SHEEP CREEK WATER COMPANY
REGULAR BOARD OF DIRECTORS MEETING
December 17, 2020 ~ 6:30 PM
SHEEP CREEK WATER COMPANY – via Zoom
4200 Sunnyslope Rd., Phelan, CA 92371

Due to the Covid-19 pandemic and required Social Distancing, The Sheep Creek Water Company Regular Board of Directors Meeting will be held via Zoom Meeting for Shareholder participation. Shareholders may access the meeting remotely with the following options.

Remote Participation Information:

Zoom: https://us02web.zoom.us/j/86870140121?pwd=d1E2bjQwYi9JcmZlNmxlUmpKUVpEQT09
Meeting ID: 868 7014 0121
Passcode: 418403

One tap mobile
+16699006833,,86870140121#,,,,,,0#,,418403# US (San Jose)

Dial-In
(669) 900-6833
Meeting ID: 868 7014 0121
Passcode: 418403

AGENDA

1) **Open Meeting-** 6:30 PM
   a. Flag Salute
   b. Invocation

2) **Consent Motions**
   a. Minutes:
      i. Regular Board of Directors Meeting- November 19, 2020
   b. Bills:
      i. *November 19, 2020* through *December 17, 2020*
   c. Managers' Report: Included in Board Packet

3) **Open Forum/Public Comment-** Under this item any member of the Board or Public may address the Board on any item relating to the company not listed on this agenda. However, the Board is prohibited under AB 240 from taking any action on an item not appearing on the agenda. Board president will call on each participant and at that time you have three (3) minutes to speak.

4) **Old Business**
   a. System Update
   b. PPHCSD Consolidation Update

5) **New Business**
    a. Jason Hong- Meter Service Reimbursement Request

6) **Next Scheduled Meeting**
    a. January 21, 2021 via Zoom

7) **Adjournment**

SHEEP CREEK WATER COMPANY

Regular Board of Directors Meeting
November 19, 2020 ~ 6:30 pm
Sheep Creek Water Company ~ Board Room, via Zoom
4200 Sunnyslope Rd., Phelan, CA 92371

The Regular Board of Directors Meeting of November 19, 2020, was called to order by Andy Zody at 6:30 pm. Chris Cumming led in the Pledge of Allegiance and David Nilsen led in the Invocation. Mr. Zody reminded everyone present and via Zoom, that the meeting was being recorded for accurate meeting minutes.
Directors Present: Directors present at tonight's meeting were, Board President Andy Zody, Secretary/Treasurer Kellie Williams, Director David Nilsen and Director Luanne Uhl via Zoom.
Staff Present: General Manager Chris Cummings was present.
Guests Present: Scott Roth and Michael Palecki were guests via Zoom.

Consent Motions:

Regular Board of Directors Meeting – October 15, 2020
Bills – October 15, 2020 through November 19, 2020
Manager's Report – October 15, 2020

David Nilsen moved to accept the Consent Motions as presented. Kellie Williams seconded the motion. Motion carried.

Open Forum: *Under this item, any member of the Board of Director's or the Public may address the Board on any item relating to the company that is not listed on this agenda. However, the Board is prohibited under AV240 from taking any action on an item not appearing on the agenda. The Board President will call on each participant. At that time, they will have three (3) minutes to speak.*

David Nilsen suggested meeting with the SWRCB to ask for more time and discuss the moratorium, since Sheep Creek is working with the CSD on the possibility of consolidating.

Old Business

System Update: Static Water levels have had an average increase of 2-14 feet. Wells 3A and Well 5 are running daily, averaging 6 to 8 hours a day. Water usage is averaging 440,000 gallons per day. The Tunnel is averaging 133 gallons per minute. Total pumping capacity is 1,940 gallons per day. Valves and fire hydrant replacement project was completed at Yucca Terrace and Valle Vista with 4 more locations being planned.

IEC has submitted a draft of the Asset Management Plan. A copy was sent to the SWRCB to comply with the November 30th deadline. A conference call will be scheduled in early December to review and discuss any comments on the plan with IEC.

PPHCSD Consolidation Update: Chris reported that he had the monthly conference call with the SWRCB, DDW and DFA, IEC and our TA provider, Sacramento State. At this time, IEC will be presenting a proposal for the engineering on the project and Sac State and DFA will review and should approve and contract with IEC. The engineering and application process are expected to take approximately nine months and then the package will be submitted to DFA for

review. DFA approval can take up to 12 months. Mr. Bartz and Chris discussed the urgency of the project due to the compliance schedule and Shareholder approval.

Chris spoke with Hector with the DDW, regarding the concerns for compliance and will be setting up a conference call with DDW and the Board in December. DDW is monitoring the progress and has recommended that we continue moving forward with the technical assistance rather than investing in multiple wells. We should also have some information to bring to the Shareholders for the Annual Shareholders Meeting in May. Hector understands that we need to know by summer of 2021, what route we are taking and whether we need to begin drilling.

New Business

2021 Annual Operating Budget: Chris presented the 2021 operations budget which is similar to 2020. Usage is based on 2019 and 2020 usage. With the well production remaining consistent and not seeing additional increase, allotments are recommended to remain the same. With allotments not changing water use within the 3 Tiers is estimated to remain the same.

The total estimated revenues for 2021 are 1.314 million dollars. The revenues will be used for regular operations of the company and to fund the 4 reserve accounts.

- The Well Account income is estimated at $96,000 which includes well maintenance and rehab of existing wells along with MWA replacement fees for Well 11.
- The System Upgrade Account has a fixed income of $45,000 which is used for replacement and upgrades in the system.
- The Assessment Account is estimated at $124,000 which includes the repayment of the CoBank Well 11 loan. A reserve amount also must be maintained in the account for the line of credit for the Source Capacity Project.
- The Capital Improvement Account is estimated at $93,000 which includes funds for large and new installations or projects.

Expenses are estimated to remain similar to 2020. During early 2021 the loan for the Skip Loader will be paid in full and those funds will be carried over to the Ford ½ ton to pay that truck loan in full by fall 2021.

David Nilsen move to accept the 2021 Annual Operating Budget as presented by Chris Cummings. Luanne Uhl seconded the motion. Motion carried.

Next Scheduled Meeting: December 17, 2020 via Zoom

Adjournment: David Nilsen moved to adjourn the meeting. Luanne seconded the motion. Motion carried. The Regular Board of Directors meeting of November 19, 2020 was adjourned at 7:00pm.

Respectfully Submitted,

Kellie Williams
Secretary/Treasurer
Sheep Creek Water Company ~ Board of Directors

Sheep Creek Water Company
4200 Sunnyslope Rd.
P.O. Box 291820
Phelan, CA 92329-1820
Office (760) 868-3755/Fax (760) 868-2174
Email sheepcreek@verizon.net / www.sheepcreekwater.com

Regular Board of Directors Meeting – Managers Report

December 17, 2020

PRODUCTION

- November Production- 38.99 AF- 8% increase from 2019 & 37% decrease from 2013
- November Usage- 33.4 AF sold- 5% increase from 2019 & 25% decrease from 2013

Well soundings & average pumping for the past month:

- Static Water Levels at this time have had a minimal change.

  Well 2A Compared to 1 year ago, static level is up 2.31 feet- 319 gpm
  Well 3A Compared to 1 year ago, static level is up 4.62 feet- 323 gpm
  Well 4A Compared to 1 year ago, static level is up 4.62 feet- 288 gpm
  Well 5 Compared to 1 year ago, static level is up 4.62 feet- 302 gpm
  Well 8 Compared to 1 year ago, static level is up 4.62 feet- 333 gpm
  Tunnel the Tunnel flow is currently averaging 132 gpm
- Well 3A & 5 are running an average of 6 hours a day.
- Total Pumping capacity as of December 1, 2020 is 1,948 gpm.
- Current usage is averaging 365,000 gallons per day
- **Allotment Tier 1 – First share on account remain 750 CF/Share and Remaining shares 150 CF/Share. $0.50 per hcf**
- **Allotment Tier 2 – 150 CF/Share all shares after Tier 1 $3.46 per hcf**
- **Tier 3 Overage- No Allotment $6.32 per hcf**

Work Completed or in Progress

- Work orders as office requests
- Well Soundings- By-weekly
- CLA-VAL Maintenance & Stainless Steel Upgrade- 1-6" & 1-2"
- 5 Meter Upgrades
- 1 Mainline Leaks/ 0- Service Line Leaks
- Hydrant & Valve Replacement- Valle Vista & Yucca Terrace- Completed
- SWRCB Asset Management Plan- Final In Progress
  - Fire Hydrant Mapping- Completed
  - Gate Valve Mapping- Completed
  - IEC preparing Final AMP
  - SWRCB- No Comments on Draft
- Source Capacity Project-
  - Environmental Compliance Complete
  - Well Drilling on hold due to consolidation opportunity
- PPHCSD Consolidation
  - Meetings with PPHCSD, SWRCB DFA, Sacramento State- Office of Water Programs
  - IEC Engineering Firm to submitting proposal for construction documents and plans- To be submitted to OWP for approval by 11-13-2020
  - OWP to prepare and complete grant application
  - Additional negotiations between PPHCSD & SCWC to take place

SHEEP CREEK WATER COMPANY
MEMORANDUM

TO: BOARD OF DIRECTORS

FROM: CHRIS CUMMINGS

SUBJECT: JASON HONG- METER SERVICE REIMBURSMENT REQUEST

DATE: 12/9/2020

Dear Board of Directors,

Shareholder Jason Hong has sent an additional request to the Board pleading for reimbursement for two water meter services that were purchased for a ten acre parcel on March 31, 2006 and have not been installed and at this time and has no plans to move forward with the installation. Mr. Hong is having health issues and with his age is unable to move forward with the construction that he had planned for his property.

When the property was acquired there were two meter services installed on the property. Mr. Hong purchased two additional meter services so that the property could be subdivided into four parcels. 660' of new line was needed to be installed before the two additional services could be placed. At this time, new line has not been installed so the meters have not been placed and the property has not been subdivided.

Mr. Hong has tried selling the property. Due to the State Water Resource Control Board Service Connection Moratorium that was placed on Sheep Creek Water Company, Mr. Hong has not been able to sell the property due to the moratorium and Sheep Creek unable to the issue a Will Serve Letter for the existing meter connections. Mr. Hong has sent an additional request for a refund of the two meter service connection that were purchased in 2006. The deadline for Sheep Creek Water Company to be in compliance for Source Capacity is December 2023.

Thank you,

Chris Cummings

Sheep Creek Water Company
4200 Sunnyslope Rd.
P.O. Box 291820
Phelan, CA 92329-1820
Office (760) 868-3755/Fax (760) 868-2174
Email sheepcreek@verizon.net / www.sheepcreekwater.com

November 18, 2020

Jason Hong (Hi Choong Hong)
17642 Windward Terr.
Bellflower, CA 90706
jasonhong77@gmail.com

RE: Response to Additional Request for Refund

Dear Mr. Hong,

This letter is in response to your request dated 11-16-2020 requesting a refund of $22,000 for the purchase of two meter service installations for APN: 3069-261-10-0000. Per our phone conversation on Monday November 16, 2020, the Board of Directors denied your request for reimbursement during the September 17, 2020 regular Board of Directors meeting. Also, we discussed, I cannot issue a refund without approval of the Board of Directors. I did state that your additional request can be brought back to the Board for discussion. The request dated November 16, 2020 was received after the agenda for the November 19, 2020 Board of Directors meeting was posted, so it will be added to the December 17, 2020 Board Of Directors meeting.

As we discussed in our phone conversation, the property can still be sold and the meter services will still be available for the property. The Service Connection Moratorium issued by the State Water Resource Control Board was issued on August 31, 2018 and they have given Sheep Creek Water Company and timeline with a compliance date of no later than December 1, 2023 to be in compliance. Also, during the Regular Board of Directors Meeting dated September 17, 2020, the Board approved to enter into negotiations with the neighboring water district to consolidate Sheep Creek with Phelan Pinon Hills CSD. If this consolidation moves forward, the Service Connection Moratorium could possibly be lifted sooner. During this negotiation process, the Board is committed to seeing the Service Connection Moratorium lifted and will continue towards compliance as quick as we can.

If you have additional questions regarding this letter or the compliance process, please feel free to contact me.

Sincerely,

Chris Cummings
General Manager
Sheep Creek Water Company

Jason Hi Hong, aka Hi Choong Hong

17642 Windward Terr.

Bellflower, CA 90706

Sheep Creek Water Company

4200 Creek Water Company

4200 Sunnyslope Rd.

PO Box 291820

Phelan, CA 923291820

"3rd Request Letter"

Re: Request for refund of deposit money for 2 water meters

If you can pay me back the above amount as the following ways;

1) Pay first $11,000 due by Nov.30. 2020
2) Pay the balance amount $11,000 due by Jan 31, 2021
   Or Pay it back by 10 installments as; $2,200/month for 10 months long from Dec, 01, 2020

Your kind reply to be appreciated a lot

Thank you.

Date: Nov 16, 2020

X

Jason Hi Hong

Sheep Creek Water Company
4200 Sunnyslope Rd.
P.O. Box 291820
Phelan, CA 92329-1820
Office (760) 868-3755/Fax (760) 868-2174
Email sheepcreek@verizon.net / www.sheepcreekwater.com

October 5, 2020

Jason Hong (Hi Choong Hong)
17642 Windward Terr.
Bellflower, CA 90706

RE: Response to Request for Refund

Dear Mr. Hong,

This letter is in response to your letter dated 8-21-2020 requesting a refund of $22,000 for the installation of two meter services for APN: 3069-261-10-0000. Your letter and request was presented to the Sheep Creek Water Company Board of Directors during the Regular Board of Directors Meeting dated September 17, 2020. The Board discussed your request for a refund and due to the fact that the two meter service installations were purchased 12 years prior to the Service Connection Moratorium issued by the State Water Resource Control Board, the Board decided to take no action at this time. Once the Service Connection Moratorium is lifted, the meter services will still be available to be installed on APN: 3069-261-10-0000.

The Service Connection Moratorium issued by the State Water Resource Control Board was issued on August 31, 2018 and have given Sheep Creek Water Company and timeline with a compliance date of no later than December 1, 2023 to be in compliance. Also, during the Regular Board of Directors Meeting dated September 17, 2020, the Board approved to enter into negotiations with the neighboring water district to consolidate Sheep Creek with Phelan Pinon Hills CSD. If this consolidation moves forward, the Service Connection Moratorium could possibly be lifted sooner. During this negotiation process, the Board is committed to seeing the Service Connection Moratorium lifted and will continue towards compliance as quick as we can.

If you have additional questions regarding this letter or the compliance process, please feel free to contact me.

Sincerely,

Chris Cummings
General Manager
Sheep Creek Water Company

SHEEP CREEK WATER COMPANY
REGULAR BOARD OF DIRECTORS MEETING
September 17, 2020 ~ 6:30 PM
SHEEP CREEK WATER COMPANY – via Zoom
4200 Sunnyslope Rd., Phelan, CA 92371

Due to the Covid-19 pandemic and required Social Distancing, The Sheep Creek Water Company Regular Board of Directors Meeting will be held via Zoom Meeting for Shareholder participation. Shareholders may access the meeting remotely with the following options.

Remote Participation Information:

Zoom: https://us02web.zoom.us/j/83912493551?pwd=bXFPRWlVeUFpSDZydkpwN0xhSkduZz09
Meeting ID: 839 1249 3551
Passcode: 686071

One tap mobile
+16699006833,,83912493551#,,,,,,0#,,686071# US (San Jose)

Dial-In
(669) 900-6833
Meeting ID: 839 1249 3551
Passcode: 686071

AGENDA

1) **Open Meeting-** 6:30 PM
   a. Flag Salute
   b. Invocation

2) **Consent Motions**
   a. Minutes:
      i. Regular Board of Directors Meeting- August 13, 2020
   b. Bills:
      i. *August 13, 2020* through *September 17, 2020*
   c. Managers' Report: Included in Board Packet

3) **Open Forum/Public Comment-** Under this item any member of the Board or Public may address the Board on any item relating to the company not listed on this agenda. However, the Board is prohibited under AB 240 from taking any action on an item not appearing on the agenda. Board president will call on each participant and at that time you have three (3) minutes to speak.

4) **Presentation**
   a. Don Bartz (PPHCSD)- Consolidation Funding Opportunities

5) **Old Business**
    a. System Update
    b. Source Capacity Project Update
    c. SWRCB Updated Compliance Order NO.05-13-18R-002A1

6) **New Business**
    a. Jason Hong- Meter Service Reimbursement Request
    b. Consolidation Opportunities with PPHCSD
        i. Resolution to Enter Into Negotiations For Consolidation
        ii. Letter of Intent

7) **Next Scheduled Meeting**
    a. October 15, 2020 via Zoom

8) **Closed Session**
    a. Employee Evaluation

9) **Adjournment**

SHEEP CREEK WATER COMPANY
MEMORANDUM

TO: BOARD OF DIRECTORS

FROM: CHRIS CUMMINGS

SUBJECT: JASON HONG- METER SERVICE REIMBURSMENT REQUEST

DATE: 9/11/2020

Dear Board of Directors,

Shareholder Jason Hong has sent a request to the Board requesting reimbursement for two water meter services that were purchased for a ten acre parcel on March 31, 2006. When the property was acquired there were two meter services installed on the property. Mr. Hong purchased two additional meter services so that the property could be subdivided into four parcels. 660' of new line was needed to be installed before the two additional services could be placed. At this time, new line has not been installed so the meters have not been placed.

Due to the State Water Resource Control Board Service Connection Moratorium that was placed on Sheep Creek Water Company, Mr. Hong is requesting a refund of the two meter service connection that were purchased in 2006. The deadline for Sheep Creek Water Company to be in compliance for Source Capacity is December 2023.

Thank you,

Chris Cummings

RECEIVED
AUG 25 2020
By: _____

From: Jason Hi Hong (aka Hi Choong Hong)

17642 Windward Terr. Bellflower, Ca. 90706

TO: Board of Director/ Sheep Creek Water Company

4200 Sunnyslope Rd. P O Box 291820,
Phelan, Ca. 92329-1820

Re: Pay Back Request of My deposit Money, $22,000.00 for the Installment of Two(2) Water meters on my vacant land in Phelan, APN 3069-261-10-0000.

Dear Sir,

I had deposited the amount of $22,000.00 to Sheep Creek Water Co. at the date of March 31, 2006. (Attached the receipt herewith)

Recently I am aware of a water supply ban for new home building in Phelan by your company for a period of 4~5 years from now on. Because of this reason, I could not sell my land to whom wants to build new homes there now.

I even cannot wait for your sufficent water supply to my land in the year 2024 or 2025. At that time, I become 80 years old, so I will be too old to wait until then for my new home with water supply by your company.

Therefore, I want to withdraw it and really request you to pay back all my deposited money to me as soon as possible.

Your kind cooperation will be appreciated a lot.

