



## QEMS INTERNAL AUDITOR REPORT – 2019 CALENDAR YEAR

### A. OBJECTIVES

Internal audits of Santa Clara Valley Water District's (Valley Water) Quality and Environmental Management System (QEMS) are required as part of maintaining an ISO-compliant management system and are regularly performed to:

- Assess conformity to ISO 9001:2015 and ISO 14001:2015 requirements
- Assess conformity to Valley Water processes and procedures
- Continually identify and guide improvements to Valley Water operations and performance
- Provide feedback to management to evaluate the effectiveness of the QEMS

Audit results communicated to management via this report.

### B. EXECUTIVE SUMMARY

Valley Water's Internal Audit Program applies to the scope of the QEMS. Internal audits are necessary to continue to utilize ISO 9001 and 14001 as guidelines to maintain the management system and to facilitate process improvement. In 2018, Valley Water decided to no longer pursue the external ISO recertification of QEMS and to continue to support the conformity of QEMS to ISO 9001 and 14001 standards through internal and Board-commissioned audits. During 2019, several changes to the Internal Audit Program had occurred, as described below.

On June 30, 2019, the 2017 Internal Audit Team's 3-year term concluded and recruitment efforts for new internal auditors began in February 2019. Seven new auditors were recruited, trained, and certified in the new ISO 9001:2015 and ISO 14001:2015 standards and begin auditing in-scope business areas in 2019.

Prior to 2019, internal audits of the in-scope units were scheduled during a two-week time frame, which did not allow flexibility for either the auditors or auditees. In response to management and staff's concerns regarding the timeframe of audits, the 2019 internal audit plan and schedule was updated to occur on a monthly basis beginning April through December, which allowed both the auditors and auditees to select which timeframe would be best suited for both parties.

Additionally, in 2019, several re-organizations occurred at Valley Water that affected the internal audit plan and schedule that was approved on April 4, 2019. A few units identified in the approved schedule were re-organized and therefore rescope. Thirty-one audit interviews were conducted April through December for the following in-scope operations. The detailed audit findings are in Section E of this report and hyperlinked below. To preserve the integrity of the auditors' observations and independence of reporting, their findings have not been edited.

1. [Treated Water Operations & Maintenance Deputy Operating Officer Water Supply Division Deputy Operating Officer: Retailer Survey \(customer service\)](#)
2. [Laboratory Services Unit](#)
3. [North Water Treatment Operations Unit](#)
4. [South Water Treatment Operations Unit](#)
5. [Treatment Plant Maintenance Unit](#)
6. [Water Quality Unit](#)  
[Capital Program Planning and Analysis Unit \(This unit was reorganized to an out of scope business area in September 2019\)](#)
7. [Construction Services Unit](#)



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8. [East Side Project Delivery Unit \(merged with and renamed Pipelines Project Delivery Unit\)](#)  
[Pipelines Project Delivery Unit \(merged with East Side Project Delivery Unit\)](#)
9. [Treatment Plant Project Delivery Unit \(previously known as West Side Project Delivery Unit\)](#)
10. [CADD Services Unit](#)
11. [Dam Safety Program & Project Delivery Unit](#)
12. [Design and Construction Unit 3](#)  
[Pacheco Project Delivery Unit \(This unit was reorganized to an out of scope business area in September 2019\)](#)
13. [Wells & Water Measurement Unit](#)
14. [Design and Construction Unit 1](#)
15. [Design and Construction Unit 2](#)
16. [Design and Construction Unit 4](#)
17. [Design and Construction Unit 5](#)
18. [Land Survey and Mapping Unit](#)
19. [Real Estate Services Unit](#)
20. [Facilities Management](#)
21. [Infrastructure Services/IT](#)
22. [Equipment Management](#)
23. [Purchasing & Consultant Contracts Services Unit \(previously known as Purchasing, Consultant Contract, and Warehouse unit\)](#)
24. [Business Support and Warehouse Unit \(Audit of Warehouse services only. This unit was combined with Purchasing & Consultant Contracts Services Unit and previously known as Purchasing, Consultant Contract, and Warehouse unit\)](#)
25. [Security and Emergency Services](#)
26. [Environmental Health and Safety](#)
27. [Workforce Development \(Training\)](#)
28. [Core ISO Procedures: Continual Improvement Unit: District Document Control](#)
29. [Core ISO Procedures: Continual Improvement Unit: QEMS Internal Audit Program](#)
30. [Office of Communications \(Customer Service\)](#)
31. [Office of the Clerk of the Board \(Customer Service\)](#)

Continual Improvement Unit staff conclude that the processes from business areas included in this audit appear to be in a good state of readiness, based on the following areas of merit and observations:

### **INNOVATION**

- ✚ In August 2019, the State Water Board's Division of Drinking Water (DDW) updated its guidelines for local water agencies to follow in detecting and reporting the presence of per- and polyfluoroalkyl substances (PFAS) in drinking water. The guidelines lowered the notification levels based on updated health recommendations from the Office of Environmental Health Hazard Assessment (OEHHA), which is part of the California Protection Agency.

To prepare for the updated guidelines testing, Laboratory Services Unit purchased a state-of-the-art technology, Liquid Chromatography with tandem mass spectrometry, to test for the low-level testing requirements of PFAS. The machine is one of its kind and will be able to detect the required parts per trillion in the testing and could be used as a model for other agencies with similar analytical testing needs.

- ✚ The Information Technology Division's ability to manage over 100 projects with the ERP upgrade is a good measure on the structure and management skills demonstrated by the team. Keeping staff continuously trained to maintain the capability to do its jobs as technology moves quickly and District



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staff continues to retire should not go unrecognized as a big challenge and big achievement currently and moving forward.

- ✦ The Communications team uses a web-based project/task management web application called Trello to organize and coordinate their teams' work. They stated that this application has allowed them to make improvements to their work process and has allowed more efficiency as each team member can access project tasks and it reduces time spent chasing down information.

### **CUSTOMER SERVICE**

- ✦ The Office of the Clerk of the Board is to be commended for the automation of its Board Communications process. Specifically, for an improvement of its BiTrak system, which now offers the option to add attachments.
- ✦ Office of Communication staff demonstrated great tools and reports used in the method of how they monitor customer satisfaction. Creating FAQs from the comment cards and Q&A sessions at public meetings also demonstrates great customer service and responsiveness.
- ✦ The Land Survey and Mapping Unit worked with IT to create a digital platform for Survey Requests, including converting requests and work output pre-dating the online tool which brought the Unit's work to a nearly paperless process. The auto-population of folders in the Unit's working folders saves a good deal of time with each request, allowing staff more time to respond to the request. The database is user friendly and intuitive.
- ✦ During the audit of the Procurement of General Services (Q-741-004), auditors were made aware of an internal audit program and associated audit plan that Tom Esch, Procurement manager, developed with his staff using rigorous mechanisms and principles developed by the Federal Transit Administration (FTA). With the District no longer possessing ISO certification, but still required to be fiscally responsible and accountable, it is commendable that the Purchasing and Consultant Contracts Unit is developing its own audit program which integrates the spirit of ISO: say what you do, do what you say, prove it and improve it.
- ✦ The Maximo system is a great tool that allows EMU to create and track work orders, vehicles and equipment records, and send out customer service surveys. Overall, EMU has very thorough work instructions and forms, which follows legal and regulatory requirements.

### **EMERGENCY**

- ✦ Emergency Services and Security Unit staff conduct an annual review of their procedures and work instructions to ensure compliance with Board Ends policies as well as Federal and State regulations. The reports that are produced from tabletop exercises ensure emergency preparedness and readiness.
- ✦ Laboratory Services Unit is a part of the California Mutual-Aid Laboratory Network (CAMALNet) and is one of a few labs in California that has capabilities to support analytical testing needs of other agencies in an emergency situation.

### **TEAMWORK**

- ✦ On October 23, 2018, America's Water Infrastructure Act (AWIA) was signed into law and Section 2013 requires community (drinking) water systems serving more than 3,300 people to develop or update risk assessments and emergency response plans (ERPs). The deadline for certification for



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community water systems serving  $\geq 100,000$  is March 31, 2020, on the subject of risk and resilience assessment. As part of the efforts, North Water Treatment Operations staff are supporting Asset Management Unit to conduct the chemical supply resilience evaluation with the help of consultants West Yost retained for this project.

### C. AUDIT FINDINGS

Zero non-conformities, one opportunity for improvement (OFI), and three recommendations were reported as noted below:

#### **OFI**

1. Stated in the work instruction under Section 6. Monitoring & Measurement is the following, "Monitoring and Measurement of purchasing activities will be performed monthly by the Purchasing Unit Manager to ensure quality and timely delivery of services." There is no evidence that the UM developed formal metrics therefore no monthly assessment regarding the quality or timely delivery of service is being evaluated. It is recommended that the UM develop such metrics to track delivery times and ensure quality service is provided.

#### **RECOMMENDATIONS**

1. During discussion of the "Water Meter Installation Process", information was shared with the audit team which indicated a lapse in the process currently overseen by the Revenue Management Unit, which is currently not in scope of the QEMS. The lapse in process is based on a study completed by Revenue Management between 2015/2016, which reviewed water production statements to determine if Meter Installation Requests (MIR) are needed. Through this study, it was determined that approximately 300 wells meet the requirements for a MIR. Since the completion of this study, no MIR's have been submitted to the Water Measurement for the wells identified.

The internal audit team recommends that the lapse in action identified in the "Water Meter Installation Process" be formally addressed for resolution by the Wells and Water Measurement Unit Manager through further discussion with the responsible parties, or through Valley Water's Corrective or Preventive Action Request (CPAR). Revenue Management and its associated processes are not within the QEMS scope, thus the recommendation to initiate a CPAR.

2. Valley Water's record retention schedule, update 9/18/19, for record series number RS-003 (Work Plans, Budget-Finance, Schedule, Project Scope, Correspondence, Outreach, Project Logs) is listed as Completion + 10 years or After Funding Agency Audit, if required, whichever is longer. The record retention period for record series number RS-0054 (Neighborhood Communications: Outreach / Community Files / Good Neighbor Program / Log of Community Calls Received / Correspondence) is listed as 'When no longer required - minimum 2 years'. Capital project related communications are stored by the Office of Communications, which was not in the scope of this internal audit. It was suggested to the Office of Communications staff to review the details of record series RS-0054 for alignment to capital projects related outreach and communications records series RS-003.
3. Update document Q-751-013 to include flow charts, if necessary, or remove the statement from page 3 of document W-730-122 that refers to flow charts. Update the appendices for document W-730-122 to include the correct document number in the footer for ease of use/traceability.



