Bernardino, CA – Mr. Renner provided project and construction management services for the Baseline Gardens Consolidation Project which is located in the City and Unincorporated Area of San Bernardino County north of Baseline Road. Proposed improvements provided replacement of all existing water main, service laterals and meters and appurtenances for the previously owned Baseline Gardens Mutual Water system which was consolidated by East Valley Water District with State grant funding. TKE provided construction management and inspection services for approximately 18,000 linear feet of water system replacement improvements and 480 service laterals including, pipeline, valves, fire hydrants, meters and appurtenances.
- 2017-18 Annual Water Replacement Program, City of Hesperia, CA – Mr. Renner was the Project Manager for this project which consists of replacement of 42,600 linear feet of 4" aging pipelines with 8-inch pipe and related appurtenances. Typical pipeline appurtenances for the project include, control valves, fire hydrants, air vacuum release valves, blowoffs, and water service piping to construct to the existing water meters which will remain. In addition, the project includes over 60 connections to existing water mains.
- Recycled Water Pipeline Project, City of Hesperia, CA – Mr. Renner was the Project Manager for this project which consists of construction of 8 miles of recycled water pipelines ranging for 16" to 8" in diameter including, plan and profiles, specifications, cost estimates, and DWR funding management. In addition, TKE is providing construction assistance services, grant funding management and inspection for pipeline construction.
- Pacific Avenue 16" and 12" Water Pipeline Improvements Project, City of Jurupa Valley, CA – Mr. Renner was the Project and Construction Manager for this project which consists of 5,525 linear feet of 16" and 12" ductile iron and polyvinyl chloride pipe, including connection to existing system, construction of new water system infrastructure, bore and jack with 24" steel casing, meter connections, appurtenances and demolition and abandonment of required existing facilities.
- "I" Street Pipeline – City of San Bernardino, CA – Mr. Renner is Project Manager of this project, which consists of the construction of 2,300' of 16" and 3,700' of 20" ductile iron pipe. The project included hanging the pipe beneath a flood control bridge crossing of the Devil's Creek and BNSF permitting for bore and jack crossing of railroad at Rialto Street, along with coordination with other agencies.
- 1158 Zone Recycled Water Program, City of Fontana, CA – Mr. Renner was the Project Manager and Design Engineer for this project, which TKE prepared preliminary engineering report, utility permitting, plans, specifications, and estimates for the construction of approximately 50,000 linear

Mr. Steven W. Ledbetter, P.E.

Project Role

Project Manager

Education

BS, Civil Engineering (Environmental), California State Polytechnic University, Pomona

Registration

Registered Civil Engineer, PE 84044 (CA), Exp. 9/30/21

Affiliations

Riverside-San Bernardino Counties Branch, American Society of Civil Engineers

Mr. Ledbetter has over 19 years of professional experience in the civil engineering industry. He has handled various critical and challenging projects from planning through design and implementation; all while ensuring that projects are executed as per specification in the stipulated time with quality. He has a well-rounded background with experience in: preparation and analysis of street and utility improvement plans and specifications including potable and non-potable water, wastewater, and drainage; utility master planning including computer modeling, analysis, and report preparation; water resource planning and management including feasibility studies, urban water management planning, water supply assessments and verifications, integrated regional water management planning, and groundwater management planning; storm water compliance reporting including water quality management plans and storm water pollution prevention plans and; and grant writing and administration for various State and Federal agency programs.

Related Project Experience

- *Chino Basin Watermaster, Rancho Cucamonga, CA* – Mr. Ledbetter serves as the City of Upland's representative on administrative and water resource matters at Chino Basin Watermaster. Mr. Ledbetter represents the City at pool and committee meetings and technical workshops ensuring the City's interests are protected. Mr. Ledbetter is currently overseeing the development of a Storage Management Plan, Optimum Basin Management Plan, and Safe Yield Recalculation, amongst other items. Mr. Ledbetter routinely meets with the City to discuss current issues, provide input, and receive direction on all Watermaster items.
- *Mission Springs Water District, Desert Hot Springs, CA* - Mr. Ledbetter is currently serving Mission Springs Water District as its District Engineer. He is working with staff to manage more than $30 million in water and wastewater improvement projects. In addition, Mr. Ledbetter supports the District in several regional water resource planning elements, including Integrated Regional Water Management and Sustainable Groundwater Management. Services include budget development and management, technical analysis, capital project planning and delivery, management of other consultants, and presentations to their board of directors.
- *West Valley Water Reclamation Program, Mission Springs Water District, CA* – Mr. Ledbetter is providing program management services for the development and construction of the District's West Valley Water Reclamation Program (WVWRP). The WVWRP includes planning, design, and construction of a regional wastewater treatment plant, interceptor conveyance system, and local wastewater collection systems. Mr. Ledbetter is managing the completion of the WVWRP, including: participation and management of funding acquisition; staff, board, consultant, funding agencies, and public coordination and communications; assessment district formation; State Revolving Fund (SRF) and grant application processing; State invoicing and reporting; environmental compliance processing; preliminary engineering preparation; plans, specifications, and cost estimates (PS&E) preparation; bidding and construction; and all related services to successfully complete the WVWRP.
- *Canyon Creek Resort Water Supply Assessment, Norco, CA* - The proposed Canyon Creek Resort development includes 551 dwelling units of low and medium density residential, hotel lodging, and 213 acres of open space within the eastern portion of the City of Norco. The development has an estimated water demand of 448 acre-feet per year. As project manager, Mr. Ledbetter is providing an assessment of the projects water demand and water supplies available to serve the development over a 20-year period, including normal, single dry, and multiple dry water years.
- *"I" Street Water Main, San Bernardino Municipal Water Department, CA* – Mr. Ledb

Ms. Zuzanna Rand, P.E., M.Sc.

Project Role

Project Engineer

Education

Master's Degree in Environmental and Water/Wastewater Engineering – University of Zielona Gòra, Poland

Registration

Registered Civil Engineer, PE 65967 (CA)

Affiliations

Riverside-San Bernardino Counties Branch, American Society of Civil Engineers

American Public Works Association

American Council of Engineering Companies of California

Ms. Rand has over 24 years experience with master planning, engineering, design, construction, and operation of water, recycled water, and wastewater infrastructure projects, ranging in construction cost up to $34 million. She specializes in Engineering and Operation of Water and Wastewater Treatment Plants, Water Distribution and Wastewater Collection System. Ms. Rand has performed or managed and overseen projects involving Feasibility Studies (FS), preliminary design report (PDR), final design, construction support, and start-up of wastewater treatment plants, wastewater collection systems, pump stations, water and recycled water storage and distribution facilities as well as flood control and drainage infrastructures. She has performed or directed the preparation of complex technical and environmental studies, master planning, hydraulic calculations, GIS base hydraulic modeling analysis construction engineering support, approval and permit acquisitions, troubleshooting, and other related work pertaining to water, recycled water and wastewater facilities. She has actively coordinated construction projects, participated in the startup and commissioning. She was extensively involved in the providing the engineering support for the preparation of EIR and NPDES discharge permits within the limits of Santa Ana, Lahontan, Colorado and San Francisco Bay Regional Water Quality Control Boards. Ms. Rand participated in numerous short and long-term planning processes in developing of master plans and expansion of water, recycled water and wastewater facilities.

Related Experience

- *Ontario Municipal Utilities Company, City of Ontario, CA* – Ms. Rand reviewed and evaluated master plans, planning studies, complex engineering reports, plans and specifications for variety of capital improvements projects, consult with other department and provide recommendations for appropriate corrective actions as necessary. She developed recommendations, conceptual scope of work and provide justifications for expansion, improvements, rehabilitation and/or replacement of water, recycled water or wastewater facilities, GIS base hydraulic modeling analysis using Innovyze (InfoWater/ InfoSewer) Software. She prepared and/or participated in development of requests for proposal of feasibilities studies, PDR(s) and final design. She developed RFP for Feasibility Study of the Archibald Sanitary Sewer Diversion Project. The goal of this Feasibility Study was to establish necessary improvements to the Archibald Sewer Trunk Main in order to accept an additional wastewater flows from a future development. The study will provide analysis of the feasibility, necessity, and timing of the proposed Project Scope and clearly define how and where the growth will impact the Archibald Sewer system. The service area includes residential, commercial, industrial and institutional developments. She also developed RFP for Feasibility Study of North Vineyard Sewer Trunk Main. The primary purpose of this Feasibility Study was to establish necessary mitigation measures and improvements to the 3,700 feet of North Vineyard Sewer Trunk Main (south of Holt Blvd) in order to alleviate existing and future collection system deficiencies. Alignment alternatives shall be evaluated in logical manner considering all relevant factors such as the technical feasibility, constructability, permitting, traffic control, property acquisition, schedule and environmental and economic considerations.
- *San Timoteo Sewer System (STSS), City of Beaumont, CA* – Ms. Rand was Lead Project Engineer responsible for planning, PDR, final design and construction of the $16 million STSS project, which included three (3) sewer lift stations, total of 6 miles of 8-inch, 10-inch, 12-inch, and 14-inch diameter dual force mains, and 30-inch diameter gravity sewer. The construction of the project has been completed in three phases and included the followings: (1) One (1) mgd LOV Lift Station with three 88 HP submersible pumps (TDH of 188 ft) with dual, 12,960 feet long PVC force mains; (2) Three (3) mgd UOV Lift Station with four submersible pumps (250 hp @ 240 feet TDH and 100 hp pumps @204 feet TDH) with 6,900 feet of 12-inch diameter force main; and (3) 4.5 mgd BM Lift Station with four pumps (150 hp pumps @ 230 feet TDH and 250 hp pumps @ 242 feet TDH). Each pump station and force mains were equipped with air/vacuum release and pressure release valves, magnetic flow meters and SCADA monitoring systems. The hydraulic modeling

Mr. Ron Musser, P.L.S.

