

SUPPLEMENTAL AGREEMENT WITH WATER SYSTEMS CONSULTING, INC. IN RESPONSE TO RFP NO. 1859 FOR RPU'S ANNUAL GROUNDWATER ASSESSMENT REPORT FOR 2018 IN AN AMOUNT OF \$102,140

Board of Public Utilities
June 24, 2019

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BACKGROUND

RPU Water System:

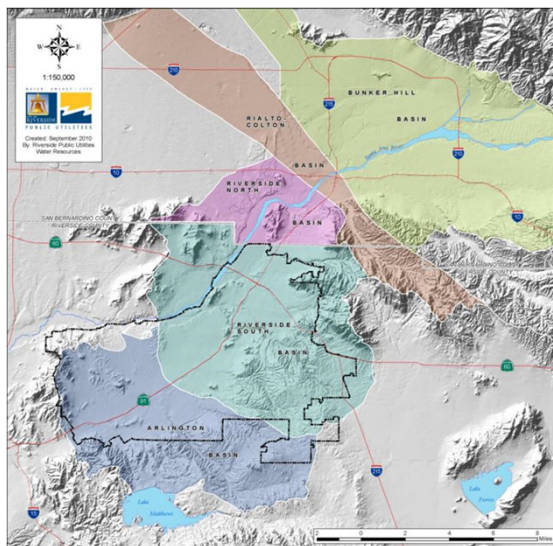
1. 310,000 people served
2. 56 Wells
3. 6 Treatment Plants
4. 16 Reservoirs
5. 38 Boosters / 28 Pressure Reducers
6. 65,000 service connections

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CURRENT WATER EXTRACTION RIGHTS



Extraction/Export Rights

Bunker Hill	
• 55,263 AFY Export	64%
Colton	
• 2,728 AFY Export	3%
Riverside North	
• 10,902 AFY Export	13%
Riverside South	
• 16,880 AFY Extraction	20%

85,774 AFY Total

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BACKGROUND

General Conditions:

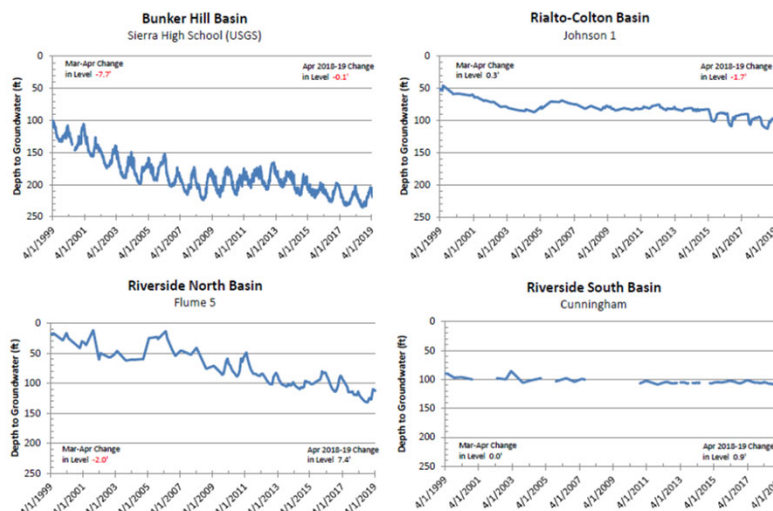
1. Dynamic and influenced by many factors,
2. Staff measure water levels and collect water quality data,
 - a) Groundwater data also collected by the United States Geological Survey (USGS),
 - b) Groundwater data by other water agencies,
3. Negative impacts to RPU's production due to a long term-declining trend over the last 20 years.

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BASIN GROUNDWATER LEVELS



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BACKGROUND

Describe condition of the groundwater basin with respect to:

1. Hydrologic conditions,
2. Groundwater production,
3. Groundwater recharge,
4. Groundwater levels,
5. Groundwater quality, and
6. Changes in groundwater storage.



