

**SPECIAL MEETING OF THE BOARD OF DIRECTORS  
WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA  
4040 PARAMOUNT BOULEVARD, LAKEWOOD, CALIFORNIA 90712  
12:00 P.M., THURSDAY, OCTOBER 12, 2017**

**AGENDA**

*Each item on the agenda, no matter how described, shall be deemed to include any appropriate motion, whether to adopt a minute motion, resolution, payment of any bill, approval of any matter or action, or any other action. Items listed as "For Information" or "For Discussion" may also be the subject of an "action" taken by the Board or a Committee at the same meeting.*

**1. DETERMINATION OF A QUORUM**

**2. PLEDGE OF ALLEGIANCE**

**3. INVOCATION**

**4. PUBLIC COMMENT**

*Pursuant to Government Code Section 54954.3*

**5. ADDITIONAL ITEMS TO THE AGENDA**

*Determine the need to add items to the agenda. In order for the Board to add an item to the agenda it must make a determination that: (i) The item came to the attention of the Board after the posting of the agenda; (ii) That there is a need for immediate action to be taken by the Board. If these two tests are met, the Board may add the item in question to the agenda for consideration consistent with the provisions of the Brown Act.*

**6. CONTRACT AMENDMENT WITH ENTERPRISE AUTOMATION FOR SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA) INTEGRATOR SERVICES**

*Capital Improvement Projects (CIP) Committee Recommendation:* The Capital Improvement Projects Committee recommends that the Board of Directors authorize the General Manager to execute Amendment No. 1 to Agreement No. 915, subject to approval as to form by District Counsel, with Partners in Control, Inc., dba Enterprise Automation to provide additional professional services for SCADA systems integration and support for an amount not to exceed \$608,220. There is no additional fiscal impact for this recommended contract amendment since these funds were previously encumbered under the Arcadis contract, which has now been terminated.

**7. DISTRICT COUNSEL'S REPORT**

**8. AB 1234 COMPLIANCE REPORTS AND DIRECTORS' REPORTS**

**9. WRD BOARD MEETING DATES**

- A. October 19, 2017 – 11:00 a.m. – Regular Board of Directors Meeting
- B. November 16, 2017 – 11:00 a.m. – Regular Board of Directors Meeting
- C. December 21, 2017 – 11:00 a.m. – Regular Board of Directors Meeting

**10. CLOSED SESSION**

- A. Conference with Legal Counsel – Existing Litigation, pursuant to Government Code §54956.9  
Name of Case: Water Replenishment District v. Tesoro Refining  
LASC Case No. BC493914
- B. Conference with Legal Counsel – Anticipated Litigation, pursuant to Government Code §54956.9 (b), Two Matters
- C. Conference with Legal Counsel – Existing Litigation, pursuant to Government Code §54956.9  
Name of Case: Woods v Water Replenishment District  
LASC Case No. BC661247

**11. CLOSED SESSION REPORT**

**12. ADJOURNMENT**

The Board will adjourn to the next Board of Directors meeting currently scheduled for October 19, 2017 at 11:00 a.m.

*Agenda posted by Tracey Burke Senior Administrative Specialist on October 11, 2017. In compliance with ADA requirements, this document can be made available in alternative formats upon request.*

In compliance with the Americans with Disabilities Act (ADA), if special assistance is needed to participate in the meeting, please contact Senior Administrative Specialist Sherri Brown at (562) 921-5521 for assistance to enable the District to make reasonable accommodations.

All public records relating to an agenda item on this agenda are available for public inspection at the time the record is distributed to all, or a majority of all, members of the Board. Such records shall be available at the District office located at 4040 Paramount Boulevard, Lakewood, California 90712.

Agendas and minutes are available at the District's website, [www.wrd.org](http://www.wrd.org).

EXHAUSTION OF ADMINISTRATIVE REMEDIES – If you challenge a District action in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the District office at, or prior to, the public hearing. Any written correspondence delivered to the District office before the District's final action on a matter will become a part of the administrative record.