Project Role

Director of Survey

Registration

Professional Land Surveyor, LS 4230 (CA),

Affiliations

American Council of Engineering Companies of California

Mr. Musser has over 50 years of experience in performing field and office surveying services for public and private projects including roadway and highway projects. Prior to joining TKE Engineering, Inc., Mr. Musser worked as a Partner in an engineering and surveying firm and supervised the mapping department providing mapping and calculations support for the firm's projects. He has performed design topographic surveying and construction staking on all of TKE's respective design and construction management projects over the past 8 years. In addition, he has prepared records of survey, parcel maps and tract maps in San Bernardino County, Riverside County, San Diego County, Orange County and Los Angeles County. He has performed boundary, topographic, ALTA, and precise level surveys as well as Global Positioning Surveys.

Related Experience

- *"I" Street Pipeline – City of San Bernardino, CA* – Mr. Musser is Project Surveyor of this project, which consists of the construction of 2,300' of 16" and 3,700' of 20" ductile iron pipe, including restrained length calculations, joint specifications, system appurtenances, connections to the existing system, San Bernardino County Flood Control District permitting for pipeline hanging under "I" Street bridge crossing of the Lytle Creek Channel, and SANBAG permitting for bore and jack crossing of railroad at Rialto Avenue. Proposed water system improvements provide a transmission main from the newly constructed pipelines in 2nd Street, Mill Street and Inland Center Drive for adequate water system conveyance
- *1158 Zone Recycled Water Program, City of Fontana, CA* – Mr. Musser served as the Project Surveyor for this project, which TKE prepared preliminary engineering report, utility permitting, plans, specifications, and estimates for the construction of approximately 50,000 linear feet of recycled water mains ranging from 6" to 24" in diameter. The project included San Bernardino County Flood Control District bridge crossings, DWR pipeline crossings and Southern California Edison easement crossings. TKE prepared a preliminary engineering report that identified potential users, projected use amounts alignment alternatives to provide service, environmental impacts and service retrofits. TKE also assisted with a funding application and processing of the application with the State of California State Water Resource Control Board.
- *1720 Zone West Transmission Main Pipeline – City of San Bernardino, CA* - – Mr. Musser served as Project Surveyor for this project. This project consisted of the construction of 14,500' of 36" cement mortar lined and coated steel pipe, including restrained length calculations, joint specifications, system appurtenances, connections to the existing system, Metropolitan Water District and San Gabriel Valley Water district encroachment permits, San Bernardino County Flood Control District, US Army Corp of Engineers, and Department of Fish and Game permitting for pipeline bore and jack crossing of Devil's Creek Diversion Channel/Cable Creek, BNSF permitting for bore and jack crossing of railroad at Palm Avenue, and coordination with other agencies for tie-ins to the proposed reservoir site. Proposed water system improvements provided a transmission main from the Palm Avenue Reservoir to the newly constructed Ogden Reservoir for adequate water system conveyance.

PROPOSAL TO PROVIDE PROFESSIONAL DESIGN AND PROJECT MANAGEMENT SERVICES FOR

MULTIPLE CAPITAL FACILITY PROJECTS

MARCH 23, 2020

San Antonio Water Company
125 YEARS
1882-2007

WSC
WATER SYSTEMS CONSULTING, INC.

March 23, 2020
Brian Lee, PE
San Antonio Water Company
139 North Euclid Avenue
Upland, CA 91786

SUBJECT: PROPOSAL TO PROVIDE PROFESSIONAL DESIGN AND PROJECT MANAGEMENT SERVICES FOR MULTIPLE CAPITAL FACILITY PROJECTS

Dear Mr. Lee,

Water Systems Consulting, Inc. (WSC) is pleased to present this proposal to provide professional design and project management services to the San Antonio Water Company (SAWCo) for the Multiple Capital Facility Projects.

This procurement provides an exciting opportunity for SAWCo to replace or repair seven important pieces of its water system. WSC is passionate about delivering our brand of high-quality, client-focused service to SAWCo. Our business strategy relies on outperforming our client's expectations and building true partnerships that outlast any single project.

Our proposed Project Manager, Chris Deiter, has worked with SAWCo since 2017 and is based in WSC's Rancho Cucamonga office. He will be supported by WSC's Principal in Charge, Kirsten Plonka, who has built strong relationships with SAWCo staff and has thorough understanding of SAWCo's water system and its unique conditions and constraints.

Key benefits of WSC's proposed approach:

- Bundling some or all of the seven projects into a combined design effort and bid packages can improve efficiency, reduce cost, and still achieve a construction contract date by December 31. Our approach highlights the benefits of this approach.
- Our local team is located a few minutes from SAWCo headquarters, and the majority of the work will be done out of that office. Our proposed Project Manager, Chris Deiter, has successfully delivered three projects for SAWCo and looks forward to providing high-quality, responsive service.
- WSC is currently working on SAWCo's Water System Master Plan and GIS System Update. Our proposed team for this project includes many key staff who are not involved in those projects to preserve bandwidth and responsiveness but will work closely together with them to reduce the impact of data requests on SAWCo's staff time.

WSC certifies it takes no exceptions with the RFP. However, WSC has existing Professional Service Agreements with the SAWCo and respectfully requests SAWCo consider using the same terms and conditions for this project. We are confident that we can efficiently reach mutually agreed upon terms.

If you have questions about any aspect of this proposal, please feel free to contact WSC's proposed Project Manager, Chris Deiter at (909) 483-3200 (cdeiter@wsc-inc.com) or WSC's Principal in Charge, Kirsten Plonka, at (858) 397-2617, ext. 304 (kplonka@wsc-inc.com). Thank you again for your consideration, and we look forward to your response.

Sincerely,

Water Systems Consulting, Inc.

Chris Deiter, PE
Project Manager

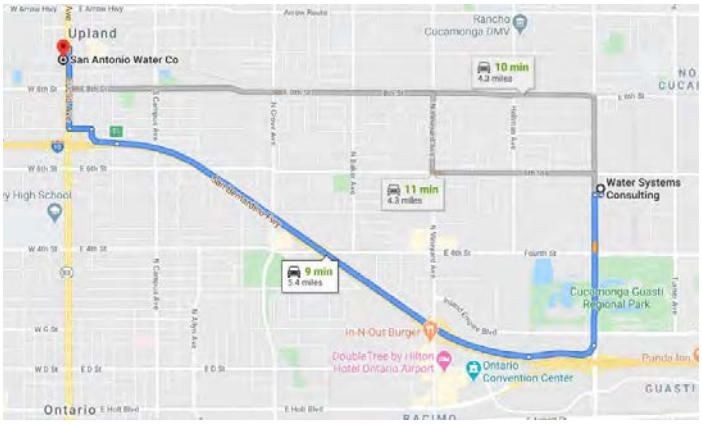
Kirsten Plonka, PE
Principal in Charge

EXECUTIVE SUMMARY

WSC IS ALIGNED WITH YOUR GOALS WATER RESOURCE GOALS

We understand that SAWCo intends to select a consultant to assist in the design and construction of seven capital facility projects and get the projects under construction contract by the end of the year. Throughout this proposal, we describe our team, their qualifications, our approach, and commitment to meeting this schedule.

A local, experienced team that is committed to deliving a project that exceeds your expectations



We will provide SAWCo with engaged and passionate project leadership to meet your schedule goals and provide thoughtful solutions that are technically correct. Our team is led by our local Project Manager, Chris Deiter, who is familiar with your staff, standards, and preferences. He lives in the local community and works out of our Rancho Cucamonga office, which is a short drive from your headquarters.

This local, experienced perspective, combined with his personal commitment to you, gives our team strong leadership. Chris will be supported by Principal in Charge, Kirsten Plonka, who is leading SAWCo's Water Master Plan Update and Mapping and supporting the GIS Update projects. Kirsten's role will be to facilitate efficient knowledge sharing between WSC's separate project teams to reduce the impact on your staff's time.

We are committed to identifying thoughtful solutions that save you and your rate payers money

We understand SAWCo intends to bid each of the 7 projects identified in the RFP separately but we believe there is opportunity to improve the value of the project by combining some of the projects into grouped bid packages. We have provided a fee for both approaches, individually bid versus grouped bid, to show the savings of our proposed approach. Our proposed project grouping is summarized below and described in more detail in the Project Understanding and Approach Section. However, we are open to working with you to come up with alternative groupings and strategies that provide the best value to SAWCo.

- ✓ **Project 1: Reservoir 9 Replacement.** We understand this project is your top priority and will work with you to determine the best available alignment for construction and future maintenance efforts.
- ✓ **Project 2: Frankish Tunnel Pipeline Repair and Meter Install.** We propose develping a technical memorandum with field investigations and a hydraulic analysis to characterize the issues and establish the appropriate solution and design criteria prior to starting final design.
- ✓ **Project 3: 2020 CIP Pipeline Replacement Project.** The remaining five pipeline segments are similar in nature and signifiant savings could be realized by bidding the projects together. The segments would be designed in parallel and delivered as one project package for permitting, bidding, and construction.

WSC has used this approach for other clients and have found that coupling projects together reduces the amount of time our clients staff spends on data requests and reviews, improves design efficiency, and increases competition during bidding which drives down construction costs.

FIRM BACKGROUND AND EXPERIENCE

WSC IS YOUR PREMIER WATER ENGINEERING CONSULTING FIRM

WSC is a full-service engineering consulting firm with extensive experience designing and supporting the construction of water pipeline replacement projects and other related water system infrastructure.

> WSC's existing liability insurance policies meet the required limits/coverage of at least $1 million required for this project.

