

**SHEEP CREEK WATER COMPANY**  
**REGULAR BOARD OF DIRECTORS MEETING**  
*January 24, 2019 ~ 6:30 PM*  
**SNOWLINE SCHOOL DISTRICT - Board Room**  
**4075 Nielson Rd., Phelan, CA 92371**

**AGENDA**

- 1.) **Open Meeting- 6:30 PM**
  - a.) Flag Salute
  - b.) Invocation
  
- 2.) **Consent Motions**
  - a.) Minutes:  
*December 20, 2018*
  - b.) Bills:  
*December 20, 2018 through January 24, 2019*
  - 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 district 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.
  
- 4.) **Old Business**
  - a.) System- Update
  
- 5.) **New Business**
  - a.) Engineering Reports
    - 1.) CRWA Preliminary Engineering Report
    - 2.) IEC Feasibility Study
  - b.) Annual Meeting- May 11, 2019 Pinon Mesa Middle School
  - c.) Water Main Replacement Project
  
- 6.) **Next Scheduled Meetings**
  - a.) February 7, 2019 Board Workshop
  - b.) February 21, 2018 Regular Board Meeting
  
- 7.) **Closed Session**
  - a.) Employee Evaluation
  
- 8.) **Adjournment**

**Sheep Creek Water Company**  
**4200 Sunnyslope Rd.**  
**P.O. Box 291820**  
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Regular Board of Directors Meeting – Managers Report

January 24, 2019

**PRODUCTION- December/January**

- December Production- 37.26 AF- 6% decrease from 2016 - 39% decrease from 2013
- December Usage- 30.13 AF sold- 0% decrease from 2016 & 18% decrease from 2013
- Well soundings & production for the past month: (Well Soundings January 17, 2019)
- Water Levels at this time have a slight increase due to reduced pumping.
  - Well 2A** Compared to 1 years ago, static level is down 4.48 feet- 150 gpm
  - Well 3A** Compared to 1 years ago, static level is down 18.3 feet- 148 gpm
  - Well 4A** Compared to 1 years ago, static level is down 1.4 feet- 174 gpm
  - Well 5** Compared to 1 years ago, static level is down 3.26 feet- 155 gpm
  - Well 8** Compared to 1 years ago, static level is up 5.5 feet- 181 gpm
  - Tunnel** the Tunnel flow is currently fluctuating between 107 - 116 GPM
- Wells 5 & 8 are running between 9 – 12 hours a day.
- Well 11 runs 1 – 2 Days a week 6 hours per day.
- Pumping capacity for January 2019 is 1,166 gpm.
- Pumping capacity compared to 1 year ago has increased 115 gpm due to the installation of Well 11
- Current usage is averaging 355,000 gallons per day.
- **ALLOTMENT – First share on account remain 750 CF/Share and Remaining shares 150 CF/Share.**

**Work Completed or in Progress- For the Month of January**

- Work orders as office requests
- Meter upgrades, 2 system leaks, USA's- ongoing
- CRWA system leak detection- ongoing
  - Several bad meters identified
- Working with CRWA for technical assistance- Submitted to SWRCB- DFA
- Work with IEC for Feasibility Study- Submitted to SWRCB-DDW
- Smoketree & Monte Vista final connection- Completed
  - 1,980' of 6" steel replaced
  - 1,640' of 4" steel and PVC replaced
- Replacement Well #11 transducer to be installed by Layne
- Fire Hydrant Sheep Creek Rd in front of NAPA- Scheduled to be replaced and moved
- Tank cleaning and inspections completed
  - Tank 2- Install Weather Stripping on Hatch
  - Tank 3- Install Weather Stripping on Hatch
  - Tank 4- Install Weather Stripping on Hatch, Replace Mesh, Repair Liquid Level Indicator
  - Tank 5- Install Weather Stripping on Hatch, Repair Liquid Level Indicator cable, Recoat Exterior and Interior
  - Tank 6- Install Weather Stripping on Hatch, Replace Interior Coating, Recoat Exterior