## MEMORANDUM

### ITEM NO. 6

**DATE:** OCTOBER 12, 2017

**TO:** BOARD OF DIRECTORS

**FROM:** ROBB WHITAKER, GENERAL MANAGER

**SUBJECT:** CONTRACT AMENDMENT WITH ENTERPRISE AUTOMATION FOR SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA) INTEGRATOR SERVICES

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### SUMMARY

Over the course of the past fifteen years, the Water Replenishment District of Southern California ("WRD") has invested in the construction of the Robert W. Goldsworthy Desalter (Goldsworthy Desalter), has recently completed the expansion of the Leo J. Vander Lans Advanced Water Treatment Facility (Vander Lans AWTF), and has completed the construction of two new diversion structures at the San Gabriel Coastal Basin Spreading Grounds (SGCBCG). The Goldsworthy Desalter is currently being expanded and is expected to be completed in late October 2017. Construction of the Groundwater Reliability Improvement Program (GRIP) Advanced Water Treatment Facility (AWTF) is currently underway. All of these facilities will be heavily dependent upon automation to reliably operate and monitor system performance. An extensive network of telemetry and instrumentation devices along with a solid-state control system, including a human-machine-interface (HMI), will be designed and installed as part of each of these projects. Eventually, a fully integrated and standardized master Supervisory Control And Data Acquisition (SCADA) system will be established and all of WRD's facilities will be displayed and/or controlled at the Centralized Information System (CIS) currently being established at the District's offices in Lakewood, California.

On June 18, 2015, the WRD Board of Directors awarded a contract to Arcadis to develop a Supervisory Control And Data Acquisition (SCADA) System Master Plan. Two amendments to the contract were subsequently executed in 2015 and 2016 to increase the budget to provide additional services, including construction project support (specifically the SGCBCG Diversion Structures Project, Goldsworthy Desalter Expansion Project, and GRIP AWTF design), development of hardware and software standards (including instrumentation and control systems, process electrical equipment, and other SCADA system components) for the entire SCADA system infrastructure, and completing the communications network design for all WRD facilities. The approved budget including the two contract amendments totaled \$1,628,537.

The SCADA System Master Plan was completed by Arcadis on May 6, 2016, and a SCADA System Integrator was needed to implement the projects and recommendations specified in the SCADA System Master Plan. As a result, on February 2, 2017, the Board of Directors

awarded a contract to Enterprise Automation to link/integrate the SCADA systems at all of WRD's facilities (i.e. the SGCBCG diversion structures, Vander Lans AWTF, Goldsworthy Desalter, and eventually GRIP AWTF) to the Central Information System located in the WRD administrative office in Lakewood. In addition, Enterprise Automation will provide technical expertise and ongoing assistance in the development, maintenance, and periodic upgrades and/or improvements to all of the SCADA systems at WRD's facilities.

Staff determined that the services provided by Arcadis were no longer needed and terminated their contract, effective September 1, 2017. The amount remaining on the Arcadis contract is \$608,221.24. Staff would like to transfer these remaining funds to the Enterprise Automation contract to perform additional work not covered in their original agreement, including completion of the SCADA standards (specifically the graphical and programming library and documentation), establishment of a comprehensive network security program, upgrade of the Vander Lans SCADA system, and support for the Enterprise Asset Management Project. Thus, staff recommends amending the Enterprise Automation contract to increase the budget by an amount not to exceed \$608,220.

### **FISCAL IMPACT**

Sufficient funds are included in the District's Capital Improvement Program (CIP) for the SCADA System Master Plan project. There is no additional fiscal impact for the recommended professional services since these funds were previously encumbered under the Arcadis contract.

### **CAPITAL IMPROVEMENT PROJECTS (CIP) COMMITTEE RECOMMENDATION**

The Capital Improvement Projects Committee recommends that the Board of Directors authorize the General Manager to execute Amendment No. 1 to Agreement No. 915, subject to approval as to form by District Counsel, with Partners in Control, Inc., dba Enterprise Automation to provide additional professional services for SCADA systems integration and support for an amount not to exceed \$608,220. There is no additional fiscal impact for this recommended contract amendment since these funds were previously encumbered under the Arcadis contract, which has now been terminated.