Our expert staff of nearly 60 skilled employees has provided water system engineering services to investor-owned utilities, special districts, cities, counties, and regulatory agencies for more than 12 years. WSC has eight offices in California and the Pacific Northwest and this project will be administered out of our Rancho Cucamonga office, just a 10-minute drive away. Our proximity to you will allow our team to be responsive throughout the duration of the project.

WSC has assembled a team for this project that has the local capability and experience to provide comprehensive services from preliminary design through completion of construction. We will draw upon our experience delivering similar project in the region to get the job done and guide SAWCo through whatever challenges may arise during any phase of the project. We will proactively work to avoid potential schedule slips and costly change orders during construction.

Most importantly, we are committed to having the appropriate qualified staff available to get the seven projects under construction contract by December 31.

WSC will maximize the value of your staff's time and reduce costs

We understand that SAWCo staff are looking for a consultant who is able to efficiently manage the seven projects and draw the most value out of their interactions. By using a well organized project management approach, expertly facilitated meetings, and listening carefully, we will work hard to minimize the impact on SAWCo's staff while fully capturing their valuable insight into the system and its operation.

WSC is currently assisting SAWCo with its Water System Master Plan and System Mapping and GIS Database projects which will provide our team with insight into each project and allow us to be efficient, reducing the impact of data requests on your staff's time. WSC has also worked with many local agencies, which gives us detailed knowledge of how to work with local permitting and regulatory agencies to reduce the risk of costly project delays.

We will draw upon our success delivering similar projects for other water companies and districts

WSC has successfully delivered dozens of water pipeline replacement design and construction projects with similar scopes of work. Many of those projects have required compressed design and bidding schedules and consideration of private property right of way constraints, including projects for City of Big Bear Lake Department of Water and Power and Liberty Utilities - Park Water.

Our experience gained on these relevant, local projects means we understand the flexibility needed to provide exceptional design and project management services for SAWCo's concurrent capital facility projects.

Additionally, our team has provided preliminary design through construction project management services for these types of projects throughout the Inland Empire and Los Angeles County area.

WSC has provided 13 clients in Southern California and the Central Coast with similar water system design and construction services in recent years.

More information about WSC's specific relevant experience is provided in the Past Projects section of this proposal and in the resumes of our individual staff members.

WSC's Quality Management Plan results in work that you can trust

WSC's depth of local resources and our continuous approach to quality control will enable us to provide high quality deliverables. At every step of the project, from scoping through construction, WSC relies on a systematic approach to quality control and quality assurance (QA/QC). The initial project workplan will identify key milestones where a QC review is needed before moving to the next step, including assumptions, basis of design, and each deliverable.

WSC is committed to adhering to design and CADD standards, which means all bid packages will be formatted identically for ease of review by SAWCo staff. This focus on adhering to standards will result in the same high quality deliverables and efficiency among each team member's work product.

Thorough reviews are performed by the QA/QC Lead, Josh Reynolds, who has more than 20 years of experience providing planning, design, and construction management services for water distribution system infrastructure. Additional technical reviewers may be included in the review process as needed based on the technical content of the work product. WSC uses QC checklists customized for the type of deliverable to systematically help reviewers to scrutinize details such as consistent formatting, specification reference checks, and mathematical checks on summary tables.

At WSC, we only succeed if you do and we are focused on delivering value and will work tirelessly on your behalf to achieve the results you expect and deserve.

> *"As a result of WSC's experience and ability to work seamlessly with our staff, WSC completed the construction management services for the 2013 Water System Improvement Program $90,000 under budget. The construction change orders were less than 3%, which is a reflection of the quality of services that WSC provided."*
>
> Mr. Reginald Lamson, PE, PLS, General Manager, Big Bear Lake, Department of Water and Power

PROJECT ORGANIZATION AND TEAM EXPERIENCE

OUR TEAM IS DESIGNED TO PROVIDE THE BEST SERVICE POSSIBLE

WSC's team is functionally organized to take advantage of the strengths of our expert staff within a streamlined structure to provide the highest level of responsiveness and quality.

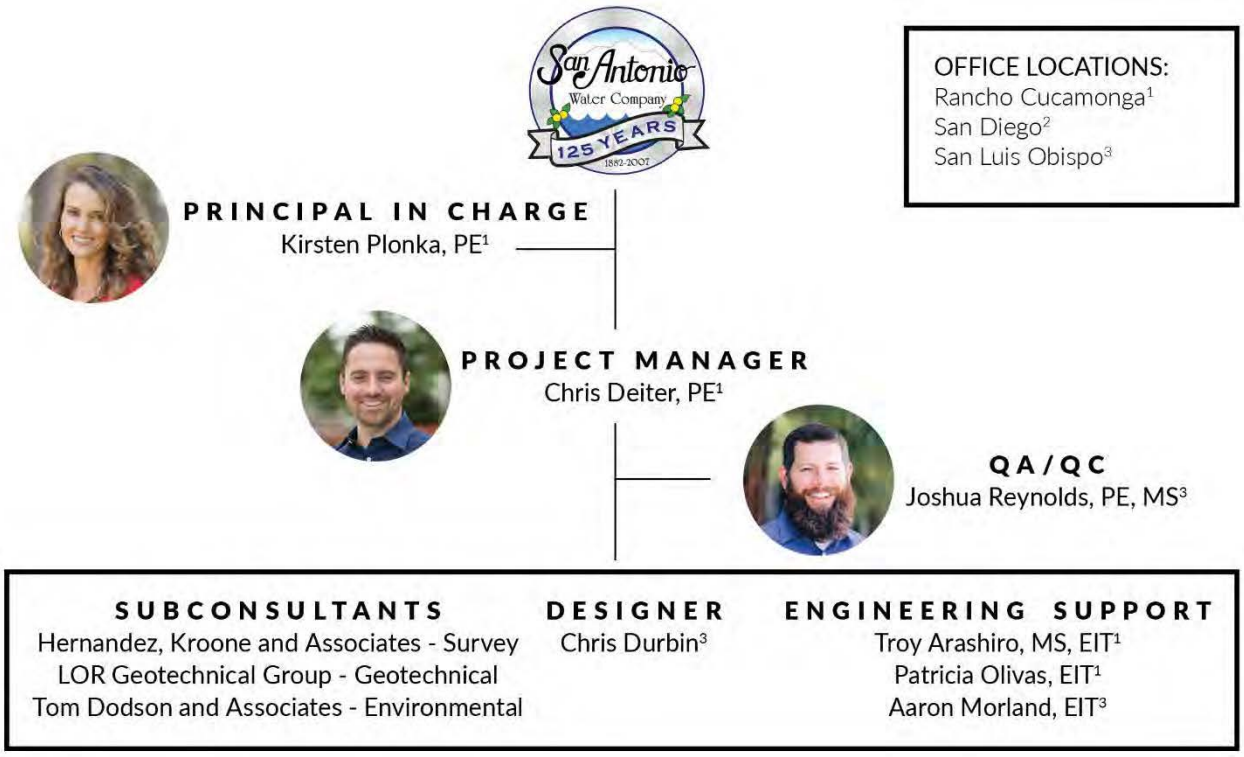
> WSC affirms that our qualified staff have the bandwidth and are committed to deliver the seven projects described in the RFP.

WSC's proposed Project Manager, Chris Deiter, will serve as the primary point of contact to the SAWCo and will be responsible for the day-to-day delivery of the project. Chris brings 12 years of engineering experience and five years construction experience. He is a local resource located in our Rancho Cucamonga office who has delivered three projects for SAWCo since 2017.

Chris will be supported by WSC's Principal in Charge, Kirsten Plonka, who is leading SAWCo's Master Plan project. She will facilitate internal communication with the goal of coordinating the two efforts to reduce impact to your staff. QA/QC will be provided by WSC's senior engineer, Josh Reynolds, who brings over 20 years of experience in water pipeline design, overseeing projects from the early planning phases through to construction and project completion.

WSC's team includes engineering and drafting support from our internal team, and several specialty subconsultants: Lor Geotechnical Group (LOR) – geotechnical services, Tom Dodson and Associates (TDA) – environmental services, and Hernandez, Kroone and Associates (HKA) – survey services. WSC has worked with these firms on multiple projects, including water main rehabilitation and replacements.

Resumes for our proposed team members are included in Appendix A.



EXPERIENCE OF THE PROJECT TEAM

Our team will draw upon our shared successes

WSC's proposed project team is experienced working together on projects of similar scope and their time will be managed based on principles gleaned from past successes.

Proposed Project Manager, Chris Deiter, Staff Engineer, Troy Arashiro, and Assistant Engineer, Patricia Olivas all work out of our Rancho Cucamonga office. They, along with Designer/Drafter, Chris Durbin, are working together for Big Bear Lake Department of Water and Power on a similar project. The 2018 USDA Pipeline Replacement Project, which is currently in the third and final phase, includes the design and construction of 12 miles of 8-inch and 12-inch PVC water main replacements. The previous phases of the project were conducted on a tight design schedule to get projects out to bid in time for a short construction season.

Meet our Project Manager

Chris Deiter, PE

Chris is an experienced water infrastructure engineer who brings detailed knowledge of SAWCo's standards and specifications. He has designed approximately 25 miles of pipeline including engineering services during construction and inspection expertise.

WSC's approach to project delivery is focused on meeting your schedule

WSC's approach to effective project delivery begins with an experienced project manager, a clear understanding of the client's objectives, a comprehensive project management plan, and a team of professionals with the collective goal of delivering a quality project. While we tailor our approach to each project based on the specific needs of the client, the foundation of our project management approach remains consistent regardless of the size of the project.

