

SHEEP CREEK WATER COMPANY

ADDITIONAL WATER SOURCE PROJECT PLANS AND SCHEDULES

November 2016

(Preliminary)

INTRODUCTION

Over the past several years, Sheep Creek Water Company (SCWC) has seen a steady decline in static water levels and water production. SCWC's relies solely on ground water from the Swarthout Canyon in the Sheep Creek Wash. The drop in water levels and production can be attributed to the severe drought that has hit California. The Swarthout Canyon has experienced below normal rain and snowfall for the past several years which has slowed recharge in the area. SCWC is and has been in the process of acquiring a secondary source of water for the customers.

BACKGROUND

SCWC has been pursuing a secondary water source, away from the current well field for the past 10 years. In 2004, SCWC experienced similar water level and production declines as recently seen in the summer of 2016. With the water shortage of 2004, the State Water Resources Control Board (SWRCB) required SCWC (Compliance Order 03-13-04CO-001 Amendment #1) to pursue and acquire a secondary source of water that is not within the existing well field. Over the past 10 years, SCWC consulted with GEO Consultant's to aide in the in the investigation of additional well locations. The consultant recommended two (2) locations to drill new production wells. One of the locations was in the Los Angeles County and the second on SCWC's existing well field to the west of the current wells. The following are source projects that have been completed or are ongoing.

EXISTING SYSTEM- Over the past ten years the Board of Directors for SCWC has approved a number of improvements to their existing sources of water supply with the goal to alleviate another water shortage during the time of acquiring a secondary water source. Several of the improvements to SCWC's existing well field include the following;

- 1.) Drill and connect Well #8 located in the Sheep Creek Wash, well drilled to a depth of 480'.
- 2.) Drill Well #9 per the consultant's recommendation. (No Water)
- 3.) Abandon Well #2 and Drill and connect Well #2A, well drilled to a depth of 680'.
- 4.) Rehabbed Well #5 and equipped with vertical turbine and VFD Controller.
- 5.) All wells at the existing well field are now equipped with vertical turbines and Variable Frequency Drives to control motor speeds.
- 6.) Built a new 3 million gallon welded steel reservoir at the SCWC which doubled the total storage capacity in the district.

GOLDEN STATE WATER COMPANY- Golden State Water Company (GSWC) and SCWC were in talks for several years regarding additional water source for both districts. The discussions began with the need of GSWC getting additional water to their district in Wrightwood. Talks included GSWC drilling a well north of the Sheep Creek district and transferring water into SCWS's district. At that point GSWC would have run a pipeline from SCWC's well field to Wrightwood and transferring water from the well field to Wrightwood. After several years with multiple agreements between the two districts, the discussions were ended.

PHELAN PINON HILLS CSD- The Phelan Pinon Hills Community Services District (PPHCSD) formally San Bernardino County Zone G and Zone J was formed in March 2008. SBC Zone J and SCWC had an interconnection between the two tanks that consisted of two standpipes and a fire hose. After PPHCSD began operations, SCWC began discussions regarding an emergency interconnection between the two districts. Both districts had existing storage tanks within 200 feet of each other. By December 2009 PPHCSD and SCWC installed a 12" intertie between the two tanks. The intertie allows a flow of up to 1,500 gpm versus a max flow of 80 gpm with the fire hose.

LOS ANGELES COUNTY (WELL #10)- Under Compliance Order 03-13-04CO-001 Amendment #1 with the SWRCB, SCWC has been in the process of acquiring an additional water source for the district. The Shareholders approved to purchase property and drill a new well in the Los Angeles County to avoid becoming a stipulating party with the Mojave Water Agency. The district purchased two, one acre parcels and had GEO Consultants investigate the properties for well locations. The CEQA process was started which at this time has several issues that will need to be addressed as the project continues. The well was drilled and test pumped with an estimated pumping capacity of 1,200 gpm. During the process of drilling the well, SCWC was notified of a lawsuit within the Antelope Valley beginning the process of adjudicating the Antelope Valley water basin. SCWC entered into the litigation which has been ongoing. As of 2016, the courts have approved a Judgment for the Antelope Valley Basin. During the litigation process, the district has not proceeded on the well project due to the uncertainty of whether the water could be transferred up to the district. SCWC was in talks with PPHCSD regarding transferring water from the new Well #10 through their district into the Sheep Creek district. The continuation of this project was also slowed down due to the State of California lowering the MCL for the contaminant Hexavalent Chromium (Chrom 6). When test pumped, title 22 sampling was completed and the result for Chrom 6 was under the MCL of 50ppb and is now over the new MCL of 10ppb. This project has not been ended and is still ongoing.

