

FY2020/21 GROUNDWATER WELL REHABILITATION PROJECT

Riverside Public Utilities

Board of Public Utilities
September 28, 2020

BACKGROUND

1. Over 50 active groundwater wells
2. Performance decreases
 - a. Wear and tear
 - b. Declining water levels
3. Periodic maintenance

PROJECT DESCRIPTION

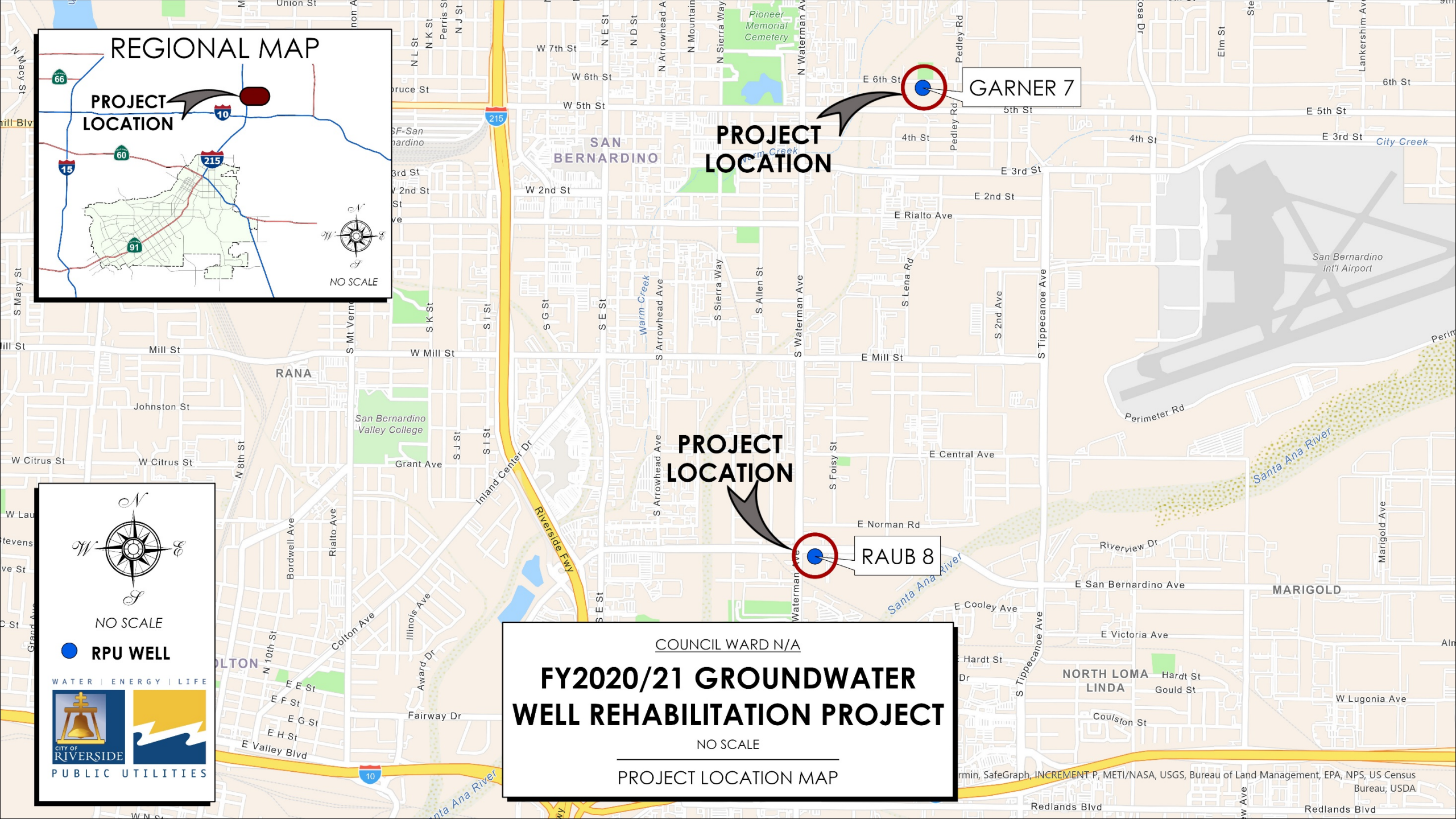
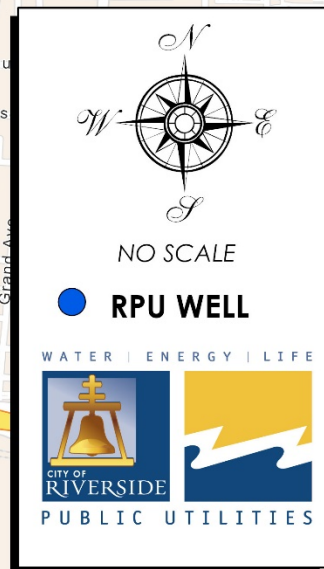
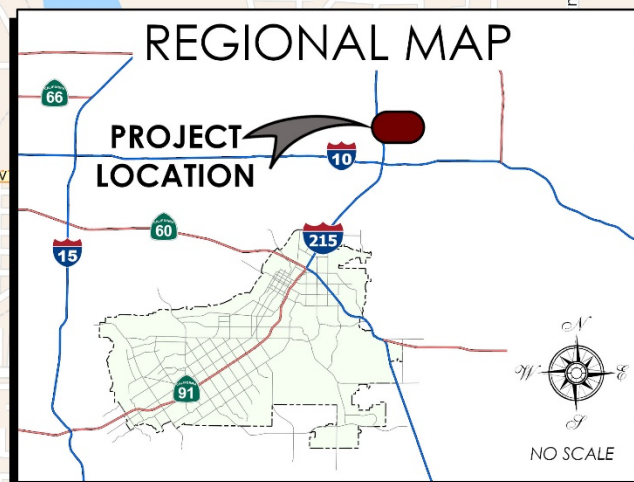
1. Evaluate and prioritize groundwater wells
 - a. Hired Geoscience on June 21, 2013
 - b. Assess current operational data and needs

PROJECT DESCRIPTION (CONT.)