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**Work Completed January Through December 2018**

<b>New Meter Installations</b>		\$6,027.11
Total New 1" Installation	4	
Total New 2" Installation	1	
Future Services Installed	1	
<b>Meter Repairs and Upgrades</b>		\$36,128.44
Meter Upgrades	69	
Service Replaced	7	
<b>System Leaks</b>		\$14,065.45
Service Leaks	13	
Main Line Leaks	18	
<b>System Maintenance</b>		\$19,393.71
3 Fire Hydrants Replaced		
New gate Valve Installed		
CLA-VAL Station upgraded		
New Sample Station Installed		
<b>System Upgrade &amp; Replacement</b>		\$146,222.68
New Fire Hydrants	4	
New Valves	30	
New 8" C-900 Installed	1930	
4" Replaced w/ 8" C-900	1640	
6" Replaced w/ 8" C-900	1980	
<b>Tank Cleaning and Inspections</b>		\$15,442.09
<b>Well #2A Video &amp; Cleaning</b>		\$29,965.74
<b>Well #2A New Pump, Motor, Column</b>		\$56,775.78
<b>Well #8 Pump Extension</b>		\$7,128.14
	<b>Total Work 2018</b>	<b>\$331,149.14</b>
	<b>Total Well #11</b>	<b>\$869,741.22</b>

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December 27, 2018

## Plans Proposed by Sheep Creek Water Company Board of Directors

- The State of California in 2015 required a cut of 25% and Sheep Creek Water Company has complied with this requirement and continues to meet the 25% plus additional.
- Sheep Creek Water Company has continued to cut water use every year since 2015
  - 20% - 38% reduction, each year the percentage of water use continues to be reduced.
- Water use is generally controlled by the allotment on the shares and the cost of the water.
- With the implementation of a tiered rate structure, water use will continue to remain within the production of the company.
  - Tier 1 rate includes water available at the Wrightwood Well Site.
  - Tier 2 rate includes water pumped within the MWA Alto Sub Area. This rate includes the MWA replacement cost.
  - Tier 3 rate is set at a much higher rate to continue to discourage water use and the rate includes funds to help pay the cost of additional water sources or upgrades to the existing water system.
- Water allotments will be adjusted monthly based on the pumping capacity at the Wrightwood Well Field.
  - New Allotment Schedule to be approved by Shareholders with lower allotments based on lower productions.
- With increased water rates in the additional Tier Rates, it is of the opinion that water use will continue to decrease.
- Sheep Creek plans to keep water rates higher to help control water use.
- With the addition of up to 2 additional wells, this will be sufficient to maintain the current usage along with having a backup supply of water.
  - The goal is to have at minimum of 600 gpm available for the Tier 2 water rate.
  - With the cost to produce the water out of the wells in the MWA Alto Sub Area, the usage will remain lower due to customers not willing to pay the higher water cost.
- If Grant Funding is unavailable, new wells will be funded with the following options with Shareholder approval
  - Temporary increase on service charge
  - Assessment on Shares
  - Tier 3 rate includes assessment charge to fund additional improvements. (Existing)
  - As growth continues, additional wells will be installed with the sale and installation of new services.
- Sheep Creek Plans for the new normal water use to remain similar to the current years water use until additional sources are available with the tier 2.
- Possible completion of Well #10 with in the Los Angeles County.
  - Retest pump well to determine location of hexavalent chromium.
  - If Hexavalent Chromium can be removed, work with PPHCSD to wheel water through PPHCSD system at a determined rate per acre foot.

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## **CRWA Proposition 1 Technical Assistance Program**

### **Sheep Creek Water Company System Engineering Report**

In 2016 Sheep Creek Water Company requested Technical Assistance from CRWA to help acquire Grant Funding for system improvements and additional water source. Under a Grant Agreement of the Proposition 1 Technical Assistance Program an engineering report was completed for the Sheep Creek Water Company system. CRWA worked with Sheep Creek Staff through records, inspections and staff recommendations to complete a comprehensive report.