Thank you and Best Regards,

Jason Hi Hong

Date: 8/21/2020

Hi Choong Hong
Poong Ja Hong
17824 Cane Dr.
Artesia, Ca 90701

16-3939/1220
047235766

5227

Date MAR 31 2006

Pay to the Order of Sheep Creek Water Co. $ 22,000.00

TWENTY TWO THOUSAND & NONE Dollars

HANMI BANK
CERRITOS OFFICE
11754 E. ARTESIA BLVD.
ARTESIA, CALIFORNIA 90701
TELEBANK (213) 387-8500

For Two water meters

⑆122039399⑆ 5227⑈ 047⑈ 235766⑈

Sheep Creek Water Co.
P. O. Box 291820
Phelan, Ca. 92329-1820

№ 021707

DATE	RECEIPT NO.	CONTROL NO.	RECEIVED FROM	AMOUNT
3/31			Hi Choong Hong	220000

HOW PAID		PAID ON	
CASH		ACCOUNT	
CHECK 5227		NOTE	
CREDIT CARD			
DRAFT			
MONEY ORDER			

2 meters

BY AM

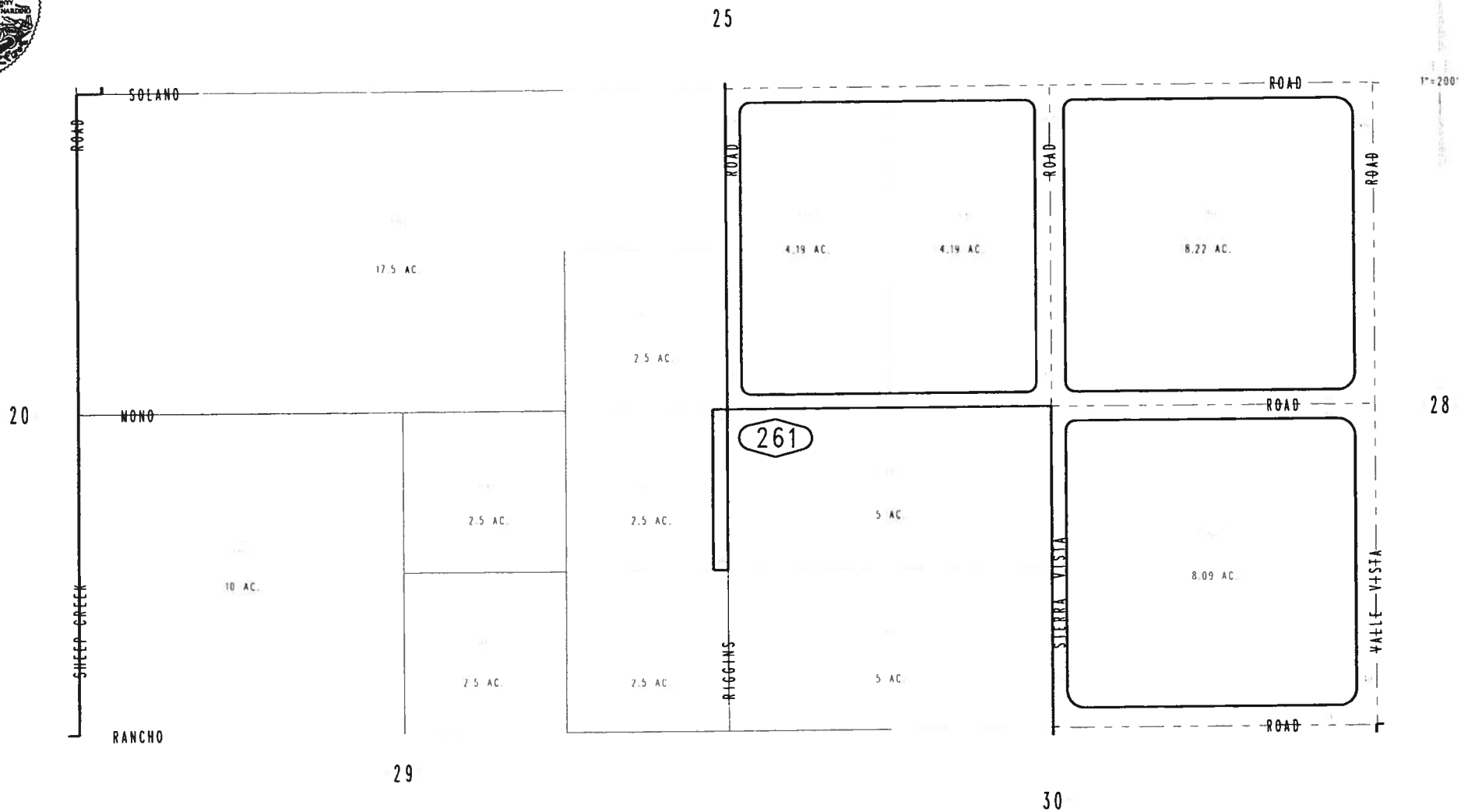
FORM CTM-508 (9/95) Reynolds and Reynolds ORDER TOLL FREE: 1-800-344-0996 FAX: 1-800-531-9055

Thank You!

THIS MAP IS FOR THE PURPOSE OF AD VALOREM TAXATION ONLY

S.1/2, N.W.1/4, Sec. 12, T.4N., R.7W., S.B.M.

Snowline Joint Unified 3069 - 26
Tax Rate Area
101002



REVISED
03/08/10 LH

DEC. 1993

Assessor's Map
Book 3069 Page 26
San Bernardino County

Tax Collector » Property Information For Parcel 3069-261-10-0000

Type of Property: **UNKNOWN**

Address Information		Legal Description			Roll Value
Situs Address	*Protected per CA Govt. Code Sect. 6254.21*	Tract Number	Lot Number	Block/Unit	As of Jan 1, 2020
Billing Address	*Protected per CA Govt. Code Sect. 6254.21*	NE 1/4 SE 1/4 NW 1/4 SEC 12 TP 4N R 7W EX STS 11-16-88 #88-387879			$99,900.00
As Of	2/16/2017				

Present Owner Information

Name	Percent Ownership	Relationship	Document Number	Recording Date	Acquire Date	Roll Year
HONG , HI CHOONG	12.50%	TENANCY IN COMMON	20060236712	04/06/2006	04/06/2006	2006
HONG, POONG JA (HW-CHOONG)	12.50%	TENANCY IN COMMON	20060236712	04/06/2006	04/06/2006	2006
HONG, POONG JA (HW-CHOONG)	12.50%	TENANCY IN COMMON	20060236712	04/06/2006	04/06/2006	2006
HONG , HI CHOONG	12.50%	TENANCY IN COMMON	20060236712	04/06/2006	04/06/2006	2006
HONG , JI HYUN	50%	TENANCY IN COMMON	20060236712	04/06/2006	01/27/2005	2005

Jason Hi Hong, aka Hi Choong Hong
17642 Windward Terr.
Bellflower, Ca. 90706

Sheep Creek Water Company
4200 Sunnyslope Rd.
PO Box 291820,
Phelan, Ca. 92329-1820

"2nd Request Letter"

Re: Request for refund of deposit money for 2 water meters

On March 31,2006, I had paid in the sum of $22,000.00 to Sheep Creek Water Co. for the Installment of Two(2) Water meters on my vacant land in Phelan,Its APN is 3069-261-10-0000.
The reason I am requesting a refund is because your company has declared the water moratorium for all new home buildings in the area of Phelan for a period of 4-5 years from now on.
As a result, I recently failed to sell my land property to a buyer who wants to build new houses on it.
I cannot wait for your possible water supply until the year 2024 or 2025. In that year to come, I will be 80 years old, so I have no other options but to get refunded right now.
I am well aware that I am entitled to a full refund in these circumstances.
If I can not receive my refund or any responses from you within 10 days from the date you received this letter, I have no other choice but to take this case to the Court.
Legal action on this obligation may result in additional attorney fees and court costs to you.
I attached copies of my cancelled check and the receipt I got from you as proof that I paid you as a deposit money.
I look forward to receiving a prompt refund.

Date:October 1, 2020

Jason Hi Hong

SHEEP CREEK WATER COMPANY
MEMORANDUM

TO: BOARD OF DIRECTORS

FROM: CHRIS CUMMINGS

SUBJECT: JASON HONG- METER SERVICE REIMBURSMENT REQUEST

DATE: 9/11/2020

Dear Board of Directors,

Shareholder Jason Hong has sent a request to the Board requesting reimbursement for two water meter services that were purchased for a ten acre parcel on March 31, 2006. When the property was acquired there were two meter services installed on the property. Mr. Hong purchased two additional meter services so that the property could be subdivided into four parcels. 660' of new line was needed to be installed before the two additional services could be placed. At this time, new line has not been installed so the meters have not been placed.

Due to the State Water Resource Control Board Service Connection Moratorium that was placed on Sheep Creek Water Company, Mr. Hong is requesting a refund of the two meter service connection that were purchased in 2006. The deadline for Sheep Creek Water Company to be in compliance for Source Capacity is December 2023.

Thank you,

Chris Cummings

RECEIVED
AUG 25 2020
By: _____

From: Jason Hi Hong (aka Hi Choong Hong)

17642 Windward Terr. Bellflower, Ca. 90706

TO: Board of Director/ Sheep Creek Water Company

4200 Sunnyslope Rd. P O Box 291820,
Phelan, Ca. 92329-1820

Re: Pay Back Request of My deposit Money, $22,000.00 for the Installment of Two(2) Water meters on my vacant land in Phelan, APN 3069-261-10-0000.

Dear Sir,

I had deposited the amount of $22,000.00 to Sheep Creek Water Co. at the date of March 31, 2006. (Attached the receipt herewith)

Recently I am aware of a water supply ban for new home building in Phelan by your company for a period of 4~5 years from now on. Because of this reason, I could not sell my land to whom wants to build new homes there now.

I even cannot wait for your sufficent water supply to my land in the year 2024 or 2025. At that time, I become 80 years old, so I will be too old to wait until then for my new home with water supply by your company.

Therefore, I want to withdraw it and really request you to pay back all my deposited money to me as soon as possible.

Your kind cooperation will be appreciated a lot.

Thank you and Best Regards,

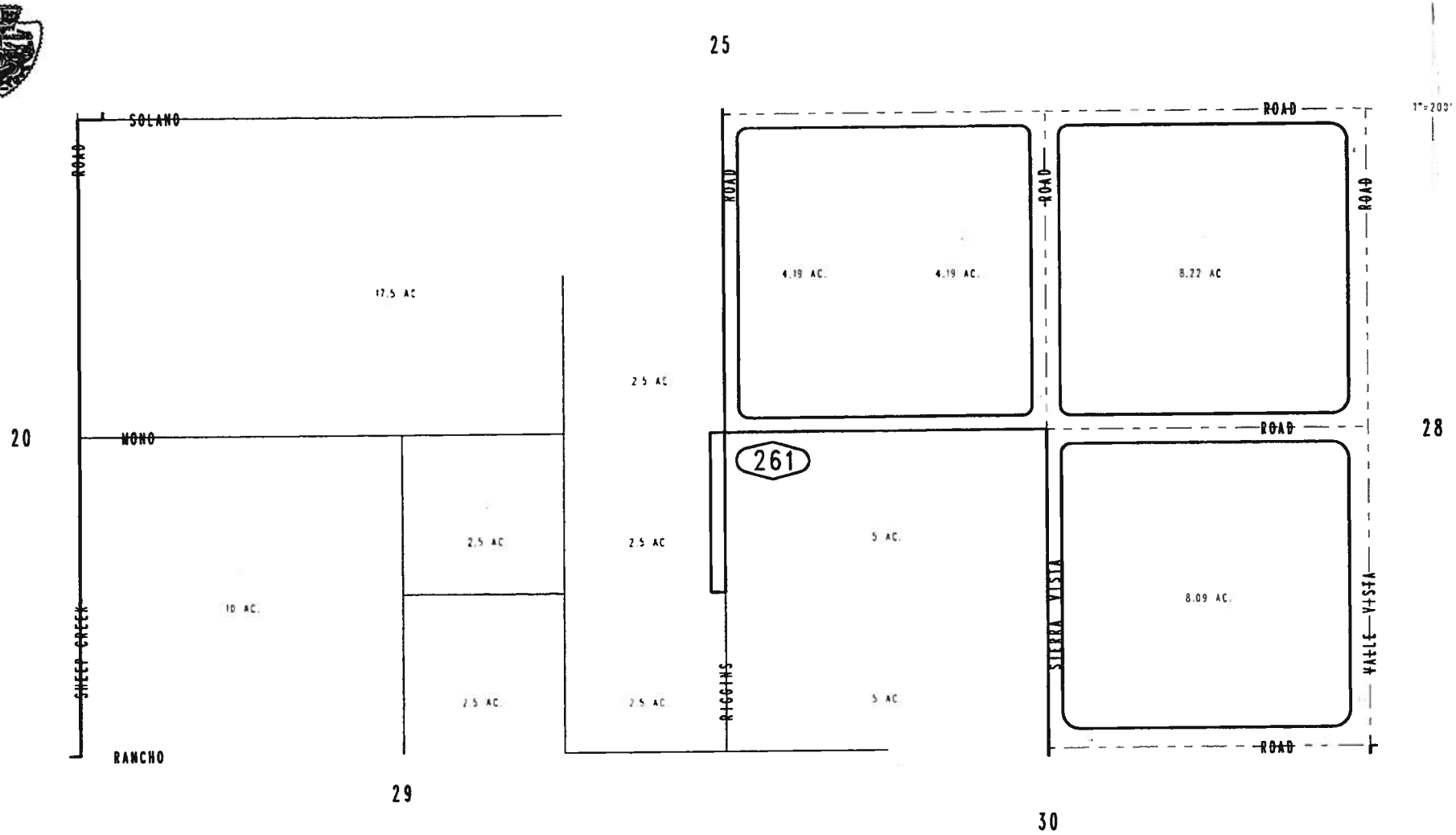
Jason Hi Hong

Date: 8/21/2020

THIS MAP IS FOR THE PURPOSE OF AD VALOREM TAXATION ONLY

S.1/2, N.W.1/4, Sec. 12, T.4N., R.7W., S.B.M.

Snowline Joint Unified 3069 - 26
Tax Rate Area
101002



REVISED
03/08/10 LH

DEC. 1993

Assessor's Map
Book 3069 Page 26
San Bernardino County

November 13, 2020

Ms. Maureen Kerner, P.E., Research Engineer
Office of Water Programs at Sacramento State University
3020 State University Drive
Modoc Hall, Suite 1001
Sacramento, CA 95819

RE: Drinking Water State Revolving Fund, Work Plan No. 6214-A Proposal to Provide Engineering Services for the Sheep Creek Mutual Water Company (Mutual) and Phelan Piñon Hills Community Services District Consolidation Project

Dear Ms. Kerner:

Infrastructure Engineering Corporation (IEC) is pleased to submit our proposal to provide engineering services to assist with the subject Project.

QUALIFICATIONS

IEC specializes in all aspects of water infrastructure design for public systems. The team, lead by Ms. Dolores Salgado, PE and managed out of our Bakersfield office, is comprised of technical experts and local professionals with extensive similar project experience. Our company information and qualifications are enclosed.

SCOPE OF WORK

IEC prepared a comprehensive scope of work for the Project. The work items and needs were discussed with both the SCWC and the PPHCSD. Refer to **Attachment A**.

FEE PROPOSAL

A tabular summary is provided in **Attachment B**. We propose to complete the work on a time and materials, not to exceed basis: $591,505.

SCHEDULE

Assuming approval and notice to proceed within the month of February 2021, the scope described herein can be completed by April 2022. For a schedule breakdown refer to **Attachment C**.

We sincerely appreciate the opportunity to provide these services to the District. If you have any questions, please don't hesitate to contact me at (661) 529-2190 extension 101.

Sincerely,

Dolores Salgado, PE
Senior Project Manager
661.529.2190 extension 101
dsalgado@iecorporation.com

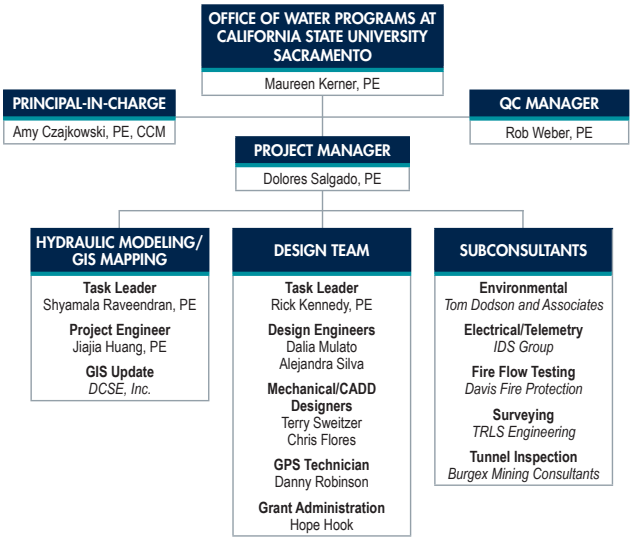
Robert S. Weber, PE
Principal-in-Charge
858.842.6978
rweber@iecorporation.com

STAFFING RESOURCES

TEAM ORGANIZATION

IEC's proposed team, under the leadership of Project Manager **Dolores Salgado, PE**, is well prepared to deliver a project on-time and on budget. Supporting Ms. Salgado are **Amy Czajkowski, PE, CCM** and **Rob Weber, PE** as Principal-in-Charge and QA/QC & Technical Reviewer, respectively. With a combined 55 years of experience, Ms. Czajkowski and Mr. Weber will provide guidance, resources, and technical oversight to the team, and will ensure a successful project is delivered.

The organization chart, to the right, depicts the roles and reporting structure for key staff available for the project. Our core team will be supported by a talented group of support staff and previously identified specialty subconsultant firms **Tom Dodson and Associates**, **IDS Group,** and **Davis Fire Protection** who will provide environmental, electrical/telemetry, and fire flow testing, respectively. Further augmenting our team is **TRLS Engineering** who will provide surveying, **Burgex Mining Consultants** who will provide tunnel inspection, and **DCSE, Inc.** who will provide GIS updates.



ABBREVIATED RESUMES FOR KEY PERSONNEL

Dolores Salgado, PE – *Project Manager*

Ms. Salgado has built her career serving public-sector clients. For the past 20 years, she has managed complex, multidiscipline water projects throughout California, including transmission mains in urban environments. 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.

RESUME – SALGADO	PROJECT NAME/CLIENT	PROJECT DESCRIPTION
Professional Registration Registered Professional Engineer – *CA No. C67536* **Education** San Diego State University *B.S. Civil Engineering, 1999*	**Chromium-6 Mitigation Project** *Phelan Piñon Hills Community Services District*	Deputy Project Manager for the 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.
	Feasibility Report for Sheep Creek Water Company Addressing Water Source Capacity Issues *Sheep Creek Water Company*	Project Manager. IEC was commissioned to find alternative water sources, which included evaluating the opportunity to consolidate with a neighboring water purveyor. The study included a water supply and demand analysis considering pre-drought and post-drought system characteristics and a cost evaluation of the potential solutions. Two alternatives were developed in close coordination with SCWC and DDW. One alternative included maintaining SCWC as a private water purveyor by drilling and operating additional water supply wells, and the second alternative included interconnecting and consolidating the water system with a neighboring water purveyor. The evaluation included technical feasibility and the financial impact to SCWC. IEC developed probable construction cost estimates, long-term operation and maintenance cost, and project implementation schedules for both alternatives for comparison purposes. IEC proactively coordinated with DDW, the Mojave Water Agency, the Phelan Pinon Hills Community Services District (PPHCSD) to execute the development of the report.

RESUME – CZAJKOWSKI

Professional Registration
Registered Professional Engineer – *CA No. C59082*
CMCI Certified Construction Manager (A1762)

Education
Viriginia Polytechnic Institute and State University
B.S. Civil Engineering, 1992

Amy Czajkowski, PE, CCM – *Principal-in-Charge*

In her 25 years of serving water districts, municipalities, and purveyors, Ms. Czajkowski has gained recognition for system planning, design engineering, and construction management of public water and wastewater infrastructure projects.

PROJECT NAME/CLIENT	PROJECT DESCRIPTION
County Water Company (CWC) Consolidation – Drinking Water State Revolving Fund Project No. 3310012-016C *Elsinore Valley Municipal Water District*	Technical Manager. Elsinore Valley Municipal Water District (EVMWD) was engaged by State and local health officials and the County of Riverside to provide water service and assume ownership of a failing, privately owned non-mutual water company located in western Riverside County known as the County Water Company of Riverside (CWC). This water consolidation of a Severely Disadvantaged Community (SDAC) by the Department of Water Resources had to occur in a short period of time due to health and water quality issues. IEC assisted the District's Grant's Management Division in preparing grants for the project and ensuring the grant requirements were administered to receive all of the reimbursements allowed under the Funding Agreement. Subsequent Addenda to the funding Agreement were prepared by IEC to secure additional funds and/or reallocate the funds.
As-Needed Program Management Services *City of Oceanside*	IEC performed Program Management Services for the City of Oceanside Water Utilities Department. This contract was managed by Ms. Amy Czajkowski performing the role of CIP Program Manager. This contract included the preparation of over 15 in house designs, Request for Proposal preparation, managing consultant contracts, preparation of Staff Reports and other Council documents, and all other functions to complete all of the projects listed on the Year 15/16 Capital Improvement Program (CIP).

RESUME – WEBER

Professional Registration
Registered Professional Engineer – *CA No. C59312*

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

Rob Weber, PE – *QC Manager*

Mr. Weber has 29 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.

PROJECT NAME/CLIENT	PROJECT DESCRIPTION
Chromium-6 Mitigation Project *Phelan Piñon Hills Community Services District*	Principal-in-Charge for the 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.

