

RFP NO. 1878 – PROFESSIONAL SERVICES AGREEMENT WITH HAZEN AND SAWYER FOR THE WATER SCADA SECURE & OPTIMIZED COMMUNICATIONS SYSTEM

Riverside Public Utilities

Board of Public Utilities
February 11, 2019

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BACKGROUND

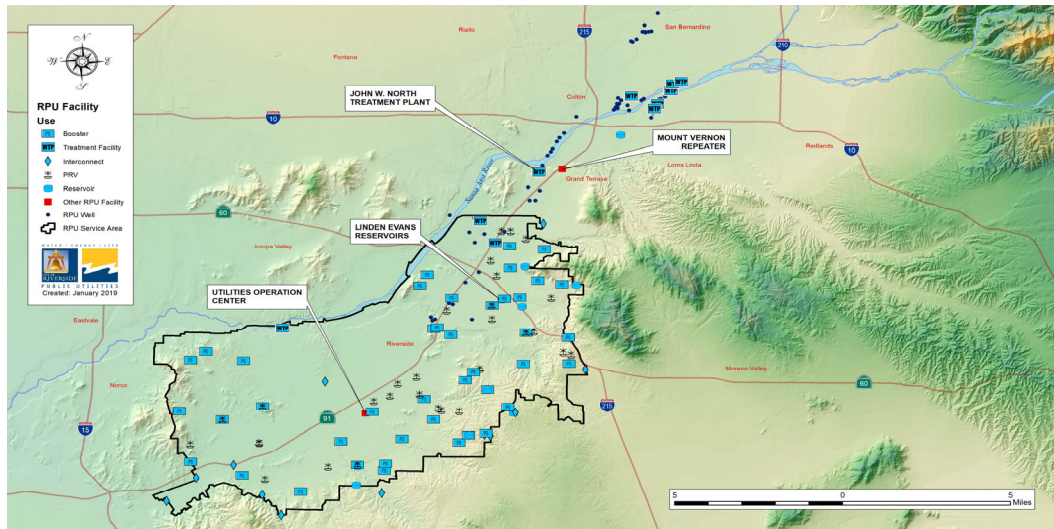
1. Water System has many remote assets
 - a. 56 Wells
 - b. 6 Treatment Plants
 - c. 16 Reservoirs
 - d. 38 Boosters / 28 Pressure Reducers



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Facilities & Wells



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BACKGROUND

1. SCADA

Supervisory **C**ontrol **A**nd **D**ata **A**cquisition

2. Efficient operation of system



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BACKGROUND

1. SCADA Components
 - a. Local Instrumentation
 - i. Sensors
 - ii. Controllers
 - b. Communication System
 - i. Radios
 - ii. Fiber Optic
 - c. Control Center (UOC)
 - i. Data collection
 - ii. Operator Interface



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BACKGROUND

Field Instruments



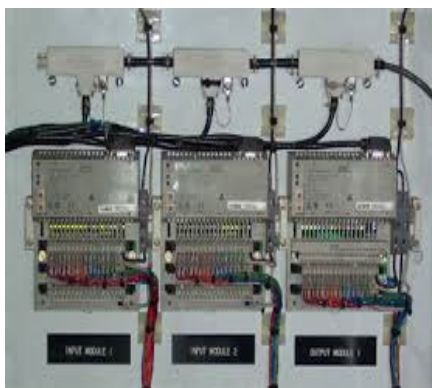
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BACKGROUND

Programmable Logic Controllers (PLCs)



Radio



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BACKGROUND

Antenna



Repeater



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BACKGROUND

1. RPU Water SCADA System
 - a. Installed in 2004
 - b. Upgraded in 2012
 - c. Significantly Expanded
 - d. Radio Communications
 - i. Bandwidth – End points @ 256 Kbps



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BACKGROUND

1. Vulnerability Assessment (2016)
 - a. High Priority - Water SCADA Communications System
2. SCADA System needs to be replaced



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BACKGROUND

1. RFP for SCADA Communications Business Requirements
 - a. Drafted – July 2017
 - b. Posted – September 8, 2017
 - c. No proposals received



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BACKGROUND

1. RFP for Owner's Rep for Water SCADA Communications
 - a. Drafted – August 2018
 - b. Posted – October 24, 2018
 - c. One proposal received
 - d. Cancelled – November 9, 2018



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BACKGROUND

1. Design/Build Procurement

- a. Request for Qualifications – posted November 1, 2018
- b. Qualifications Due – January 23, 2019
 - i. Select 4 qualified consultants
- c. Next step: Request for Proposals



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BACKGROUND

1. Owner's Representative

- a. Technical expertise
 - i. Scope refinement
- b. Extension of Staff
 - i. Fast moving project
- c. Prevents Design delays
 - i. Understands Industry standards
- d. Reduce Construction risks
 - i. Quality Assurance



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DISCUSSION

1. RFP for Owner's Rep for Water SCADA Communications
 - a. November 9, 2018
 - b. Proposals received December 4, 2018
2. Only one proposal received
 - a. Hazen and Sawyer
 - b. Most companies wanted to compete for D/B services



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DISCUSSION

1. Upcoming Items for Consideration
 - a. Approval of Design/Build Contract for Water SCADA Communications
 - i. May 13, 2019
 - ii. Estimated ~\$800K
 - b. Approval of Water SCADA Reliability and Security Program
 - i. Estimated Date – through FY 2022-23
 - ii. Budget – approximately \$3.2M over 5 years



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RECOMMENDATIONS

That the Board of Public Utilities:

1. Approve a Professional Services Agreement with Hazen and Sawyer of Palm Desert, California in response to Request for Proposal (RFP) No. 1878 for the Water SCADA Secure & Optimized Communications System Design-Build Project, in the amount of \$85,607 with a term ending December 31, 2020; and
2. Authorize the City Manager, or his designee, to execute the Professional Services Agreement with Hazen and Sawyer, including making minor and non-substantive changes and to sign all documents and instruments necessary to complete the transactions.



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