2. Two wells to undergo rehabilitation work during FY 2020/21:

a. Garner 7

b. Raub 8



SCOPE OF WORK

1. Remove and inspect pumping equipment
2. Repair / replace, as needed
3. Adjust pump depth
4. Video survey
5. Clean well
6. Redevelop and test

DISCHARGE HEAD, NEW BOWLS, AND PACKER



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.



CLEANING ADDITIVES

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



PUMP TESTING THE WELL AFTER WELL CLEANING



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.

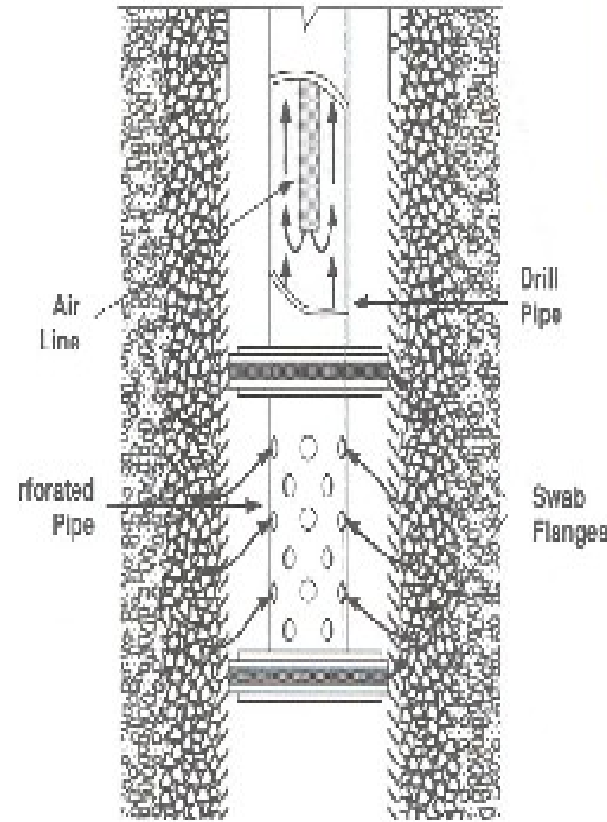


Figure 14.7. Airlift swabbing tool.



BID RESULTS

1. The project was advertised on August 11, 2020
2. A pre-bid conference was held on August 18, 2020
3. Bids were opened on September 2, 2020
4. Six bids were received

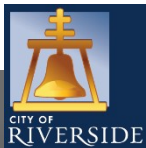
BID RESULTS (CONT.)

Rank	Vendors	City Location	Bid Total
1.	Weber Water Resources	Corona, CA	\$647,600
2.	Best Drilling and Pump, Inc.	Colton, CA	\$668,700
3.	Legend Pump & Well Services	San Bernardino, CA	\$672,016
4.	General Pump Company, Inc.	San Dimas, CA	\$676,080
5.	Layne Christensen Company	Redlands, CA	\$785,433
6.	South West Pump & Drilling, Inc.	Coachella, CA	\$2,011,202

Engineer's Construction Cost Estimate: \$670,000

PROJECT BUDGET BREAKDOWN

Project and Fiscal Breakdown		W.O. No. 2022393 (Garner 7)	W.O. No. 2022394 (Raub 8)	Total Project
Work Type:	Performed By:	Amount:	Amount:	Amount:
Planning and Design	Internal Staff	\$3,320.00	\$4,320.00	\$7,640.00
Construction	Weber Water Resources	\$348,739.30	\$298,860.70	\$647,600.00
Construction Support	Internal Staff	\$5,000.00	\$5,000.00	\$10,000.00
Engineering Support, Construction Management and Inspection	Internal Staff	\$35,000.00	\$35,000.00	\$70,000.00
Hydrogeologist Services	Vendor to be Determined (Consultant Panel)	\$10,000	\$10,000	\$20,000.00
Construction Contingencies	N/A	\$34,873.93	\$29,886.07	\$64,760.00
Work Order Total:		\$436,933.23	\$383,066.77	\$820,000.00
Reimbursements:	None			
Anticipated Start Date:	October 2020			
Anticipated Duration:	4 Months			



RECOMMENDATIONS

That the Board of Public Utilities:

1. Award Bid No. RPU-7776 for the construction of the FY2020/21 Groundwater Well Rehabilitation Project to Weber Water Resources, of Corona, California, in the amount of \$647,600;
2. Approve the capital expenditure for Work Order No. 2022393 in the amount of \$435,000 which includes all design, construction, construction support, contract administration, inspection and construction change order authority costs for the rehabilitation of the Garner 7 Water Well;

RECOMMENDATIONS (CONT.)

3. Approve the capital expenditure for Work Order No. 2022394 in the amount of \$385,000 which includes all design, construction, construction support, contract administration, inspection and construction change order authority costs for the rehabilitation of the Raub 8 Water 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 \$820,000 and in accordance with all purchasing policies.