RESUME – RAVEENDRAN

Professional Registration
Registered Professional Engineer – *CA No. C72074*

Education
San Jose State University
M.S., Civil Engineering – Water Resources, 2003
Michigan Technological University
B.S., Environmental Engineering, 1998

Shyamala Raveendran, PE – *Hydraulic Modeling/GIS Mapping Task Leader*

Ms. Raveendran is a professional engineer with expertise in water & wastewater collection system planning and hydraulic modeling project management. Over the past 15 years, Ms. Raveendran has worked on, managed, or technically reviewed several sewer master planning, modeling, and condition assessment projects for numerous California municipalities and agencies. Since joining the IEC team in early 2018, she has managed or provided technical review of water/wastewater collection system related projects with Phelan Piñon Hills Community Services District, Sheep Creek Water Company, City of Belmont, City of Oceanside, City of El Monte, and Elsinore Valley Municipal Water District. She and her team are also experienced in helping municipal and public agency staff to choose, procure, and effectively use hydraulic models.

PROJECT NAME/CLIENT	PROJECT DESCRIPTION
Water Distribution Model Build & Calibration *Sheep Creek Water Company*	Senior Project Engineer in charge of model build and steady state calibration of this 1,200 service-connection system using InfoWater. Model was converted to EPANET format for client use. Calibrated model will be used for capital improvement project justification.
Water Source Capacity Feasibility Study *Sheep Creek Water Company*	Senior Project Engineer. Responsible for review of water consumption and production data, and relevant documents to perform water supply and demand analysis in compliance with the State Water Board's Compliance Order and develop alternatives to increase water supply reliability and reduce water demand.
Water Distribution Model Update/Build *Phelan Piñon Hills Community Services District*	Technical Lead responsible for and overseeing the creation and calibration of water distribution system model having 6,900 services, 16 pressure zones, 35 storage reservoirs, 32 pressure reducing stations, 63 booster pumps, and 11 wells. InfoWater was used to import information via "GIS Gateway" to create an all-pipes model. Model was calibrated in both extended period and steady state conditions. Simultaneous work with the District involved overseeing various design support alternatives using the older model after minor updates.

RESUME – HUANG

Professional Registration
Registered Professional Engineer – *CA No. C84916*

Education
University of California, Los Angeles
M.S. Civil Engineering, 2013

University of California, Los Angeles
B.S. Civil Engineering, 2012

Jiajia Huang, PE – *Hydraulic Modeling/GIS Mapping Project Engineer*

Ms. Huang specializes in utilities planning and preparation of water and wastewater regulatory compliance documents. Ms. Huang is experienced in water and wastewater hydraulic analysis and asset management planning using GIS-integrated modeling software include InfoWater, InfoSWMM, InfoSewer, and InfoMaster.

PROJECT NAME/CLIENT	PROJECT DESCRIPTION
Water Source Capacity Feasibility Study *Sheep Creek Water Company*	Project Engineer. Performed water supply and demand analysis by reviewing ten years of customer billing and well production records within a short turnaround time. The existing 2018 water supply was calculated along with the system's future demands based on service area, population growth forecasts, and planning documents. Furthermore, the influence of the previous drought on the water system's demands by looking at pre-drought and post-drought water data beginning late 2011 to 2018 were also evaluated.
Water Master Plan Update *Phelan Piñon Hills Community Service District*	Project Engineer. Responsible for updating the District's 2010 Water Master Plan. Tasks included data collection and research, update of water supply and water demand, make recommendation on water distribution system design criteria, update and calibration of water hydraulic model with the most recent operation control information, demand information, and field tests, evaluation of the system under Average Day Demand (ADD), Maximum Day Demand (MDD), Peak Hour Demand (PHD), and MDD plus Fire Flow (FF) conditions, identification of system deficiencies based on model results, and recommendation of Capital Improvement Projects. Additional task included operational study of making recommendations to optimize the use of Reservoir 6A. Prepared technical memoranda for tasks and coordinated with District staff in getting the information needed and ensuring the District's needs were addressed.
Water Distribution Model Update/Build *Phelan Piñon Hills Community Service District*	Project Engineer responsible for data collection, review, model build, calibration of water distribution system model having 6,900 services, 16 pressure zones, 35 storage reservoirs, 32 pressure reducing stations, 63 booster pumps, and 11 wells. InfoWater was used to import information via "GIS Gateway" to create an all-pipes model. Simultaneous work with the District involved overseeing various design support alternatives using the older model after minor updates.

RESUME – KENNEDY

Professional Registration
Registered Professional Engineer – *CA No. M18710*

Education
California Polytechnic State University, San Luis Obispo
B.S. Mechanical Engineering, 1975

Rick Kennedy, PE – *Task Leader/Mechanical Engineer*

Mr. Kennedy has over 40 years of project management experience. He has managed the design of more than 12 new and retrofit pump station projects ranging in size from 400 gpm to over 400 mgd, with a variety of types of pumps and drive configurations. He is a specialist in mechanical process equipment of all types, piping, and valves. He prides himself in working closely with his clients, and ensuring the design team understands the critical issues of the project. He effectively manages project budgets, schedules and risks and continually finds ways to minimizing construction and operational costs. Mr. Kennedy is well recognized in the industry for his treatment expertise and is known for his sincere commitment to provide responsive service, quality work products, and high client satisfaction.

PROJECT NAME/CLIENT	PROJECT DESCRIPTION
Santa Margarita Conjunctive Use Project Facilities *Fallbrook Public Utilities District*	Project Manager for the design of treatment facilities associated with an agreement between FPUD and federal government that settled a century-long dispute over water rights of the Santa Margarita River. Distribution system improvements included two miles of 24-inch CML&C steel pipe, a remote 8 mgd pump station, and 6 MG steel water storage tank.
SD17/FCF SD22 *City of San Diego*	Project Manager. Pump Station SD17 consists of (6) constant speed vertical turbine pumps delivering 42,000 gpm; (3) pumps at 3,400 gpm each and the other (3) at 10,500 gpm each. Flow Control Facility SD22 included a 36-inch sleeve valve and accompanying venture meter rated at 42,000 gpm.

RESUME – MULATO

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

Dalia Mulato – *Design Engineer*

Ms. Mulato has three years of experience and extensive knowledge with AutoCAD, Revit, Google SketchUp, and GIS. She is currently the Design Engineer for the City/OMUC's San Antonio 30-Inch Diameter Transmission Main project and has also been the Design Engineer for additional pipeline projects, further described below.

PROJECT NAME/CLIENT	PROJECT DESCRIPTION
Feasibility Report for Sheep Creek Water Company Addressing Water Source Capacity Issues *Sheep Creek Water Company*	Design Engineer. IEC was commissioned to find alternative water sources, which included evaluating the opportunity to consolidate with a neighboring water purveyor. The study included a water supply and demand analysis considering pre-drought and post-drought system characteristics and a cost evaluation of the potential solutions. Two alternatives were developed in close coordination with SCWC and DDW. One alternative included maintaining SCWC as a private water purveyor by drilling and operating additional water supply wells, and the second alternative included interconnecting and consolidating the water system with a neighboring water purveyor. The evaluation included technical feasibility and the financial impact to SCWC. IEC developed probable construction cost estimates, long-term operation and maintenance cost, and project implementation schedules for both alternatives for comparison purposes. IEC proactively coordinated with DDW, the Mojave Water Agency, the Phelan Pinon Hills Community Services District (PPHCSD) to execute the development of the report.
Chromium-6 Mitigation Project *Phelan Piñon Hills Community Services District*	Design Engineer for the 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.

RESUME – SILVA

Education
San Diego State University
B.S. Civil Engineering, 2020

Alejandra Silva – *Design Engineer*

Ms. Silva is an Engineer I with general experience in design engineering and AutoCAD drafting on a wide variety of projects including water pipelines, pump stations, sewer gravity mains, and sewer lift stations. Ms. Silva is knowledgeable in the development of details and pipeline plan and profile drawings, development of detailed cost estimates, and preparation of preliminary design reports.

PROJECT NAME/CLIENT	PROJECT DESCRIPTION
Lester J. Berglund Water Treatment Plant Clearwell Bypass Pipeline *City of Poway*	Design Engineer for preliminary and final design of 820 ft of 30"-36" welded steel pipeline located in and around complex piping at water treatment plant. Project includes hydraulic system analyses and engineering services during construction.

RESUME – SWEITZER

Education
York College of Pennsylvania, *B.S. Marketing, 2012*
Harrisburg Area Community College, *A.A. Civil Design & Technology, 2005*
York Technical Institute *A.A. Computer Aided Drafting, 1998*

Terry Sweitzer – *CADD/Mechanical Designer*

Mr. Sweitzer has 19 years of experience in several areas of the civil engineering industry, ranging from civil design to marketing and business development. He has provided support for a variety of design projects including, but not limited to, water and wastewater projects including pipelines and facilities, roadway and railway projects. Mr. Sweitzer is familiar with preparing new projects, including creating layouts, creating exhibits, specifications and cost estimates for various public works projects. Additionally, he has extensive experience with both AutoCAD and Microstation V8i.

PROJECT NAME/CLIENT	PROJECT DESCRIPTION
Chromium-6 Mitigation Project *Phelan Piñon Hills Community Services District*	Provided CADD design support for the 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.

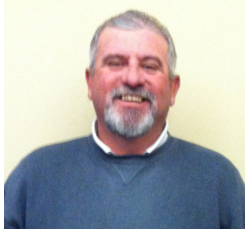
RESUME – FLORES

Education
LA/SD CAD & MicroDesk: *Civil 3D Essentials Civil 3D, 2008*
MiraCosta College: *Mechanical Drafting, SolidWorks, and AutoCAD*

Chris Flores – *CADD/Mechanical Designer*

Mr. Flores has served as the primary and as a support drafter/designer for residential, commercial, and recreational development, public and private. He has provided drafting services and aided in the setup and design of the following: Improvement plans plan and profiles, alignments for public/private streets and utilities, cross sections, curb return designs; grading plans rough and precise, onsite utility, curbs, parking layout; retaining wall plans with plan and profit design; tentative maps, site development plans, drainage exhibits, colored exhibits for water quality management plans; and storm water pollution prevention plans, utility exhibits, hand drafted as-built. Additionally, he has experience supporting the surveying depart with parcel maps, final maps, plot plans, plats & legal, easement plats, record of survey, corner records, closures, inserting and exporting points.

PROJECT NAME/CLIENT	PROJECT DESCRIPTION
Santa Margarita Conjunctive Use Project Facilities *Fallbrook Public Utilities District*	CADD design support during construction phase. The project is for the design of treatment facilities associated with an agreement between Fallbrook Public Utilities District (FPUD) and federal government that settled a century-long dispute over water rights of the Santa Margarita River. Distribution system improvements included two miles of 24-inch CML&C steel pipe, a remote 8 mgd pump station, and 6 MG steel water storage tank.



RESUME – ROBINSON

Certification
Certification – Competent Person, Various Trench Soils
Confined Space Entry Certification

Danny Robinson – *GPS Technician*

Mr. Robinson has 25 years of heavy civil construction experience. Responsibilities include construction quality control inspections for reservoirs, large and small diameter pipeline projects and roadways for agencies such as Caltrans, City of Oceanside, City of La Mesa, Orange County, the City of Fullerton, MTDB, Olivenhain Municipal Water District and Santa Fe Irrigation District. Mr. Robinson also has extensive concrete structure experience for storm drain, sewer and water facilities. Many of Mr. Robinson's projects included heavily traveled roads and freeways where night work is often required.

PROJECT NAME/CLIENT	PROJECT DESCRIPTION
Long-Term Flow Monitoring Project *Los Angeles County Sanitation District*	Assisted with real-time wastewater flow monitoring at 25 permanent sites using ADFM® Velocity Profiling technology with remote capabilities. Pipeline diameters range from 34-inches to 144-inches. IEC was responsible for the maintenance and data collection at of all 25 locations within the LACSD service are, which encompasses over 800 square miles and includes 78 cities.

SUBCONSULTANTS

Tom Dodson and Associates – *Environmental*

Tom Dodson & Associates (TDA) is a designated small business performing the full range of environmental consulting services throughout central and southern California. TDA's office is located in the City of San Bernardino and has been operating as a California corporation since 1983. Tom Dodson, TDA's President, has been performing environmental work and consulting services for federal and local agencies for approximately 48 years, since 1970, with special expertise in CEQA, NEPA, regulatory compliance, expert witness testimony and communication/facilitation for resolution of environmental issues.

TDA has provided planning and environmental consulting services for various water, hazardous waste management, biological evaluations, and base reuse projects. TDA has also prepared the environmental compliance documents needed for such projects. These documents have ranged from Initial Studies and Negative Declarations to full Environmental Impact Reports (EIRs) that meet California Environmental Quality Act (CEQA) requirements. In addition, TDA has prepared environmental documents for projects on federal land that meet the requirements of the National Environmental Policy Act (NEPA).

IDS Group – *Electrical/Telemetry*

With over 60 years of experience, IDS Group's (IDS) engineers have gained extensive working knowledge and experience working effectively with local clients and various local regulatory entities. This has enabled them to maintain a familiarity with the specifications and regulatory requirements frequently encountered during projects, including Riverside County, Los Angeles County, County of Orange, County of San Diego and federal regulations. Their experience and background gained in public works projects, along with their relationships with these agencies, has assisted with expediting reviews and obtaining approvals in a timely manner.

In addition, a vast amount of IDS' projects have included work in the vicinity of existing utilities such as water lines, pipeline corridors, telephone lines, or others with easements/rights of way. Some projects have required relocation of existing utilities, while others have required the use of trenchless technologies. IDS has proven its ability to work with the various utility owners and has the expertise to supply engineering solutions for complex problems. They have worked closely with entities such as Southern California Edison, Los Angeles Department of Water and Power, Caltrans, among others.

Fire Flow Testing – *Davis Fire Protection*
As a business specializing in fire protection system design throughout California, Davis Fire Protection understands the importance of reliability. Hydrants or fire protection systems only have to fail once – and by then, it's too late to save what matters most. Their skilled technicians repair all deficiencies found in your fire protection systems and make sure that they pass NFPA Title 19 certification. They repair leaking underground lines, overhead piping, fire hydrants, and more. Davis Fire Protection provides the annual fire hydrant testing as required by the state of California. Whether a flow test is needed for a new installation project or a five year/annual fire hydrant certification, they can provide that service. Additionally, Davis Fire Protection provides hydraulic calculations and private service main certification.

TRLS Engineering – *Surveying*
TRLS Engineering, Inc. is a full service survey and civil engineering business located in Southern California. They have worked for municipalities throughout San Bernardino, Riverside, Los Angeles, Kern, and San Diego counties. Their team of professional surveyors and civil engineers are experienced in civil engineering projects consisting of: grading plans; street improvement plans; utility plans, hydrology studies; erosion control plans; soils investigations; geotechnical investigations; structural engineering; ALTA surveys, aerial mapping; topographic survey; construction staking; and land divisions.

Burgex Mining Consultants – *Tunnel Inspection*
Burgex Mining Consultants provides convenient, comprehensive mining consulting services. In their 10+ years of experience, they have worked on over 2,500 projects and staked over 10,000 mineral claims. They offer dependable mineral market analysis, claim staking, valuation, sampling, and more to produce the quality projects you expect in a reasonable timeframe. Their expert mining consultants are prepared to assist from mineral exploration through mining operations, all in one place. They are dedicated to becoming a critical component of the highest value mining projects in the world through unmatched expertise, pioneering services, fast turnaround, and a world class global network.

Team leads have over 30 years of combined abandoned mine exploration experience. All team members are first aid and CPR certified with extensive ropework, rigging, abandoned mine access, and mine/cave rescue training. The Burgex team has over 1000 hours of underground abandoned mine experience with no lost time accidents. Team members have consulted on and participated in abandoned mine search and rescue/recovery missions and have consulted for search and rescue teams around the country. Burgex has provided technical underground mine services to over a dozen clients throughout the United States on projects ranging from preliminary mapping, safety supervision, and sampling through rehabilitation. This experience includes the safety supervision of underground working teams of up to 20 people at one time.

GIS Update – *DCSE, Inc.*
Founded in 1989, DCSE is a California based Engineering and GIS consulting firm specializing in developing solutions to help municipal and quasi-government agencies, engineering firms and private utilities. DCSE has the knowledgeable staff and the well-rounded expertise to provide a broad range of integrated GIS services, from needs assessment and implementation to GIS data conversion, Geodatabase migration, and advanced application development.

DCSE is a full service GIS consulting firm and the GIS services that we offer can be divided into four general categories: 1) GIS Planning, 2) GIS Data conversion and spatial database development, 3) Application development, and 4) Training and technical support. Their planning and review services involve performing needs assessments and needs analyses, designing enterprise-wide GIS systems, developing implementation plans, and conducting peer reviews. DCSE has developed GIS-based master plans and decision support systems for several agencies. Their spatial database development services involve migration of data to local government information data model, spatial database development (shapefiles, SDE layers, and personal and enterprise Geodatabases), data conversion (paper to CAD or Geodatabase), correction and enhancement of existing data, and development and implementation of maintenance

procedures. Their application development services involve configuring and developing easy-to-use tools that automate repetitive tasks (ETL – Extract, Transform, and Load), perform spatial analyses, spatially enable tabular databases, link to other databases (e.g., SCADA, CIS, and document management system), integrate GIS with other GIS enabled applications such as GIS-based asset management systems and hydraulic models, and/or publish GIS information to the enterprise. DCSE also specializes in developing innovative GIS and IT solutions for the various agencies and integrating state of the art technology into their processes. DCSE is a leader in seamlessly integrating internet / intranet technology using ArcGIS Server, ArcGIS Online .NET, Java and other applications. Finally, their training and technical support service is designed to empower our clients to manage their GIS systems in house and provide them with the technical support when needed.

PROJECT EXPERIENCE

FEASIBILITY REPORT ADDRESSING WATER SOURCE CAPACITY ISSUES

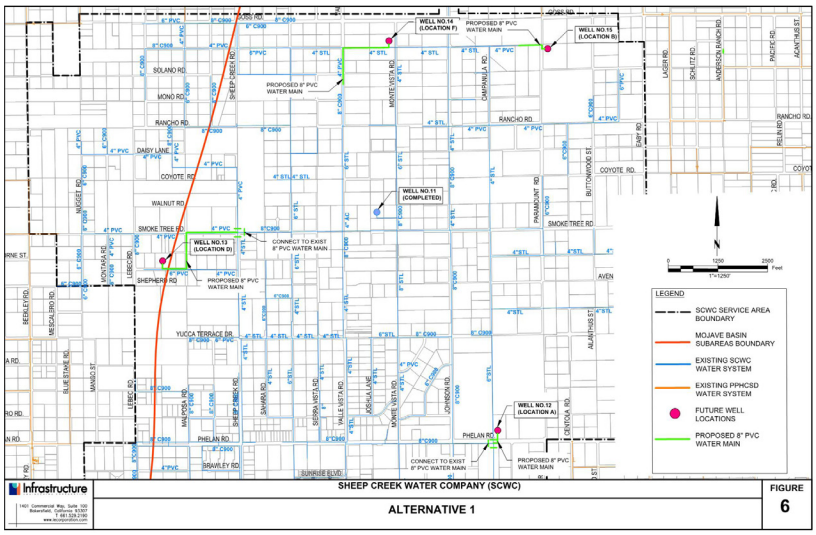
CLIENT:	Sheep Creek Water Company 4200 Sunnyslope Road Phelan, CA 92371	**CLIENT CONTACT:** **PHONE:**	Chris Cummings 760.559.7956	**PROJECT DATES:** **TOTAL PROJECT VALUE:**	October 2018 – January 2019 $15,000

Due to the continued drought in California, the Sheep Creek Water Company's (SCWC) water production began a steady decline in 2013 falling below the 10-year maximum day demand. In the fall of 2018, the State Water Resources Control Board (SWRCB), Division of Drinking Water (DDW) issued the private water company a Source Capacity Violation. IEC was commissioned to find alternative water sources, which included evaluating the opportunity to consolidate with a neighboring water purveyor. The study included a water supply and demand analysis considering pre-drought and post-drought system characteristics and a cost evaluation of the potential solutions.

Some of the major challenges initially encountered while evaluating the water system included minimal existing system maps, record drawings, and overall water system information. IEC interviewed the water company's staff to develop maps and understand the water system. Historically, the sole source of water supply was via pre-1914 water rights and the water sources are located on Federal Lands. Therefore, opportunities to diversify the water source were limited due to the water company's water rights. The majority of the area served by the water company is located within the adjudicated Mojave Water Basin. As a party to the judgment, but with zero allocation, moving forward the water company will need to either lease rights, purchase rights, or pay for water produced by future wells.