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## D. AUDIT SCHEDULE

QUALITY ENVIRONMENTAL MANGEMENT SYSTEM INTERNAL AUDITS										
AUDIT DESCRIPTION	2019									
	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
Treated Water O&M DOO: TW Survey (customer service w/ WS DOO)					x					
Water Supply Division DOO: TW Survey (customer service w/ T W O&M DOO)										
Laboratory Services Unit										x
North Water Treatment Operations Unit										x
South Water Treatment Operations Unit										x
Treatment Plant Maintenance Unit										x
Water Quality Unit								x		
<b>Water Utility Capital Division</b>										
Capital Program Planning and Analysis Unit (reorged to out of scope division in Sept.)							x			
Construction Services Unit										x
East Side Project Delivery Unit (merged with and renamed Pipelines Project Delivery)	x									
Pipelines Project Delivery Unit (merged with East Side Project Delivery Unit)										x
Treatment Plant Project Delivery Unit (previously known as West Side Project Delivery)										x
<b>Dam Safety &amp; Capital Delivery Division</b>										
CADD Services Unit		x								
Dam Safety Program & Project Delivery Unit						x				
Design and Construction Unit 3										x
Pacheco Project Delivery Unit (reorged to out of scope business area in Sept. 2019)										x
Wells & Water Measurement Unit	x									
<b>Watershed Design and Construction Division</b>										
Design and Construction Unit 1						x				
Design and Construction Unit 2									x	
Design and Construction Unit 4									x	
Design and Construction Unit 5									x	
Land Survey and Mapping Unit										x
Real Estate Services Unit			x							
<b>Associated Business Support Areas</b>										
Facilities Management			x							
Infrastructure Services/IT		x								
Equipment Management					x					
Purchasing & Consultant Contracts Services Unit (previously known as Purchasing, Consultant Contract, and Warehouse unit)	x									
Business Support and Warehouse Unit (Audit of Warehouse services only. This unit was combined with Purchasing & Consultant Contracts Services Unit and previously known as Purchasing, Consultant Contract, and Warehouse unit)		x								
Security and Emergency Services				x						
Environmental Health and Safety		x								
Workforce Development (Training)				x						
Core ISO Procedures: Continual Improvement Unit			x							
Core ISO Procedures: Continual Improvement Unit			x							
Office of Communications (Customer Service)			x							
Office of the Clerk of the Board (Customer Service)	x									



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### E. ADDENDA

See Auditor Reports starting on Page 7.

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<b>Process/Area Assessed</b>	Customer Communications/Satisfaction: External Communications – Water Retailer Satisfaction Survey
<b>Business Unit</b>	Treated Water Division (Unit 515) Water Supply Division (Unit 415)
<b>ISO Requirement</b>	ISO 9001:2015 8.2.1 – Customer Communication ISO 9001:2015 9.1.2 – Customer Satisfaction
<b>District Requirement</b>	F723W01: Water Retailer Annual Satisfaction Survey Implementation Checklist  <b>Ends 2.3.2:</b> Maintain effective relationships with the retailer and other stakeholders to ensure high quality, reliable drinking water.
<b>Regulatory/Legal Requirement</b>	Title 22 requirements for drinking water.
<b>Audit Findings</b>	<p>The annual survey was in-progress and was anticipated to finalize by December 2019. Therefore, this survey was last completed in 2018. Therefore, auditors observed objective evidence that regular customer communication with retailers and mechanisms to obtain feedback is conducted and maintained through quarterly retailer meetings and various subcommittee meetings, e.g. water quality subcommittee meetings. Specifically, an annual water retailer satisfaction survey is sent out to gather feedback from retailers per <i>F723W01: Annual Water Retailer Satisfaction Survey Implementation Checklist</i> on Valley Water’s programs, services, and on information provided to them throughout the year and quarterly retailer meetings are held (and for several years a knowledge sharing tour of Valley Water and retailer facilities).</p> <p>Thus, meeting the Strategies S 2.3.2.1 and S 2.3.2.2, outlined in the Outcome Measure OM 2.3.2.a. for Valley Water’s Ends Policy 2.3.2, which states that the Valley Water will maintain effective relationships with the retailer and other stakeholders to ensure high quality, reliable drinking water.</p> <p>The survey was last conducted in 2018 and 90% of the retailers gave an average rating of good to excellent and 10% gave the rating of fair on the question: Rate the Job the Water District Does Managing Water Resources. The results of the survey were discussed internally for process improvement and shared during the January 2019 retailer meeting.</p>
<b>Objective Evidence</b>	Quarterly Water Retailer Meeting Notes from January 2019
<b>Areas(s) of Merit</b>	Staff is regularly identifying efficiencies and incorporating/updating F723W01 Water Retailer Annual Satisfaction Survey Implementation Checklist (last update was on 8/13/19, previous versions were dated 6/15/13 and 5/14/19).
<b>Non-Conformance</b>	None.
<b>CPAR Type</b>	<input checked="" type="checkbox"/> None <input type="checkbox"/> Corrective Action <input type="checkbox"/> Preventive Action <input type="checkbox"/> Opportunity For Improvement
<b>CPAR Title</b>	N/A





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<b>Process/Area Assessed</b>	Treated Water Operations and Maintenance
<b>Business Unit</b>	Laboratory Services Unit (LSU) #535
<b>ISO Requirement</b>	Q -4.1 Understanding Org & its context Q-4.2 Understanding needs & expectations of interested parties Q-6 Planning E-4 Context of the organization E-6 Planning
<b>District Requirement</b>	Support the District in providing Silicon Valley with safe clean water by performing compliance and general water quality monitoring in support of Valley Water's Water Utility Enterprise, both to maintain Title 22 compliance and support raw and treated water operations and maintenance. The Water Utility is comprised of the raw and treated water distribution systems, local surface waters (reservoirs), water treatment plants, local groundwater basins, and groundwater recharge facilities.
<b>Regulatory/Legal Requirement</b>	<ul style="list-style-type: none"> <li>• Comply with California Title 22 Regulations related to drinking water.</li> <li>• Accredited by the California Department of Public Health, Environmental Testing Certificate #1205</li> <li>• Comply with US EPA Safe Drinking Water Act (SDWA).</li> <li>• Approved by the United States Environmental Protection Agency for cryptosporidium analysis.</li> </ul>
<b>Audit Findings</b>	<p>In August 2019, the State Water Board's Division of Drinking Water (DDW) updated its guidelines for local water agencies to follow in detecting and reporting the presence of these chemicals in drinking water. The guidelines lower the notification levels from 14 parts per trillion (ppt) to 5.1 ppt for PFOA and from 13 ppt to 6.5 ppt for PFOS. These levels are based on updated health recommendations from the Office of Environmental Health Hazard Assessment (OEHHA), which is part of the California Environmental Protection Agency.</p> <p>Drinking water containing perfluorooctanoic acid (PFOA), perfluorooctanesulfonic acid (PFOS) – and the larger family of per- and polyfluoroalkyl substances (PFAS) – has become an increasing concern due to the persistence of these chemicals in the environment and their tendency to accumulate in groundwater. Scientific studies indicate that exposure to PFOA and PFOS can lead to significant health effects such as cancer, immune system issues, liver and thyroid problems, and harm to a developing fetus or infant. There are thousands of specific chemicals within the large group of PFAS with varying degrees of understanding of toxicity and environmental occurrence. Of all PFAS compounds, perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) have been the most extensively produced and studied.</p> <p>In August 2019, the State Water Board's Division of Drinking Water (DDW) updated its guidelines for local water agencies to follow in detecting and reporting the presence of these chemicals in drinking water. The guidelines lower the notification levels from 14 parts per trillion (ppt) to 5.1 ppt for PFOA and from 13 ppt to 6.5 ppt for PFOS. These levels are based on updated health recommendations from the Office of Environmental Health Hazard Assessment (OEHHA), which is part of the California Environmental Protection Agency.</p>





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	<p>To prepare for the updated guidelines testing, LSU purchased a state-of-the-art technology, Liquid Chromatography with tandem mass spectrometry, to test for the low-level testing requirements of PFAS. The machine is one of its kind and will be able to detect the required parts per trillion in the testing and could be used as a model for other agencies with similar analytical testing needs.</p> <p>Prior to the Silicon Valley Advanced Water Purification Center being built in 2014, emerging contaminants in wastewater with potential impact to human health and environment were not yet regulated and therefore were not required to be tested. At that time, LSU responded to the analytical needs for the testing of pharmaceutical and personal care products, and hormones through the purchase of new equipment, and developing the in-house capacity to test for contaminants of emerging concern.</p> <p>LSU is also a part of the California Mutual-Aid Laboratory Network (CAMALNet) and is one of a few labs in California that has capabilities to support analytical testing needs of other agencies in an emergency situation.</p> <p>In addition, LSU manages a robust Internal (internal) audit program and performs audits on a three-month basis. Any corrective or preventive actions identified during their audits are captured in their Internal (internal) CPAR database system, which is tracked and monitored by the Quality Assurance manager.</p> <p>LSU is a leader in California and the country with innovative technology and being ahead of the game, such as purchasing the PFAS detecting machine and being positioned to perform testing under emergency situations. LSU is also a leader in Valley Water, as they have demonstrated through creating and obtaining a Quality Assurance manager position, implementing an Internal (internal) audit program and CPAR tracking.</p>
<b>Objective Evidence</b>	<ul style="list-style-type: none"> <li>• WI State Laboratory of Hygiene Cryptosporidium Proficiency Testing Program lab results, report #CA00193-1623.1-201910-01 dated 11/7/19</li> <li>• Laboratory Services Annual Internal Audit Plan (FY 2020)</li> <li>• Internal Audit Training Record LF-QA013-01 for Unit 535 staff, training conducted by Amy Lazzini on 6/19/19</li> <li>• Document Change Request (DCR) and SOP Annual Evaluation Form DF_GEN028-01, submitted by Mark Ellison on 10/30/19, approved by QA manager on 12/4/19 and Technical Manager on 12/5/19</li> <li>• Title 22. Social Security, Division 4. Environmental Health, Chapter 19. Certification of Environmental Laboratories, Article 1. Definitions</li> <li>• Quality Assurance Manual approved 2/28/19 by Laboratory Manager</li> </ul>
<b>Areas(s) of Merit</b>	<ul style="list-style-type: none"> <li>• Robust Internal (internal) Audit Program</li> <li>• Internal Corrective/Preventive Action system</li> <li>• New position resourced: Quality Assurance/Control Manager</li> <li>• Purchasing new equipment to analyze Per- and polyfluoroalkyl substances (PFAS)</li> </ul>
<b>Non-Conformance</b>	None
<b>CPAR Type</b>	<input checked="" type="checkbox"/> None <input type="checkbox"/> Corrective Action <input type="checkbox"/> Preventive Action <input type="checkbox"/> Opportunity For Improvement
<b>CPAR Title</b>	