Some highlights of WSC's proven approach to project delivery include:

- Project Scoping: Early input from engineering, operations, maintenance and/or finance staff, as appropriate for each task, provides clarity at project onset to assure intended goals are achieved or exceeded.
- Schedule and Budget: WSC uses an integrated project management and accounting system, Ajera, to manage project progress and budget in real time so our Project Manager always has access to the latest information.
- Communication and Responsiveness: A well-established line of communication and relationship based on trust facilitates effective exchanges of information outside of regularly scheduled progress meetings, enabling quick resolution of questions and issues so the project can continue to progress smoothly.
- Continuous Quality Control: At every step of the project, from scoping through construction, WSC relies on a systematic approach to QA/QC.
- Resource Management: We will proactively manage staff workload to avoid competing priorities.

> *"WSC has consistently delivered high quality engineering documents and services and have been valuable team members to the City of Victorville. Their staff is knowledgeable, courteous, and easy to work with. I recommend WSC to anyone requiring water engineering services."*
>
> Mr. Victor Fajardo, PE, Senior Civil Engineer, City of Victorville

PROJECT UNDERSTANDING AND APPROACH

MEETING SAWCO'S SCHEDULE WITH 7 STANDARD DELIVERY PROJECTS

It is our understanding that SAWCo has 7 different projects that it desires to have under contract for construction no later than December 31, 2020. The projects are as follows:

1. Reservoir 9 Pipeline Replacement
2. Frankish Tunnel Pipeline Repair and Meter Install
3. Cliff Near Euclid Crescent and Cliff
4. Glendale Road between Mountain and Park
5. Linda, North of 24th
6. Primrose, North of 25th
7. Irrigation Pipeline Viewpoint, Canyon View to Campus Avenue

A construction contract date of December 31st or sooner would likely dictate that all bids for the various projects would need to be opened before the end of November with the last available board authorization coming from the December 15 board meeting. WSC and its subconsultants are committed to allocate the necessary resources to meet SAWCo's schedule. We are prepared to work with SAWCo to deliver the 7 projects as listed in the RFP as 7 separate bid packages. Please view the **"Standard 7 Project Fee Schedule"** for a breakdown of the tasks and hours associated with this delivery model.

PROPOSED PROJECT GROUPING ADDS EFFICIENCY AND VALUE

Alternatively, we welcome the opportunity to provide an alternative delivery structure. We are open to working with SAWCo to identify strategies that will drive cost down and shorten the schedule. We believe that delivering ***7 separate design packages and construction contracts within this timeframe could prove to be unnecessarily challenging and costly to SAWCo***. Grouping projects can speed up delivery through design and permitting, while also yielding lower construction costs. Based on available information, WSC recommends a creative alternative that utilizes a single effort for surveying, geotechnical investigations, and environmental work across all 7 projects while grouping design and construction portions of projects based on SAWCo priority and project scope. The table below represents this grouping and the completion time required from the date of the initial Kick-off Meeting:

Project Title	SAWCo Priority	Proposed Grouping	Survey	Geotech	Enviro	Design	Permitting	Bidding	Const.
Reservoir 9 Pipeline Replacement	1	1				16 wks	18 wks	20 wks	35 wks
Frankish Tunnel Pipeline Repair and Meter Install	2	2				25 wks	27 wks	30 wks	35 wks
Cliff Near Euclid Crescent and Cliff	3	3	Combined Effort 8.5 wks	Combined Effort 6 wks	Combined Effort 25 wks	25 wks	28 wks	30 wks	50 wks
Glendale Rd between Mountain and Park	4								
Linda, North of 24th	5								
Primrose, North of 25th	6								
Viewpoint, Canyon View to Campus	7								

WSC is interested in discussing alternative project groupings to maximize efficiency and benefit to SAWCo.

The grouping of projects would result in the 3 projects as shown in the above table and described below. These 3 projects would still adhere to the *Project Scope of Services* as listed in the RFP and its required deliverables, but could be delivered greater efficiency and cost savings. Please view the **"Grouped Projects Fee Schedule"** for a breakdown of the tasks and hours associated with this delivery model.

PROJECT 1: RESERVOIR 9 PIPELINE REPLACEMENT

It is our understanding that **this project is SAWCo's No. 1 priority**, as such we propose to deliver this project package in line with the scope of services as listed in the RFP ahead of the other projects, pushing it to the front of the line for permitting and construction. It is assumed that the project alignment will avoid the U.S. Army Corps property to the West of the Reservoir 9 site and instead will follow W 25th Street and Burt Street, remaining in existing rights-of-way (ROW), SAWCo easements, and SAWCo owned property. **WSC will work with SAWCo to determine the best available alignment for not only construction, but future maintenance efforts.**

PROJECT 2: FRANKISH TUNNEL PIPELINE REPAIR AND METER INSTALL

We recommend separating the Frankish Tunnel Pipeline Project due to the unique scope of the project compared to the other 7 projects. The project is located adjacent Cucamonga Canyon within Southern California Edison Property. It is assumed that SAWCo has existing utility easements for this project. There are two existing meters in the existing vault and, depending on the position of the various valves, the metering of flows is reportedly unreliable. WSC proposes to perform field investigations along with hydraulic analysis of the metering arrangement. This would be followed by a technical memorandum that summarizes our efforts, characterizes the issues, and then establishes the appropriate solution and design criteria for the facility. Once complete and approved by SAWCo staff, a design package would be prepared in line with the scope of services as listed in the RFP.

PROJECT 3: 2020 CIP PIPELINE REPLACEMENT PROJECT

Due to the similar nature of the remaining projects and their position on the priority list we propose to group the following pipeline segments into one project package as **"The 2020 CIP Pipeline Replacement Project."**

- Cliff Near Euclid Crescent and Cliff
- Glendale Road between Mountain and Park
- Linda, North of 24th

- Primrose, North of 25th
- Viewpoint, Canyon View to Campus Avenue

These segments would be designed in parallel and delivered as one project package for permitting, bidding, and construction in line with the scope of services as listed in the RFP. We believe this approach will speed up delivery through design and permitting while also yielding lower construction costs. We recommend structuring the bidding documents where each segment is an Additive Bid Item. This would afford SAWCo the flexibility to award only the segments they choose based on the bids prices received.

SUBCONSULTANTS

WSC and its subconsultants have great working relationships with a history of delivering successful projects together operating as one cohesive team. As noted above, there is great value and efficiency to be received by combining the efforts of our subconsultants for all of the projects. Please view the **"Standard 7 Projects Fee Schedule"** and the **"Grouped Projects Fee Schedule"** for variations in fee based on delivery method.

Land Surveying

WSC's land surveying subconsultant, Hernandez, Kroone & Associates (HKA) will be providing design survey and base mapping services.

Design Survey and Basemapping

- HKA will conduct record map research to identify boundary monuments within the project area. HKA will also perform detailed ground topographic survey after SAWCo has marked out the existing waterline locations. The topographic surveys will be used to prepare project base maps which include the following components: 1-foot contours, street centerline, R/W lines, property lines, easement lines, tree locations (within vicinity of edge of pavement), edge of pavement, walks, curbs, surface evidence of utilities, and other pertinent surface features.
- It is assumed that the Contractors will provide construction staking for the various projects. If desired by SAWCo, we can provide a cost proposal for construction staking services.

Geotechnical Engineering

WSC's geotechnical engineering subconsultant, LOR Geotechnical Group, Inc. (LOR), will be providing geotechnical investigation and compaction testing services.

Geotechnical Investigation

- LOR will review available geotechnical data for the project area and perform 8 exploratory borings at a depth of approximately 10 feet each.
- LOR will prepare a project geotechnical report based on the subsurface exploratory borings, laboratory evaluations, and analysis preformed. The report will also provide recommendations for construction.

Compaction Testing

- LOR will obtain soil samples onsite during the waterline trench excavation operations to conduct laboratory compaction characteristics testing in support of the trench backfill compaction testing, as necessary.
- Provide periodic geotechnical observation and compaction testing of waterline trench backfill, subgrade, and aggregate base prior to placement of asphalt concrete.

- Provide continuous observation and compaction testing on the asphalt concrete materials placed and compacted within the waterline trench street repair areas.
- Onsite sampling and laboratory quality compliance testing of select aggregate base and asphalt concrete construction materials delivered to the project to verify compliance with the project plans and specifications.
- Preparation of written daily reports and timely submission of those reports to the project inspector documenting geotechnical observations, compaction testing results, and results of laboratory materials tests.
- Prepare and submit a compaction and materials testing report at the completion of each project.

Environmental Compliance

WSC's environmental subconsultant, Tom Dodson & Associates (TDA) will provide CEQA compliance assistance for the projects.

- Since SAWCO is not a public agency, the CEQA documentation, including Notice of Exemption, will have to be processed by the City of Upland, San Bernardino County, or the State Water Resources Control Board on SAWCo's behalf. It is assumed that no technical studies will be required.
- If acceptable to SAWCo, we propose to assemble all the pipeline projects into one "action" using a Statutory Exemption assuming the total length of pipeline construction is less than one mile. Based on our estimations the total piping length will be just under one mile at approximately 5,250 lineal feet. Otherwise CEQA compliance can be delivered in separate actions.

DDW Water Main Separation Waivers

- Waterworks Standards in the California Code of Regulations (CCR) Title 22, Chapter 16, Section 64572 for new construction describe the horizontal and vertical separation criteria requirements for water mains. All proposed potable water mains which do not meet the separation criteria must receive clearance from the State Water Resources Control Board Division of Drinking Water (DDW). It is likely that DDW waivers will be required for some of the projects and segments.
- WSC will prepare waiver application packages for the various projects, as required, which demonstrate to DDW that the proposed alignment provides at least the same level of protection to public health as the standard separation requirements.
- It is assumed that it will be necessary for one waiver package will be prepared for each pipeline project.