Two alternatives were developed in close coordination with SCWC and DDW. One alternative included maintaining SCWC as a private water purveyor by drilling and operating additional water supply wells, and the second alternative included interconnecting and consolidating the water system with a neighboring water purveyor. The evaluation included technical feasibility and the financial impact to SCWC. IEC developed probable construction cost estimates, long-term operation and maintenance cost, and project implementation schedules for both alternatives for comparison purposes.

IEC proactively coordinated with DDW, the Mojave Water Agency, and the Phelan Pinon Hills Community Services District (PPHCSD) to execute the development of the report.



KEY PROJECT COMPONENTS & ISSUES

- Due to limited water sources within water company's service area, IEC considered the impacts of the cost of purchased water to the economically disadvantaged community.
- Due to minimal water system information available, IEC interviewed the water company's staff to develop maps and understand the water system.
- Due to the source capacity violation, IEC expedited the schedule to meet SCWC's expectations while meeting DDW's deadline.

CHROMIUM-6 MITIGATION PROJECT

CLIENT:	Phelan Piñon Hills Community Service District 4176 Warbler Road Phelan, CA 92371	**CLIENT CONTACT:** **PHONE:**	George Cardenas 760.868.1212 x311	**PROJECT DATES:** **TOTAL PROJECT VALUE:**	February 2017 – March 2018 $18,000,000

Chromium-6 Mitigation Project includes the 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.

KEY PROJECT COMPONENTS & ISSUES

- By effectively coordinating with the California Division of Drinking Water and implementing creative ways to incorporate system redundancy, the project was approved by DDW.
- Value Engineering (VE) resulted in selecting a more cost-effective alternative for the 16-inch transmission main, which avoided a jurisdictional drainage-way and sensitive habitat, saving the District approximately $1.5 million in construction costs.
- Tank siting analysis resulted in a long-term savings in power costs at the new booster stations by optimizing the new 3MG tank's high water level.
- Preparing a detailed cost analysis comparing pre-packaged pumping stations versus traditional pump design methods provided the District with cost savings alternatives.
- Close coordination with the California Fish and Wildlife (CDFW) led to obtaining an exemption letter in less than 30-days for preliminary investigations.
- Negotiating a parallel encroachment permit with Caltrans District 8 reduced the length of the transmission by 4,700-lf, resulting in a cost savings to the District.
- Coordination with Caltrans District 7 to accommodate the future High Desert Corridor minimized future impacts to the District's water system.

COUNTY WATER COMPANY (CWC) CONSOLIDATION – DRINKING WATER STATE REVOLVING FUND PROJECT NO. 3310012-016C

CLIENT:	Elsinore Valley Municipal Water District 31315 Chaney Street Lake Elsinore, CA 92530	**CLIENT CONTACT:** **PHONE:**	Serena Johns 951.674.3146 X. 8319	**PROJECT DATES:** **TOTAL PROJECT VALUE:**	April 2016 – February 2019 $4,393,270 in Grant Funds (all funds were deemed forgiven)

Elsinore Valley Municipal Water District (EVMWD) was engaged by State and local health officials and the County of Riverside to provide water service and assume ownership of a failing, privately owned non-mutual water company located in western Riverside County known as the County Water Company of Riverside (CWC). This water consolidation of a Severely Disadvantaged Community (SDAC) by the Department of Water Resources had to occur in a short period of time due to health and water quality issues. IEC assisted the District's Grant's Management Division in preparing grants for the project and ensuring the grant requirements were administered to receive all of the reimbursements allowed under the Funding Agreement.

Subsequent Addenda to the funding Agreement were prepared by IEC to secure additional funds and/or reallocate the funds.

KEY PROJECT COMPONENTS & ISSUES

- Management of all CEQA/NEPA Requirements to meet Grant Requirements
- Added additional Funds to the DWSRF project when construction change orders added work to the project
- Performed all Grant Compliance during Construction such as
  - Successful American Iron Steel (AIS) Audit
  - Successful Labor Compliance Audit

ATTACHMENT A – SCOPE OF WORK

GENERAL DESCRIPTION

This scope of work is aimed to provide a seamless connection of the SCWC and PPHCSD water systems. The major issues encountered when connecting two different water systems are hydraulically operating the system together due to different pressure zones, varying pipe sizes, water quality due to source, flexibility due to manual versus automatic controls, water losses due to aged infrastructure and potential for over-pressurizing historically lower pressurized systems. After extensive discussions with the SCWC and PPHCSD, the following items of work were deemed as essential infrastructure to safely and reliably connect these water systems:

1. Water Tunnel Inspection
2. Install six (6) water system interconnections (**see Figure 1**)
3. Install approximately 19,000 linear feet of 8" to 12" diameter distribution system pipelines to meet fire flow requirements (location to be determined)
4. Install twenty-seven (27) new blowoffs or wharf heads for end-of-line flushing
5. Convert approximately 1,400 customer meters to AMI (Advanced Metering Infrastructure)
6. Rehabilitate six (6) existing steel tanks (lining and coating)
7. Install a new well to meet current combined system's maximum day demands
8. Install a new booster pump station (currently SCWC's system is gravity fed from the well field along Highway 2)

The first order of work will be to merge the water system's hydraulic models to confirm the above-mentioned items and determine the combined system's needs prior to moving towards final design.

(TASK NUMBERS MATCH THE WORK PLAN STARTING WITH TASK 2)

TASK 2 – PREPARE DWSRF GENERAL PACKAGE

IEC will prepare and submit the General Application and attachments using the online platform via the FAAST (Financial Assistance Submittal Tool). IEC will coordinate with the State and the PPHCSD (Phelan Piñon Hills Community Services District) to streamline the submittal process and provide the required attachments. Assume two (2) coordination meetings via Zoom or Teams.

IEC will prepare a draft submittal to the State and PPHCSD for review and comment. IEC will incorporate changes and submit the application online. IEC assumes PPHCSD will be the authorized representative, which has the legal authority to apply for the financing and enter into a financing agreement with the SWRCB (State Water Resources Control Board).

Deliverables:

- Draft Application – electronic submittal (PDF and soft copies)
- Final Application – electronic submittal via FAAST and PDF

TASK 3 – PREPARE TECHNICAL MEMORANDUM (TM)

Task 3.1 – Develop a TM that describes the plan for consolidation. The outline for the TM shall include:

1. Background and Project Information
2. Problem Description
3. Consolidation Analysis
4. Alternative Analysis (Using previously completed studies)
    a. Include Item (1) – Description
    b. Include Item (6) – Estimated Costs of Alternatives
    c. Include Item (7) – Alternates Advantages and Disadvantages
    d. Include Item (8) – Discuss Why Other Alternatives Were Not Selected

5. Selected Project (Consolidation)
    a. Water Hydraulic Analysis
        1) Fire flow tests (6 total)
        2) GIS Mapping and Locate Customer Meters (1,400 total)
        3) Calibrate Sheep Creek Water Company
        4) Merge both water system models
        5) Calibrate merged water model
        6) Run up four (4) scenarios
        7) Make recommendations
    b. Define the Project (needed infrastructure improvements)
        1) Water Tunnel Inspection
        2) Install six (6) water system interconnections (**see Figure 1**)
        3) Install approximately 19,000 linear feet of 8" to 12" diameter distribution system pipelines to meet fire flow requirements (locations to be determined)
        4) Install twenty-seven (27) new blowoffs or wharf heads for end-of-line flushing
        5) Convert approximately 1,400 customer meters to AMI (Advanced Metering Infrastructure)
        6) Rehabilitate six (6) existing steel tanks (lining and coating)
        7) Install a new well to meet current combined system's maximum day demands
        8) Install a new booster pump station (currently SCWC's system is gravity fed from the well field along Highway 2)
    c. Production and Consumption Analysis per SB 555 and AB 1068
    d. Cross Connection Study
    e. Evaluate Cost of Office Space for Three SCWC Staff (operations/managerial)
    f. Class 3 Construction Cost Estimate (Preliminary)
    g. Estimated Operation and Maintenance Cost
    h. Project Schedule
    i. Schematic Map and Proposed Facilities
    j. Comprehensive Response to Climate Change
        1) Carbon Emissions Compliance: evaluate SCWC vehicles to determine compliance with PPHCSD's carbon emissions permit
        2) Solar Field Expansion

Deliverables:

- Draft TM – 5 hard copies (8x11), electronic submittal (PDFs and soft copies)
- Final TM – 5 hard copies (8x11), electronic submittal (PDFs and soft copies)

TASK 4 – DEVELOP PLANS AND SPECIFICATIONS (MILESTONES 60% AND 90%)

Task 4.1 - Utility Research and Data Collection

Utility research is a critical task for construction projects. Comprehensive research and data collection at the onset of the project is imperative to reduce the risk of potential claims or unexpected conditions during construction. IEC adheres to a methodical utility research program that begins upon receipt of the Contract and continues through completion of final design. We have successfully designed many projects using these utility research procedures and have a track record of avoiding conflicts with existing utilities. The following is a synopsis of our utility research program:

- Assign one (1) member of the Design Team to serve as "Project Utility Coordinator". This individual is responsible for tracking and documenting utility requests and responses throughout the project.
- Contact USA DigAlert to obtain a pre-planning list of utility agencies with existing utilities in the vicinity of the proposed alignment.
- Contact utility agencies on the pre-planning list to make them aware of the potential project and formally request their system maps and record drawings. The request is emailed or mailed via Certified Mail-Return Receipt Requested.
- Obtain from the jurisdictional agencies water, sewer, storm drain, and other as-built improvement plans relevant to the project.

- Upon receipt of utility information, the Project Utility Coordinator will review it for responsiveness and completeness. Follow up phone calls or in-person visits to agencies are performed as necessary.
- Field reconnaissance is conducted by experienced IEC team members to validate the accuracy of the record data, or to identify recently constructed existing features that are not shown on record drawings. Where necessary, site meetings with utility company personnel are conducted to resolve uncertainties associated with inaccurate or incomplete record drawings.
- After drafting the existing utilities into the design drawings and developing the design, each agency on the pre-planning list is sent a set of plans for a conflict check at major design milestones (60% and 90%). Revisions are made where necessary to avoid conflicts.

Task 4.2 – Surveying and Mapping

A detailed survey of the project will be prepared using field topographic mapping. ROW and adjoining property lines will be mapped along with easements. Field survey will include surface features, such as fence lines, paved roadway, drainage ditches and existing utilities. Mapping will include these areas:

1. Connections – 100' in each direction
2. Booster pump station – limits includes the accessor parcel number 306-632-126
3. New well site – limits to be determined, assumed 10,000 sf
4. Pipelines – 19,000 linear feet, 100' wide strip topo

Task 4.3 – Electrical and Instrumentation and Structural

IDS Group control engineers will prepare and produce Instrumentation and electrical construction documents for six water consolidation connection and three Tank / Well sites. The instrumentation drawings will detail the addition of flow meters, tank level sensors/controllers, transmitters, and pump control automation to existing and/or new programmable logic controllers (PLC).

IDS' Electrical Engineers will provide Southern California Edison (SCE) utility coordination for an electrical metered service upgrade and motor control center for booster pump power and our structural engineers will provide required engineering and design for electrical equipment, booster pump anchoring and reinforced concrete pads.

One construction document bid package will be prepare for six water consolidation connection sites and three Tank / Well sites as follows:

- Well 11 yard will require level controls/PRV and flow sensor/transmitter assumed to be radar type with analog output of 4-20mA, and Tesco SCADA upgrade with a PLC replacement to be compatible with all water connections, Tank & Well project sites.
- Tanks 2, 4, & 8 yard will require Res level sensors/ flow meters / pump status controls, booster pump controls & automation. An upgraded SCE metered electrical service will be necessary with associated engineering, utility coordination, and motor control center booster pump power and disconnection means.
- Existing pumps located Tank 5 and 7 yard will require variable frequency drives (VFD) to include pump automation. New instrumentation points from VFD for the system sequence of operations will be wire and terminated at the existing site PLC. Tanks 5 & 7 will require magnetic or sonic with an analog output of 4-20mA water flow meters.
- Connection Sites 1, 2, 3, 4, 5, and 6 will require magnetic or sonic with an analog output of 4-20mA flow meters and Cla-val position status.
- Res 6 location will require a check valve.

A second construction document bid set will be prepared for the require SCE utility upgrade for the proposed booster pump located at Tank 2, 4, and 8 yard. IDS Group, Inc. will prepare all require utility applications and SCE standard drawing submittals.

IDS controls and electrical engineers are assuming all SCADA / PLC programming for added components, devices and operation sequences to be performed by the District.

Task 4.4 – Develop Plans and Specifications (milestones 60% and 90%)

IEC will prepare a bid-ready set of construction contract documents, including plans (or drawings), technical specifications, and an engineer's estimate of the probable construction cost (estimate). The plans will be prepared on 24" x 36" sheets using PPHCSD's template. The plans will be prepared using AutoCAD Civil 3D. The PS&E will be submitted to the State and PPHCSD for review at the 60% and 90% design milestones, each followed by a round of review. After receipt of comments to the 60% submittal, the 90% submittal will be prepared delivered to the State and PPHCSD.

List of Construction Drawings:

DWG No.	Description	Number of Sheets
T-1	Title Sheet	1
G-1	General Notes and Abbreviations	1
G-2	Key Map and Legend	1
C-1 through C-2	Interconnections (Total 6 connections) (10 scale)	2
C-3 through C-22	Water Main Improvement Plans (Total 19,000 linear feet) (40 scale)	19
C-23	Dead End Line Blowoffs/Warf Head Plans	2
C-24	Customer Meter Replacements Details and Locations	2
C-25 through C-26	Tank Lining and Coating Details (Total 6 tanks)	2
C-27 through C-28	New Wellhead Plan and Profile	2
M-1 through M-2	New Booster Pump Station (20 scale)	2
S-1 through S-3	New Booster Pump Station Structural Plans	3
E-1 through E-4	New Booster Pump Station Electrical and Instrumentation Plans	4
I-1 through I-2	Instrumentation (SCADA) at Interconnections (Total 6 connections)	2
I-3 through I-4	Instrumentation (SCADA) at Reservoir Sites (Total 4)	2
I-5	Instrumentation (SCADA) at Well Field and Well No. 11	1
	Total	**46**

Deliverables:

- 60% submittal – the plans and specifications set will be submitted electronically (PDFs), accompanied by two (2) full size drawing sets (24x36) and 5 hard copies (8x11)
- 90% submittal – the plans and specifications set will be submitted electronically (PDFs), accompanied by two (2) full size drawing sets (24x36) and 5 hard copies (8x11)

TASK 5 – PREPARE DWSRF TECHNICAL PACKAGE

IEC will prepare and submit the Technical Package and attachments using the online platform via the FAAST (Financial Assistance Submittal Tool). IEC will coordinate with the State and the PPHCSD (Phelan Piñon Hills Community Services District) to streamline the submittal process and provide the required attachments. Assume two (2) coordination meetings and ongoing monthly meetings.

IEC will prepare a draft submittal to the State and PPHCSD for review and comment. IEC will incorporate changes and submit the application online.

Deliverables:

- Draft Technical Package – electronic submittal (PDF and soft copies)
- Final Technical Package – electronic submittal via FAAST and PDF

TASK 6, 7, 8 AND 9 – PREPARE DWSRF ENVIRONMENTAL PACKAGE

Prepare a project description that identifies the possible temporary and permanent physical changes in the environment that can result from approving and implementing the project.

Compile an impact forecast and analysis for each of the 21 Initial Study topics to determine whether any of the individual issues (aesthetics, air quality, biology, etc.) may result in unavoidable significant adverse impacts. The key to this analysis is to provide substantiation for each finding/conclusion presented for these 21 environmental topics.

Submit the draft IS to the PPHCSD for its independent review and validation. Finalize the IS and proposed CEQA environmental determination (anticipated to be an MND) for public review.

Publish the IS/MND for peer review. Assuming a 30-day public review of the IS/MND since the State Water Board has jurisdiction involved with this project. Thus, it will need to be submitted to the State Clearinghouse for review. At the end of the 30-day peer review any comments from any party. Comments will be addressed in a "good-faith" manner.

The IS/MND, Mitigation Monitoring and Reporting Program (MMRP), and responses to comments forms the final package used by the PPHCSD to consider environmental effects prior to considering approval of the project. The PPHCSD must "adopt" the IS/MND and file a Notice of Determination (NOD) with the San Bernardino County Clerk of the Board and subsequently with the State Clearinghouse. Filing the NOD with the County terminates the CEQA process and initiates the statute of limitations for legal challenge of the environmental document (30 days).

IEC will prepare and submit the Environmental Package and attachments using the online platform via the FAAST (Financial Assistance Submittal Tool). IEC will coordinate with the State and the PPHCSD (Phelan Piñon Hills Community Services District) to streamline the submittal process and provide the required attachments. Assume two (2) coordination meetings.

IEC will prepare a draft submittal to the State and PPHCSD for review and comment. IEC will incorporate changes and submit the application online.

Deliverables:

- Draft Initial Study/Mitigated Negative Declaration - electronic submittal (PDF and soft copies)
- Final IS/MND - electronic submittal (PDF and soft copies)
- Draft Environmental Package – electronic submittal (PDF and soft copies)
- Final Environmental Package – electronic submittal via FAAST and PDF

TASK 12 – PROVIDE POST-APPLICATION SUPPORT

IEC will be available to assist the State and PPHCSD with follow-up items, including assistance with Construction Financing agreement. Assume two (2) coordination meetings and ongoing monthly meetings via Teams or Zoom.