## QEMS INTERNAL AUDITOR REPORT

<b>Process/Area Assessed</b>	Penitencia Water Treatment Plant (PWTP)
<b>Business Unit</b>	North Water Treatment Operations Unit #565
<b>ISO Requirement</b>	<p>ISO 9001:2015 Clause 8.2.2: Determining the requirements for products and services</p> <p>ISO 9001:2015 Clause 8.2.3: Review of the requirements for products and services</p> <p>ISO 9001:2015 Clause 8.7: Control of nonconforming outputs</p> <p>ISO 9001:2015 Clause 9.1.1: General – Monitoring, measurement, analysis and evaluation</p> <p>ISO 9001:2015 Clause 9.1.3: Analysis and evaluation</p>
<b>District Requirement</b>	<ul style="list-style-type: none"> <li>• Operations Plan for Penitencia Water Treatment Plant (WQ-W_001), Revised June 2019</li> <li>• Board Ends Policy 2.2: Raw water transmission and distribution assets are management to ensure efficiency and reliability.</li> </ul>
<b>Regulatory/Legal Requirement</b>	<ul style="list-style-type: none"> <li>• State of CA, Surface Water Treatment Rule (SWTRP) regulations, Title 22, Section 64661 and Section 116360 of the Health and Safety Code</li> <li>• American Water Infrastructure Act requirements</li> </ul>
<b>Audit Findings</b>	<p>PWTP delivers treated water to retail water suppliers who subsequently provide drinking water to east San Jose and to the southern and western portions of the City of Milpitas. The plant receives most of its raw water from the Sacramento Delta as part of California's State Water Project.</p> <p>The water is pumped via the South Bay Aqueduct to the terminal tank located adjacent to PWTP. The treatment plant can also receive raw water from the Valley Water's local reservoirs (Anderson and Calero) and San Luis Reservoir via the Penitencia Force Main, by reversing the normal direction of flow through the Central Pipeline.</p> <p>Throughout the treatment process there is numerous online instruments that monitor a variety of water quality parameter (e.g. pH, turbidity, chlorine residual). In addition to online process monitoring, plant operation staff also routinely grab samples from various location within the treatment process and analyze these sample in their water quality lab. These grabs samples are taken and analyzed as a mean to verify that online instrumentation are operating within acceptable limits. The frequency for obtaining verification samples varies among the different water quality parameters and is specified on the PWTP <i>Operations Plan</i>. Valley Water also operates a State certified drinking water laboratory, located at the Almaden Campus, which provides a full array of laboratory support serves to all three Valley Water's Water Treatment Plant facilities (WTP).</p> <p>Monthly, Valley Water submits a combined Monitoring Report to the State's Division of Drinking Water for all three WTPs. Some of the items addressed in this monthly report are; summary of water quality complaints, turbidity monitoring results, and disinfection process data. The portion of the report related to Penitencia WTP operations is signed by the Plant Supervisor, John Cook, T-5 Operator. The <i>December 2019 Monitoring Report</i> was provided to the auditor.</p> <p>PWTP operations staff has a good grasp of requirements and is very knowledgeable on various treatment processes. PWTP staff routinely verify that plant operations are</p>

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	<p>running smoothly through a variety of checks, such as verification sampling, plant rounds, and a weekly plant meeting attended by both Operations &amp; Maintenance staff. Also, there appears to be good communication internally between the Water Quality Unit and externally with local retailers.</p>
<p><b>Objective Evidence</b></p>	<ul style="list-style-type: none"> <li>• December 9, 2019 Monitoring Report Submitted to State Water Resource Control Board – Division of Drinking Water</li> <li>• Master List of PWTP SOPs</li> <li>• American Water Infrastructure Act requirements</li> <li>• WQ-W_004 Drinking Water Quality Parameters for PWTP, R3, dated 7/1/19</li> </ul>
<p><b>Areas(s) of Merit</b></p>	<p>On October 23, 2018, America's Water Infrastructure Act (AWIA) was signed into law. AWIA Section 2013 requires community (drinking) water systems serving more than 3,300 people to develop or update risk assessments and emergency response plans (ERPs). The law specifies the components that the risk assessments and ERPs must address and establishes deadlines by which water systems must certify to EPA completion of the risk assessment and ERP.</p> <p>The deadline for certification for community water systems serving <math>\geq 100,000</math> is March 31, 2020, on the subject of risk and resilience assessment. As part of the efforts, North Water Treatment Operations staff are supporting Asset Management Unit to conduct the chemical supply resilience evaluation with the help of consultants West Yost retained for this project.</p>
<p><b>Non-Conformance</b></p>	<p>None</p>
<p><b>CPAR Type</b></p>	<p><input checked="" type="checkbox"/> None <input type="checkbox"/> Corrective Action <input type="checkbox"/> Preventive Action <input type="checkbox"/> Opportunity For Improvement</p>
<p><b>CPAR Title</b></p>	<p><i>[if applicable, create a brief, clear title for the new CPAR]</i></p>

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<b>Process/Area Assessed</b>	Water Treatment Plant Operations and Maintenance
<b>Business Unit</b>	South Water Treatment Plant Operations (Unit # 566 and Unit # 555)
<b>ISO Requirement</b>	<ol style="list-style-type: none"> <li>1) Control of Production and Service Provision – Water Treatment Process (Q-8.5.1, Q-8.5.5)</li> <li>2) Control of Production and Service Provision -Maintenance Operations (Q-8.5.1, Q-8.5.5)</li> <li>3) Release of Products and Services (Q-8.6)</li> <li>4) Control of Documented Information (Q-7.5.2, 7.5.3)</li> <li>5) Monitoring and Measuring Resources (Q-7.1.5)</li> <li>6) Control of nonconforming outputs (Q-8.7)</li> <li>7) Competence and Awareness (Q 7.2, 7.3)</li> <li>8) Non-conformity and Corrective Action (Q 10.2)</li> <li>9) Hazardous and Universal Waste Handling (E-9.1.1, 9.1)</li> <li>10) Compliance Obligations (E-6.1.3, 8.1, 9.1.2)</li> <li>11) Emergency Preparedness and Response (E-8.2)</li> </ol>
<b>District Requirement</b>	<ul style="list-style-type: none"> <li>• Board Ends Policy E-2.3.1 (Reliable high quality drinking water is delivered)</li> <li>• Outcome Measures (OM's) <ul style="list-style-type: none"> <li>○ 2.3.1a. (100% of treated water that meets primary drinking water standards)</li> </ul> </li> <li>• Operations Plan for RWTP</li> <li>• Drinking Water Quality Parameters for RWTP</li> <li>• District Records Retention Schedule:  <a href="http://www.aqua.gov/home/scvwd/main/admin/records/Retention2017.pdf">http://www.aqua.gov/home/scvwd/main/admin/records/Retention2017.pdf</a> </li> </ul>
<b>Regulatory/Legal Requirement</b>	<ul style="list-style-type: none"> <li>• State of California, Surface Water Treatment regulations, Title 22, Section 64661,</li> </ul>
<b>Audit Findings</b>	<ol style="list-style-type: none"> <li>1) <b>Knowledge and Awareness:</b> Unit staff is aware of QEMS requirements and associated website. Documentation of QEMS Training however could not be found. Supervisor routinely quizzes employees to make sure staff knows about QEMS.   <p style="margin-left: 40px;">Note: Training records were not available on SST. Need to ensure that they are available for review. Maintenance staff needs to take the new version of ISO Training.</p> </li> <li>2) <b>Operations and Maintenance Processes:</b> Rinconada Water Treatment Plant (RWTP) has Standard Operating Procedures (SOPs) and an Operations Plan which gives an overview of the process. The Operations Plan is prepared by the Water Quality Unit for submittal to the State Water Resources Control Board, Department of Drinking Water (DDW). A change management process is use to document any change to the process. A new treatment process using Ozone is expected to be on line at RWTP by June 2020. At that point a new operations plan will be filed with DDW. DDW will issue a permit amendment within 90 days.   <p style="margin-left: 40px;">RWTP equipment needs life cycle management, asset management work. Maintenance uses the Maximo system to track work. Maintenance conducts Preventive Maintenance (PM's) and Annual Maintenance (AM's). Corrective</p> </li> </ol>



## QEMS INTERNAL AUDITOR REPORT

Maintenance assigned to team members. Plant Maintenance Repair (PMR).

- 3) **Product requirements:** Documented in Operations Plan. Water produced by the plant must meet California Drinking Water Standards.

Regular maintenance improves reliability. Equipment uptime provides the best value.

- 4) **Succession Planning:** Water Treatment Plant Operators are continuously trained to maintain their certification. Work is delegated between staff to ensure all operators know plant operations. Succession Planning is also done through acting assignments. All new staff must go through an annual evaluation to show their understanding of RWTP operations.

In maintenance, seniors provide mentorship, entry level staff goes through an apprentice program. There are several in-house training processes

- 5) **Statutory and Legal Requirements:** Statutory requirements are primarily provided by DDW. Customer requirements are gauged through a survey of retailers by the Water Utility Division Office. There are 5 retailers on the West Pipeline and 2 on the east pipeline. There are quarterly meetings to discuss current issues. RWTP does not provide water to south county.

Maintenance compliance issues are similar water quality. Water Distribution licenses, D-1 through D-5 are required in this unit. Safety Training expectations to be maintained at 90 %.

- 6) **Leadership and Commitment:** Monitoring is done continuously by on line analyzers to ensure water meets water quality requirements. In addition, grab samples are collected every 4 hours to verify results. These results are reviewed and approved by the District's laboratory operations group. The Plant Operations Plan only requires a daily grab sample.

Plant SOPs are reviewed and updated once per year. Continual Improvements are incorporated. SST training on how to deal with hazardous material spill (e.g., sulfuric acid spill). SOPs are revised to reflect events which take place.

Maintenance has Key Process Indicators (KPI's) that need to be met.

- 7) **Context of the Organization:** RWTP has internal limits with alarms to let the operator know of any malfunctions. Internal limits are lower than state standards to ensure that any malfunction is caught before the state standard is exceeded. A monthly operations report including data from each water treatment plant is filed and submitted to the DDW. There are several checks and balances. The Water Quality Unit provides process control.

Key stakeholders for maintenance are: Health and Safety, Asset Management, Water supply and Procurement. From March 15 through November 15 RWTP equipment needs to be operational.



## QEMS INTERNAL AUDITOR REPORT

- 8) **Monitoring and Measurement:** a) The District's certified lab takes samples to verify data. Water Quality Lab samples are used to check some parameters (T22, compliance sampling); The plant maintenance group runs Preventive Measures (PMs) and troubleshooting of online meters. Unusual field data verified with senior ops staff while following SOPs. KPI report is used to manage performance.
- b) How are human errors prevented?
- SOPs are adjusted if human error is suspected. Per SOP and communication with senior staff.
- c) How are outsourced processes controlled?
- Chemical delivery and sludge hauling processes are outsourced. Plant support is contracted out. RWTP has well established contracts with vendors for these activities. No outsourcing for processes, except for process support like hauling off sludge. In maintenance, Contractors scope is clearly defined work with in house staff.
- 9) **Control of nonconforming output:** If grab sample results do not match the on-line analyzer reading, a work order is written for maintenance to check the analyzer. For turbidity, online analyzer trouble shooting is performed by the maintenance group. The plant maintains an operator's log book: Ops log book from Raw and Treated: anything and everything; legal document. The industry standard to have a hand-written log book. RWTP has had no violations or fines from DDW. Due to checks and balances there have been no non-conforming outputs.
- 10) **Compliance Obligations:**
- The plant is following DDW requirements. Environmental permits are handled by the District EH&S group. It is highly recommended that a member from EH&S be present during the audit to respond to environmental questions. EH&S keeps these records and communicates them to staff and contractors. Air quality records for emergency generators are maintained at RWTP.
- 11) **Hazardous and Universal Waste Handling:** Plant Maintenance conducts weekly inspections of hazardous and universal waste storage areas. EH&S maintains the HAZMAT Business Plan, chemical inventories, and plant cleanliness/housekeeping. Monthly Hazmat inspection checklists are maintained by ESH. Plants operators make daily rounds to check if wastes are appropriately handled.
- Maintenance conducts weekly HMBP inspections put in binder. Maintain records for 3 years
- 12) **Health and Safety Information:**
- EH&S has an on-line database for all onsite chemicals. New chemicals are introduced once per year. They need to be approved by EH&S before being brought on site. Safety Data Sheets (SDS) sheets are located on District homepage; Steve Twitchell navigated to site: no hard copy on site. EH&S trains operations staff on new chemical use with Ops when a new chemical is used.

## QEMS INTERNAL AUDITOR REPORT

Vendor change will lead to new SDS. Example of new chemical in maintenance is rare. Safety Training is provided by ESH staff. Records are maintained on SST. The plant supervisor ensures staff safety training is up to date

Safety Training is conducted by Environmental, Health, and Safety. Goal is to maintain it at 90%.