#### **Alternative 1- No action**

#### **Alternative 2- Summary of the recommendations and cost for System Upgrades:**

1. **Source Capacity-** CRWA recommends three (3) pilot holes be drilled and tested. Production and water quality would determine if additional pilot studies and wells need to be installed. Cost and production for the additional wells are based on the newly constructed Well 11.

The cost for additional wells include Pilot testing, well design and construction, pipelines to connect wells, final design, inspections and contingency.

**\$3,749,000**

2. **Distribution System Deficiencies-** Fire flow scenarios were modeled throughout the distribution system with a fire flow demand of 1,500 gpm. 60% of the system does not meet the current fire flow demands of 1,500 gpm. Majority of the system meets fire flow demands of 750 – 1,000 gpm which were the requirements at the time. CRWA recommends 25,000 feet of 4” lines be replaced with 8” including 5 PRV Stations.

The cost for 25,000 of replacement line including 5 PRV Stations.

**\$2,800,000**

\*The report is calling for 25,000 feet of 4” line be replaced to increase flows to higher density areas of the system and business. Of the 25,000 feet, 7,800 feet is existing 8” steel, 3,960 feet is new and existing 8” C900 PVC and 2,600 feet is 6” steel. The 5 PRV Stations that are being called for installation are existing PRV Stations and have already been replaced.

3. **Dead End Line Hydrants-** The distribution system has a total of 110 dead end lines with 80 dead end lines having a blow-off or fire hydrant for flushing. 30 of the dead end lines do not have a dedicated blow-off or hydrant. The report is calling for fire hydrants to be installed at each dead end line.

The cost for the installation of 30 fire hydrants.

**\$195,000**

\*Sheep Creek eliminated 3 of the dead end lines that did not have a blow-off during a pipeline replacement project that was completed in fall 2018. As new and replacement lines are being completed, dead end lines are being removed or new fire hydrants are being installed if a dead end line cannot be removed.

4. **Replacement of Water Meters-** CRWA is recommending a complete system meter replacement with an automatic meter reading system. This change out of meters includes 1,166- 1" meters and 25- 2" meters.

The cost for a complete AMR meter replacement with required hardware and software.

**\$377,295**

5. **Booster Pump Station-** There is recommendation to install a booster pump station at the Sunnyslope Yard on the existing 3 million gallon reservoir to push water back up into the higher zones in case of emergencies.

The cost of a 400 GPM booster pump station at the Sunnyslope Tank Site.

**\$40,000**

6. **Storage Tank Rehabilitation or Replacement-** Based on visual inspection without entry into the storage reservoirs, all tanks have recommendations for recoat and repairs or replacement. Included with recoat of interior and exterior would also include seismic couplings additional hand railings and interior ladders. A second option for all bolted tanks is replacement with new bolted or welded tanks.

Cost for both options of tank rehab and tank replacement.

**Rehab of Storage Reservoirs 2, 3, 4, 5, 6, 7- \$1,023,680**

**Replacement of Storage Reservoirs 2, 3, 4, 5, 6- \$2,180,000**

7. **Storage Tank Mixers-** CRWA has a recommendations on installing tank mixers in all storage reservoirs to avoid stratification due to chlorine residual and temperature.

The cost of tank mixers 7 storage tanks.

**\$315,000**

8. **Communication an Control Infrastructure (SCADA)-** Recommendation for a SCADA control system to be installed on all wells, storage reservoirs and the 2 canyon PRV stations. SCADA allows for remote monitoring and control of all critical equipment.

The cost for complete SCADA system on 7 tanks, 6 pumps and 2 PRV Stations.

**\$96,000**

9. **Rehabilitation of Existing Wells-** CRWA recommends rehabilitation of all existing wells. Wells need to be videoed, brushed, bailed, dual surge, possible airlift and inspection of pumping equipment.