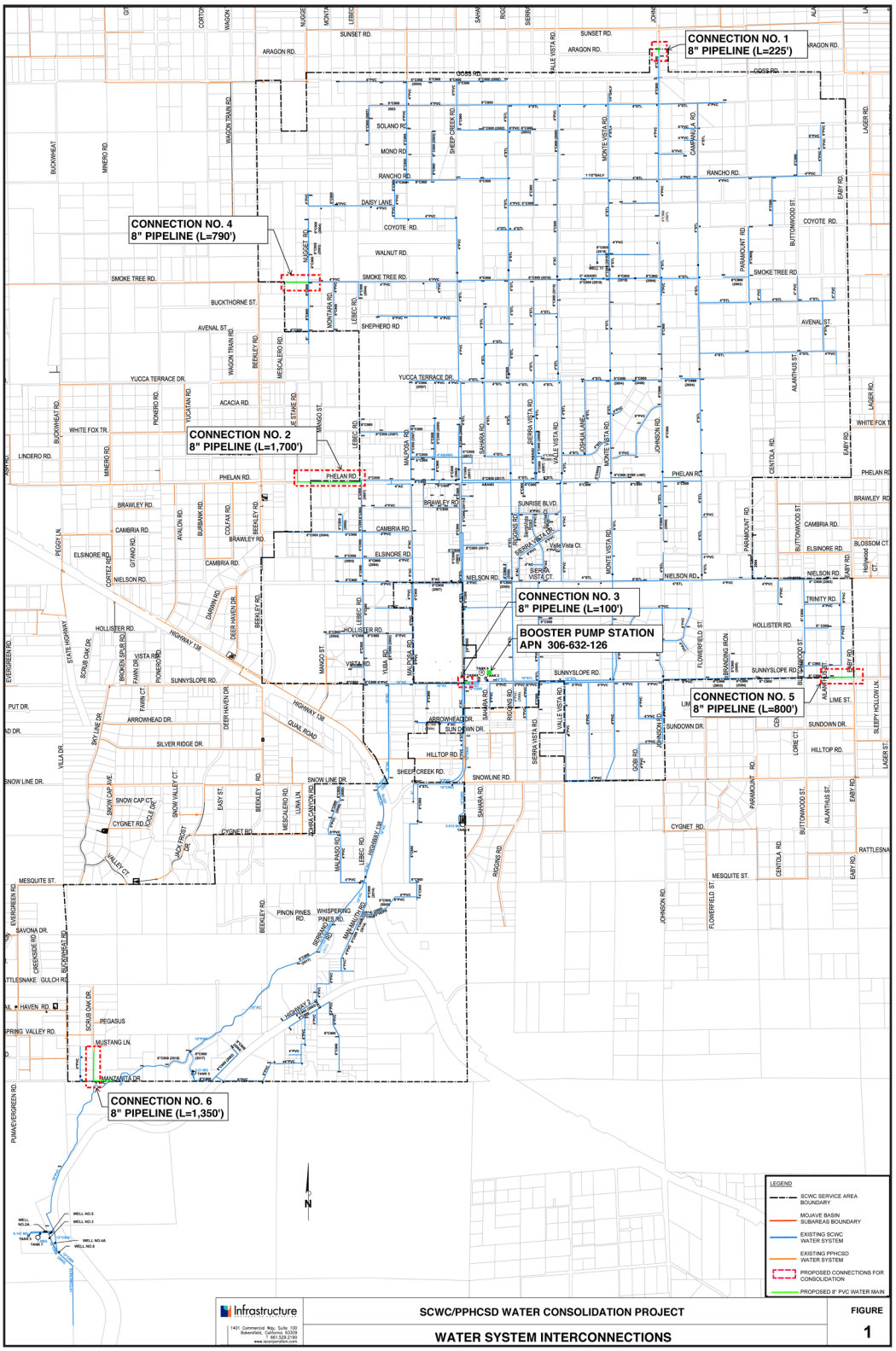

CONNECTION NO. 1
8" PIPELINE (L=225')
CONNECTION NO. 4
8" PIPELINE (L=790')
CONNECTION NO. 2
8" PIPELINE (L=1,700')
CONNECTION NO. 3
8" PIPELINE (L=100')
BOOSTER PUMP STATION
APN 306-632-126
CONNECTION NO. 5
8" PIPELINE (L=800')
CONNECTION NO. 6
8" PIPELINE (L=1,350')
LEGEND
SCWC SERVICE AREA BOUNDARY
MOJAVE BASIN SUBAREAS BOUNDARY
EXISTING SCWC WATER SYSTEM
EXISTING PPHCSD WATER SYSTEM
PROPOSED CONNECTIONS FOR CONSOLIDATION
PROPOSED 8" PVC WATER MAIN
Infrastructure
SCWC/PPHCSD WATER CONSOLIDATION PROJECT
WATER SYSTEM INTERCONNECTIONS
FIGURE
1

Figure 1

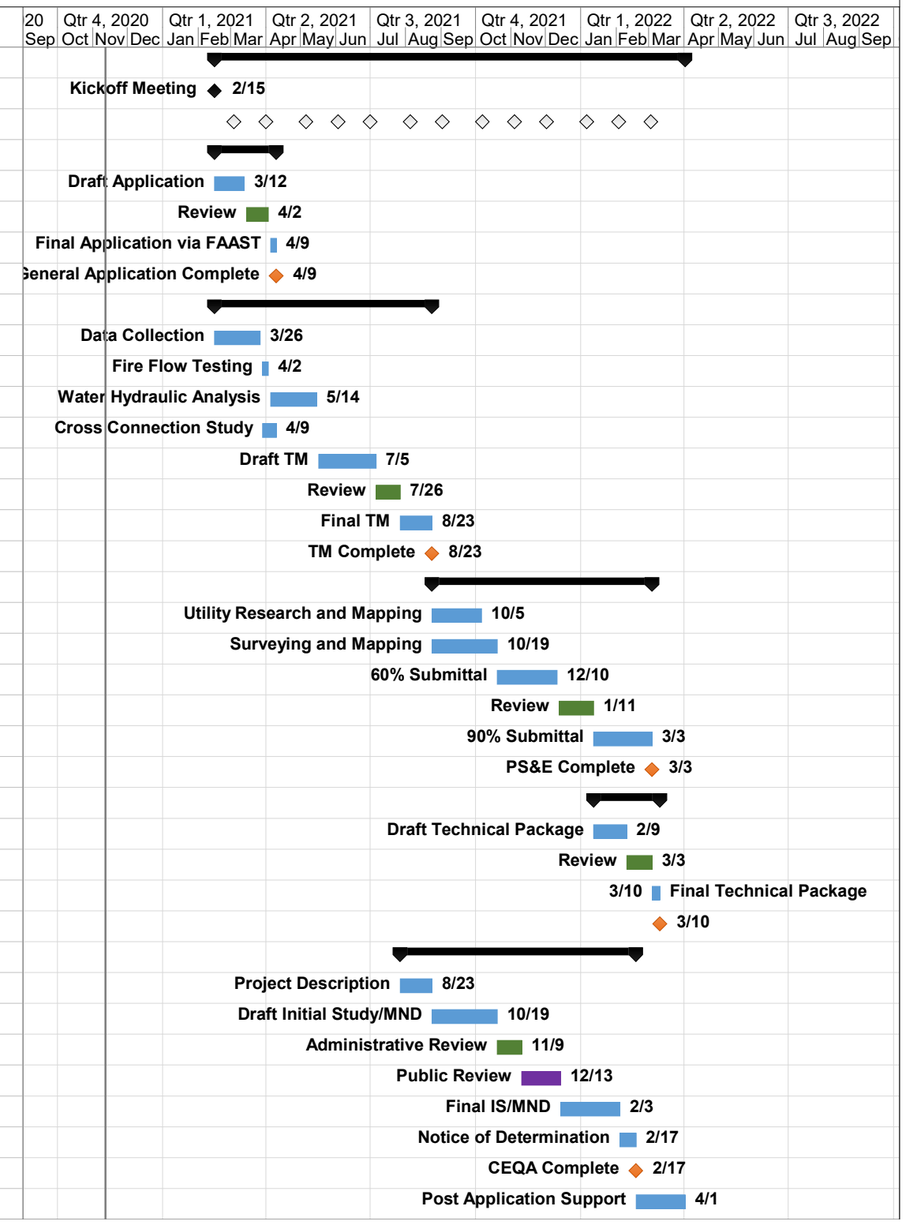
ATTACHMENT B - Fee Schedule
Drinking Water State Revolving Fund, Work Plan No. 6214-A
SCWC/PPHCSD Water Consolidation Project

		Labor Hours											Subconsultants							Sub Markup	Direct Costs	TOTAL
		Principal-in-Charge	QA/QC & Technical Review	Senior Project Manager	Senior Project Manager	Senior Project Engineer	Project Engineer	Engineer II	Engineer I	CADD Designers	GPS Technician	Word Processor	Environmental	Structural/ Electrical/ Instrumentation	Tunneling	Surveying	Cross Connection	Geographic Information Systems	Fire Flow Tests			
		(A. Czajkowski)	*(R. Weber)*	*(D. Salgado)*	*(R. Kennedy)*	*(S.Raveendran)*	*(J.Huang)*	*(D.Mulato)*	*(A. Silva)*	*(T.Sweitzer/ C.Flores)*	*(D. Robinson)*	*(M. Morales)*	*Tom Dodson and Associates*	*IDS*	*Burgex*	*TRLS*	*Hamby*	*DCSE*	*Davis Fire Protection*	*10%*		
	Hourly Rates	$ 260	$ 225	$ 235	$ 235	$ 190	$ 175	$ 150	$ 135	$ 150	$ 150	$ 100										
TASK 2 -	**PREPARE DWSRF GENERAL PACKAGE**																					
	Coordination Meetings	2		4					2											$ -		$ 1,730
	Prepare Draft Application			8					24			24								$ -		$ 7,520
	Finalize Application and Submit (FAAST)			8					16			24								$ -		$ 6,440
																					Task 2 Fee Subtotal	**$ 15,690**
TASK 3 -	**PREPARE TECHNICAL MEMORANDUM**																					
	Coordination Meetings	2		8																$ -		$ 2,400
	Draft Technical Memorandum																					
	Background and Project Information		0.5	1				2												$ -		$ 648
	Problem Description		0.5	1				2												$ -		$ 648
	Consolidation Analysis		0.5	1				2												$ -		$ 648
	Alternative Analysis		0.5	1				2												$ -		$ 648
	Water Hydraulic Analysis		0.5	1				16				8								$ -		$ 3,548
	Fire Flow Tests (6 total)			1		8													$ 9,000	$ 900	$ 500	$ 12,155
	GIS Mapping and Locating Customer Meters (1,400 tot)										240							$ 8,000		$ 800		$ 44,800
	Calibrate Model SCWC			1		8	24													$ -		$ 5,955
	Merge two Hydraulic Models			1		8	24													$ -		$ 5,955
	Calibrate Merged Models			1		8	24													$ -		$ 5,955
	Run Scenarios (analyze 4 scenarios)			1		8	24													$ -		$ 5,955
	Summary and Recommendations			1		8	24													$ -		$ 5,955
	Define Consolidation Project		0.5	4	8			24							$ 10,200					$ 1,020		$ 17,753
	Production and Consumption Analysis		0.5	4		2		24												$ -		$ 5,033
	Cross Connection Survey		0.5	4				24									$ 10,000			$ 1,000		$ 15,653
	Office Space (3 SCWC staff)		0.5	2				8												$ -		$ 1,783
	Class 3 Construction Cost Estimate		0.5	4				24												$ -		$ 4,653
	Estimated O&M Costs		0.5	4				24												$ -		$ 4,653
	Develop Project Schedule		0.5	1				2												$ -		$ 648
	Schematic Map and Proposed Facilities		0.5	4				8	24											$ -		$ 5,493
	Comprehensive Response to Climate Change		0.5	24				24				8								$ -		$ 10,153
	Final Technical Memorandum	1	2	16								4								$ -	$ 500	$ 5,370
																					Task 3 Fee Subtotal	**$ 166,455**
TASK 4 -	**DEVELOP PLANS AND SPECIFICATIONS**																					
	Coordination Meetings	2		8																$ -		$ 2,400
	Data Collection/Utility Mapping			8					40			24								$ -		$ 9,680
	Surveying and Mapping			8												$ 44,000				$ 4,400		$ 50,280
	Electrical and Instrumentation			2										$ 98,650						$ 9,865		$ 108,985
	Structural			2										$ 5,200						$ 520		$ 6,190
	Preliminary Design (60% Submittal)																					
	Plans		0.5	24	24			24	100	100										$ -		$ 43,493
	Specifications		0.5	32				24	80			12								$ -		$ 23,233
	Opinion of Probable Construction Cost		0.5	8				24												$ -		$ 5,593
	Review Meeting, Comment/Response Log		0.5	8								4								$ -		$ 2,393
	Detailed Design (90% Submittal)																					
	Plans		0.5	24	24			12	80	100										$ -		$ 38,993
	Specifications		0.5	24				12	40			24								$ -		$ 15,353
	Opinion of Probable Construction Cost		0.5	16				12				24								$ -		$ 8,073
	Review Meeting, Comment/Response Log		0.5	16								8								$ -		$ 4,673
	Permit Coordination																					
	County of San Bernardino (Encroachment Permit)			4								4								$ -		$ 1,340
	County of San Bernardino (SWPPP/WQMP)			4				24	12			4								$ -		$ 6,560
	County of San Bernardino (Building Department)			4					8			2								$ -	$ 1,500	$ 3,720
	Southern California Edison			4																$ -		$ 940
	State Water Resources Control Board			4																$ -		$ 940
																					Task 4 Fee Subtotal	**$ 332,835**
TASK 5 -	**PREPARE DWSRF TECHNICAL PACKAGE**																					
	Coordination Meetings	2		4					2											$ -		$ 1,730
	Prepare Draft Technical Package			8					24			24								$ -		$ 7,520
	Finalize Package and Submit (FAAST)			8					16			24								$ -		$ 6,440
																					Task 5 Fee Subtotal	**$ 15,690**
TASK 6, 7, 8, 9	**PREPARE DWSRF ENVIRONMENTAL PACKAGE**																					
	Air Quality/Greenhouse Gas: Urban Crossroads (UC)			2									$ 7,000							$ 700		$ 8,170
	Biology (focus on sensitive species)			2									$ 8,000							$ 800		$ 9,270
	Cultural			2									$ 9,000							$ 900		$ 10,370
	Prepare IS/MND (Draft and Final)		1	2								8	$ 12,000							$ 1,200		$ 14,695
	Notice of Determination (County Fees)											2									$ 2,500	$ 2,700
																					Task 6, 7, 8, 9 Fee Subtotal	**$ 45,205**
TASK 12 -	**PROVIDE POST-APPLICATION SUPPORT**																					
	Coordination Meetings	2		8					4											$ -		$ 2,940
	Post-Application Support			24					30			30								$ -		$ 12,690
																					Task 12 Fee Subtotal	**$ 15,630**
	Total Hours:	**11**	**14**	**366**	**56**	**50**	**120**	**318**	**502**	**200**	**240**	**262**										
	Subtotals:	**$ 2,860**	**$ 3,150**	**$ 86,010**	**$ 13,160**	**$ 9,500**	**$ 21,000**	**$ 47,700**	**$ 67,770**	**$ 30,000**	**$ 36,000**	**$ 26,200**	**$ 36,000**	**$ 103,850**	**$ 10,200**	**$ 44,000**	**$ 10,000**	**$ 8,000**	**$ 9,000**	**$ 22,105**	**$ 5,000**		
																					Total Project Cost:	**$ 591,505**

ATTACHMENT C – SCHEDULE

ATTACHMENT C - Project Schedule
Drinking Water State Revolving Fund Work Plan No. 6214-A
SCWC/PPHCSD Water Consolidation Project

ID	Task Name	Duration	Start	Finish
1	**Project**	**281 days**	**Mon 2/15/21**	**Fri 4/1/22**
2	Kickoff Meeting	0 days	Mon 2/15/21	Mon 2/15/21
3	**Progress Meeting**	**246 days**	**Thu 3/4/21**	**Thu 3/3/22**
17	**Prepare General Package**	**40 days**	**Mon 2/15/21**	**Fri 4/9/21**
18	Draft Application	20 days	Mon 2/15/21	Fri 3/12/21
19	*Review*	*15 days*	*Mon 3/15/21*	*Fri 4/2/21*
20	Final Application via FAAST	5 days	Mon 4/5/21	Fri 4/9/21
21	*General Application Complete*	*0 days*	*Fri 4/9/21*	*Fri 4/9/21*
22	**Prepare TM**	**135 days**	**Mon 2/15/21**	**Mon 8/23/21**
23	Data Collection	30 days	Mon 2/15/21	Fri 3/26/21
24	Fire Flow Testing	5 days	Mon 3/29/21	Fri 4/2/21
25	Water Hydraulic Analysis	30 days	Mon 4/5/21	Fri 5/14/21
26	Cross Connection Study	10 days	Mon 3/29/21	Fri 4/9/21
27	Draft TM	35 days	Mon 5/17/21	Mon 7/5/21
28	*Review*	*15 days*	*Tue 7/6/21*	*Mon 7/26/21*
29	Final TM	20 days	Tue 7/27/21	Mon 8/23/21
30	*TM Complete*	*0 days*	*Mon 8/23/21*	*Mon 8/23/21*
31	**PS&E**	**125 days**	**Tue 8/24/21**	**Thu 3/3/22**
32	Utility Research and Mapping	30 days	Tue 8/24/21	Tue 10/5/21
33	Surveying and Mapping	40 days	Tue 8/24/21	Tue 10/19/21
34	60% Submittal	35 days	Wed 10/20/21	Fri 12/10/21
35	*Review*	*15 days*	*Mon 12/13/21*	*Tue 1/11/22*
36	90% Submittal	35 days	Wed 1/12/22	Thu 3/3/22
37	*PS&E Complete*	*0 days*	*Thu 3/3/22*	*Thu 3/3/22*
38	**Prepare Techncial Package**	**40 days**	**Wed 1/12/22**	**Thu 3/10/22**
39	Draft Technical Package	20 days	Wed 1/12/22	Wed 2/9/22
40	*Review*	*15 days*	*Thu 2/10/22*	*Thu 3/3/22*
41	Final Technical Package	5 days	Fri 3/4/22	Thu 3/10/22
42	*Technical Package Complete*	*0 days*	*Thu 3/10/22*	*Thu 3/10/22*
43	**CEQA**	**136 days**	**Tue 7/27/21**	**Thu 2/17/22**
44	Project Description	20 days	Tue 7/27/21	Mon 8/23/21
45	Draft Initial Study/MND	40 days	Tue 8/24/21	Tue 10/19/21
46	Administrative Review	15 days	Wed 10/20/21	Tue 11/9/21
47	*Public Review*	*21 days*	*Wed 11/10/21*	*Mon 12/13/21*
48	Final IS/MND	30 days	Tue 12/14/21	Thu 2/3/22
49	Notice of Determination	10 days	Fri 2/4/22	Thu 2/17/22
50	*CEQA Complete*	*0 days*	*Thu 2/17/22*	*Thu 2/17/22*
51	**Post Application Support**	30 days	Fri 2/18/22	Fri 4/1/22