13) **Accidental Releases:** RWTP has a risk management plan for Ammonia. Annual training is provided by the EH&S group. Annually, Steve Twitchell and Eric Karo sit down and go through the RMP document. There is a tank isolation mechanism in case of accidental release.

14) **Emergency Preparedness and Response:** RWTP has processes for emergency preparedness and response. All emergencies are recorded in a log book. All liquid spills and leaks are contained in a berm and sent for offsite treatment.

15) **Historical CPARs:** There are no current open CPARs. Previous CPARs have been addressed.  
 CPAR 644: Internal Audit: Chemical inventories not being maintained at the RWTP  
 CPAR 657: Internal Audit: Improper Hazardous Waste Labeling and Storage at Rinconada Water Treatment Plant  
 CPAR 653: B-407 LOTO failure. –  
 CPAR 654: West Pipeline Pressure Loss. Multi-layer checks installed like supervisory check box pop up before line valve is closed.

### Summary Report:

The South Water Treatment Operations Unit (# 566) and the Treatment Plant Maintenance Unit (# 555) are responsible for operating maintaining the RWTP, and meeting regulatory requirements. RWTP receives raw water from District reservoirs and the South Bay Aqueduct and treats it to California Drinking Water Standards. Drinking Water is provided to seven retailers in Santa Clara County. RWTP has an operations plan that highlights key processes at the plant. The operations plan was submitted to the California Department of Drinking Water (DDW) in June 2019. Unit staff has been trained in the RWTP Operations Plan. RWTP uses standard operating procedures (SOPs) to operate and maintain the plant. Unit staff has been trained in RWTP SOPs. SOPs are available on-line and easy to access. Unit staff is aware of QEMS requirements, and has completed required training. RWTP has an onsite Risk Management Plan (RMP) to handle toxic gases. Plant operators have been trained in RMP requirements. In additional, annual ultrasonic testing is conducted by certified vendors. RWTP has emergency response procedures to handle emergencies.

All records are maintained on-line; processes are monitoring continuously and instrumentation is calibrated on a weekly basis. Calibration records were available for review. RWTP uses District QEMS process for storage and handling of hazardous and universal wastes. RWTP has an updated Hazardous Material Business Plan (HMBP) to record chemical storage on site. Staff has been trained on the HMBP.



## QEMS INTERNAL AUDITOR REPORT

	<p>During the December 24, 2019 audit, staff conducted a site inspection following the audit interview. During the on-site inspection, all waste storage areas were adequately maintained and appropriately labelled.</p> <p>Overall the plant is clean and well maintained. Maintenance maintains a tight control on chemical and waste storage. The maintenance unit monitors performance by using KPIs.</p>
<p><b>Objective Evidence</b></p>	<p>Operations:</p> <ol style="list-style-type: none"> <li>1. RWTP Operations Plan</li> <li>2. Treatment change recommendation form.</li> <li>3. November 2019 Treatment Plant Monitoring Reports</li> <li>4. 2019 Water retailer survey Results</li> <li>5. Annual Review (Ammonia Risk Management Plan)</li> <li>6. Emergency Electrical Outage checklist</li> <li>7. SOP QA/QC Review</li> <li>8. Excel sheet showing operator training (check)</li> </ol> <p>Maintenance:</p> <ol style="list-style-type: none"> <li>1. KPI Report</li> <li>2. Training Records</li> <li>3. Advancement policy</li> <li>4. Weekly Inspection log (completed)</li> </ol>
<p><b>Areas(s) of Merit</b></p>	<p>16. Areas of merit observed during the audit:</p> <ol style="list-style-type: none"> <li>1. Staff is competent and well trained</li> <li>2. There are no regulatory violations from DDW.</li> <li>3. Processes are well documented and known to staff</li> <li>4. Plant is well maintained</li> </ol>
<p><b>Non-Conformance</b></p>	<p>None</p>
<p><b>CPAR Type</b></p>	<p><input checked="" type="checkbox"/> None <input type="checkbox"/> Corrective Action <input type="checkbox"/> Preventive Action <input type="checkbox"/> Opportunity for Improvement</p>
<p><b>CPAR Title</b></p>	<p><i>[if applicable, create a brief, clear title for the new CPAR]</i></p>

## QEMS INTERNAL AUDITOR REPORT

<b>Process/Area Assessed</b>	Water Quality Management Plan (Q-851-025), Revision H, Effective Date: 8/28/2019
<b>Business Unit</b>	Water Quality Unit (525)
<b>ISO Requirement</b>	<p>ISO 9001:2015 Clause 8.2.2: Determining the requirements for products and services</p> <p>ISO 9001:2015 Clause 8.2.3: Review of the requirements for products and services</p> <p>ISO 9001:2015 Clause 8.7: Control of nonconforming outputs</p> <p>ISO 9001:2015 Clause 9.1.1: General – Monitoring, measurement, analysis and evaluation</p> <p>ISO 9001:2015 Clause 9.1.3: Analysis and evaluation</p>
<b>District Requirement</b>	Ends Policy 2.3: Reliable high quality drinking water is delivered.
<b>Regulatory/Legal Requirement</b>	California Code of Regulations, Title 22 (drinking water regulations)
<b>Audit Findings</b>	<p>The Water Quality Unit (WQU) provides support to the Treated Water Operations and Maintenance managers and Water Treatment Plant (WTP) supervisors and operators. WQU oversees water quality operations, processes, and special projects. Examples of these integrated roles include daily filter analysis and pipeline disinfection. WQU also oversees the Source Water Quality Management and the Invasive Mussel Prevention Programs.</p> <p>WQU is guided by California’s drinking water regulations (Title 22) and the Board’s Ends Policy 2.3 to provide high-quality drinking water for Santa Clara County. A liaison from WQU is assigned to each WTP to monitor operations and communicate any water quality issues. WTPs and the Water Quality Lab (WQL) perform tests on a monthly, weekly, daily, or continuous schedule, depending on the type of test. Tests are done on the source water as well as before, during and after the treatment process at the WTPs. WQU reviews these tests daily.</p> <p>Based on the test results, WQU provides guidance on adjustments to the treatment process to keep product water within the Treated Water Quality Goals detailed in the Water Quality Management Plan, which is more rigorous than the minimum required by the state. WQU may also request additional testing in order to monitor anomalies and/or the progress of a prescribed treatment.</p> <p>Any potentially non-conforming product is caught well before distribution to the public and treated as necessary to reach desired levels. The source water can also be changed as needed to provide additional options to produce a conforming product.</p> <p>WQU has good communication with its internal customers (WQL, Treated Water Operations) and is accessible to its external customers (water retailers, public) through Access Valley Water.</p>
<b>Objective Evidence</b>	Water Quality Management Plan (Q-851-025), Revision H, Effective Date: 8/28/2019 Completed Source Change Request/Approval Form
<b>Areas(s) of Merit</b>	Staff interviewed showed good teamwork and knowledge of water quality processes and had examples on-hand. WQU also has good communication with Treated Water Operations, which allows swift changes to the treatment process when necessary.

## QEMS INTERNAL AUDITOR REPORT

<b>Non-Conformance</b>	None
<b>CPAR Type</b>	<input checked="" type="checkbox"/> None <input type="checkbox"/> Corrective Action <input type="checkbox"/> Preventive Action <input type="checkbox"/> Opportunity For Improvement
<b>CPAR Title</b>	N/A

## QEMS INTERNAL AUDITOR REPORT

<b>Process/Area Assessed</b>	<ul style="list-style-type: none"> <li>• Construction Processes</li> <li>• Design and Development Controls</li> <li>• Operational Planning and Controls</li> <li>• Emergency Preparedness and Response</li> <li>• Operational planning and control</li> <li>• Release of products and services</li> <li>• Regulatory Compliance Process</li> <li>• Training Process – Contractor awareness &amp; training</li> </ul>
<b>Business Unit</b>	<i>Construction Services Unit 351</i>
<b>ISO Requirement</b>	ISO 9001:2015 8.5.1 Control of production and service provision ISO 9001:2015 8.5.5 Post-delivery activities ISO 9001:2015 8.3.4 Design and development controls ISO 9001:2015 8.6 Release of products and services ISO 14001:2015 8.1 Operational planning and control ISO 14001:2015 8.2 Emergency preparedness and response ISO 14001:2015 9.1.1 General ISO 14001:2015 9.1.2 Evaluation of compliance ISO 14001:2015 7.2 Competence ISO 14001:2015 7.3 Awareness
<b>District Requirement</b>	<ul style="list-style-type: none"> <li>• Capital Project Contract for the Pacheco Conduit Rehabilitation and Coyote Warehouse</li> <li>• Capital Project Delivery Procedure Q-751-013</li> </ul>
<b>Regulatory/Legal Requirement</b>	None reviewed as part of this audit
<b>Audit Findings</b>	<p>Construction is the third of four phases of project delivery. It is initiated following completion of the design phase and takes place prior to the close-out phase. Output from the construction phase includes, but is not limited to, the following deliverables:</p> <ul style="list-style-type: none"> <li>• Progress payment records</li> <li>• Change control documents including Change Orders and the associated logs.</li> <li>• Construction Submittals and District comments</li> <li>• As-built's</li> <li>• Operations &amp; Maintenance Manuals (if required)</li> <li>• Weekly Construction Meeting Minutes</li> <li>• Inspector's Daily Diaries and Contractor Daily Diaries</li> </ul> <p>Construction begins immediately after the award of a construction contract.</p> <p>Tim Bramer is the manager of the Construction Services Unit (construction team) and communicated how his unit uses documented processes during the construction phase.</p> <p><b><u>Processes:</u></b>            A design team/transition report is prepared by the design team and reviewed by construction team before finalizing. The design team prepares a construction work plan to submit to the construction team. The design team stays on board through the completion of construction. The Construction Services Unit oversees work within this step.</p> <p>The Plans and Specifications define what is to be constructed and do not reflect changes or modifications made to a project during its construction.</p>

## QEMS INTERNAL AUDITOR REPORT

The map and construction plan for the Penitencia Delivery Main and Penitencia Force Main Seismic Retrofit Project conformed copy dated 4-18-16, Volume I and Volume II was observed. The Addenda that was part of the original bid package becomes part of the contract known as the plans and specifications.

Project's specifications was reviewed – specification for earth work to be conducted (excerpt from section 02300).

**1. Release of Products and Services:**

Tim was able to describe overall process related to transferring projects to operations and maintenance per the Capital Project Delivery Process.

How is it known if the completed construction project meets the customer's requirements and what evidence is available?

During the design phase, there can be multiple influences shaping the project and directing changes, which are heavily influenced by regulatory issues. The planning and design phase issues are vetted.

**2. Training Process – Contractor Awareness and Training:**

How are construction contractors deemed competent to perform work?

Prior to awarding the construction contract the District specifies the competency through stated qualifications and required licensing. After the project is awarded, the Capital Program Planning & Analysis Unit looks for the proper contractor license, bonds, and insurance.

QEMS awareness is required training to be completed by contractors before starting work and completed training is documented on a sign-in sheet. Training records are maintained in the field. Records of completed training are not maintained and not received as part of the permanent construction files.

During the audit interview, training records for this unit were reviewed. 20 employees will complete the required QEMS Awareness Training by 06/2020.

Tim was able to locate the QEMS Policy and Objectives and Targets on the QEMS Homepage.