CONSTRUCTION PHASE SUPPORT

- WSC is in a unique position to provide SAWCo with rapid service due to our close proximity to SAWCo and these projects. WSC's Rancho Cucamonga Office is 5 miles from SAWCo's Office and 9 miles or less from all project sites. In addition, our proposed Project Manager, Chris Deiter, and many of the support staff for these projects live in the immediate vicinity of SAWCo.
- WSC believes that the appropriate field oversite for projects of this variety and scope requires part time inspection. WSC's inspectors estimate and assume that inspection of up to 20 hours per week is appropriate for the construction duration for each contract.

PAST PROJECTS

WSC'S EXPERIENCE DELIVERING SIMILAR PROJECTS DRIVES EFFECTIVE PROJECT DELIVERY

WSC is a full-service water system engineering firm that has an experienced team and with extensive experience designing and supporting the construction of water mains and associated structures. WSC has provided similar design and construction support services to water districts and public utilities in the Inland Empire since 2007.

Through our local, relevant work, we understand how to carefully schedule and execute the delivery of projects that meet your schedule and budgetary requirements. WSC is also providing engineering services to SAWCo for its Water System Master Plan and GIS Database Update which will enable our team to maximize each interaction with its staff and reduce the burden of data requests required to complete the 7 projects identified in the RFP.

This direct experience working with SAWCo, and on projects of similar scope, gives us confidence in our ability to provide excellent value and quality design and project management services for the capital facility projects.

Effective Planning Leads to Efficient Project Delivery

We have found that packaging pipeline segments together can save our clients money by streamlining the work effort for redundant tasks and improving contractor response to bids, which results in lower construction costs and reduces the chance of the need to re-bid.

Expedited Schedule to Get the Projects to Bidding Quickly

We know that understanding and addressing schedule risks early in a project reduces the chance of project delays. WSC will proactively identify the permits needed, and evaluate alignments that have fewer constraints, to facilitate smooth project delivery.

Familiarity with SAWCo leads to insightful solutions

Our Project Team will have access to the data and insight of our separate Water Master Plan Team. We will be able to collaborate internally to reduce impact on SAWCo staff time while keeping the GIS Project and the Master Plan Project moving expediently.

> *WSC has worked seamlessly as an extension of our staff to assist us in the predesign, permitting, final design and construction administration of many of our water infrastructure replacement projects. Their involvement has improved our ability to stay on scope and on budget while meeting the ever-increasing number of stakeholder concerns."*
>
> Mr. Richard Svindland, PE, California American Water

Design and PM Services for Capital Projects
San Antonio Water Company

WSC
WATER SYSTEMS CONSULTING, INC.

REPRESENTATIVE PROJECTS THAT ALIGN WITH YOUR GOALS

Water System Improvement Projects
Big Bear Lake Department of Water and Power, Big Bear Lake, CA

Since 2009, WSC has helped BBLDWP implement nearly $33 million in capital improvement projects, including:

2018 USDA Pipeline Replacement Project

WSC is providing design and project management services for more than 12 miles of pipelines funded through a U.S. Department of Agriculture Rural Development Loan/Grant Program. WSC recommended packaging the pipeline segments into three phases to deliver the program within BBLDWP's annual budget and expedite getting projects out to bid to meet tight construction windows. The three phases include:

Phase 1 – 14 separate segments totaling 8,700 LF of piping delivered in one construction package. Designed winter 2018 and constructed summer 2019.

Phase 2 – 20 separate segments totaling 15,900 LF of piping delivered in three construction packages. Designed winter 2019 and beginning construction summer of 2020.

Phase 3 – Nine separate segments totaling 13,900 LF of piping. Currently under design and will be constructed summer of 2021.

Phase 4 – Project scope will be based on remaining funding from USDA Grant. Design to occur in winter 2021 and construction in summer 2022.

2013 Water System Improvement Projects

The projects include the design 17,500 LF of transmission main, of a booster pump station, a 1 MG welded steel potable water reservoir, an access road, and two wells.

2010 Water System Improvement Projects

WSC provided construction management or administration services for more than 36,000 LF of pipeline, the drilling of two wells, and equipping of five wells.

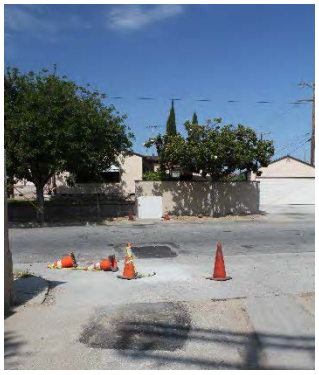
As-Needed Services

WSC also provided BBLDWP with grant and loan support to receive and administer funding from multiple agencies. WSC assisted with acquiring more than $30 million in grants and low interest loans, including securing $15 million in low interest loans from the 2018 USDA Pipeline Replacement Project.

Contact: Mr. Reginald Lamson, PE, PLS | General Manager | (909) 866-5050, ext. 201

Key Staff: Chris Deiter (Project Manager), Kirsten Plonka (USDA Funding PER), Josh Reynolds (Technical Advisor), Troy Arashiro (Staff Engineer), Patricia Olivas (Engineering Support), Aaron Morland (Engineering Support), Christopher Durbin (Design/Drafting)

Pipeline Replacement Projects
Liberty Utilities Park Water, Compton, CA



WSC designed four pipeline replacement projects for Liberty which include approximately 17,450 LF of 8-inch and 12,165 LF of 12-inch new water lines. The projects included replacing aging, leaking, and difficult to access pipelines in inaccessible backyard easements with new pipelines in the street right-of-way. WSC designed the pipe alignments to avoid private property easements for ease of construction and to reduce public impact. WSC coordinated with the City to determine the design plans format to remove profile views and reduce the scale when possible to reduce the overall sheet totals.

Contact: Mr. Rick Dalton, PE | Director of Engineering | (562) 299-5135

Key Staff: Josh Reynolds (Principal in Charge/Technical Advisor)

Andreas Pipeline Analysis and Design Project
Agua Caliente Band of Cahuilla Indians, Palm Springs, CA

WSC investigated the Andreas Pipeline System which diverts runoff flows from Andreas Creek to nearby agricultural users. The system was experiencing overflow and capacity restrictions below design criteria. WSC was responsible for the investigation and analysis work which ultimately determined the cause of the system deficiencies. WSC also was responsible for formulating the recommended solutions and co-authored the technical memorandum summarizing the investigation, analysis, and recommendation efforts.

Contact: Mr. Dan Malcolm, AICP | Planning Manager | (760) 883-1945

Key Staff: Josh Reynolds (Principal in Charge/Technical Advisor), Chris Deiter (Project Manager)

Additional Relevant Projects from WSC Team Members

Client	Project	Key Staff	Project Elements
San Antonio Water Company	Holly Drive Reservoir Improvements	Chris Deiter	Design for 120,000 gallon welded steel hater tank, retaining wall, site improvements
San Antonio Water Company	Holly Drive Booster Station Improvements	Chris Deiter	Hydraulic design of pump cans and mechanical design of station piping
San Antonio Water Company	Cucamonga Cross Walls Project	Chris Deiter	Permitting and coordination assistance with regulatory agencies, stakeholders, and subconsultants
Big Bear City Community Services District	Peter Pan Area and Sheridan Drive Water Main Replacements	Josh Reynolds	Design and ESDC for 10,000 LF of 8-inch PVC water main
City of Paso Robles	Airport Area Utilities Extension	Josh Reynolds, Aaron Morland, Chris Durbin	Design and ESDC for 7,650 LF of 16-inch ductile iron and 12-inch PVC water main
Liberty Utilities – Apple Valley	Rincon and Mandan Water Main Replacement	Josh Reynolds	Design and ESDC for 4,000 LF of 20-inch ductile iron water main

APPENDIX A
RESUMES

Christopher Deiter, PE

Education
BS, Civil Engineering, California State Polytechnic University, Pomona, CA

Professional Registrations
Professional Engineer - Civil, California, No. 80618

Professional Affiliations
American Society of Civil Engineers, Member

Inland Counties Water Association, Member

American Water Works Association, Member

WateReuse, Member

Professional Experience

Mr. Deiter has 12 years of experience in civil engineering specializing in water and recycled water systems and has 5 years of construction experience for various water pipeline design and construction projects throughout the Southern California area. Mr. Deiter's experience allows him to proficiently identify and analyze initial project concepts, analyze solutions, prepare construction documents, and provide construction support activities to clients.

Representative Projects

Water System Improvement Projects, Big Bear Lake Department of Water and Power, Big Bear, CA. Project Manager. Providing design and project management services for more than 12 miles of pipelines funded through a U.S. Department of Agriculture Rural Development Loan/Grant Program. Recommended packaging the pipeline segments into three phases to deliver the program within BBLDWP's annual budget and expedite getting projects out to bid to meet tight construction windows

Andreas Pipeline Review and Analysis, Agua Caliente Band of Cahuilla Indians, Palm Springs, CA. This project was an investigation of the Andreas Pipeline System, which is diverts runoff flows from Andreas Creek to nearby agricultural users. The system was experiencing overflow and capacity restrictions below design criteria.

Holly Drive Reservoir Improvements, San Antonio Water Company, Upland, CA. Project Manager. Design for 120,000 gallon Welded Steel Water Tank along with 20 ft retaining wall and site improvements.

Holly Drive Booster Station Improvements, San Antonio Water Company, Upland, CA. Project Manager. Hydraulic design of pump cans and mechanical design of station piping.

Cucamonga Cross Walls Project, San Antonio Water Company, Upland, CA. Project Manager. Permitting and coordination assistance with regulatory agencies, stakeholders, and subconsultants.