PRODUCTION 6 - YEAR RECAP

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL	TOTAL	TOTAL	
2020	-3%	10%	2%	-16%	33%	13%	20%	4%	8%	3%	8%	-100%				Reduction compared to 2019
	-40%	-36%	-57%	-57%	-42%	-46%	-39%	-44%	-40%	-37%	-37%	-100%	GALLS	CU.FT	A.F	Reduction compared to 2013
Tunnel	5,481,792	5,087,000	5,428,224	5,313,600	5,671,000	5,652,000	5,954,000	5,954,976	5,754,240	5,896,944	5,702,400		61,896,176	8,274,890	189.92	
Well # 2A	177,000	62,000	22,000	11,000	12,000	14,000	3,419,000	7,282,000	254,000	14,000	23,000		11,290,000	1,509,358	34.64	
Well # 3A	0	1,245,000	4,863,000	5,480,000	9,107,000	5,025,000	15,000	25,000	6,825,000	6,401,000	4,177,000		43,163,000	5,770,455	132.44	
Well # 4A	31,000	28,000	21,000	44,000	14,000	29,000	732,000	7,480,000	253,000	21,000	19,000		8,672,000	1,159,358	26.61	
Well # 5	5,119,000	4,377,000	440,000	347,000	3,529,000	6,710,000	3,062,000	21,000	6,154,000	5,570,000	3,077,000		38,406,000	5,134,492	117.85	
Well # 8	34,000	80,000	23,000	55,000	23,000	2,055,000	7,514,000	29,000	114,000	20,000	22,000		9,969,000	1,332,754	30.59	
Well # 11	0	127,800	88,600	194,100	482,700	1,109,600	2,906,300	705,800	274,500	0	11,200		5,900,600	788,850	18.11	
PPHCSD	0	0	0	0	0	0	0	0	0	0	0		0	0	0.00	
TOTAL G	10,842,792	11,006,800	10,885,824	11,444,700	18,838,700	20,594,600	23,602,300	21,497,776	19,628,740	17,922,944	13,031,600	0	179,296,776	23,970,157	550.16	
TOTAL CF	1,449,571	1,471,497	1,455,324	1,530,040	2,518,543	2,753,289	3,155,388	2,874,034	2,624,163	2,396,116	1,742,193	0	Total Reduction=		-427%	
TOTAL AF	33.270	33.774	33.402	35.117	57.805	63.193	72.422	65.964	60.229	54.995	39.986	0.000	179.30			
2019	-18%	-28%	-17%	-31%	-26%	-14%	-3%	-9%	5%	4%	-14%	-12%				Reduction compared to 2018
	-38%	-42%	-58%	-49%	-56%	-53%	-49%	-46%	-44%	-39%	-42%	-34%	GALLS	CU.FT	A.F	Reduction compared to 2013
Tunnel	4,808,174	4,384,800	5,017,090	5,163,000	5,517,058	5,140,800	5,490,720	5,713,920	5,537,000	5,624,640	5,400,000	5,535,360	63,332,562	8,466,920	194.33	
Well # 2A	10,000	41,000	2,784,000	3,817,000	3,943,000	5,499,000	5,628,000	2,863,000	150,000	3,281,000	1,076,000	870,000	29,962,000	4,005,615	91.94	
Well # 3A	7,000	228,000	144,000	11,000	1,600	38,000	234,000	57,000	0	0	0	0	720,600	96,337	2.21	
Well # 4A	6,000	211,000	132,000	11,000	7,000	27,000	35,000	15,000	57,000	22,000	10,000	15,000	548,000	73,262	1.68	
Well # 5	2,928,000	2,285,000	2,278,000	3,881,000	3,637,000	4,746,000	6,006,000	6,506,000	5,055,000	6,346,000	2,102,000	3,173,000	48,943,000	6,543,182	150.18	
Well # 8	3,122,000	2,612,000	6,000	12,000	76,000	310,000	58,000	2,865,000	4,922,000	1,695,000	3,445,000	1,134,000	20,257,000	2,708,155	62.16	
Well # 11	250,600	267,200	322,500	663,600	988,800	2,385,700	2,281,300	2,739,700	2,481,500	456,100	44,800	0	12,881,800	1,722,166	39.53	
PPHCSD	0	0	0	0	0	0	0	0	0	0	0		0	0	0.00	
TOTAL G	11,131,774	10,029,000	10,683,590	13,558,600	14,170,458	18,146,500	19,733,020	20,759,620	18,202,500	17,424,740	12,077,800	10,727,360	176,644,962	23,615,637	542.02	
TOTAL CF	1,488,205	1,340,775	1,428,287	1,812,647	1,894,446	2,426,003	2,638,104	2,775,350	2,433,489	2,329,511	1,614,679	1,434,139	Total Reduction=		-47%	
TOTAL AF	34.157	30.773	32.782	41.604	43.481	55.681	60.549	63.699	55.853	53.467	37.060	32.916	176.64			
2018	3%	0%	-32%	-6%	-27%	-41%	-36%	-20%	-20%	-7%	-10%	-6%				Reduction compared to 2016
	-25%	-19%	-49%	-27%	-40%	-45%	-48%	-41%	-47%	-41%	-33%	-39%	GALLS	CU.FT	A.F	Reduction compared to 2013
Tunnel	5,879,088	5,204,909	5,674,190	5,428,987	5,583,000	5,362,000	5,450,000	5,395,000	5,150,736	5,272,877	5,070,989	5,150,000	64,630,776	8,640,478	198.31	
Well # 2A	0	0	238,000	1,682,000	17,000	184,000	2,142,000	1,152,000	998,000	128,000	5,000	0	6,546,000	875,134	20.09	
Well # 3A	0	0	11,000	157,000	1,147,000	665,000	10,000	6,000	0	0	0	0	1,996,000	266,845	6.12	
Well # 4A	123,000	157,000	255,000	1,458,000	2,316,000	74,000	73,000	9,000	0	0	12,000	0	4,477,000	598,529	13.74	
Well # 5	3,559,000	4,031,000	3,129,000	5,518,000	6,216,000	8,424,000	6,448,000	5,119,000	5,116,000	5,592,000	4,571,000	3,535,000	61,258,000	8,189,572	187.97	
Well # 8	3,971,000	4,511,000	3,531,000	5,312,000	3,966,000	6,487,000	6,279,000	5,507,000	6,059,000	5,714,000	4,346,000	3,423,000	59,106,000	7,901,872	181.36	
Well # 11	0	0	0	0	0	0	0	0	0	0	0	24,700	24,700	3,302	0.08	
PPHCSD	0	0	0	0	0	0	0	5,525,000	0	0	0	0	5,525,000	738,636	16.95	
TOTAL G	13,532,088	13,903,909	12,838,190	19,555,987	19,245,000	21,196,000	20,402,000	22,713,000	17,323,736	16,706,877	14,004,989	12,141,700	203,563,476	27,214,368	624.62	
TOTAL CF	1,809,103	1,858,811	1,716,336	2,614,437	2,572,861	2,833,690	2,727,540	3,036,497	2,316,007	2,233,540	1,872,325	1,623,222	al Reduction=		-39%	
TOTAL AF	41.522	42.663	39.393	60.006	59.052	65.038	62.602	69.693	53.157	51.264	42.973	37.256	203.56			
2017	-18%	-15%	-16%	-11%	-17%	-37%	-20%	-14%	0%	9%	5%	19%				Reduction compared to 2016
	-40%	-32%	-38%	-31%	-33%	-41%	-35%	-36%	-34%	-31%	-22%	-6%	GALLS	CU.FT	A.F	Reduction compared to 2013
Tunnel	6,570,115	5,860,915	6,590,203	6,468,984	6,579,043	6,284,000	6,397,805	6,255,850	5,989,982	6,108,091	5,865,005	5,960,779	74,930,772	10,017,483	229.92	
Well # 2A	18,000	23,000	0	0	19,000	168,000	36,000	10,000	9,000	8,000	0	0	291,000	38,904	0.89	
Well # 3A	3,727,000	5,786,000	7,405,000	6,194,000	6,006,000	5,728,000	4,964,000	2,496,000	2,485,000	282,000	0	0	45,073,000	6,025,802	138.30	
Well # 4A	439,000	45,000	0	279,000	37,000	47,000	403,000	1,203,000	9,000	2,397,000	2,081,000	864,000	7,804,000	1,043,316	23.95	
Well # 5	62,000	29,000	0	100,000	2,687,000	4,115,000	6,412,000	7,334,000	6,533,000	5,182,000	3,992,000	4,054,000	40,500,000	5,414,439	124.27	
Well # 8	28,000	26,000	1,692,000	5,444,000	6,327,000	6,284,000	7,282,000	7,135,000	6,590,000	5,498,000	4,341,000	4,521,000	55,168,000	7,375,401	169.28	
PPHCSD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	
TOTAL G	10,844,115	11,769,915	15,687,203	18,485,984	21,655,043	22,626,000	25,494,805	24,433,850	21,615,982	19,475,091	16,279,005	15,399,779	223,766,772	29,915,344	686.61	
TOTAL CF	1,449,748	1,573,518	2,097,220	2,471,388	2,895,059	3,024,866	3,408,396	3,266,557	2,889,837	2,603,622	2,176,338	2,058,794	al Reduction=		-33%	
TOTAL AF	33.27	36.12	48.14	56.72	66.45	69.43	78.23	74.97	66.33	59.76	49.95	47.25	223.77			
2016	-27%	-20%	-26%	-22%	-19%	-7%	-18%	-26%	-34%	-37%	-26%	-21%	GALLS	CU.FT	A.F	Reduction compared to 2013
Tunnel	8,211,082	7,509,067	7,907,083	7,583,998	7,591,925	7,261,013	7,365,600	7,221,859	6,873,984	6,987,946	6,655,003	6,717,874	87,986,434	11,762,892	269.98	
Well # 2A	16,000	27,000	3,393,000	4,281,000	6,731,000	3,365,000	3,066,000	124,000	0	3,000	6,000	1,000	21,013,000	2,809,225	64.48	
Well # 3A	29,000	31,000	35,000	1,692,000	4,498,000	10,091,000	4,110,000	1,218,000	101,000	13,000	11,000	12,000	21,841,000	2,919,920	67.02	
Well # 4A	48,000	35,000	30,000	43,000	29,000	2,932,000	3,056,000	1,504,000	220,000	17,000	16,000	18,000	7,948,000	1,062,567	24.39	
Well # 5	4,831,000	6,174,000	7,368,000	7,135,000	7,324,000	6,861,000	8,024,000	6,451,000	6,668,000	5,803,000	4,457,000	3,294,000	74,390,000	9,945,187	228.26	
Well # 8	22,000	20,000	21,000	26,000	32,000	5,286,000	6,395,000	7,963,000	7,231,000	5,121,000	4,332,000	2,915,000	39,364,000	5,262,567	120.79	
PPHCSD	0	0	0	0	0	0	0	4,060,000	587,000	0	0	0	4,647,000	621,257	14.26	
TOTAL G	13,157,082	13,886,067	18,754,083	20,770,998	26,205,925	35,796,013	32,016,600	28,541,859	21,680,984	17,944,946	15,477,003	12,957,874	257,189,434	34,383,614	789.17	
TOTAL CF	1,758,968	1,856,426	2,507,230	2,776,871	3,503,466	4,785,563	4,280,294	3,815,757	2,808,527	2,399,057	2,069,118	1,732,336	al Reduction=		-23%	
TOTAL AF	40.37	42.61	57.55	63.73	80.41	109.84	98.24	87.58	66.53	55.06	47.49	39.76	257.19			
2015	-9%	-11%	-18%	-13%	-24%	-32%	-35%	-23%	-17%	-24%	-23%	-12%	GALLS	CU.FT	A.F	Reduction compared to 2013
Tunnel	11,454,624	10,236,038	11,083,219	8,772,192	9,099,864	9,244,800	9,410,112	9,106,560	8,674,560	8,768,189	8,335,872	8,424,907	112,610,937	15,054,938	345.54	
Well # 2A	0	346,000	2,603,000	5,592,000	5,732,000	6,307,000	5,680,000	7,461,000	6,318,000	4,528,000	1,134,000	451,000	46,152,000	6,170,053	141.61	
Well # 3A	4,305,000	261,000	614,000	833,000	1,922,000	3,833,000	2,845,000	5,311,000	4,918,000	1,695,000	410,000	28,000	26,975,000	3,606,283	82.77	
Well # 4A	0	38,000	54,000	41,000	74,000	46,000	0	23,000	30,000	35,000	35,000	42,000	418,000	55,882	1.28	
Well # 5	545,000	4,458,000	6,169,000	8,059,000	7,494,000	6,712,000	7,219,000	7,590,000	7,245,000	6,689,000	6,012,000	5,418,000	73,610,000	9,840,909	225.87	
Well # 8	197,300	38,100	136,700	22,100	40,000	28,000	0	6,000	13,000	13,000	12,000	17,000	523,200	69,947	1.61	
Well #	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	
TOTAL G	16,501,924	15,377,138	20,659,919	23,319,292	24,361,864	26,170,800	25,154,112	29,497,560	27,198,560	21,728,189	15,938,872	14,380,907	260,289,137	34,798,013	798.68	
TOTAL CF	2,206,140	2,055,767	2,762,021	3,117,552	3,256,934	3,498,770	3,362,849	3,943,524	3,636,171	2,904,838	2,130,865	1,922,581	al Reduction=		-22%	
TOTAL AF	50.63	47.18	63.39	71.55	74.75	80.30	77.18	90.51	83.46	66.67	48.91	44.13	260.29			
2014													GALLS	CU.FT	A.F	
Tunnel	13,525,027	12,058,099	13,130,856	12,582,000	12,798,000	12,226,896	12,471,077	12,305,016	11,772,864	11,942,986	11,467,008	11,593,901	147,873,730	19,769,215	453.74	
Well # 2A	39,000	0	0	124,000	6,518,000	10,510,000	13,486,000	10,647,000	1,792,000	143,000	0	0	43,259,000	5,783,289	132.74	
Well # 3A	37,000	0	0	50,000	9,769,000	10,895,000	11,019,000	10,688,000	6,318,000	9,049,000	8,959,000	3,493,000	70,277,000	9,395,321	215.64	
Well # 4A	53,000	0	2,521,000	6,205,000	1,619,000	1,185,000	1,441,000	1,057,000	8,972,000	1,192,000	0	0	24,245,000	3,241,310	74.39	
Well # 5	154,000	0	1,293,000	22,000	28,000	0	31,000	106,000	1,301,000	2,124,000	310,000	0	5,369,000	717,781	16.47	
Well # 8	4,820,900	5,362,900	4,790,000	7,081,200	1,936,100	819,200	1,412,500	609,000	3,197,300	2,819,800	1,171,000	0	34,019,900	4,548,115	104.39	
Well #	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	
TOTAL G	18,628,927	17,420,999	21,734,856	26,064,200	32,668,100	35,636,096	39,860,577	35,412,016	33,353,164	27,270,786	21,907,008	15,086,901	325,043,630	43,455,031	997.37	
TOTAL CF	2,490,498	2,329,011	2,905,729	3,484,519	4,367,393	4,764,184	5,328,954	4,734,227	4,458,979	3,645,827	2,928,744	2,016,965				
TOTAL AF	57.16	53.46	66.69	79.98	100.24	109.35	122.31	108.66	102.34	83.68	67.22	46.29	325.04			

Population 3361

CONSUMPTION 10-YEAR

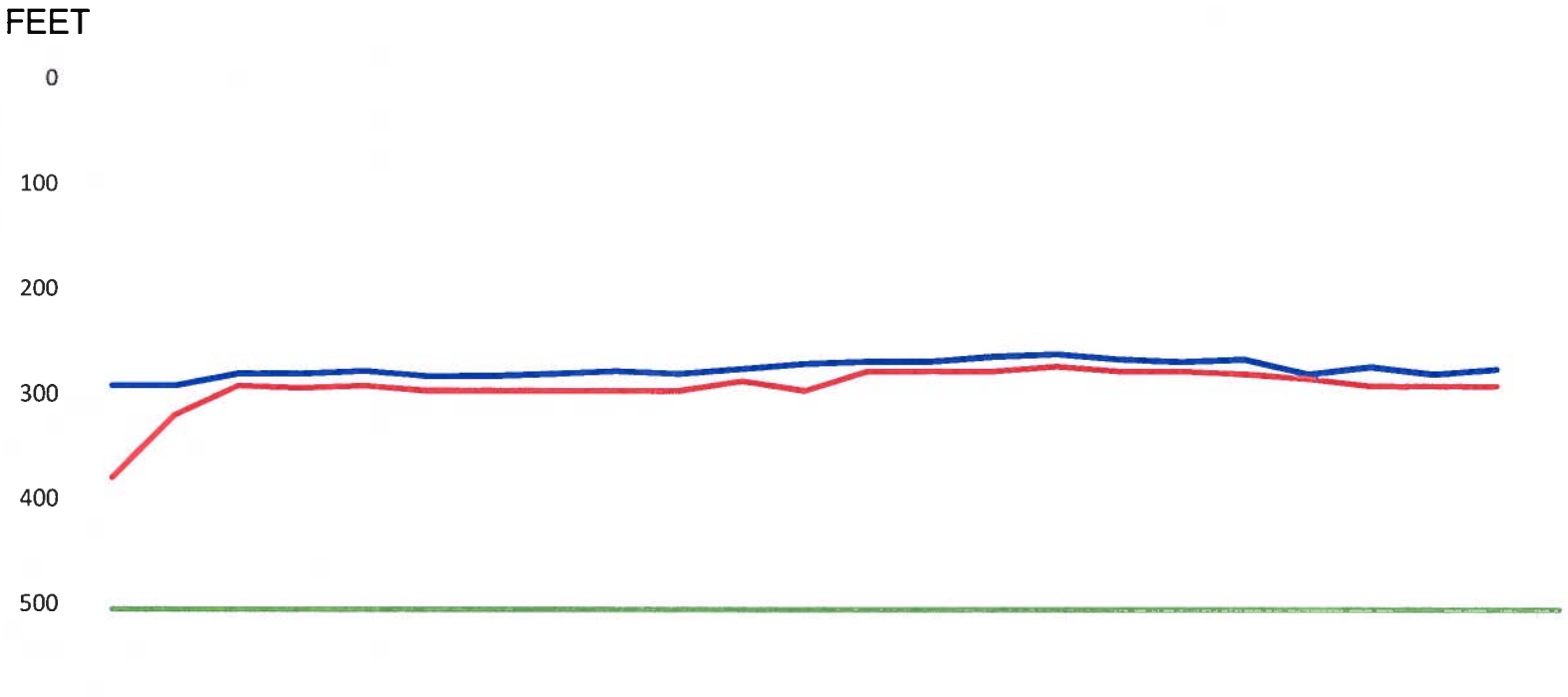
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL	
2020	-3%	3%	11%	-21%	16%	18%	4%	-1%	11%	10%	5%	-100%		Reduction with 2019
	-33%	-27%	-43%	-58%	-46%	-40%	-44%	-44%	-34%	-30%	-25%	-100%		Reduction with 2013
Cons'n HCF	12,108	11,353	11,457	13,003	19,970	23,014	25,219	24,223	24,214	21,641	14,550	0	200,752	
Cons'n GPM	203	211	192	225	335	398	423	406	419	363	252	0	285	
Cons'n A.F.	27.795	26.062	26.302	29.850	45.846	52.833	57.894	55.608	55.588	49.681	33.403	0.000	460.862	
Ave GPDPP	86.922739	81.502788	82.252217	93.349131	143.3696	165.21983	181.04844	173.89903	173.83701	155.36247	104.45753	0	120.102	
2019	-19%	-24%	-19%	-10%	-22%	-21%	-10%	-7%	-2%	5%	-15%	-1%		Reduction with 2018
	-31%	-30%	-49%	-47%	-53%	-49%	-46%	-43%	-40%	-36%	-28%	-20%		Reduction with 2013
Cons'n HCF	12,481	10,980	10,327	16,381	17,288	19,469	24,323	24,572	21,868	19,744	13,907	12,940	204,279	
Cons'n GPM	209	204	173	284	290	337	408	412	379	331	241	217	290	
Cons'n A.F.	28.652	25.207	23.707	37.606	39.688	44.695	55.838	56.409	50.203	45.325	31.926	29.706	468.960	
Ave GPDPP	89.599906	78.826483	74.137008	117.60186	124.11268	139.77034	174.61781	176.40347	156.99586	141.74173	99.840565	92.896918	122.212	
2018	14%	-16%	-39%	-20%	-24%	-42%	-24%	-26%	-15%	-6%	-16%	0%	-18%	Reduction with 2016
	-15%	-7%	-37%	-41%	-40%	-35%	-40%	-39%	-39%	-39%	-16%	-18%	-30%	Reduction with 2013
Cons'n HCF	15,360	14,461	12,701	18,206	22,082	24,730	27,000	26,417	22,364	18,762	16,399	13,123	231,605	
Cons'n GPM	257	268	213	315	370	428	452	443	387	314	284	220	329	
Cons'n A.F.	35.262	33.198	29.157	41.796	50.692	56.772	61.983	60.646	51.341	43.072	37.647	30.126	531.693	
Ave GPDPP	110.27104	110.97826	91.182041	130.70548	158.52588	183.45592	193.83409	189.65218	165.90748	134.69679	121.65634	97.352463	140.685	
2017	-18%	-41%	-27%	-9%	-17%	-39%	-27%	-15%	-16%	11%	2%	19%	-15%	Reduction with 2016
	-38%	-35%	-24%	-33%	-34%	-33%	-42%	-30%	-40%	-29%	3%	-3%	-28%	Reduction with 2013
Cons'n HCF	11,121	10,088	15,275	20,758	24,151	25,786	26,112	30,311	22,165	21,963	19,912	15,588	243,231	
Cons'n GPM	186	187	256	359	405	446	438	508	384	368	345	261	345	
Cons'n A.F.	25.531	23.159	35.066	47.653	55.443	59.196	59.945	69.585	50.885	50.420	45.713	35.785	558.381	
Ave GPDPP	79.84039	72.423639	109.66031	149.02165	173.384	185.11993	187.46068	217.60869	159.1277	157.67493	142.95342	111.90702	145.515	
2016	-25%	10%	3%	-26%	-21%	11%	-21%	-17%	-28%	-35%	0%	-19%	-16%	Reduction with 2013
Cons'n HCF	13,498	17,144	20,915	22,752	29,188	42,373	35,594	35,657	26,381	19,859	19,429	13,103	295,892	
Cons'n GPM	226	318	350	394	489	734	596	597	457	333	336	220	421	
Cons'n A.F.	30.986	39.356	48.014	52.232	67.007	97.274	81.712	81.857	60.561	45.589	44.604	30.081	679.274	
Ave GPDPP	96.901074	123.0758	150.15207	163.3402	209.54503	304.19796	255.53169	255.98606	189.389	142.56712	139.48591	94.070633	177.020	
2015				-4%	-27%	-20%	-33%	-27%	-9%	-18%	-8%	11%	-15%	Reduction with 2013
Cons'n HCF	15,686	15,711	20,472	29,631	26,759	30,807	30,067	31,370	33,365	25,346	18,042	17,975	295,231	
Cons'n GPM	263	291	343	513	448	533	504	526	578	425	312	301	420	
Cons'n A.F.	36.010	36.068	46.997	68.023	61.430	70.723	69.025	72.015	76.596	58.187	41.418	41.266	677.757	
Ave GPDPP	112.61029	112.79422	146.96957	212.72352	192.10615	221.16724	215.85778	225.2065	239.53237	181.96248	129.52236	129.04811	176.625	
2014														
Cons'n HCF	17,899	18,812	18,885	30,747	35,306	39,612	46,285	35,211	38,411	33,592	20,749	19,044	354,552	
Cons'n GPM	300	349	316	532	592	686	776	590	665	563	359	319	504	
Cons'n A.F.	41.091	43.187	43.353	70.585	81.051	90.937	106.256	80.833	88.180	77.117	47.632	43.719	813.941	
2013														
Cons'n HCF	17,965	15,582	20,215	30,811	36,733	38,221	44,989	43,058	36,655	30,752	19,423	16,096	350,501	
Cons'n GPM	301	289	339	533	616	662	754	721	635	515	336	270	498	
Cons'n A.F.	41.242	35.771	46.408	70.732	84.327	87.743	103.281	98.848	84.149	70.598	44.588	36.952	805	
													46.763566	
2012														
Cons'n HCF	15,541	16,894	20,272	19,552	39,647	36,242	44,216	41,956	31,268	28,645	20,721	15,028	329,982	
Cons'n GPM	260	313	340	339	664	628	741	703	541	480	359	252	468	
Cons'n A.F.	36	39	47	45	91	83	102	96	72	66	48	34	758	
2011														
Cons'n HCF	15,076	13,553	17,061	20,126	28,968	36,990	35,866	42,149	34,486	28,970	22,109	14,483	309,836	
Cons'n GPM	253	251	286	348	485	640	601	706	597	485	383	243	440	
Cons'n A.F.	35	31	39	46	67	85	82	97	79	67	51	33	711	