**Objective Evidence**

- Online construction management database, EADOCS
- Daily Diary entry dated September 2019 prepared by John Luna, on-site inspector, and contractor Daily Diaries filed in the shared District's database.
- Project Plans and Specifications: Section 17. Permits and Regulations and Section 18. Environmental Requirements
- Project Monthly Environmental Compliance Inspection Report (FC1467) prepared on 09/16/19.
  1. The district emergency hotline number for hazardous materials coordinator work was sampled and functions. The hazardous waste and spills number is 1-888-510-5151.
  2. Penitencia Delivery Main and Penitencia Force Main Seismic Retrofit Project, dated 4/18/16
  3. Monthly Environmental Compliance Inspection Report for the SVAWC Potable Water Line Project.

## QEMS INTERNAL AUDITOR REPORT

	<p>4. Construction Phase WBS Item Description And Instruction (W73006, Revision: C, Effective Date: 2/15/11)</p> <ul style="list-style-type: none"> <li>• AD 8.10 Construction Contract Management</li> <li>• AD 8.11 Construction Contract Advertisement and Award</li> <li>• AD 8.12 Construction Contract Change Orders and Extra Work</li> </ul>
<p><b>Areas(s) of Merit</b></p>	<p>The unit manager demonstrated competent understanding of construction processes as demonstrated by their thorough knowledge of Board, staff, contractor, and regulatory agency roles and responsibilities and project processes and an ability to easily search the online construction management database to retrieve Project documentation and evidence. The audit interview with Tim Bramer was conducted in the Construction Services work area on the second floor of the Head Quarters building. While interviewing Tim regarding the work of the Construction Services Unit, there was a clear understanding to their work processes. Tim was fluent in the QEMS processes and procedures. The work area was clean and organized. The QEMS documents were easily produced to sample. Tim was knowledgeable and able to navigate to site location.</p>
<p><b>Non-Conformance</b></p>	<p><i>None</i></p>
<p><b>CPAR Type</b></p>	<p><input checked="" type="checkbox"/> None <input type="checkbox"/> Corrective Action <input type="checkbox"/> Preventive Action <input type="checkbox"/> Opportunity For Improvement</p>
<p><b>CPAR Title</b></p>	<p><i>Not applicable</i></p>

## QEMS INTERNAL AUDITOR REPORT

<b>Process/Area Assessed</b>	Planning, Design, Construction and Closeout Processes
<b>Business Unit</b>	East Side Project Delivery – Unit 375
<b>ISO Requirement</b>	<p>ISO 9001:2015 8.1 – Operational planning and control  ISO 9001:2015 8.2 – Requirements for products and services  ISO 9001:2015 8.3 – Design and development of products and services  ISO 9001:2015 8.5 – Production and service provision  ISO 14001:2015 6.1.3 – Compliance obligations  ISO 14001:2015 6.1.4 – Planning action</p>
<b>District Requirement</b>	<p>W-730-124 Planning Phase WBS Item Descriptions and Instructions  W-730-122 Design Phase WBS Item Descriptions  W-730-116 Construction Phase WBS Item Descriptions and Instructions</p>
<b>Regulatory/Legal Requirement</b>	N/A
<b>Audit Findings</b>	<p>East Side Project Delivery unit has six projects they are currently managing. Each of the projects are in different phases. Three projects are in the planning phase, one project is in the construction phase, and two projects are in close-out.</p> <p>A sampling of the PWTP Clearwell and SCADA Remote Architecture &amp; Communications Upgrade projects were requested and discussed.</p> <p>During the interview the project manager for PWTP Clearwell project, currently in close-out, provided information demonstrating his knowledge of the Planning, Design, and Construction Phase WBS Item Descriptions and Instructions of the project.</p> <p>Here is the list of deliverables described in the Planning Phase WBS Item Descriptions and Instructions W-730-124 captured on the Master List of QEMS documents:</p> <ul style="list-style-type: none"> <li>- background and data collection source document</li> <li>- final problem definition/refined objective report</li> <li>- feasible alternatives report</li> <li>- final staff-recommended alternative report</li> <li>- QC approved form for the Planning Study Report (PSR)</li> <li>- approved PSR, CEQA document</li> <li>- planning phase close-out checklist</li> </ul> <p>Here is the list of deliverables identified from the Design Phase WBS Item Descriptions and Instructions W-730-122 captured on the Master List of QEMS documents:</p> <ul style="list-style-type: none"> <li>- Complete CEQA Document</li> <li>- 60% &amp; 90% design submittal with plans, specifications, construction cost estimate, comments, responses, and design review meeting minutes</li> <li>- Approved design technical memoranda</li> <li>- Approved design analysis and calculations</li> <li>- 100% PS&amp;E</li> <li>- Approved updated business case report</li> <li>- Signed/approved plans &amp; specifications</li> <li>- Final construction cost estimate</li> <li>- Design phase close out checklist</li> </ul>



## QEMS INTERNAL AUDITOR REPORT

	<p>Here is the list of deliverables described in the Construction Phase WBS Item Descriptions and Instructions W-730-116 captured on the Master List of QEMS documents:</p> <ul style="list-style-type: none"> <li>- Internal pre-construction meeting notes</li> <li>- Pre-construction conference agenda &amp; minutes</li> <li>- Submittal review, requests for information (RFI), change orders, claims, contract administration, construction inspection, construction meetings, environmental monitoring and compliance, contractor construction safety plan, testing and start up, final inspection, and as-builts are all stored in the EADOC (a web-based construction management application)</li> </ul> <p>For the deliverables not captured in planning and design had approved waivers with appropriate justifications. Which shows the project did meet project deliverable described in all three phases.</p> <p>Additionally, the SCADA project is in the planning phase. The project objectives are to: 1) provide a back-up raw water control center, and 2) upgrade the SCADA remote telemetry communications cables/infrastructure. Data collection was performed and multiple meetings with the Project Owner and project stakeholders were held to discuss and finalize scope, criteria, and alternatives. The following planning phase deliverables from the Planning Phase WBS Item Descriptions and Instructions W-730-124 have been completed and accepted by the Project Owner (Raw Water O&amp;M Division DOO): Problem Definition/Refined Objectives Report and Alternatives Selection Report. The Planning Study Report has been completed and is with the Project Owner for review and acceptance.</p>
<p><b>Objective Evidence</b></p>	<p>Master List of QEMS Documents for the PWTP Clearwell project with all quality documents identified in the Planning, Design, and Construction Phase WBS Item Descriptions and Instructions were all accounted for.</p> <p>Alternatives Selection Report for the SCADA Remote Architecture &amp; Communications Upgrade was provided.</p>
<p><b>Areas(s) of Merit</b></p>	<p>None</p>
<p><b>Non-Conformance</b></p>	<p>None</p>
<p><b>CPAR Type</b></p>	<p><input checked="" type="checkbox"/> None <input type="checkbox"/> Corrective Action <input type="checkbox"/> Preventive Action <input type="checkbox"/> Opportunity For Improvement</p>
<p><b>CPAR Title</b></p>	<p></p>


## QEMS INTERNAL AUDITOR REPORT

<b>Process/Area Assessed</b>	Planning, Design, and Closeout Processes
<b>Business Unit</b>	Treatment Plant Project Delivery Unit
<b>ISO Requirement</b>	<p>ISO 9001:2015 8.1 – Operational planning and control</p> <p>ISO 9001:2015 8.2 – Requirements for products and services</p> <p>ISO 9001:2015 8.3 – Design and development of products and services</p> <p>ISO 9001:2015 8.5 – Production and service provision</p> <p>ISO 14001:2015 6.1.3 – Compliance obligations</p> <p>ISO 14001:2015 6.1.4 – Planning action</p>
<b>District Requirement</b>	<p>W-730-124 Planning Phase WBS Item Descriptions</p> <p>W-730-122 Design Phase WBS Descriptions and Instructions</p> <p>W-730-116 Construction Phase WBS Item Descriptions and Instructions</p>
<b>Regulatory/Legal Requirement</b>	Capital projects are required to prepare CEQA documents and obtain permits. The Environmental Impact Report identifies specific permits obtained with the town such as wood rat relocation and tree removal.
<b>Audit Findings</b>	<p>The Treatment Plant Project Delivery Unit provides for the planning, design, and construction of all capital projects delivery for all four of the treatment plants. The current RWTP Reliability Improvement Project was initiated in 2011 and has evolved with QEMS changes over the years. The RWTP Reliability Improvement Project is to upgrade the facilities and provide for regulatory criteria to fit within Board Ends Policies. This project is currently in the construction phase.</p> <p>The Treatment Plant Project Delivery Unit is aware and knowledgeable of the QEMS uniform steps and deliverables. The Treatment Plant Project Delivery Unit has completed the QEMS training video in SST. For continual improvement, planning and design phase lessons learned have been captured. Lessons learned for the construction phase are reserved toward the end of the project close-out.</p> <p>For external stakeholders, Public Relations handles stakeholder feedback. For internal stakeholders, 2 to 3 groups composed of operations and maintenance confer with Unit Managers to determine who to include as stakeholders depending on the subject. Responses to stakeholder concerns are addressed in meetings and outside consultants prepare reports, for which changes in scope may occur based on the feedback given. Consultants are selected based on RFP and ranking. Key performance indicators are outlined in the consultant agreements for adherence to the QEMS process. 30/60/90 review meetings involve detailed records containing persons, project, comments, and changes. For operations or maintenance changes, change orders are filled out requiring scope, cost, timing, and Deputy approval.</p>
<b>Objective Evidence</b>	<p>Samples of the following were reviewed to support audit findings:</p> <ol style="list-style-type: none"> <li>1. Draft Problem Definition/Refined Objectives Report</li> <li>2. Final Report on Staff-Recommended Alternative</li> <li>3. Planning Study Report</li> <li>4. Project-Owner Approved Planning Study Report</li> <li>5. Project Requirements Checklist</li> <li>6. Design Review Checklist</li> <li>7. Internal Preconstruction Meeting Minutes</li> <li>8. Design Work Plan</li> <li>9. Construction Management Work Plan</li> <li>10. Construction Review Checklist</li> </ol>

## QEMS INTERNAL AUDITOR REPORT

	<p>Master List of QEMS Documents for the RWTP Reliability Improvement Project with all quality documents identified in the Planning Phase WBS Item Descriptions and Instructions, Design Phase WBS Descriptions and Instructions, and Construction Phase WBS Item Descriptions and Instructions were all accounted for.</p> <p>Approved QEMS Waiver Request form F-422-092 for the RWTP Reliability Improvement Project was provided.</p>
<b>Areas(s) of Merit</b>	<p>All records in the P drive have a sample index spreadsheet that lists and hyperlinks them to the P drive.</p> <p>In addition to 30/60/90, 75 review meetings were held and meeting minutes as well as a 2 to 3-day workshop on deliverables were implemented.</p>
<b>Non-Conformance</b>	None
<b>CPAR Type</b>	<input checked="" type="checkbox"/> None <input type="checkbox"/> Corrective Action <input type="checkbox"/> Preventive Action <input type="checkbox"/> Opportunity For Improvement
<b>CPAR Title</b>	None