Cost to rehab 5 existing wells.

**\$320,000**

\*Wells 2A and 5 have been rehabbed and currently have new pumping equipment. Sheep Creek collects funds to rehab wells with the existing water charge. Well 3A will be scheduled for rehab. Possible damage that was observed when CRWA videoed Well 3A may be the casing vent outlet not casing damage.

**10. Estimated Design, Environmental and Inspection-** Included in design and environmental are Funding Application, Geotech, Survey, Environmental Studies (CEQA), Final Design, Inspections and Contingency (% of Construction).

**\$3,140,006**

Total cost for Alternative 2 Sheep Creek System Upgrades, which include 2 tank replacements and cost for work that has already been completed by Sheep Creek-

**\$12,221,290**

Grant funding of \$5,000,000 may be available for Sheep Creek to obtain for the installation of additional wells, environmental studies, design and additional system deficiencies.

### **Alternative 3- Consolidation**

Consolidation would need to include the above work as recommended by CRWA along with 3 connection pipelines and a booster pump between the 2 districts tanks.

Additional cost for consolidation including pipework, booster, design, inspection and contingency (% of construction).

**\$621,440**

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## **Sheep Creek Water Company Final Feasibility Report**

### **Report as Required by the State Water Resources Control Board**

August 30, 2018 Compliance Order NO. 05-13-18R-002 was issued by the State Water Resources Control Board (SWRCB) Drinking Water Division requiring a Feasibility Study be completed by Sheep Creek Water Company (SCWC). Due to the drought in California, SCWC's well levels and production have been on a steady decline and beginning in June of 2016 well production began to drop significantly. Again in 2018 well production dropped causing the SWRCB to issue a Source Capacity Violation due to SCWC unable to meet the required 10 Year Maximum Day Demand (MDD). In order for SCWC to meet the required 10 year MDD, SCWC needs to have a pumping capacity of 1,453 gallons per minute or 2.09 million gallons a day (MGD). With inspection of records a revised MDD is 1.78 MGD or 1,236 gallons per minute.

SCWC contracted with Infrastructure Engineering Corporation (IEC) to complete the required Feasibility Study. The report was required to have options to bring SCWC into compliance with the regulation to meet the MDD. One of the options needed to be Consolidation with Phelan Pinon Hills Community Services District (PPHCSD). Based on production records for July 2018 SCWC could produce .72 MGD and with the addition of Well #11 (361,440 gallons per day), SCWC's total production is 1.05 MGD, a deficit of .73 MGD.

IEC evaluated 2 options for SCWC to meet Source Capacity.

#### **Alternative 1- SCWC to remain as a Private Water Purveyor.**

1. Based on the information provided about Well #11, SCWC will need to drill up to 4 additional wells.
  - a. If production on additional wells is higher than the estimated 250 gpm, this will reduce the amount of wells
  - b. Several meter services for the Snowline School District have been transferred to PPHCSD and as additional services are transferred, SCWC's MDD will be reduced.
2. Estimated cost to drill and equip wells along with associated pipework to connect to the existing water system- **\$5,806,000**
  - c. Estimated cost per meter connection (1,387)- **\$4,200**
  - d. Estimated cost per share (8,000)- **\$700**

Grant funding of up to \$5,000,000 may be available with CRWA Technical Assistance Program.

#### **Alternative 2- Consolidation with PPHCSD-**

1. 3 Flow control facilities and associated pipework needed to connect the 2 water systems.

2. With the combined MDD of both water systems, a new well will need to be added to the water system. Specs on a new well are based on the information of SCWC's Well 11.
3. Install blow offs at the remaining 27 dead end lines.
4. Replace all water meters throughout the SCWC District with Automatic Reading Devices

Estimated Cost for Consolidation with PPHCSD- **\$3,343,700**

- a. Estimated cost per meter connection (1,387)- **\$2,400**
- b. Estimated cost per share (8,000)- **\$418**

Grant Funding of \$5,000,000 for consolidation is available.