Watson Road/Juniper Flats Road Waterline, Eastern Municipal Water District, Menifee, CA. Project consisted of approximately 6,500 linear feet of 24" and 4,500 linear feet of 18" CML&C steel waterline. Mr. Deiter was responsible for utility research, alignment design, connection detail design, piping thickness calculations and drawing production utilizing three-dimensional design capabilities and AutoCAD Civil 3D.

Waterline Replacement Project Kenneth Street, Hastings Boulevard, Foxtail Lane and Water Services Replacement within portions of Indian Hills Area, Jurupa Community Services District, City of Jurupa Valley, CA. Project involved 5,900 linear feet of 8" CML&C steel waterline replacement along with 150 water service replacements. Responsible for the waterline design and plan production utilizing three dimensional design capabilities and AutoCAD Civil 3D. Additionally, during construction was responsible for submittal review and approval, and coordination with inspectors.

Waterline Replacement Program – Phase I & Phase II, Box Springs Mutual Water Company, City of Moreno Valley, CA. Prepared design plans for 2,500 feet of 10-inch pipeline and 1,300 feet of 8-inch pipeline. The new pipeline was located within the street right-of-way and replaced existing aging water mains.

Kirsten L. Plonka, PE

Education
BS, Civil Engineering, California Polytechnic State University, San Luis Obispo

MS, Management, Colorado State University, Global Campus (in-process)

MS, Organizational Leadership, Colorado State University, Global Campus (in-process)

Professional Registrations
Professional Engineer – Civil, California, No. C70746

Professional Affiliations / Certifications
American Society of Engineers

American Public Works Association

Engineers Without Borders (former Southern California State Representative)

Potable Reuse Advisory Committee, San Diego County Water Authority

Advanced Water & Wastewater Modeling Certified by Innovyze & Bently

Publications

"Health Effects Study on Potable Water Reuse", A&WMA

Industry Recognition

2013 Outstanding Water Project of the Year from Region 9 ASCE, Award of merit for San Diego Section ASCE for Pala Mesa Tank

Professional Experience

Ms. Plonka brings more than 15 years of experience in the planning, design, and management of water, wastewater and recycled water systems. She specializes in project management, hydraulic modeling, feasibility studies, infrastructure and water resource planning studies, and master planning, including Capital Improvement Plans and budgeting. She is well versed in funding alternatives, regulatory compliance, and public policy development. Her experience includes database development and integration of geographic information systems (GIS) with hydraulic models, recycled water customer databases, and asset databases. She also has experience managing public engineering departments, as well as headed up wastewater collections. Her extensive experience in the public sector allows her to approach projects from an owner's perspective and plan and design projects that are implementable and user-friendly.

Representative Projects

System Mapping and GIS Database, San Antonio Water Company, Upland, CA. Principal in Charge/Technical Advisor. Led the creation of a GIS system mapping project. Analyzed and summarized information in the form of CAD drawings, system index maps, meter data, and billing information. Researched requirements and potential applications to use for implementing a mobile mapping system and compiled information in a technical memorandum.

Water System Master Plan Update, San Antonio Water Company, Upland, CA. Project Manager. Recently selected to lead an update of SAWCo's Water System Master Plan.

On Call As-Needed Services, San Lorenzo Valley Municipal Water District, Boulder Creek, CA. Extension-of-Staff Project Manager. Providing as-needed engineering services to the District. Work in the District office weekly to lead multiple projects. As the Owner's Project Manager, writes RFP's, helps with consultant selections, reviews plans and specs, facilitates environmental compliance, provides construction management services, administers contracts, develops schedules and budgets, coordinates with operations, facilitates public meetings such as community workshops and gives regular updates to the General Manager as well as presentations to the Board of Directors. In this role, Ms. Plonka has managed:

- Bear Creek Estates Wastewater Treatment Facility Rehabilitation
- Bear Creek Road Water Pipeline
- Highway 9 Viaduct Water Pipeline
- Glen Arbor Bridge Hanging Water Pipeline
- Trout Farm Inn Fire Service
- Lompico Pressure Reducing Valves Replacement Project
- Lyon Tank Road Landslide Repair Project

2018 USDA Pipeline Replacement Projects, Big Bear Lake Department of Water and Power, Big Bear City, CA. Funding Support. Successfully secured $3 million in grant funding and $12 million as a low-interest loan to replace important water infrastructure. Some of the city's existing steel pipelines were nearly 70 years old and leaking frequently, resulting in wasted water and increased energy consumption costs. Wrote Preliminary Engineering Report, outlined projects, created cost estimates, coordinated with USDA to meet all local and national requirements.

Joshua H. Reynolds, MS, PE

Education
MS, Civil and Environmental Engineering, California Polytechnic University, San Luis Obispo, CA

BS, Civil Engineering, California Polytechnic University, San Luis Obispo, CA

Professional Registrations
Professional Engineer - Civil, California, No. C65400

Professional Engineer – Civil, Oregon, No. 92927

Professional Engineer – Civil, Washington, No. 57917

Professional Affiliations
American Society of Civil Engineers, Member

Professional Experience

Mr. Reynolds has 20 years of experience in pipeline design, hydraulic analysis, construction administration, city engineering. His experience allows him to identify and analyze initial project concepts, prepare construction documents, and monitor construction of the project through project completion.

Representative Projects

2013 Water System Improvement Projects, City of Big Bear Lake Department of Water and Power, Big Bear Lake, CA. Senior Project Engineer. Prepared design plans and specifications for the Angel's Camp Reservoir, a 1.0 MG welded steel potable water reservoir with a 1,500 LF paved access road and 2,750 LF of 12-inch transmission main. Prepared design plans for the Arrastre Creek Well Pumping Plant, which includes the pump station, a CMU building and site improvements. The well was drilled concurrently under separate contract and the production capacity is to be 200 gpm. The project includes 5,600 LF of 8-inch transmission main. The project also included a Preliminary Engineering Report to accompany BBLDWP's application to USDA Rural Development to request $4.157 Million in grant and loan funding.

Pipeline Replacement Projects, Liberty Utilities – Park Water, Compton, CA. Principal in Charge. Designed four pipeline replacement projects for Liberty which include approximately 17,450 LF of 8-inch and 12,165 LF of 12-inch new water lines. The projects included replacing aging, leaking, and difficult to access pipelines in inaccessible backyard easements with new pipelines in the street right-of-way.

2010 Water System Improvements Program, City of Big Bear Lake Department of Water and Power, Big Bear Lake, CA. Resident Engineer. Managed the construction of 6,700 LF of 8 to10-inch PVC pipeline, drilling of two new municipal supply wells, and equipping of two new municipal supply wells. The projects are organized into three separate construction contracts that proceeded simulaneously. Oversaw the efforts of two prime contractors and three design engineers in delivering this program.

Final Design of Airport Utilities Extensions, City of Paso Robles, Paso Robles, CA. Project Manager. Worked on final designs for the expansion of potable water and recycled water services in the area around the Paso Robles Airport. Worked on the design of approximately, 7,650 LF of 16-inch ductile iron and 12-inch PVC C900 water main and 4,800 LF of 16-inch ductile iron recycled water main.

Park Water Company, Amantha Waterline Replacement, Compton, CA.Senior Project Engineer. Prepared design plans for 5,600 LF 8-inch pipeline and 2,520 LF 12-inch pipeline. The new pipelines were located in street right-of-way and will replace nearly 5,000 LF of existing water mains that are aging, leaking, and difficult to access due to their location in inaccessible backyard easements.

Northwood Waterline Replacement, Park Water Company, Compton, CA.Senior Project Engineer. Prepared design plans for 4,200 LF 12-inch pipeline and 7,600 LF 8-inch pipeline. The new pipelines will be located in street right-of-way and will replace nearly 11,000 LF of existing water mains that are aging, leaking, and difficult to access due to their location in inaccessible backyard easements.

Troy Arashiro, MS, EIT

Education
MS, Environmental Engineering, Stanford University

BS, Chemical Engineering, University of California, Los Angeles

Professional Registrations
Engineer in Training, California, No. 163605

Professional Experience

Mr. Arashiro is an Engineer-in-Training with experience in pipeline design, water resources planning, groundwater quality determination, and grant applications. He has technical experience with geographical information systems (GIS) applications, treatment process modeling, and data management.

Representative Projects

2018 USDA Pipeline Replacement Project – Phase 2, City of Big Bear Lake Department of Water and Power, Big Bear City, CA. Assistant Engineer. Performed Preliminary Engineering and Design for 1.08 miles of pipeline in Boulder Bay. Identified connection points and waiver sections for DDW. Created a detailed abandonment plan that dictated how services on private lots would be reconnected.

Chino Basin Program Preliminary Design Report, Inland Empire Utilities Agency, Chino Basin, CA. Assistant Engineer. Reviewing literature and creating conceptual mass balance models for a multi-agency effort to manage water resources and provide drought resiliency. Analyzed the Inland Empire Utilities Agency's Recycled Water availability and recharge capacity of different recharge basins. Prepared Technical Memorandum summarizing concept alternatives and the assumptions used.

Project Management and Process Operations Support, Camarillo Sanitary District, Camarillo, CA. Assistant Engineer. Recorded data on surging issues in the chlorination tank at the Camarillo WWTP during a site visit. Analyzed sludge hauling options for the digester cleaning projects and performed dewatering calculations. Obtained proposals for sludge hauling and sludge dewatering equipment.

Replenish Big Bear, Big Bear Area Regional Wastewater Agency, Big Bear, CA. Assistant Engineer. Evaluating and assisting in the design of recycled water treatment systems in order to create a new sustainable water resource to augment the potable water supply in Bear Valley. Tasks involved vendor outreach, treatment process screening, cost estimation, literature research, wastewater characterization, and alternatives development. Additional tasks included performing various regulatory environmental and impact analyses, the USBR Title XVI Water Reclamation and Reuse Grant application, and the Prop 1 DCI Grant Application.