## QEMS INTERNAL AUDITOR REPORT

<b>Process/Area Assessed</b>	<i>Operational Planning and Control (Q-8.1, 8.2 and 8.5, E-4.3.2)</i>
<b>Business Unit</b>	<i>CADD Services Unit (Unit 366)</i>
<b>ISO Requirement</b>	<i>ISO 9001: 2015: Q-8.1, 8.2 and 8.5 ISO 14001:2015: E-4.3.2</i>
<b>District Requirement</b>	<ul style="list-style-type: none"> <li>• Board Ends Policy No E-2 – There is a reliable, clean water supply for current and future generations.</li> <li>• Board Ends Policy No E-3 – There is a healthy and safe environment for residents, businesses, and visitors, as well as for future generations.</li> <li>• CADD Standards Manual.</li> <li>• No QEMS documents identified.</li> </ul>
<b>Regulatory/Legal Requirement</b>	<i>None</i>
<b>Audit Findings</b>	<ul style="list-style-type: none"> <li>• This project provides for the centralized management and administration of the District-wide Computer Aided Design and Drafting (CADD) system, which is used for engineering design and drafting work for the District’s Capital Improvement &amp; Operations projects, architectural drafting work for District facilities &amp; space program, survey, mapping &amp; plat preparation work, documentation of the operation and maintenance work by field staff, review of plans submitted during District approved permit work, etc.</li> <li>• The goal of this project is to ensure the efficient and effective management and administration of the District-wide CADD System. The system consists of six (6) CADD Software packages – AutoCAD Civil 3D, AutoCAD Raster, AutoCAD Design Review, Hydraflow Express for Civil 3D, Hec-Ras and H2O Net; Fifty-three plus (53+) CADD Software Network &amp; standalone licenses; Four (4) CADD Equipment/Hardware (Large Format plotters, High Resolution color scanner and printer) and licenses; and Hundred plus (100+) District CADD users.</li> <li>• I reviewed CADD request(s) #7272, #7246, #7328. All requests were assigned and completed as per requirement. All requests are available online via CADD database: <a href="http://www.aqua.gov/iframe/search-cadd-request-database">http://www.aqua.gov/iframe/search-cadd-request-database</a> and additionally also filed and maintained via hard copy in the CADD Services Unit Managers office.</li> <li>• There are no active CPARs for the CADD services unit.</li> <li>• I reviewed CADD Unit Quarterly Performance Measures and Worksheet for FY19 Q3 (ending in March, 2019).</li> </ul>
<b>Objective Evidence</b>	<ul style="list-style-type: none"> <li>• CADD Request online application(s) #7272, #7246, #7328.</li> <li>• CADD Unit Quarterly Performance Measures and Worksheet.</li> </ul> <div style="text-align: center;">  <p>CADD performance measure analysis-Q3</p> </div> <ul style="list-style-type: none"> <li>○ CADD services unit “satisfaction” rating was at 98% vs. target of 80%.</li> <li>○ CADD services unit “On-time” rating was at 86% vs. target of 80%.</li> </ul>
<b>Areas(s) of Merit</b>	CADD Services Unit process(es) seem to be very well implemented. A quarterly performance measure tracking is in place to ensure they are meeting the needs of their stakeholders. CADD services manual is on-line

## QEMS INTERNAL AUDITOR REPORT

<b>Non-Conformance</b>	<i>None</i>
<b>CPAR Type</b>	<input checked="" type="checkbox"/> None <input type="checkbox"/> Corrective Action <input type="checkbox"/> Preventive Action <input type="checkbox"/> Opportunity For Improvement
<b>CPAR Title</b>	<i>[if applicable, create a brief, clear title for the new CPAR]</i>

## QEMS INTERNAL AUDITOR REPORT

<b>Process/Area Assessed</b>	Dam Safety Program (Unit 595)
<b>Business Unit</b>	Dam Safety and Project Delivery Unit
<b>ISO Requirement</b>	<p>Q 8.2.2 Determining the requirements for products and services</p> <p>Q 8.2.3 Review of requirements for products and services</p> <p>Q 8.7 Control of Nonconforming outputs</p> <p>Q 9.1.1 Monitoring, measurement, analysis and evaluation</p>
<b>District Requirement</b>	<p>Capital Project Delivery Q-751-013, Rev. I, 11/30/16</p> <p>District Records Retention Schedule:  <a href="http://www.aqua.gov/home/scvwd/main/admin/records/Retention2017.pdf">http://www.aqua.gov/home/scvwd/main/admin/records/Retention2017.pdf</a></p>
<b>Regulatory/Legal Requirement</b>	Regulatory requirements established by the Division of Safety of Dams (DSOD), and Federal Energy Regulatory Commission (FERC)
<b>Audit Findings</b>	<p>The Dam Safety Unit (DSU) is responsible for overseeing the safety of Dams through the following elements:</p> <ol style="list-style-type: none"> <li>1. Operations – addressing situations such as emergency draw downs.</li> <li>2. Maintenance – Corrective and Preventive maintenance to address issues such as vegetation, burrows, patching, spalling, and repairs.</li> <li>3. Monitoring and Surveillance – Annual reports to DSOD and FERC</li> <li>4. Special Studies</li> <li>5. Emergency Action Plan and Security – DSU collaborates with Security and Emergency Services Unit to develop Emergency Action Plans and to conduct annual drills.</li> </ol> <p>Q 8.2.2 Determining the requirements for products and services</p> <p>The Unit staff was aware of the requirements from DSOD and FERC and had mechanisms in place to track requirements and associated submittals. Unit staff is very familiar with QEMS requirements and is required to complete training through annual workplans</p> <p>Q 8.2.3 Review of requirements for products and services</p> <p>Regular inspections are held to ensure that Dams are performing as required. An annual report is made to DSOD on the performance of each Dam.</p> <p>Q 8.7 Control of Nonconforming outputs</p> <p>Regulatory agencies such as DSOD and FERC will issue a letter if a Dam is not conforming to standards. Unit 595 will then negotiate the schedule for correction. Any adjustments or corrections are reflected in the annual reports to these agencies.</p> <p>Q 9.1.1 Monitoring, measurement, analysis and evaluation</p> <p>Each Dam has calibration and maintenance equipment the maintained by contractors. An annual report is prepared and submitted on each Dam. All Dams are satisfactorily meeting compliance.</p>

## QEMS INTERNAL AUDITOR REPORT

<b>Objective Evidence</b>	1) Annual Surveillance Reports 2) FERC reports 3) Regular Inspection and Reporting
<b>Areas(s) of Merit</b>	The Unit Manager clearly understood the compliance obligations related to Dam Safety and the awareness of the QEMS was evident.
<b>Non-Conformance</b>	None
<b>CPAR Type</b>	<input checked="" type="checkbox"/> None <input type="checkbox"/> Corrective Action <input type="checkbox"/> Preventive Action <input type="checkbox"/> Opportunity for Improvement
<b>CPAR Title</b>	<i>[if applicable, create a brief, clear title for the new CPAR]</i>



## QEMS INTERNAL AUDITOR REPORT

<b>Process/Area Assessed</b>	Capital Project Delivery: Sunnyvale East and Sunnyvale West Channels Flood Protection Project (San Francisco Bay to Inverness Way and Almanor Avenue – Sunnyvale)														
<b>Business Unit</b>	Water Utility: Design and Construction Unit #3														
<b>ISO Requirement</b>	<ul style="list-style-type: none"> <li>• Clause 8.1: Operational Planning and Control</li> <li>• Clause 8.2: Requirements for Products and Services</li> <li>• Clause 8.5: Control of Production and Service Provision, Post-Delivery Activities</li> </ul>														
<b>District Requirement</b>	<ul style="list-style-type: none"> <li>• Safe, Clean Water and Natural Flood Protection Program (Other Capital Flood Protection Projects)</li> <li>• Capital Project Delivery Procedure Q-751-013</li> </ul>														
<b>Regulatory/Legal Requirement</b>	<p>Following agencies provide Permits under the Clean Water Act below. Permit approvals also provided by the City of Sunnyvale.</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 35%;">Resource Agency</th> <th>Permit Application Type</th> </tr> </thead> <tbody> <tr> <td>SFRWQCB</td> <td>CWA 401 Discharge Permit</td> </tr> <tr> <td>USACE</td> <td>CWA 404 Individual</td> </tr> <tr> <td>CDFW</td> <td>1600 SAA</td> </tr> <tr> <td>EPA</td> <td>CWA 404 Individual</td> </tr> <tr> <td>USFWS</td> <td>Sec. 7 Consultation</td> </tr> <tr> <td>BCDC</td> <td>Administrative Permit</td> </tr> </tbody> </table>	Resource Agency	Permit Application Type	SFRWQCB	CWA 401 Discharge Permit	USACE	CWA 404 Individual	CDFW	1600 SAA	EPA	CWA 404 Individual	USFWS	Sec. 7 Consultation	BCDC	Administrative Permit
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USACE	CWA 404 Individual														
CDFW	1600 SAA														
EPA	CWA 404 Individual														
USFWS	Sec. 7 Consultation														
BCDC	Administrative Permit														
<b>Audit Findings</b>	<p><b>Clause 8.1:</b> The Sunnyvale East and Sunnyvale West Channels Flood Protection Project (Project) was initiated through the District’s voter-mandated Clean, Safe Creeks and Natural Flood Protection Program (CSC) and funding for this Project continues through the District’s current Safe, Clean Water and Natural Flood Protection Program.</p> <p>The purpose of the Project is to alleviate flooding and expand the channel capacity to accommodate a 100-year flood to improve flood protection for 1,618 parcels along the channels. The Project also incorporates a trail system.</p> <p>At the completion of the Project, Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps will be updated. FEMA maintains official maps of a community on which FEMA has outlined both the special hazard areas and the risk premium zones applicable to the community.</p> <p>To ensure the Project is being carried out, as planned, a Conceptual Alternative Analysis Report, a.k.a., the planning phase for projects, is developed, which includes the Project’s financials. The Project is also documented in the District’s Capital Improvement Plan (CIP).</p> <p>Further, monthly Project status is reported to the Division Deputy to ensure the schedule and scope are on-track. Finally, bi-weekly Project Team Meetings are held to monitor daily Project progress.</p> <p><b>Clause 8.2:</b> Project requirements were determined as part of the development of the CSC Measure B ballot measure and documented in a Conceptual Alternative Report. Preferred Project alternatives were discussed in community meetings as part of California Environmental Quality Act’s Environmental Impact Report (EIR) process.</p>														