**AMENDMENT NO. 1 TO CONTRACT NO. 915  
AGREEMENT FOR PROFESSIONAL SERVICES  
BETWEEN  
WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA  
AND  
PARTNERS IN CONTROL, INC. DBA ENTERPRISE AUTOMATION**

This Amendment to Contract No. 915 (the “Agreement”), is made and entered into this 19<sup>th</sup> day of October, 2017 (“Effective Date”), by and between the Water Replenishment District of Southern California (hereinafter “District”), and Partners in Control, Inc. DBA Enterprise Automation, (hereinafter “Consultant”). The District and Consultant are collectively referred to herein as the “Parties”.

**I.**  
**RECITALS**

A. WHEREAS, On February 2, 2017, the Agreement was executed between the District and Consultant for On-Call Supervisory Control and Data Acquisition (SCADA) Integrator Services; and

B. WHEREAS, District and Consultant now desire to enter into this Amendment No. 1 in order to revise the Consultant’s scope of work and increase the contract budget.

**II.**  
**AMENDMENT**

NOW, THEREFORE, in consideration of the mutual covenants, promises and agreements set forth herein, it is agreed that the Agreement as amended to date shall remain in full force and effect except as otherwise hereinafter provided.

1. Parties have negotiated an additional scope of work, a copy of which is attached hereto as Exhibit “A” and incorporated herein by this reference.

2. Section 3.1, is amended to increase the total budgetary amount by \$608,220.00 for the additional scope outlined in this Amendment No. 1.

3. Remaining Portion of the Agreement except as otherwise expressly amended herein, shall remain unchanged and in full force and effect.

IN WITNESS WHEREOF, the parties have caused this Amendment No. 1 to be executed as of the Effective Date.

**Partners in Control, Inc. DBA Enterprise Automation, ("CONSULTANT")**

\_\_\_\_\_  
*Signature*

\_\_\_\_\_  
*Print Name*

\_\_\_\_\_  
*Title*

**WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA**

\_\_\_\_\_  
*Signature*

**Robb Whitaker**

\_\_\_\_\_  
*Print Name*

**General Manager**

\_\_\_\_\_  
*Title*

**Approved As To Form  
LEAL, TREJO APC**

\_\_\_\_\_  
Attorneys for the Water Replenishment  
District of Southern California

**EXHIBIT A**



## EXHIBIT A

August 16, 2017

Phuong Watson  
WRD  
4040 Paramount Blvd  
Lakewood, CA 90712

Subject: Update scope covered in EA16WRD061 On-Call Services Contract

Dear Phuong

This memo and attached table is a high level summary of additional scope items covered under the On-Call Services Contract with Enterprise Automation (EA). The purpose of this memo is to provide a picture of which scope items have been added or proposed based on new information and discussions with WRD. The following list defines the main changes in scope with brief summaries of the work to be completed:

1. SCADA Architecture:
  - Finalize and implement a standard SCADA platform design including hardware specifications, firewall rules, network architecture, and virtualization standards. EA will use existing templates and documentation from previous projects to develop and improve WRD's architecture design.
2. CMMS Design and Implementation:
  - EA will act as a consultant to support WRD in their effort to implement a CMMS system for asset management. This includes time to coordinate with GHD and provide support to their design and specification efforts. This effort may include miscellaneous consultation, meetings, or testing to fully verify and implement a CMMS system.
3. On-Call Support:
  - CRs (feature requests)
    - i. EA will follow WRD's CR process documentation to collect, estimate, and execute CRs. Each CR requires written approval before EA can bill against this budget. The CR process is currently only implemented at the Vander Lans site, but in the future may be expanded to include all WRD sites.
  - Emergency Support
    - i. EA will provide basic, business hours technical support to WRD. Support is intended to be limited to the systems which EA has specific knowledge of or is executing a project on (Wonderware, server infrastructure, standards, etc.). Based on conversations with WRD, this couple potentially be expanded to include 24/7 support as necessary.
4. Remote Access & Data Sharing