Recomputation of Ambient Water Quality for the Period 1999 to 2018, Basin Monitoring Program Task Force, Santa Ana Watershed Project Authority, Santa Ana River Watershed, CA. Assistant Engineer. Performing data management, the development of point statistics for nitrate and TDS, the preparation of groundwater quality and elevation contours, and computation of volume-weighted ambient concentrations for the Santa Ana River Basin. Preparation of representative maps and a final report to be delivered to SAWPA. The Water Quality Control Plan (Basin Plan) for the Basin requires the implementation of a watershed-wide total dissolved solids (TDS) and nitrogen groundwater monitoring program to determine ambient water quality in groundwater, assess compliance with groundwater quality objectives, and determine if assimilative capacity exists in groundwater management zones.

Patricia Olivas, EIT

Education
BS, Civil Engineering, California Polytechnic State University, Pomona, CA

Professional Registrations
Engineer-in-Training - Civil, California,
No. 167815

Professional Experience

Ms. Olivas is an Engineer-in-Training with civil engineering experience focused on water and hydraulic analysis, distribution system design, and construction management support. Her academic projects focused on water and wastewater treatment systems.

Representative Projects

System Mapping and GIS Database, San Antonio Water Company, Upland, CA. Engineering Intern. Assisted in the creation of a GIS system mapping project. Analyzed and summarized information provided by the client in the form of CAD drawings, system index maps, meter data, and billing information. Researched requirements and potential applications to use for implementing a mobile mapping system and compiled information in a technical memorandum.

2018 USDA Pipeline Replacement Project – Phase II, City of Big Bear Lake Department of Water and Power, Big Bear Lake, CA. Assistant Engineer. Assisted in the preliminary design for approximately 22,000 feet of pipeline replacements. Drafted preliminary alignments based on atlas maps and certified CAD drawings by verifying with utility research. Proposed pipe alignments based on utility research. Comprised separation variance waivers for the Department of Drinking Water and created supporting exhibits.

2018 USDA Pipeline Replacement Project – Phase I, City of Big Bear Lake Department of Water and Power, Big Bear City, CA. Engineering Intern. Comprised separation variance waivers for the Department of Drinking Water and created supporting exhibits. Aided in construction management through various tasks, such as composed conformed documents and reviewed contractor submittals and change orders.

On-Call Water Engineering Services, City of Victorville, Victorville, CA. Engineering Intern. Develops water demand estimates based on land use, water demand factors, and/or assumptions stated in the City's current Water Master Plan. Utilizes the existing hydraulic model to perform hydraulic analysis for proposed developments, including storage and fire flow analysis, and sizing and location of distribution pipelines. Creates water feasibility reports and various maps using hydraulic model results.

As-Needed Hydraulic Modeling, Otay Water District, Spring Valley, CA. Assistant Engineer. Utilizes existing hydraulic model to perform potable water system modeling services. Hydraulic model is used to determine the available supply for fire-flow demands and verify pressure. Created exhibits to depict calculated pressure results.

Greenspot Reservoir Retrofit, Big Bear City Community Services District, Big Bear, CA. Engineering Intern. Assisted in the bid process and construction management of a tank rehabilitation project. Drafted bid and conformed documents, notice of award, and other general construction management support including coordination between client, designer, and contractor.

2019 Trunk Line Capacity Analysis, Big Bear Area Regional Wastewater Agency, Big Bear, CA. Engineering Intern. Updated existing hydraulic model and utilized model to stimulate flow conditions from past storm events. Drafted a Technical Memorandum that summarize analysis, hydraulic profiles, and recommendations to the client.

Aaron Morland, EIT

Education
BS, Environmental Engineering, California Polytechnic University, San Luis Obispo, CA

Professional Registrations
Engineer-in-Training - Environmental, California, No. 166372

Professional Experience

Aaron Morland is an Engineer-in-Training with civil and environmental engineering experience in pipeline and water distribution system planning and design, hydraulic analysis, collection system design, sewer system management, indirect potable reuse, and funding support. His academic projects focused on wastewater treatment systems and potable and non-potable reuse technologies.

Representative Projects

2018 USDA Pipeline Replacement Project Phase IIC, Big Bear Lake Department of Water and Power, Big Bear Lake, CA. Staff Engineer. Prepared plan and profile design drawings for the installation of 6,000 feet of 8-inch water pipeline in street right-of-way and a 6-inch pressure reducing valve station to replace aging, leaking, and undersized infrastructure. Design included unavoidable instances of crossing under storm drains, a sewer, and multiple occurrences of parallel pipe construction within ten (10) feet of a sewer. Completed DDW waivers for exceptions to DDW minimum spacing requirements from existing utilities.

Airport Area Infrastructure Improvements, City of Paso Robles, Paso Robles, CA. Assistant Engineer. Assisted in the design of 7,500 feet of 12-inch and 16-inch water distribution piping, 5,100 feet of 16-inch recycled water distribution piping, 3,400 feet of 6-inch sewer force main, and 8,200 feet of 8-inch to 12-inch sewer main to support future growth around the Paso Robles Airport. Designed segments of gravity sewer, developed cost opinions for sewer and water main replacements, discovered and minimized utilities conflicts, and located existing sewer laterals and water services for plan sets.

2018 USDA Preliminary Engineering Report, Big Bear Lake Department of Water and Power, City of Big Bear Lake, CA. Staff Engineer. Secured $15 Million in grant and low-interest loan funding through the USDA Water and Waste Disposal Loan and Grant Program for a 13-mile city-wide water distribution piping upgrade project. Lead author for the preliminary engineering report (PER) that provided the background, justification, cost opinions, and implementation schedule for the projects. Coordinated with City staff, USDA representatives, and environmental consultants to deliver the PER and submit the funding application within seven (7) weeks from the project Kick-Off Meeting.

Chino Basin Program Preliminary Design Report, Inland Empire Utilities Agency, Ontario, CA. Staff Engineer. Preparing conceptual designs of eight (8) TAKE alternatives for delivering stored groundwater (from advanced-treated recycled water) to the Metropolitan Water District of Southern California (MWD) Rialto Pipeline and seven (7) retail agencies over the Chino Basin to reduce regional demand on imported water. Performed a seasonal demand analysis on each water treatment plant overlying the Chino Basin to determine how much indirect potable reuse water could be used in-lieu of imported water from the MWD Rialto Pipeline. TAKE alternatives include between eight (8) and 17 ea. 2000 GPM extraction wells, up to 28.5 miles of pipelines ranging from 12-inch to 54-inch in diameter, two (2) pump stations, a 5 MG reservoir, and multiple freeway and railroad crossings requiring jack and bore construction.

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Christopher J. Durbin

Education
Palomar Community College,
San Marcos, CA

Professional Experience

Mr. Durbin is a Civil Designer with over 10 years of experience as a civil designer and CADD drafter. With the use of Autodesk Civil 3D software, he managed the plan preparation of numerous water, sewer, reclaimed water, and treatment plant projects. Included in these projects are pipeline plans and profiles, pump stations, tank sites, and associated civil and mechanical details.

Representative Projects

Bear Valley Road Waterline, San Lorenzo Valley Water District, Boulder Creek, CA

Highway 9 Vaiduct, San Lorenzo Valley Water District, Boulder Creek, CA

Water Systems Improvement Projects, Big Bear Lake Department of Water and Power, Big Bear Lake, CA

Airport Area Utilities Extension Projects, City of Paso Robles, Paso Robles, CA

Conejo Creek Waterline Replacement, City of Thousand Oaks, CA

Dana Point Town Center Infrastructure Improvements, South Coast Water District, Dana Point, California

Main West Tank and Site Piping Project, City of Paso Robles, CA

Water Valve Replacement Project, San Dieguito Water District, Encinitas, California

Coastal Treatment Plant Export Sludge Forcemain, South Orange County Water District, Dana Point, California

Fiscal Year 2012–2013 Sewer Lining and Repair, City of South Pasadena, California

Recycled Water Conversion Projects, City of San Juan Capistrano, California

6-19 Southwest Costa Mesa Trunk Sewer, Orange County Sanitation District, Costa Mesa, California

Spring Valley Outfall Sewer, County of San Diego, California

La Serranos and La Hermosa Sewer Rehabilitation, Moulton Niguel Water District, Laguna Niguel, California

Trunk D Sewer Replacement, County of San Diego, California

Oak Knoll Sewer Siphon Structure Project, City of Poway, California

Inland Empire Brineline Reach V Rehabilitation and Improvement Project, Santa Ana Watershed Project Authority, City of Corona to City of Lake Elsinore, California

Oro Grande Pipeline, Victor Valley Wastewater Reclamation Authority, Victor Valley, California

Ossum Wash Interceptor, Victor Valley Wastewater Reclamation Authority, Victor Valley, California

84-inch Plant No. 2 Primary Influent Line, Orange County Sanitation District, Huntington Beach, California

RICHARD R. HERNANDEZ, PE, PLS
Principal-in-Charge / Survey Manager

PROFESSIONAL CERTIFICATIONS	EDUCATION
CA Civil Engineer - 42246 CA Land Surveyor - 5786 CA General Engineering Contractor - 478154 CA Qualified SWPPP Developer / Practitioner - 24111	California State Polytechnic University, Pomona, CA - B.S., Engineering Technology California State Polytechnic University, Pomona, CA - Extension Courses CA Land Surveyors Association - Boundary Law (2016) Westech College - Bentley InRoads (2004) Westech College - Civil Design 3D (2007) University of California, Riverside, CA - GPS Project Management Certification - MWD (2008)

41 Years of Experience – 33 Years of Experience with HKA (Since 1987)

KEY STRENGTHS FOR YOUR PROJECTS

- Years of local experience working with agencies who EVWD supplies water to
- Licensure as a Civil Engineer, Land Surveyor, and Contractor to give perspective on every facet of a project
- Experience obtaining permits and plan approval from Caltrans
- Already In-Place Survey, Topographic, and Record Research for a variety of regions in the City and County of San Bernardino
- Utility Location Mapping for Various Local Clients
- Survey and Right of Way Expert who can identify ROW or topographic limitations for design proactively
- Provides staff latest software and equipment as well as training and QC/QA

RELEVANT PROJECT EXPERIENCE

Right-of-Way Engineering and Mapping Services for the California High-Speed Rail, HSR: 13-65, Construction Packages 1-4 (Central Valley Area, CA)

Mr. Hernandez currently serves as Project Manager on Construction Packages 1, 2-3, 4 and two miles in Merced County. He has services on a Task Order basis, in the areas of Right-of-Way engineering and mapping. Mr. Hernandez has managed a staff at HKA for the research, field work, monument setting, and appraisal mapping of over 50 miles of track and improvements for the High-Speed Rail project in the Central Valley. Project includes easements for utility relocation.