## QEMS INTERNAL AUDITOR REPORT

	<p>Requirements and public input is captured and documented in the Final EIR. Public input is also responded to by District Project staff and documented in the Final EIR. Project requirements are communicated through the Final EIR and on the Project webpage at <a href="https://www.valleywater.org/project-updates/creek-river-projects/sunnyvale-east-and-west-channels-flood-protection">https://www.valleywater.org/project-updates/creek-river-projects/sunnyvale-east-and-west-channels-flood-protection</a>. The Project webpage includes updates, public reports, Board Agenda Items, etc.</p> <p>Clause 8.5: Process outputs for this Project include Plans, Specifications, and Estimates (for bid planning), an Operations and Maintenance Manual, Transition Report from design to construction, and a final set of construction plans, a.k.a., As-Builts.</p> <p>Each Project phase closeout – planning, design, and construction – can be waived per the Capital Project Delivery Procedure, Q-751-013. Project phase closeout can also occur when a project is completed. The planning phase of this Project was waived as evidenced by the QEMS Waiver Request dated November 3, 2011, and signed by the Watersheds Deputy.</p> <p>Project changes are documented through a Change Management Memo and focused on scope, budget, and schedule. Additionally, a Project Decision Memo is sent to the customer for their approval of a recommended Project approach. This was evidenced by the August 17, 2011, memo from the Project’s Senior Project Manager to the customer. Signatories included the Senior Project Manager, Unit Manager, Deputy Manager for “Concurrence” and the customer for “Approval.”</p> <p>Improvements to the project delivery process are captured as part of the Project’s lessons-learned session, which occurs at the end of the Project’s Close-Out design phase. At final Project completion, the Construction Close-Out procedures includes a Lessons Learned Conference. On an as needed basis, the Lessons Learned conference reviews and documents complexity design and construction issues.</p> <p>Process improvements are also documented using the District’s Corrective and Preventive Action Request (CPAR) System. Improvements resulting from the lessons-learned sessions and CPARs are captured and documented in future project plans and specifications.</p>
<p><b>Objective Evidence</b></p>	<ul style="list-style-type: none"> <li>• Project status at <a href="https://www.valleywater.org/project-updates/creek-river-projects/sunnyvale-east-and-west-channels-flood-protection">https://www.valleywater.org/project-updates/creek-river-projects/sunnyvale-east-and-west-channels-flood-protection</a></li> <li>• Project input in the Final EIR – letters from California Department of Transportation, City of Sunnyvale, California Department of Fish and Wildlife, and Santa Clara County of Environmental Health</li> <li>• Sample of District response to public input in the Final EIR</li> <li>• QEMS Waiver Request for Project’s planning phase, dated November 3, 2011, signed by the Watersheds Deputy</li> <li>• Project Decision Memo, dated August 17, 2011, signed by the Senior Project Manager, Unit Manager, Deputy for Concurrence and signed by the Customer (Deputy manager) for Approval</li> </ul>
<p><b>Areas(s) of Merit</b></p>	<p>Unit staff were prepared for the audit as evidenced by their documentation at the interview, ability to respond to questions and demonstrate thorough knowledge of their roles and project processes, and were able to readily search the project webpage at <a href="http://www.valleywater.org">www.valleywater.org</a> and their shared-drive system to retrieve documentation and evidence.</p>

## QEMS INTERNAL AUDITOR REPORT

	<p>Karen and Bill are fluent in the QEMS processes and procedures. The work folders are very organized and it's easy to find objective evidence, if needed, in the shared folder. The QEMS documents were easily produced to sample. Karen and Bill are knowledgeable and able to navigate to site location.</p>
<b>Non-Conformance</b>	None
<b>CPAR Type</b>	<input checked="" type="checkbox"/> None <input type="checkbox"/> Corrective Action <input type="checkbox"/> Preventive Action <input type="checkbox"/> Opportunity For Improvement
<b>CPAR Title</b>	Not applicable

## QEMS INTERNAL AUDITOR REPORT

<b>Process/Area Assessed</b>	<ul style="list-style-type: none"> <li>• Operational Planning and Control</li> <li>• Evaluation of Compliance</li> </ul>
<b>Business Unit</b>	Wells & Water Measurement Unit - 475
<b>ISO Requirement</b>	ISO 9001: 2015 – 7.1.5 Monitoring and Measuring Resources ISO 9001: 2015 – 7.5 Documented Information ISO 9001: 2015 – 8.1 Operational Planning and Control ISO 9001: 2015 – 8.2 Requirements for Products and Services ISO 14001:2015 – 8.1 Operational Planning and Control
<b>District Requirement</b>	The following process documents were reviewed during the audit: WM-W_500 Rev 1: Treated Water Meter Operational Verification Testing WM-W_700 Rev 1: Backflow Prevention Assembly Test and Repair WM_W_850 Rev 3: Treated Water Meter Reading and Read Processing WM-W_900 Rev 1: Water Meter Installation Process
<b>Regulatory/Legal Requirement</b>	NA
<b>Audit Findings</b>	<p>The Wells and Water Measurement Unit ensures that wells and other deep excavations are constructed, maintained, and decommissioned in such a manner that they do not harm Valley Water's groundwater resources and provide accurate measurement of treated water, raw water, and groundwater production. The Unit also operates the Vasona Meter Shop, which provides services for meter reading, meter installation, testing of meters, and the preventative and corrective maintenance of groundwater, treated water, and raw water meters. Additionally, testing and maintenance services are performed for the backflow prevention devices owned and operated by Valley Water.</p> <p>The Unit Manger explained the process for document updates, changes, revisions and review cycles. Any updates made are communicated to affected staff by the Unit Manager. The audit team verified and reviewed documented training records.</p> <p>Under the Process "Treated Water Meter Operational Verification Testing" (per SOP WM-W_500 Rev 1: Treated Water Meter Operational Verification Testing) staff ensures operational verification of Valley Waters treated water meters. As part of the verification process, flow rates from the portable ultrasonic flow meter are compared to those on the local control box flow display, the mechanical billing totalizer, the treatment plant flow readings, and by verifying that TW billing meter electronics are operating according to manufacturer's specifications on a semi-annual basis. During verification, if any of the following findings occur, a corrective maintenance work order is created.</p> <ul style="list-style-type: none"> <li>• The flows measured by the remote totalizer or ODMS data vary more than +/- 2% from the flows measured by the local meter</li> <li>• The flows measured by the ultrasonic meter are more than +/- 3% from the historical variance between the ultrasonic and site turnout flow meter.</li> <li>• Meter electronics verification testing indicates that the meter is not operating per manufacturer's parameters</li> </ul> <p>Corrective maintenance required from other Units is requested through the MAXIMO new service request process.</p>



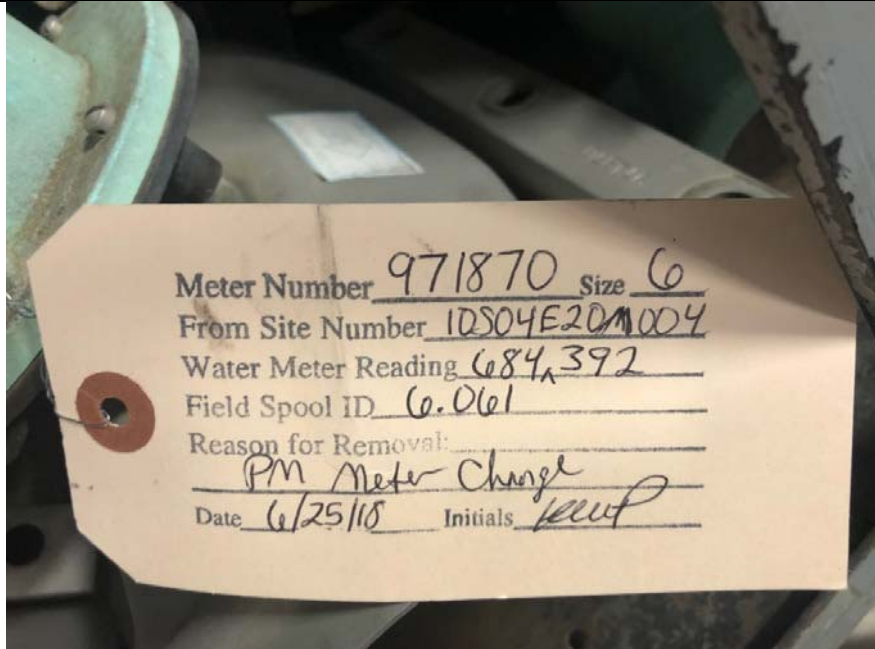
## QEMS INTERNAL AUDITOR REPORT

No regulatory compliance agencies oversee or monitor meter performance criteria for billing of water. Per Valley Water processes, the Unit Manager reviews meter data for accuracy and compares it to Revenue Management data. Discrepancies between data are identified and the root cause for the discrepancy is investigated, e.g. physical inspection of the meter or maintenance.

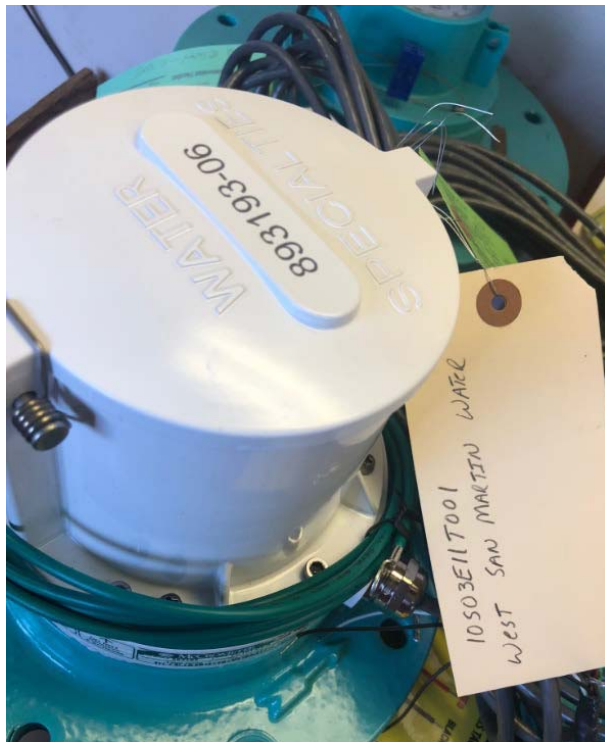
During discussion of the "Water Meter Installation Process", information was shared with the audit team which indicated that a lapse in the process currently overseen by Revenue Management Unit, which is currently not in scope of the QEMS. Under the Water Installation Process, roles are shared between the Revenue Management Unit and Wells and Water Measurement Unit. Triggers for initiating new meter installation falls under Revenue Management. These triggers consist of determining if facilities' ground water production exceeds those set by the Board, notifying affected owners that exceed limits and creating a Meter Installation Request (MIR). The lapse in process is based on a study completed under Revenue Management between 2015/2016, which reviewed water production statements to determine if MIR's are needed. Through this study, it was determined that approximately 300 wells meet the requirements for an MIR. Since the completion of this study, no MIR's have been submitted to the Water Measurement for the wells identified. It was also reported that based on current resources and availability, it was estimated that Water Measurement could install only 25-30 new meters per year. Concern was communicated over the quantity of meters identified as needing MIR's vs the estimated volume of new meters that can be installed by water measurement.

Moreover, the scope of this internal audit is focused on the business processes associated with Wells and Water Measurement Unit. It is the recommendation of the internal audit team that the lapse in action identified in the "Water Meter Installation Process" be formally addressed for resolution by the Wells and Water Measurement Unit Manager through further discussion with the responsible parties, or through Valley Water's Corrective or Preventive Action Request (CPAR). Revenue Management and its associated processes are not within the QEMS scope, thus the recommendation to initiate a CPAR.