SMOKETREE WELL #11

PROJECT PROPOSAL

During the summer of 2016 SCWC experienced a water shortage similar to 2004. The Board of Directors discussed the need to move quickly with the additional water source needed for the district. This source needed to be outside of the existing well field and within the district's boundaries. Property was available on Smoketree Road between Johnson Rd and Sheep Creek Rd. This location would place the well within the center of the district's boundaries. The Board recommended looking into another available property which is within close proximity of the original Smoketree property. September 2016 the Board of Directors approved to move forward with the project and approved to begin the CEQA process. Upon completion and approval of CEQA the Board will call a meeting of the Shareholders to approve the project known as Well #11.

Currently SCWC's water system operates within the boundaries of the Mojave Water Agency, but is not a stipulating party to the MWA. MWA oversees the water production within the aquifer. SCWC will need to become a stipulating party with the Mojave Water Agency to produce water from Well #11. The new well will be located in the Alto Subarea where SCWC currently has no water rights. SCWC will need to meet with the General Manager of MWA and the Watermaster's office to begin discussions on the requirements of MWA.

The district will begin scheduling drilling and testing the well assuming there will be Shareholder approval. A drilling contractor will be scheduled to begin drilling the new well immediately following approvals. Upon completion of drilling, development of the well will begin with test pumping to immediately follow. Pump design and infrastructure upgrades will be determined when the pump test concludes with the estimated production. Infrastructure upgrades will need to be completed to pump directly into the system eliminating the need to pipe the water to the reservoirs in the district yard.

Pending the results of water production and water quality, SCWC will purchase the property from the Shareholder. An agreement will be outlined and approved prior to drilling of the well for purchase of the property. Included in the agreement will be a clause allowing the district to drill on the property and if the well is not viable to the district, SCWC will not be liable for purchase of the property.

Upon completion of test pumping, planning will begin for the necessary infrastructure upgrades that will be required to pump water directly into the water system or deliver the water to the District tanks located at the Districts office. After production of the well is determined, engineering will be required to properly design the well to flow water directly into the existing distribution system. Preliminary estimates will require approximately 8,000 feet of 8 inch water main to be installed to replace the existing 4 and 6 inch steel lines. The new line will run to the top of the pressure zone near Yucca Terrace Drive. The line will be connected to existing 8 inch mains along Smoketree Road. The main will continue from Smoketree Road south on Sierra Vista Road with connections on Valle Vista and Monte Vista Roads.

SMOKETREE WELL #11

PROJCT TIMELINE

During the regular Board of Directors meeting dated September 1, 2016, the Directors approved to move forward the Smoketree Well Project. The Directors approved to move rapidly on the project and will seek Shareholder approval immediately following CEQA approval.

Board Approval- Direct staff to begin with new well project pending Shareholder approval.

Begin September 2016- 18 months

Board Approval- Direct staff to contract with Tom Dodson and Associates to begin CEQA.

Begin September 2016- 6 - 8 months

California Environmental Quality Act (CEQA)

Initial Study- 4 months

Public Comments 1 month

Negative Declaration Preparation- 1 month

State Clearing House- 1 month

Shareholder approval of complete well project including assessment schedule. **Pending CEQA**

May 2017

The remaining schedule of the Smoketree Well Project is dependent on approval of the Shareholders and approval of assessment.

Approval and scheduling of drilling contractor. Drilling contractor will tentatively be scheduled to begin following Shareholder approval at Annual Shareholders Meeting.

April 2017

Drill test hole to confirm availability of water and water quality.

June 2017- 4 weeks

Mobilize drilling rig, begin drilling pilot hole, log for casing.

July 2017- 3 weeks

Bore pilot hole, run casing, gravel pack, airlift, demobilize drilling rig.

August 2017- 4 weeks

Install test pump, develop well, test pump for capacity and efficiency.

September 2017- 2 weeks

Design and engineering for pipeline and well building.

Begin August 2017- 12 weeks

Install pump, motor and column pipe.

September – October- 1 week

Permit process for well building, electrical service and road permits.

October – December- 12 weeks

Southern California Edison Planning and installation.

August 2017- 6 months

Onsite electrical, panels, conduit.

