

FY2024/25 GROUNDWATER WELL REHABILITATION PROJECT

Riverside Public Utilities

Board of Public Utilities
September 9, 2024

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BACKGROUND

1. 46 active groundwater wells
2. Performance decreases with time:
 - a. Mineralization and scale buildup
 - b. Wear and tear
 - c. Declining water levels
3. Periodic maintenance required
4. Project benefits:
 - a. Maintains the health of well assets
 - b. Improve operation and reliability of the water system



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DISCUSSION

1. Evaluate and prioritize groundwater wells
 - a. Hired Geoscience on June 21, 2013
 - b. Assess current operational data and needs

2. Two wells to undergo rehabilitation work during FY2024/25:
 - a. Garner B
 - b. Scheuer 2



PROJECT LOCATION MAP



REMOVAL OF MOTOR, DISCHARGE HEAD AND PUMP



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MECHANICAL CLEANING – BRUSHING AND BAILING

1. The inside of the well screen is mechanically cleaned by raising and dropping a tight-fitting brush tool.
2. Debris is removed from the bottom of the well.



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CLEANING ADDITIVES

Special additives are mixed into the well to assist in descaling the well screen and demineralizing the well formation.



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MECHANICAL CLEANING – DUAL SWAB AND SIMULTANEOUS AIRLIFT

1. The well is mechanically swabbed by raising and dropping the drill pipe equipped with a tight-fitting dual swab on the bottom.
2. During swabbing, water is airlifted from the well.

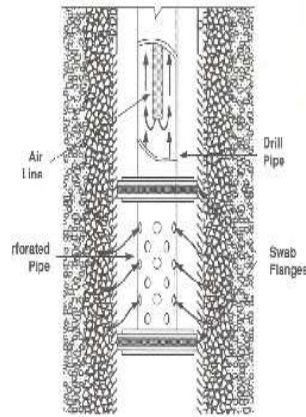


Figure 14.7. Airlift swabbing tool.



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PUMP TESTING THE WELL AFTER WELL CLEANING



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BID RESULTS

1. The project was advertised on July 24, 2024
2. Prebid meeting held on July 31, 2024
3. Bids were opened on August 13, 2024
4. Four bids were received





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BID RESULTS (CONT.)			
Rank	Vendor	City Location	Bid Total
1.	Layne Christensen Company	Redlands, California	\$1,471,672.68
2.	Best Drilling and Pump, Inc.	Colton, California	\$1,578,239.00
3.	Nor-Cal Pump & Well Drilling	Yuba City, California	\$1,733,850.00
4.	General Pump Company	San Dimas, California	\$1,775,957.00



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PROJECT AND FISCAL BREAKDOWN					
Work Type:	Performed By:	W.O. No. 2404052 (Garner B):	W.O. No. 2404054 (Scheuer 2):	Total Project:	% of Total:
Design	Internal Staff	\$22,099.98	\$47,060.07	\$69,160.05	3.7%
Construction	Layne Christensen Company	\$642,183.65	\$829,489.03	\$1,471,672.68	79.9%
Construction Support	Internal Staff	\$15,000	\$15,000	\$30,000	1.6%
Engineering Support, Construction Management, and Inspection	Internal Staff	\$50,000	\$50,000	\$100,000	5.4%
Hydrogeologist Services	Outside Vendor, Informal Procurement	\$10,000	\$15,000	\$25,000	1.4%
Construction Contingencies	N/A	\$64,218.37	\$82,948.90	\$147,167.27	8.0%
Work Order Total:		\$803,502	\$1,039,498	\$1,843,000	100%
Reimbursements:	None				
Anticipated Start Date:	November 2024				
Anticipated Duration:	4 Months				


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STRATEGIC PLAN ALIGNMENT



Strategic Priority No. 6 Infrastructure, Mobility and Connectivity

Goal No. 6.2 – Maintain, protect, and improve assets and infrastructure within the City’s built environment to ensure and enhance reliability, resiliency, sustainability, and facilitate connectivity.

Cross-Cutting Threads



Community Trust



Equity



Fiscal Responsibility



Innovation



Sustainability & Resiliency



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RECOMMENDATIONS

That the Board of Public Utilities

1. Award a contract for the construction of the FY2024/25 Groundwater Well Rehabilitation Project – Bid No. RPU-8115 to the lowest responsive and responsible bidder, Layne Christensen Company of Redlands, California, in the amount of \$1,471,672.68;
2. Approve the capital expenditure for Work Order No. 2404052 in the amount of \$803,502 which includes all design, construction, construction support, contract administration, inspection and construction change order authority costs for the rehabilitation of the Garner B Well;
3. Approve the capital expenditure for Work Order No. 2404054 in the amount of \$1,039,498 which includes all design, construction, construction support, contract administration, inspection and construction change order authority costs for the rehabilitation of the Scheuer 2 Well; and
4. Authorize the City Manager, or designee, to execute construction agreements and any other documents necessary to effectuate the project described herein, as well as the ability to make minor non-substantive changes including changes to each of the work order amounts but not-to-exceed the cumulative total of \$1,843,000 and in accordance with all purchasing policies.



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