AVERAGE GALLONS PER MINUTE

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
2020	26%	43%	40%	56%	51%	53%	62%	50%	55%	48%	45%	-100%	Compare 2019
Tunnel	123	122	122	123	127	131	133	133	133	132	132		
Well # 2A	250	279	262	306	286	292	344	339	336	333	319		
Well # 3A	0	312	324	327	318	311	311	347	321	333	323		
Well # 4A	272	292	250	319	292	302	372	350	332	269	288		
Well # 5	305	309	327	314	319	307	311	318	289	289	302		
Well # 8	270	284	295	367	367	367	348	322	333	333	333		
Well # 11	251	251	251	251	251	251	251	251	251	251	251		
TOTAL G	**1,471**	**1,849**	**1,831**	**2,007**	**1,960**	**1,961**	**2,070**	**2,060**	**1,995**	**1,940**	**1,948**	**0**	
2019	26%	-2%	0%	3%	13%	61%	155%	166%	155%	154%	70%	83%	Compare 2018
Tunnel	107	109	112	119	124	119	123	128	128	126	125	124	
Well # 2A	150	208	207	170	179	189	184	158	172	204	186	229	
Well # 3A	148	186	194	186	186	167	162	167	0	0	0	0	**Pump Pulled 9-19**
Well # 4A	174	179	185	189	194	167	167	179	207	207	207	312	
Well # 5	155	168	170	173	165	197	196	231	270	283	290	299	
Well # 8	181	193	193	198	198	192	195	258	259	242	285	263	
Well # 11	251	251	251	251	251	251	251	251	251	251	251	251	
TOTAL G	**1,166**	**1,294**	**1,312**	**1,286**	**1,297**	**1,282**	**1,278**	**1,372**	**1,287**	**1,313**	**1,344**	**1,478**	
2018	-40%	-27%	-16%	-12%	-19%	-42%	-57%	-49%	-48%	-48%	-17%	-21%	Compare 2017
Tunnel	131	129	127	125	125	124	122	121	119	118	118	116	
Well # 2A	0	150	175	135	125	55	30	30	25	25	30	30	
Well # 3A	115	211	122	195	167	33	25	25	25	25	25	25	
Well # 4A	199	213	251	194	168	99	60	60	60	60	60	60	
Well # 5	286	289	297	279	274	278	124	119	124	128	138	147	
Well # 8	320	325	337	317	284	205	141	161	152	161	167	179	
Well # 11	0	0	0	0	0	0	0	0	0	0	251	251	
TOTAL G	**1,051**	**1,317**	**1,309**	**1,245**	**1,143**	**794**	**502**	**516**	**505**	**517**	**789**	**808**	
2017	-35%	-40%	-43%	-48%	-45%	-11%	66%	58%	17%	6%	-28%	-37%	
Tunnel	147	145	147	148	147	147	143	140	137	136	136	134	
Well # 2A	214	274	0	0	0	50	50	50	107	107	0	0	**Pump Pulled 11-17**
Well # 3A	330	330	345	295	301	280	180	143	115	115	115	115	
Well # 4A	370	333	333	253	253	200	200	144	115	130	154	184	
Well # 5	353	372	372	355	353	353	280	257	238	244	258	275	
Well # 8	333	361	367	358	350	342	310	278	256	266	288	308	
TOTAL G	**1,747**	**1,815**	**1,564**	**1,409**	**1,404**	**1,372**	**1,163**	**1,012**	**968**	**998**	**951**	**1,016**	
2016													
Tunnel	184	182	177	176	170	168	165	162	159	157	154	150	
Well # 2A	381	500	559	534	468	213	44	38	38	45	111	167	
Well # 3A	537	646	530	635	610	225	28	31	90	114	183	286	
Well # 4A	659	729	556	478	439	193	94	52	132	157	267	333	
Well # 5	461	468	463	471	438	381	120	163	192	218	305	353	
Well # 8	458	476	438	433	444	365	248	194	217	254	297	326	
TOTAL G	**2,680**	**3,001**	**2,723**	**2,727**	**2,569**	**1,545**	**699**	**640**	**828**	**945**	**1,317**	**1,615**	
2015													
Tunnel	256	253	248	203	203	214	210	204	201	196	193	189	
Well # 2A	0	749	625	573	533	537	524	491	418	417	439	479	
Well # 3A	693	680	678	705	652	641	631	613	591	586	594	583	
Well # 4A	883	905	818	759	881	697	697	639	625	625	625	875	
Well # 5	551	551	547	537	513	497	488	471	451	452	459	460	
Well # 8	463	454	465	460	444	467	467	333	361	361	333	405	
TOTAL G	**2,846**	**3,592**	**3,381**	**3,237**	**3,226**	**3,053**	**3,017**	**2,751**	**2,647**	**2,637**	**2,643**	**2,991**	
2014													
Tunnel	303	299	294	291	287	283	279	276	273	268	265	260	
Well # 2A	1,156	1,156	1,156	1,148	1,015	985	886	733	688	630	0	0	**Nov- Pump Pulled**
Well # 3A	617	617	617	641	706	685	664	652	619	637	657	679	
Well # 4A	883	883	898	919	882	851	772	903	667	667	760	760	
Well # 5	317	317	326	326	259	259	258	310	301	306	0	0	**Oct- Pump Pulled**
Well # 8	505	506	499	496	485	471	450	463	406	459	438	438	
TOTAL G	**3,781**	**3,778**	**3,790**	**3,821**	**3,634**	**3,534**	**3,309**	**3,337**	**2,954**	**2,967**	**2,120**	**2,137**	

SHEEP CREEK WATER COMPANY

WELL #2A Monthly Water Levels / 2 years



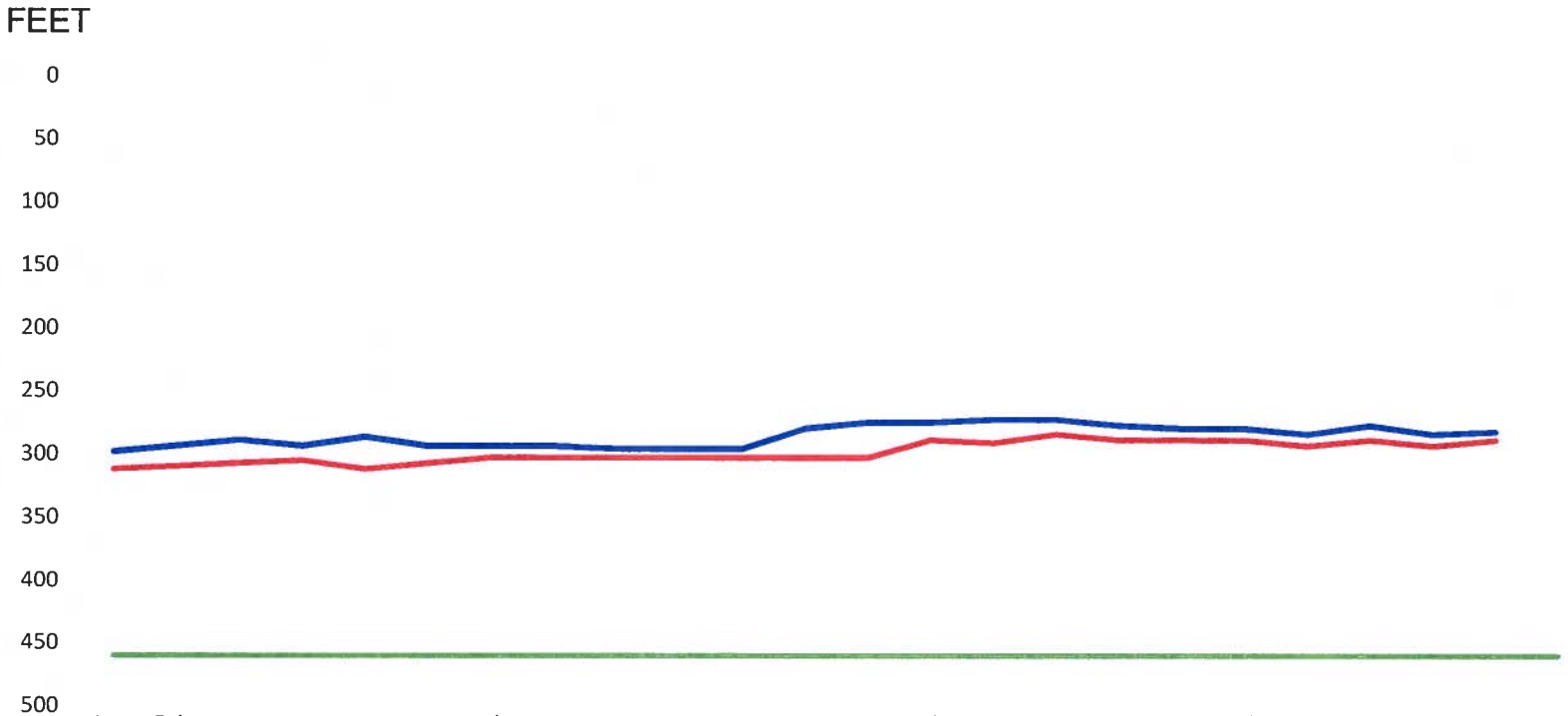
	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20
WELL 2A S	292	292	281	281	279	283	283	281	279	281	276	272	269	269	265	262	267	269	267	281	274	281	276	
WELL 2A P	380	320	292	295	292	297	297	297	297	297	288	297	279	279	279	274	279	279	281	286	292	292	292	
PUMP DEPTH	505	505	505	505	505	505	505	505	505	505	505	505	505	505	505	505	505	505	505	505	505	505	505	505

2019 / 2020

WELL 2A S — WELL 2A P — PUMP DEPTH

SHEEP CREEK WATER COMPANY

WELL #3A Monthly Water Levels / 2 years



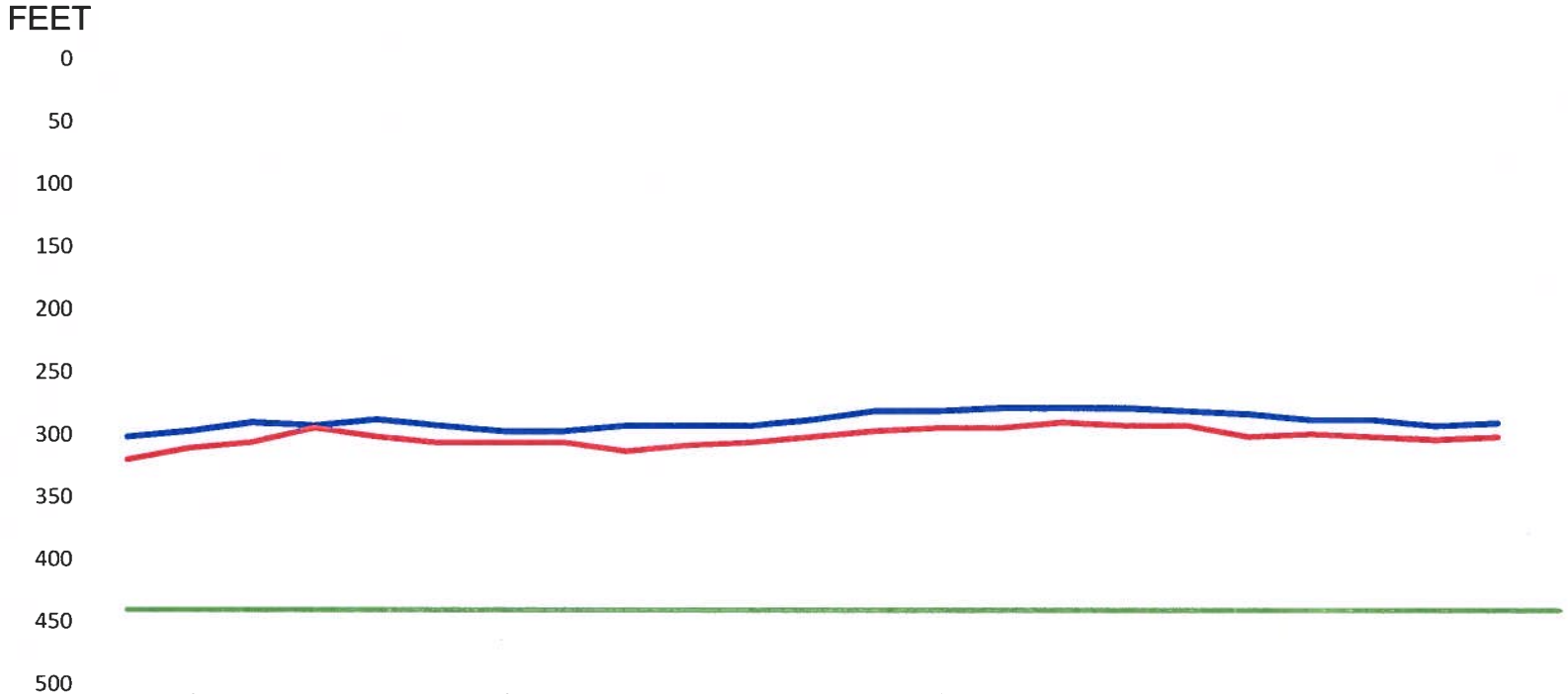
	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20
WELL # 3A S	298	294	289	294	287	294	294	294	296	296	296	280	275	275	273	273	278	280	280	284	278	284	282	
WELL # 3A P	312	310	308	305	312	308	303	303	303	303	303	303	303	289	291	284	289	289	289	294	289	294	289	
Pump Depth	460	460	460	460	460	460	460	460	460	460	460	460	460	460	460	460	460	460	460	460	460	460	460	460

2019 / 2020

WELL # 3A S — WELL # 3A P — Pump Depth

SHEEP CREEK WATER COMPANY

WELL #4A Monthly Water Levels / 2 years



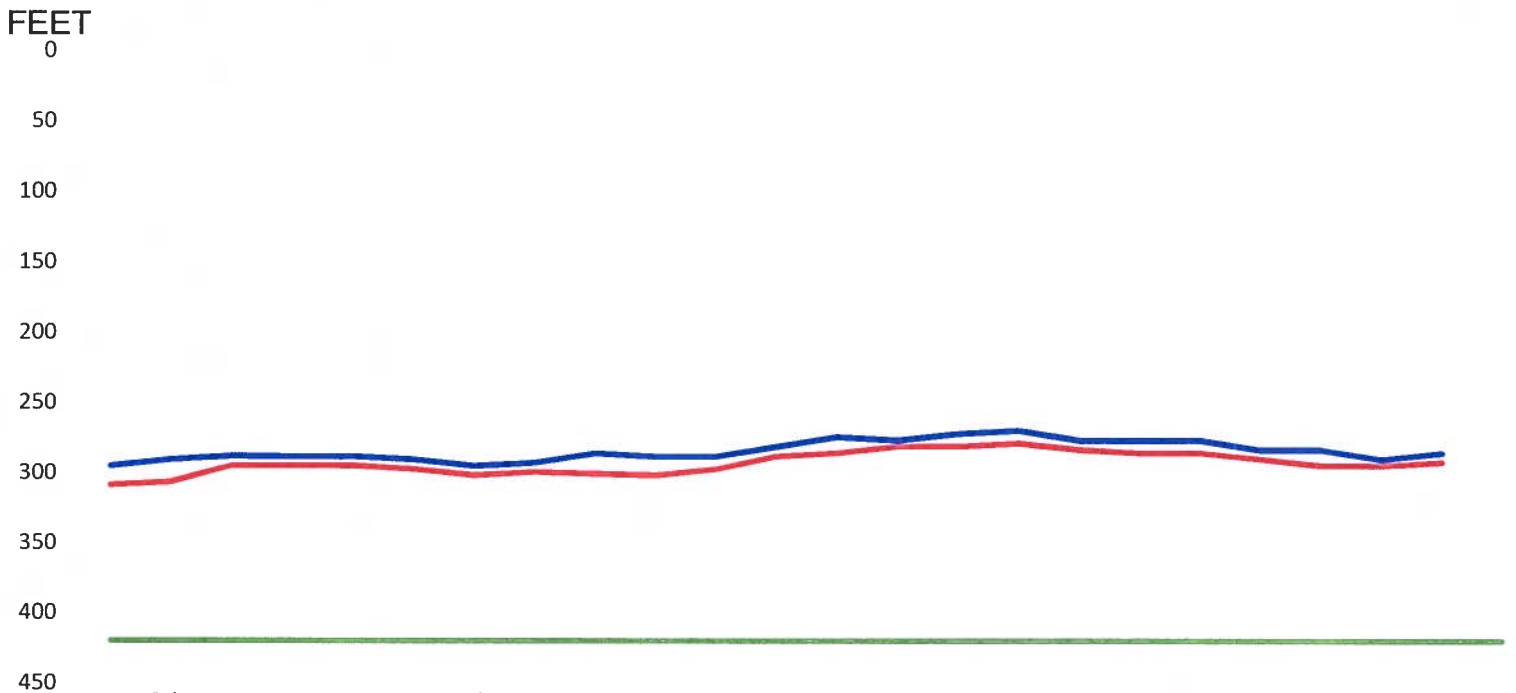
	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20
WELL # 4A S	301	297	290	292	288	292	297	297	292	292	292	288	281	281	278	278	278	281	283	288	288	292	290	
WELL # 4A P	320	311	306	294	301	306	306	306	313	308	306	301	297	294	294	290	292	292	301	299	301	304	301	
Pump Depth	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440

2019 / 2020

WELL # 4A S — WELL # 4A P — Pump Depth

SHEEP CREEK WATER COMPANY

WELL #5 Monthly Water Levels / 2 years



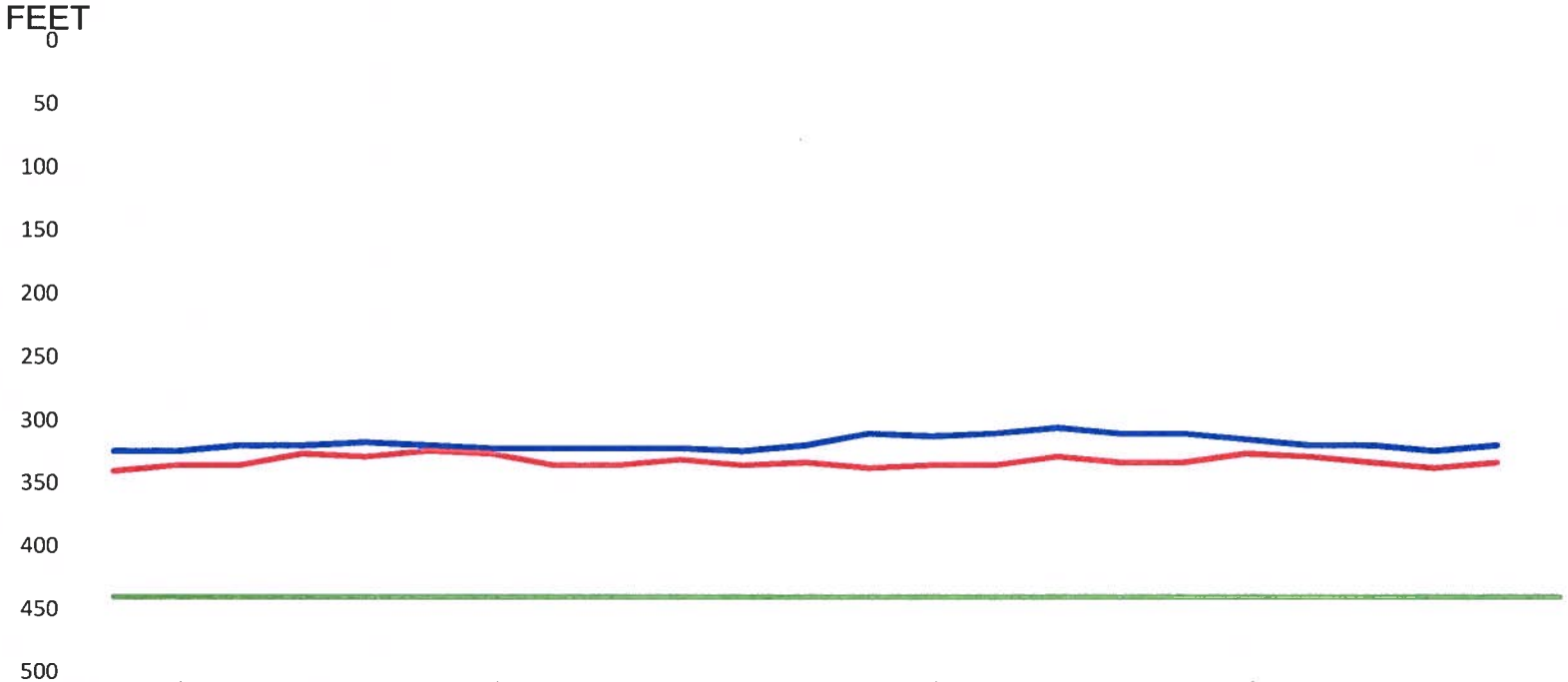
	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20
WELL # 5 S	295	291	288	288	288	291	295	293	286	288	288	281	274	277	272	270	277	277	277	284	284	291	286	
WELL # 5 P	309	307	295	295	295	298	302	300	301	302	298	288	286	281	281	279	284	286	286	291	295	295	293	
Pump Depth	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420