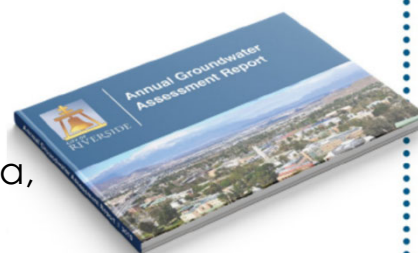
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BACKGROUND

The GWA will be atlas-style reporting tool to:

1. Reviewing highly complex monitoring data,
2. Benchmarking basin conditions,
3. Understanding historical changes in groundwater levels and quality,
4. Characterize groundwater flow patterns and the change in groundwater elevations over time and space, and
5. Identify areas where groundwater production might be optimized



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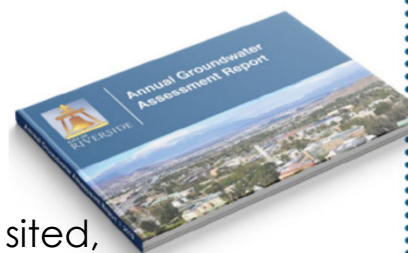


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BACKGROUND

The GWA will be atlas-style reporting tool to:

6. Identify where new production wells will be sited,
7. Help RPU staff proactively evaluate water supply within local basins,
8. Further understand the changing basin conditions, and
9. Educate the community, City Council, RPU Board, and Executive Management.



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DISCUSSION

On May 7, 2019, three (3) in response to RFP No. 1859:

1. Water Systems Consulting, Inc (WSC),
2. Geoscience, and
3. Wood Rodgers, Inc.

DISCUSSION

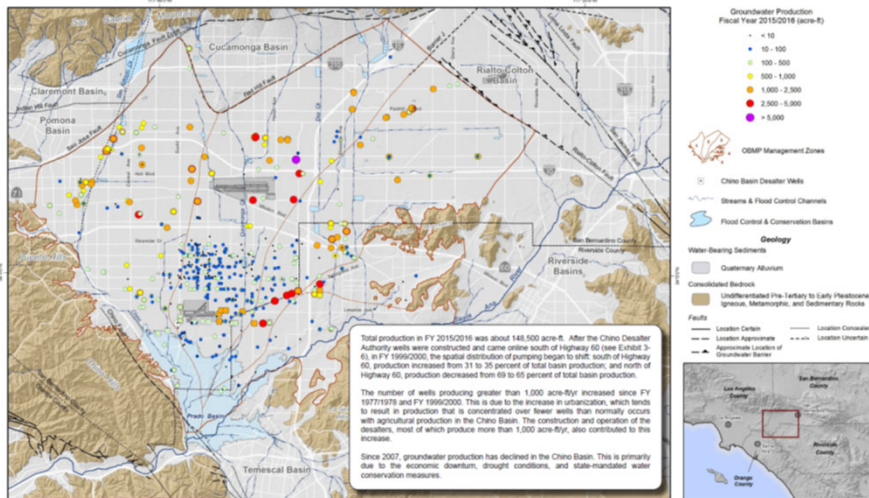
1. Staff members reviewed the proposals based on the criteria described in the RFP
2. Staff utilized a predetermined scoring methodology, as outlined in the RFP, to rank each proposal
3. Based on the final scores staff recommends WSC as the best consultant to perform the work based on their qualifications, experience, and project approach

DISCUSSION

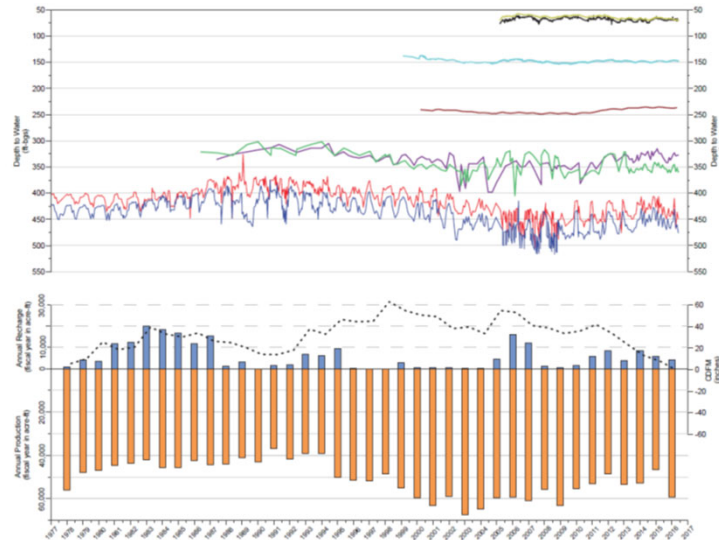
The project breakdown is proposed as follows:

Project Breakdown	
RPU's Annual Groundwater Assessment Report for 2018	Water Systems Consulting, Inc.
Anticipated Start Date:	July 2019
Anticipated Duration:	6 Months
Coordination Required With:	RPU Water Engineering staff
Reimbursements:	None