As project manager, he has managed the filing of two Records of Survey in Tulare County, two in Kern County, one in the Fresno County, one in Merced County and three in Kings County that were prepared by previous surveying consultants. He also identified the Underlying Fee in Old Kings River, Dutch John Slough, and Cole Slough ownership.

JOHN HERNANDEZ, PE, PLS
Project Manager / Project Surveyor

PROFESSIONAL CERTIFICATIONS	EDUCATION
CA Civil Engineer - 88757 CA Land Surveyor - 9524 CA Qualified SWPPP Developer / Practitioner – 26652 FAA - 4086187	California State Polytechnic University, Pomona, CA - B.S., Civil Engineering (2014) CLSA Railroads (2015) CLSA Boundary Law (2016) CLSA OPUS Projects (2015) CLSA ALTA Surveys (2016) CLSA GPS & Geodesy (2015) Contractor Orientation BNSF & Union Pacific Certified

13 Years of Experience – 10 Years of Experience with HKA (Since 2010)

KEY STRENGTHS FOR YOUR PROJECTS

- Versatility as a licensed civil engineer and land surveyor
- Experience working on every aspect of transportation improvement projects
- Local experience with agencies EVWD supplies water to
- Up to date on all of the latest software and technology available to surveyors and civil engineers
- Vast experience on various street improvement projects
- Trains staff and provides manuals on civil design, drafting, and surveying procedures.
- Environmental and inspection experience to supplement design considerations.

RELEVANT PROJECT EXPERIENCE

Mt. Vernon Viaduct Bridge Design / Build Project (San Bernardino, CA)

HKA is a subconsultant to the Traylor / Granite team responsible for developing geometric alignments, hydrology studies, **surveying and right of way requirements**, drainage design, street improvements, traffic signals and lighting, and traffic management plans. As Project Manager, Mr. Hernandez lead the development of 35% plan level effort for the purposes of developing alternative design concepts, reduction of mass grading and bridge profiles, minimization of the project's impacts to adjacent street intersections, and preparation of both the design and construction costs for project completion. In addition, **Mr. Hernandez had to verify that all work would be completed in the allotted right of way and identify any areas that are outside of the right of way for determination of acquisition**. The Traylor / Granite team was selected by San Bernardino County Transportation Authority to proceed forward with the design / construction of the project. This selection was based on a team effort which included HKA's concepts on how to minimize the bridge impacts, reduce project costs, and while adding additional incentives and value to the project. HKA will be providing full PS&E services in the year 2020 – 2024 for this project.

California High-Speed Rail Right-of-Way Engineering and Mapping Services, Construction Packages 1-4 Through Central Valley (Central Valley Area, CA)

JOSEPH FIGUEROA, PLS
Project Surveyor

PROFESSIONAL CERTIFICATIONS	EDUCATION
CA Professional Land Surveyor – 9288	ITT Technical Institute - AA / CADD (2001) Santiago Canyon Community College - Principals of Land Surveying (2005-2008) University of Riverside, Riverside, CA - Principals of GPS Technology Extension (2003) Westech College - Civil Design 3D Westech College - MicroStation CA Land Surveyors Association - Railroads (2015) / Boundary Law (2016) OSHA 10-Hour Training for Roadway Construction

18Years of Experience – 18 Years of Experience with HKA (Since 2002)

KEY STRENGTHS FOR YOUR PROJECTS

- Strong experience performing design surveys, topographic surveys, and locating utilities
- Strong experience in property and rights determination and determining right of way
- Can provide property surveys as well as design surveys
- Productive team member both in the field and in the office
- Trained and proficient on the latest survey equipment, post-processing survey software, and CADD software

RELEVANT PROJECT EXPERIENCE

San Bernardino International Airport Authority (SBIAA) and the Inland Valley Development Agency (IVDA) – Gate 1 Access Road, Primary Truck Access (San Bernardino, CA)

Mr. Figueroa served as Party Chief for this contract in which HKA was tasked with the civil engineering for street improvements, 3 new access connections with Tippecanoe Avenue, traffic signal modification, street lighting, utility coordination, drainage improvements, and ADA path of travel. This project was for the rapid delivery of 4,800 feet of new concrete and asphalt pavement roadway and was completed in 3 months. Mr. Figueroa established survey control and determined right of way ownership along the Tippecanoe Avenue confirming the property lines of the project site. He identified the locations of active utilities and abandoned utilities left in place. The Trimble GNSS receivers, the Trimble DiNi Digital Level, and the Trimble SX10 Scanner were all used for surveying shots of utilities, placement of ADA ramps, identifying flowlines and top of curb.

California High-Speed Rail, HSR:13-65, Right-of-Way Engineering and Mapping Services, Construction Packages 1-4 Through Central Valley (Central Valley Area, CA)

RESUMES

John P. Leuer, President: CE, GE
jleuer@lorgeo.com
CE-34996, GE-2030

John Leuer will be the project manager. Mr. Leuer will be the principal in charge of assessing the project goals and establishing and implementing the procedures to obtain these goals.

Mr. Leuer has over 35 years of professional experience in the geotechnical and civil engineering field. In this time, Mr. Leuer has developed an extensive knowledge of the many geotechnical considerations involved in construction in the southern California area. Mr. Leuer is highly experienced in all aspects of soil and foundation engineering for a wide variety of projects ranging from multi-story commercial and industrial structures to several thousand acre planned community developments. Mr. Leuer has substantial experience coordinating projects for many City, County, and State agencies as well as in the public sector, gaining a reputation for being responsive to clients needs while providing strong technical expertise.

Mr. Leuer holds a B.S. in Civil Engineering from Cal State University at Northridge. He is a registered Geotechnical and Civil Engineer in the State of California. Mr. Leuer is a member of the American Society of Civil Engineers, Building Industry of Southern California (BIASC), and the National Groundwater Association. Mr. Leuer believes in continuing education and completed a nine-month soils engineering course at the California State Polytechnical University in Pomona. In addition, Mr. Leuer has instructed evening Soils Technology courses at Riverside Community College for Inspection Certifications.

Robert M. Markoff, PG, CEG
rmarkoff@lorgeo.com
PG-6575, CEG-2073

Robb Markoff is LOR Geotechnical Group's Registered Geologist and will provide the field and office support required to oversee the project and observe the geologic conditions from start to finish. Mr. Markoff will personally be onsite during the site drilling and sampling operations.

Robert Markoff has over 30 years of experience as an Engineering Geologist. Mr. Markoff has experience in all aspects of geotechnical, engineering geologic investigations, and in management of residential, commercial, and industrial, as well as Public Works projects. Geotechnical investigation work has included geophysical surveys (seismic refraction and radar methods), slope investigation, liquefaction analysis, groundwater evaluation, as well as fault investigations.

He has proposed on, planned, supervised, and conducted geotechnical projects including hillside investigations, flatland explorations, and earthwork monitoring projects in Riverside, San Bernardino, Orange, Los Angeles, Ventura, and San Diego Counties.

Mr. Markoff is a registered Geologist and Professional Engineering Geologist in the State of California. He holds a B.S. degree in Geology from the University of California at Riverside.

Mark A. Switzer, Laboratory Manager, Field Technician: ACI, ICC, Caltrans
mswitzer@lorgeo.com

Mark Switzer is LOR's laboratory manager and will conduct all laboratory testing requested. Mark Switzer is also available for backup as a soils technician as needed.

Mr. Switzer has been working in our geotechnical laboratory and in the field since 2001. He has knowledge and experience in the laboratory performing a wide range of materials testing, including soils, asphalt concrete, epoxy grout, and concrete for both ASTM and Caltrans standards and specifications. In addition, he has performed materials testing for City, County, and State agencies for Quality Control/Quality Assurance projects.

Mr. Switzer oversees all work performed by personnel in the laboratory, including finalizing and reporting laboratory data. He also has experience in the field with Sand Cone and Nuclear Gauge Testing methods, measuring cut and fill, basic trench compaction, bolt tensioning, and sampling materials in the field. Mr. Switzer is an American Concrete Institute (ACI) Grade 1 Technician and holds certifications in the following Caltrans Test Methods: 105, 125, 201, 202, 211, 216, 217, 226, 227, 229, 231, 301, 304, 305, 307, 308, 309, 366, 375, 382, 504, 518, 521, 523, 533, 539, 540, 556, 557. Mr. Switzer is also currently International Code Council Certified for soils Special Inspection. Within the state of California.

A. Tony Guillen, Deputy Inspector, Field Technician: ACI, ICC, Caltrans
tguillen@lorgeo.com

Tony Guillen will provide on call field compaction and materials testing services as required. Tony will also provide International Code Council (ICC) inspection services if requested.

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