2019 / 2020

WELL # 5 S — WELL # 5 P — Pump Depth

SHEEP CREEK WATER COMPANY

WELL #8 Monthly Water Levels / 2 years



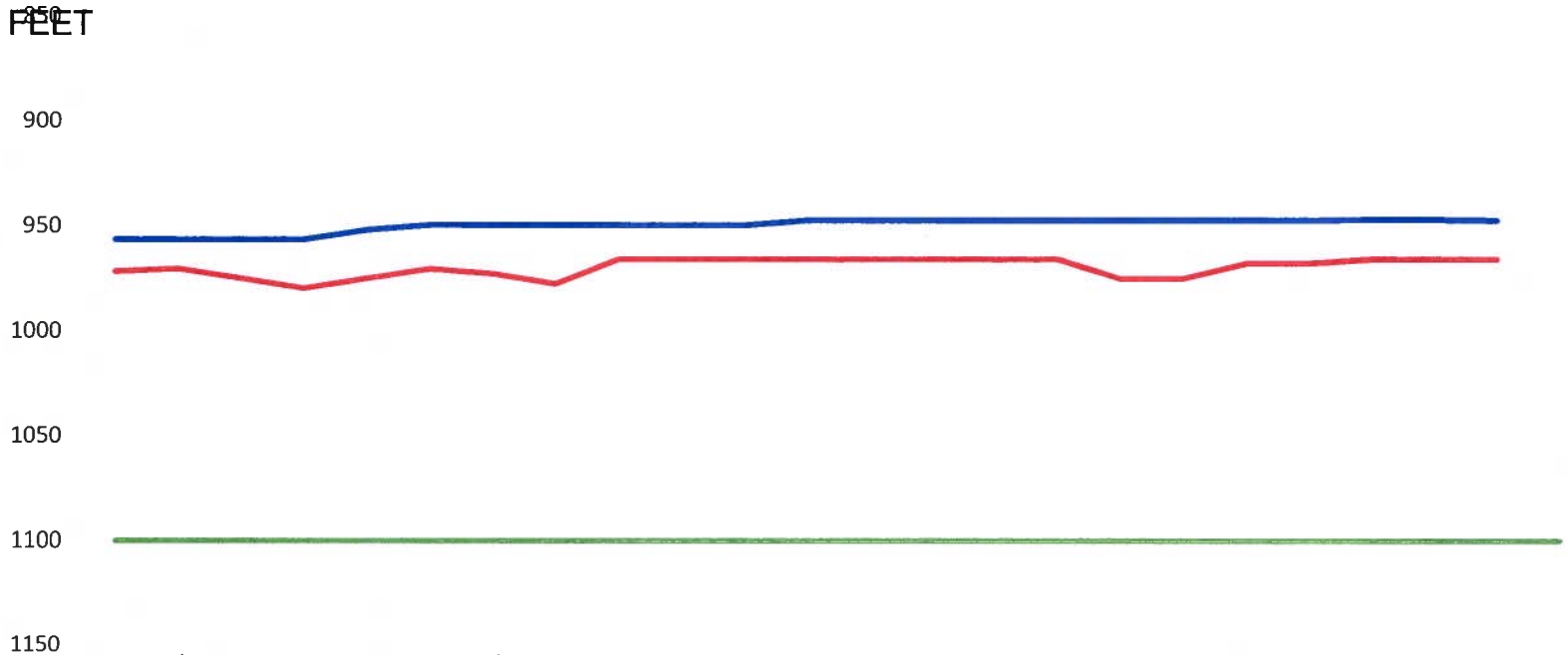
	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20
WELL # 8 S	325	325	320	320	318	320	322	322	322	322	325	320	311	313	311	306	311	311	315	320	320	325	320	
WELL # 8 P	341	336	336	327	329	325	327	336	336	331	336	334	338	336	336	329	334	334	327	329	334	338	334	
Pump Depth	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440

2019 / 2020

WELL # 8 S — WELL # 8 P — Pump Depth

SHEEP CREEK WATER COMPANY

WELL #11 Monthly Water Levels / 2 years



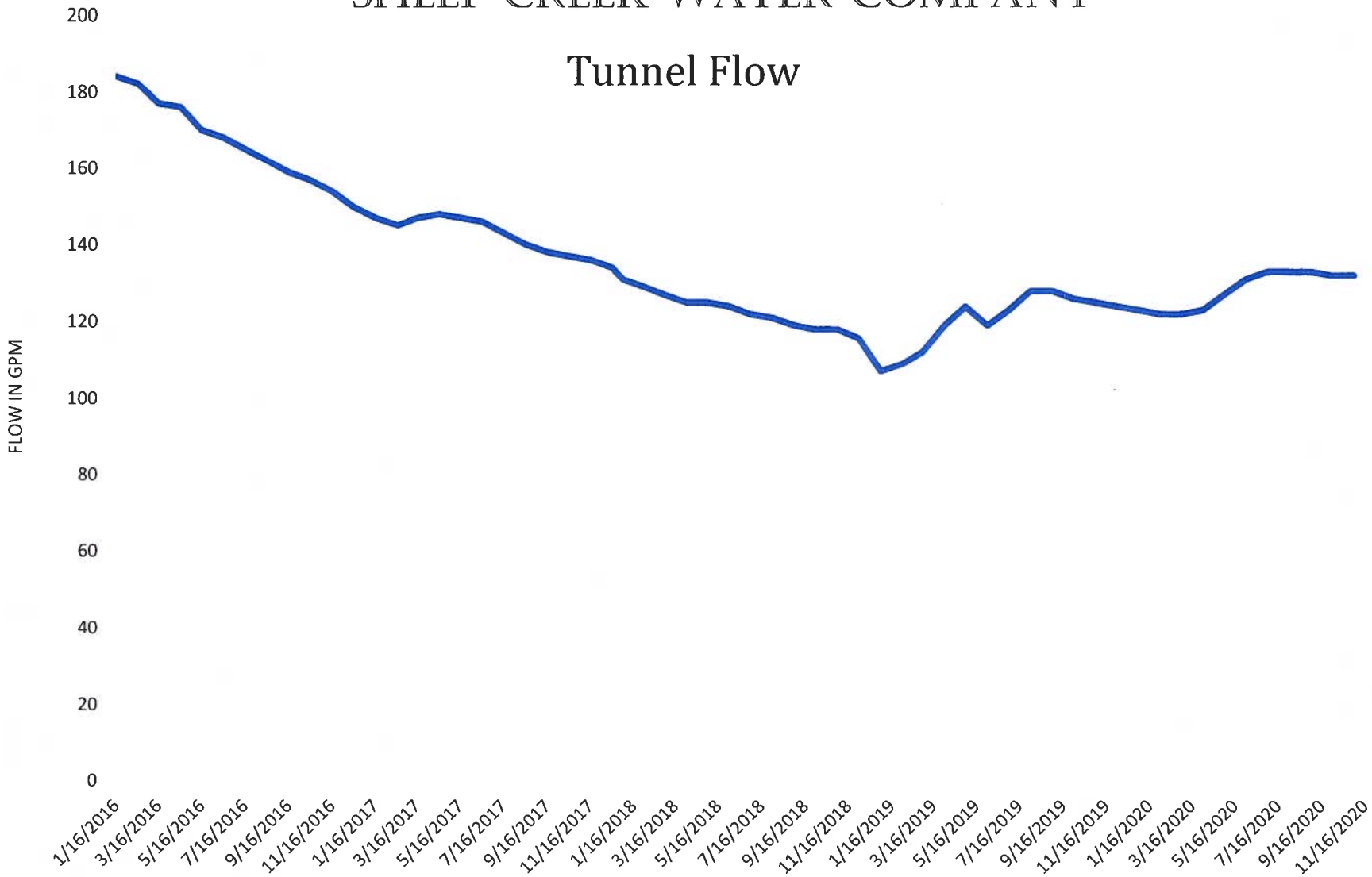
	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20
Well 11 S	957	957	957	957	952	950	950	950	950	950	950	948	948	948	948	948	948	948	948	948	947	947	948	
Well 11 P	972	971	975	980	975	971	973	978	966	966	966	966	966	966	966	966	975	975	968	968	966	966	966	
Pump Depth	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100

2019 / 2020

Well 11 S — Well 11 P — Pump Depth

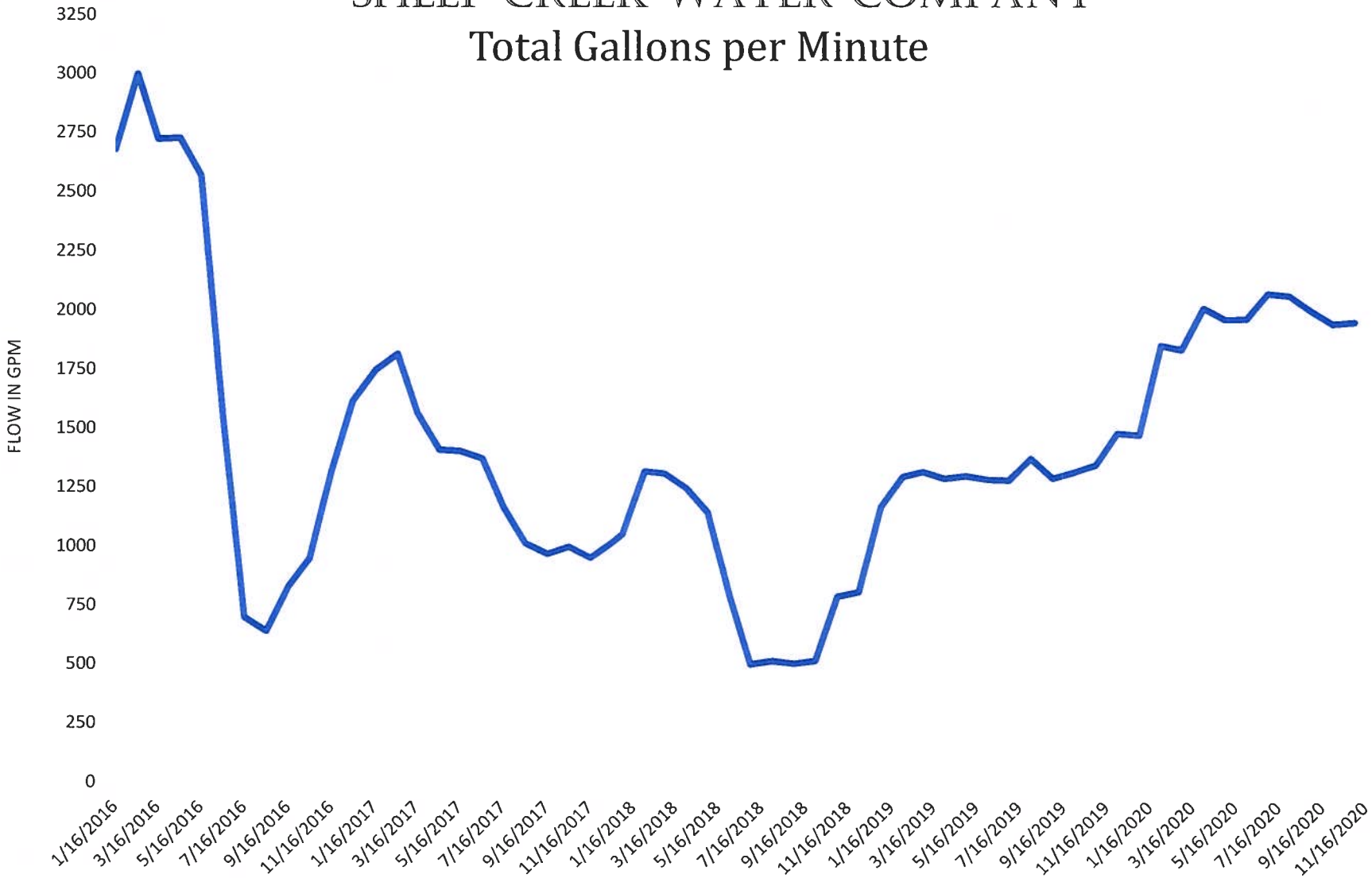
SHEEP CREEK WATER COMPANY

Tunnel Flow



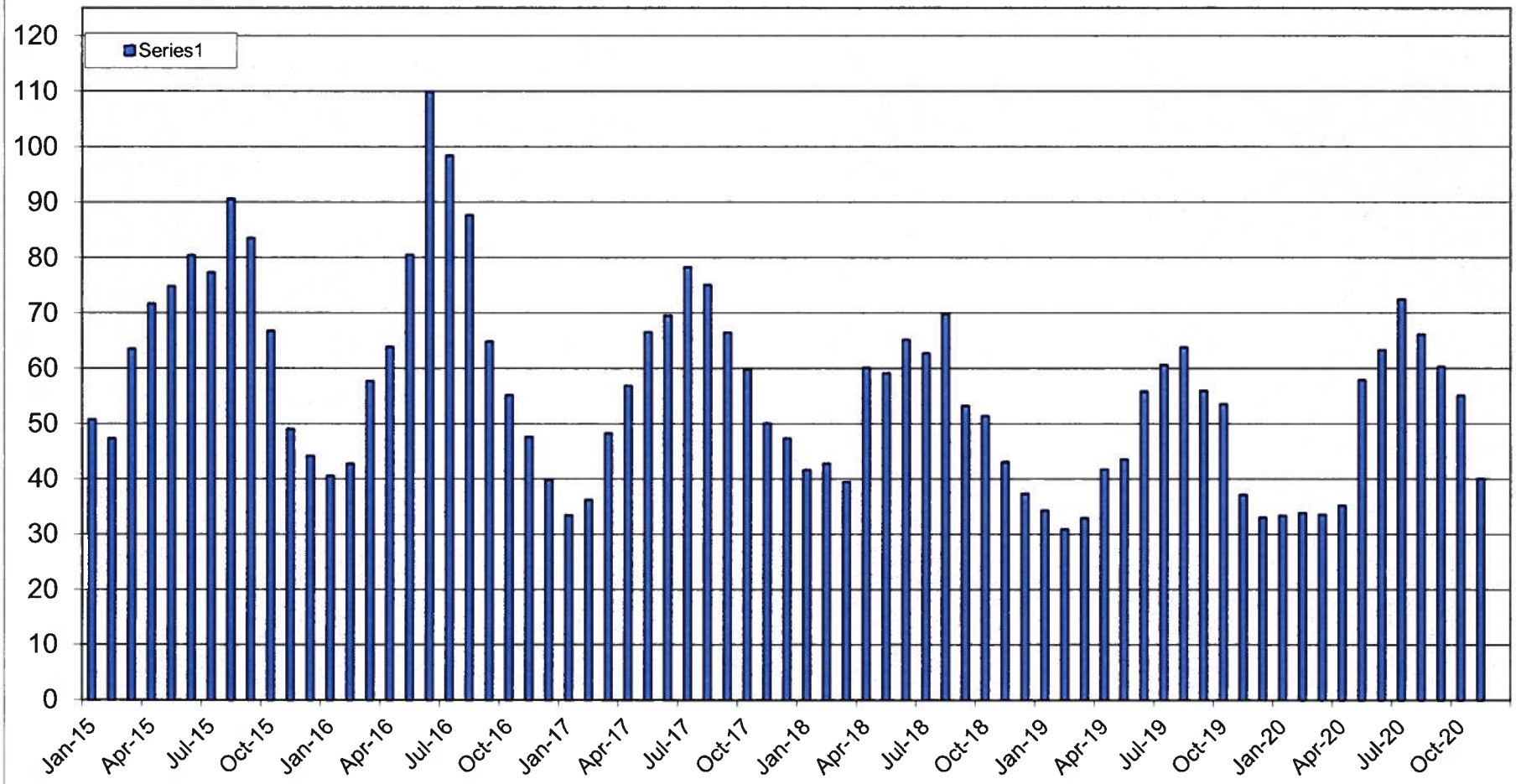
SHEEP CREEK WATER COMPANY

Total Gallons per Minute



SHEEP CREEK WATER COMPANY

WATER PRODUCTION ACRE FEET



2015- 2020

DAILY PRODUCTION FOR NOVEMBER 2020 GALLONS

Date	WELL # 2A	WELL # 3A	WELL # 4A	WELL # 5	WELL # 8	WELL # 11	GPM	TUNNEL	TOTAL	CU.FT.	A.F.	GPM
1		156000		163000			132	190080	509080	68058.82	1.5621	354
2	23000	218000	19000	229000	22000		132	190080	701080	93727.27	2.1512	487
3		115000		119000			132	190080	424080	56695.19	1.3013	295
4		115000		119000			132	190080	424080	56695.19	1.3013	295
5		110000		117000			132	190080	417080	55759.36	1.2798	290
6		131000		136000			132	190080	457080	61106.95	1.4025	317
7		212000		221000			132	190080	623080	83299.47	1.9119	433
8							132	190080	190080	25411.76	0.5832	132
9		195000				11200	132	190080	396280	52978.61	1.216	275
10		209000					132	190080	399080	53352.94	1.2245	277
11		61000					132	190080	251080	33566.84	0.7704	174
12		467000					132	190080	657080	87844.92	2.0162	456
13		168000		103000			132	190080	461080	61641.71	1.4148	320
14		78000		73000			132	190080	341080	45598.93	1.0466	237
15		81000		75000			132	190080	346080	46267.38	1.0619	240
16		184000		169000			132	190080	543080	72604.28	1.6664	377
17		3000		4000			132	190080	197080	26347.59	0.6047	137
18		222000		206000			132	190080	618080	82631.02	1.8965	429
19		157000		144000			132	190080	491080	65652.41	1.5068	341
20		54000		50000			132	190080	294080	39315.51	0.9024	204
21		105000		96000			132	190080	391080	52283.42	1.2	272
22		197000		183000			132	190080	570080	76213.9	1.7492	396
23		151000		139000			132	190080	480080	64181.82	1.4731	333
24		107000		100000			132	190080	397080	53085.56	1.2184	276
25							132	190080	190080	25411.76	0.5832	132
26		164000		151000			132	190080	505080	67524.06	1.5498	351
27		119000		111000			132	190080	420080	56160.43	1.289	292
28		153000		142000			132	190080	485080	64850.27	1.4884	337
29		151000		140000			132	190080	481080	64315.51	1.4762	334
30		94000		87000			132	190080	371080	49609.63	1.1386	258
Ttl's	23000	4177000	19000	3077000	22000	11200		5702400	13031600	1742193	**39.986**	
	A.F.	A.F.	A.F.	A.F.	A.F.	A.F.	Av.	mgd	mgd	cu.ft/day	afd	
	0.0705738	12.816815	0.0583001	9.4415465	0.0675054	0.0343664	**128**	0.183948	0.420374	56199.76	1.2899	
								A.F.				
								17.49739				

MSEXCEL/DAILYPROD20