November 2017- 12 weeks

Begin offsite pipeline- footage is dependent on well capacity.

November 2017- 6 months

Install well head pipe work & onsite pipe work.

October 2017- 6 weeks

Concrete well building, onsite fencing and cleanup.

January 2018- 12 weeks

Offsite final tie-ins, line flushing, asphalt repairs.

April 2018- 4 weeks

Final Electrical connections, well startup, well flushing.

May 2018- 6 weeks

SWRCB approvals and permit amendment

April 2018- 8- 12 weeks

The above timeline is approximate time for construction with several unanswered factors. Several factors that will affect the timeline are as follows:

- **Mojave Water Agency requirements**
- **Approvals by the Shareholders**
- **Approvals during the construction process by the Board of Directors**
- **Funding for the project and collection of assessments**
- **Water availability in the basin- to be determined with test hole**
- **Well capacity- to be determined after well is drilled and cased**
- **Water quality- to be partially determined during test pumping and final water quality sampling**

SMOKETREE WELL #11

PROJECT ESTIMATES- Phase 1

COMPLETE WELL WITH CASING AND TEST PUMP- No Pump and Motor

➤ Meetings, notifications administrative expenses		\$3,000
➤ California Environmental Quality Act		\$27,000
○ Tom Dodson and Associates	\$22,000	
○ Notifications, meetings	\$5,000	
➤ Assessment collections		\$15,000
➤ Property purchase		\$55,000
○ Legal/Escrow Expenses	\$10,000	
➤ Drill 1,500 foot 16" well with mil-slot casing		\$304,240
○ Layne-	\$304,240	
○ Farm Pump-	\$380,765	
➤ Install Ful-flo louver casing, minus mil-slot		\$88,992
○ Layne-	\$88,992	
○ Farm Pump-	\$62,243	
➤ Well Development, test pump		\$46,000
○ Layne-	\$46,000	
○ Farm Pump- No bid	\$40,000 estimate	
➤ Site work and road prep		\$20,000
○ Grading and dirt work	\$5,000	
○ Environmental protection	\$0,000	
○ Site work and road repairs	\$10,000	
➤ Unforeseen/Miscellaneous Cost 10%		\$55,923
TOTAL PHASE 1 PROJECT ESTIMATE		\$615,155

3 assessments at \$30 per share

PROJECT ESTIMATES- Phase 2
REMAINING PROJECT EXCLUDING WELL DRILLING

➤ Meetings, notifications administrative expenses		\$10,000
➤ Assessment collections		\$75,000
➤ Vertical turbine motor, pump, column pipe, tube and shaft		\$180,000
○ Well head and onsite pipework		\$40,000
➤ Electrical equipment, conduit wiring		\$80,000
○ VFD cabinet and control	\$45,000	
○ Conduit, wiring, labor	\$35,000	
➤ Well building		\$90,000
○ Engineering	\$20,000	
○ Permits	\$5,000	
○ Building and foundation	\$60,000	
○ Site work	\$5,000	
➤ Site work and road prep		\$45,000
○ Grading and dirt work	\$15,000	
○ Environmental protection	\$10,000	
○ Fencing	\$20,000	
➤ Offsite pipeline upgrades		\$510,000
○ Engineering	\$75,000	
○ Permits/Surveying	\$25,000	
○ Road cutting and repairs	\$10,000	
○ 8,000'- 8" C-900 & hydrants	\$350,000	
○ Labor and equipment	\$50,000	
➤ Unforeseen/Miscellaneous Cost 10%		\$103,000
➤ At this time possible water quality mitigation cost are unknown.		
TOTAL PHASE 2 PROJECT ESTIMATE-		\$1,133,000

Final project cost and total assessment per share will be determined following drilling and test pumping of the new well. Shareholders will be notified with project update.

LOS ANGELES COUNTY WELL #10

During the summer of 2004 SCWC experienced a water shortage similar to 2016. The Board of Directors discussed the need to acquire an additional source of water. With SCWC's water system operating within the boundaries of the MWA and SCWC not being a Stipulating Party the Mojave Adjudication, the Board along with the Shareholders approved to locate a source of water outside the MWA boundaries. Two parcels of property were purchased in Los Angeles County north of State HWY 18. The CEQA process was started and a well was drilled to a depth of 860 feet property. Well #10 is currently within the Antelope Valley Adjudication and is still in Litigation. At this time the project is on hold.