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- EA will develop a design, and implement a secure remote access system to the CIS. This will include designing and implementing a way to securely and reliably share site process control data with outside entities. This will improve EA's ability to support WRD without having to travel to the CIS and provide approved entities with the ability to view the SCADA system remotely. This will improve support times, reduce support costs, and improve the overall quality of support.
  - Additionally, EA will set up a bi-directional data sharing system between outside entities/agencies and the SCADA system. WRD has asked EA to assist in designing and implementing a system to meet their needs. Since the requirements for the system have not been finalized, the specific tasks are subject to change and further development and planning is on-going with WRD and other stakeholders.
5. Wonderware Licensing:
- EA has been asked to consult with WRD to ensure all required Wonderware licenses are procured and kept current for all WRD sites with SCADA systems. This includes reviewing quotes provided by Wonderware and providing redlines such that nothing required is missed, while also preventing WRD from purchasing licenses that are not needed.
6. Turnouts:
- Electrical design and panel layout will be redone for the Turnouts Structures to standardize the site based on WRD requirements. This may include additional site visits, and will include creating a specification and drawings for the electrical design.
7. Vander Lans Refurbishment:
- As part of the SCADA master plan, WRD expects to refurbish the entire controls system at their Leo. J. Vander Lans AWTF. Currently, the SCADA server and network infrastructure on site is being upgraded as part of the migration into CIS. Additionally, EA expects longer term plant refurbishment in phases, the next of which is a design documentation update. EA will update and create the necessary documentation for the plant refurbishment full design. The immediate driving factor is to help improve the data and documents in use by those working on the CMMS project at the Vander Lans site.
8. GRIP Support:
- EA's role in supporting the GRIP contractors will be to act as an extension of WRD staff, and as part of the OE/OA team to provide valuable and critical feedback and direction to primarily the GRIP systems integrator (TSI) and additionally to the GRIP design engineer (Tetra Tech) and Electrical Subcontractor (Big Sky). Based on EA's industry expertise and knowledge in executing numerous SCADA construction projects, EA anticipates assisting and providing information throughout the entire life cycle of the project from design through startup, and potentially post-commissioning support.
9. SCADA Standards:
- At the request of WRD, EA was asked to update the District's existing standards library after it was determined that the existing standards would not fit the needs of WRD's SCADA systems. The goal of this task is to

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update the current standards library to be more reflective of SCADA best practices and the needs of currently executing WRD projects, such as GRIP. This includes developing both PLC and HMI standards while continually getting input from the District on their needs and visual preferences for their SCADA systems.

10. SCADA Standards Management:

- EA will develop and deliver documentation that outline how SCADA standards will be maintained. EA is will archive and update District standards as necessary. Additionally, EA will track standards compliance for any on-going District projects.

11. Goldsworthy Start Up Support:

- EA will provide the Goldsworthy Integrator on-site support during startup of the Goldsworthy upgrade project which is currently on-going. This includes providing the Goldsworthy Integrator technical support related to the EA developed Wonderware template, system architecture, and computing systems. As needed, EA will also participate in preparation and planning conference calls, meetings, and email conversations prior to startup.

12. Goldsworthy Upgrades:

- This task would include EA providing updated standards for the Goldsworthy Desalter site and would include bringing the SCADA system up to the standards implemented by the district. The on-going work at the GWDS was initiated after EA was brought in as the on-call integrator, and was too far along for EA to provide updated standards during the configuration phase of the project.

13. Network Communication Design:

- EA will implement projects 1.1, 1.3, 2.5, and 2.8 from the SCADA System Master Plan, including developing a final technical memo outlining the network communication design. The final tech memo will cover topics including (but not limited to): SCADA system traffic, data collection, backups, access control, video monitoring, etc.

14. Groundwater Monitoring Well Sites:

- This task will include designing the specific communications system between key remote nested wells and the CIS. EA will develop a design package to integrate the nested groundwater monitoring wells to the CIS by first implementing a pilot test at a few of the nested well sites, followed by a final design and implementation at all nested wells. EA will also assist the district with data collection and develop reporting solutions for the groundwater monitoring wells.

Please contact me with comments or questions.

Yours sincerely

Laura Moore-Shay  
Project Manager

EA16WRD061 Updated Scope 200