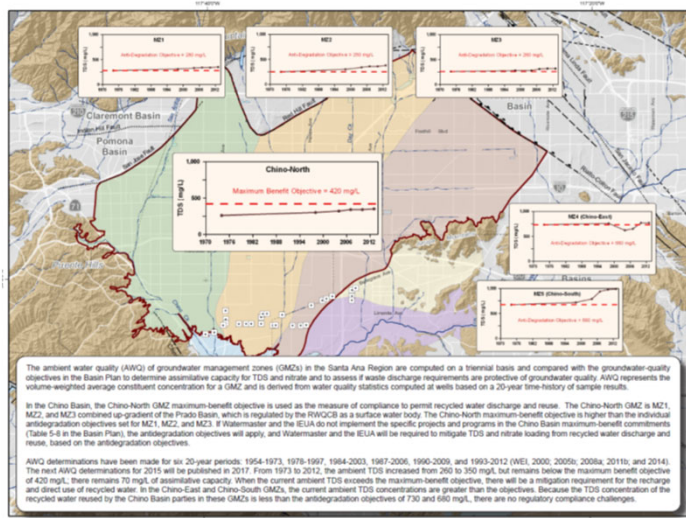
GROUNDWATER PRODUCTION BY WELL



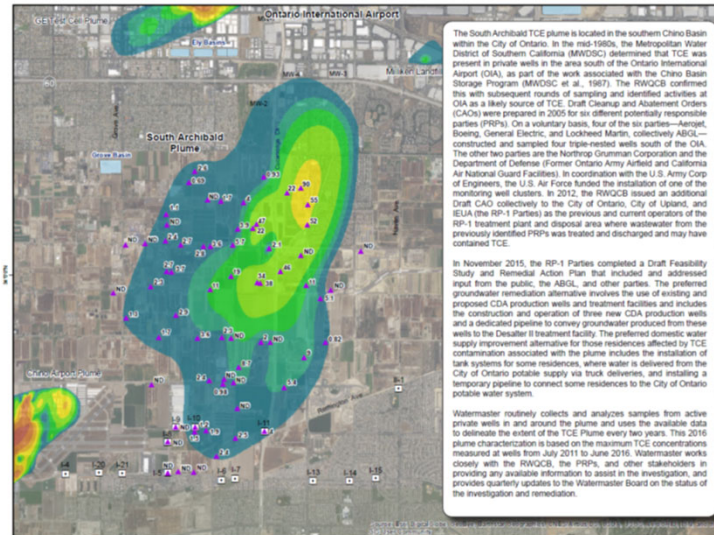
TIME SERIES CHARTS



WATER QUALITY TREND CHARTS



CONTAMINANT PLUME GRAPHICS

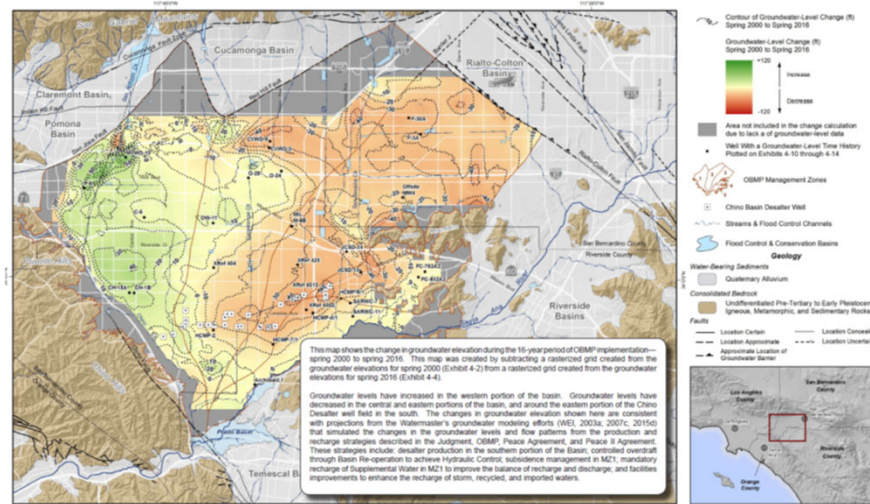


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GROUNDWATER LEVEL CHANGE



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RECOMMENDATIONS

That the Board of Public Utilities:

1. Approve a Supplemental Agreement in response to Request for Proposal Number 1859 for Riverside Public Utilities Annual Groundwater Assessment report for 2018 with Water Systems Consulting, Inc., of Rancho Cucamonga, California, in an amount not to exceed \$102,140; and
2. Authorize the City Manager, or designee, to execute the Supplemental Agreement with Water Systems Consulting Inc., including making minor and non-substantive changes and to sign all documents and instruments necessary to complete the transactions.