## Objective Evidence



Example Meter Tag



Meter/tag use to verify calibration records (meter 893193)

# QEMS INTERNAL AUDITOR REPORT

**CERTIFIED TEST REPORT**

CUSTOMER: SANTA CLARA  
 MODEL NO: ML04D-06  
 METER SERIAL NO: 893193

**CONFIGURATION**

METER INSIDE DIAMETER: 6.026  
 DIAL: AFT X 0.001      1200 GPM  
 INDEX: 0.2056  
 TEST DATE: 4/8/2019  
 TEST FACILITY: Volumetric

**As Calibrated**

**CALIBRATION DATA**

	FLOW RATE GPM	% ACCURACY
1	1221.75	100.54

CERTIFIED BY: Robert Galusha ID#: 176785 PRINT DATE: 4/8/2019

This calibration was performed on a gravimetric or volumetric test facility, traceable to the National Institute of Standards and Technology (NIST). The stated flow measurement uncertainty of the calibration facilities are:

Santa Clara Valley Water District

**Meter Test Report**

Meter No 893193 Test Date 4/22/2019 Test Type FAT  
 Tester ST

Facility No 10903E11T001 Install Date \_\_\_\_\_ (Meter In) Beg read 0.0000  
 AF Production (from WO) 0.0000 Remove Date \_\_\_\_\_ (Meter Out) End read 0.0000

Meter Size 6.000 MFR WS Meter Type ML Meter Index #Num  
 Register No 02086 Register Type FC-101 Register Multiplier 0.0010 Register Units AF  
 Gear A 0 Gear A Type \_\_\_\_\_ Gear B 0 Gear B Type \_\_\_\_\_ Register Index 0.1702  
 Transmitter No 02086 Transmitter Type FC-101 mA Span 1200  
 Spool type FS/ST/PL Extension Tube \_\_\_\_\_

Test ID 6.0500 Correction Factor 100.80  
 Site ID 6.0260  
 Control Method FM-1 AP? 32650 CP? 1

High Flow	Mid Flow	Low Flow
<u>1216.31</u> gpm	<u>617.13</u> gpm	<u>127.29</u> gpm
HF Beg Read: <u>6.0000</u>	MF Beg Read: <u>21.0000</u>	LF Beg Read: <u>29.0000</u>
HF End Read: <u>18.0000</u>	MF End Read: <u>27.0000</u>	LF End Read: <u>31.0000</u>
HF Weight <u>1</u>	MF Weight <u>1</u>	LF Weight <u>1</u>
HF Control Gallon <u>3953.0000</u>	MF Control Gallon <u>1981.0000</u>	LF Control Gallons <u>987.0000</u>
HF Time <u>3.25</u> min.	MF Time <u>3.21</u> min.	LF Time <u>5.24</u> min.
HF% Accuracy <u>98.82</u>	MF% Accuracy <u>98.89</u>	LF% Accuracy <u>97.31</u>
HF% Accy corr. to pipe ID <u>99.71</u>	MF% Accy corr. to pipe ID <u>99.45</u>	LF% Accy corr. to pipe ID <u>98.49</u>
HF Transmitter Output mA: <u>20.060</u> <u>1200</u> gpm	MF Transmitter <u>12.120</u> <u>600</u> gpm	LF Transmitter Output mA: <u>5.870</u> <u>125</u> gpm

Enter Lowest % Accy (decimal) 0.9771 Enter Highest % Accy (decimal) 0.9892

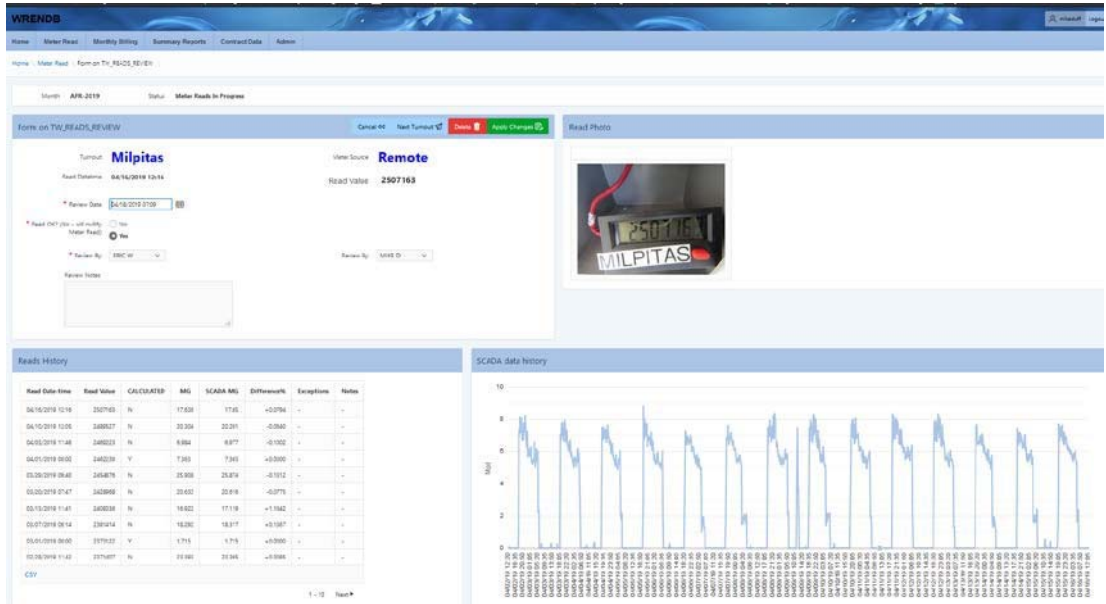
Pipe ID Range (for this test) 6.0410 THRU 6.9580

Trouble Code: \_\_\_\_\_

Tester Notes: \_\_\_\_\_

Meter Test Report for Meter 893193



<p><b>Areas(s) of Merit</b></p>	<p>The Wells &amp; Water Measurement Unit - 475 record documentation is very well organized and easy to locate. The Unit Manager and staff all understand the importance of the quality management system, and are continually reviewing their processes for further improvements. The unit maintains a photo log of meter readings, and pictures of the locations where meters are organized. The staff indicated that this is greatly helpful for training and verification purposes.</p>  <p>The screenshot shows the WRENDS interface for a meter in Milpitas. The 'Reads History' table is as follows:</p> <table border="1"> <thead> <tr> <th>Read Date Time</th> <th>Read Value</th> <th>CALCULATED</th> <th>MG</th> <th>SCADA MG</th> <th>Difference%</th> <th>Exceptions</th> <th>Status</th> </tr> </thead> <tbody> <tr><td>04/16/2019 12:14</td><td>2507163</td><td>N</td><td>17439</td><td>1742</td><td>+10.07%</td><td>-</td><td>-</td></tr> <tr><td>04/16/2019 12:05</td><td>2489237</td><td>N</td><td>20324</td><td>20201</td><td>-0.26%</td><td>-</td><td>-</td></tr> <tr><td>04/05/2019 11:48</td><td>2488233</td><td>N</td><td>6384</td><td>6377</td><td>-0.10%</td><td>-</td><td>-</td></tr> <tr><td>04/01/2019 09:02</td><td>2482339</td><td>Y</td><td>7363</td><td>7363</td><td>+0.00%</td><td>-</td><td>-</td></tr> <tr><td>03/26/2019 09:48</td><td>2454719</td><td>N</td><td>25438</td><td>25219</td><td>-0.87%</td><td>-</td><td>-</td></tr> <tr><td>03/20/2019 07:47</td><td>2428989</td><td>N</td><td>20443</td><td>20219</td><td>-0.27%</td><td>-</td><td>-</td></tr> <tr><td>03/12/2019 11:47</td><td>2402338</td><td>N</td><td>18422</td><td>17119</td><td>-1.16%</td><td>-</td><td>-</td></tr> <tr><td>03/07/2019 09:14</td><td>2381414</td><td>N</td><td>16280</td><td>16217</td><td>-0.38%</td><td>-</td><td>-</td></tr> <tr><td>03/01/2019 09:00</td><td>2375223</td><td>Y</td><td>1761</td><td>1761</td><td>+0.00%</td><td>-</td><td>-</td></tr> <tr><td>02/04/2019 11:42</td><td>2371887</td><td>N</td><td>29180</td><td>29146</td><td>-0.08%</td><td>-</td><td>-</td></tr> </tbody> </table> <p>The 'SCADA Data History' chart shows a fluctuating line graph of data points over time, with values ranging from approximately 0 to 10.</p>	Read Date Time	Read Value	CALCULATED	MG	SCADA MG	Difference%	Exceptions	Status	04/16/2019 12:14	2507163	N	17439	1742	+10.07%	-	-	04/16/2019 12:05	2489237	N	20324	20201	-0.26%	-	-	04/05/2019 11:48	2488233	N	6384	6377	-0.10%	-	-	04/01/2019 09:02	2482339	Y	7363	7363	+0.00%	-	-	03/26/2019 09:48	2454719	N	25438	25219	-0.87%	-	-	03/20/2019 07:47	2428989	N	20443	20219	-0.27%	-	-	03/12/2019 11:47	2402338	N	18422	17119	-1.16%	-	-	03/07/2019 09:14	2381414	N	16280	16217	-0.38%	-	-	03/01/2019 09:00	2375223	Y	1761	1761	+0.00%	-	-	02/04/2019 11:42	2371887	N	29180	29146	-0.08%	-	-
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<p><b>CPAR Type</b></p>	<p><input checked="" type="checkbox"/> None <input type="checkbox"/> Corrective Action <input type="checkbox"/> Preventive Action <input type="checkbox"/> Opportunity For Improvement</p>																																																																																								
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## QEMS INTERNAL AUDITOR REPORT

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<b>Process/Area Assessed</b>	<ul style="list-style-type: none"> <li>Capital Project Delivery</li> <li>Planning, Design, and Closeout Processes</li> <li>Project Phase Transition Process</li> <li>Change Management Process</li> <li>Project-related Public Communications</li> </ul>
<b>Business Unit</b>	Watersheds Design & Construction Unit #1
<b>ISO Requirement</b>	ISO 9001: 2015 – 8.1 Operational Planning and Control ISO 9001: 2015 – 8.3 Design and Development of Products and Services ISO 9001: 2015 – 8.5.6 Control of Changes ISO 14001:2015 – 7.4 Communication ISO 14001:2015 – 7.5.3 Control of Documented Information ISO 14001:2015 – 8.1 Operational Planning and Control
<b>District Requirement</b>	<ul style="list-style-type: none"> <li>Capital Project Delivery Q-751-013, Rev. K, 03/06/2019</li> <li>Change Management Practice W-751-125, Rev. F, 9/30/19</li> <li>Valley Water Records Retention Schedule</li> </ul>
<b>Regulatory/Legal Requirement</b>	None reviewed or required during this audit
<b>Audit Findings</b>	<p><b>Project Selected:</b> Permanente Creek – Flood Protection, Ecosystem Restoration, Recreation</p> <p><b>Project Elements:</b></p> <ol style="list-style-type: none"> <li>1. Flood detention areas, recreational improvements and enhanced habitat at County of Santa Clara’s Rancho San Antonio Park;</li> <li>2. Flood detention area and recreational improvements at City of Mountain View’s McKelvey Park, and</li> <li>3. Channel Improvements.</li> </ol> <p><b>Current Phase:</b> <u>Construction:</u></p> <ol style="list-style-type: none"> <li>1. Rancho San Antonio estimated completion: March 2020</li> <li>2. McKelvey Park estimated completion: End of 2019</li> <li>3. Channel Improvements: Completed</li> </ol> <p><b>Project Owner:</b> Deputy Operating Officer, Watersheds Design and Construction Division</p> <p><b>Audit Focus:</b></p> <ul style="list-style-type: none"> <li>Management of key Capital Project Delivery processes and assurance that they are carried out effectively.</li> <li>Control of documented information and completion of quality records.</li> <li>Change management associated with cost, schedule, and regulatory requirements.</li> <li>Financial impact of project changes and associated communications to the Project Owner and Valley Water Board of Directors.</li> </ul>

## QEMS INTERNAL AUDITOR REPORT

**Audit Summary:** Watersheds Design & Construction Unit #1 manage a variety of Capital projects in Watershed Operations. Permanente Creek project was randomly selected for this audit.

**Channel Improvements:** Although the Channel Improvements is element of the Permanente Creek project, it had its separate and distinct design and construction phase work.

**Suggestion:** An opportunity was discussed to close out the Channel Improvement element of this project as the construction work has been completed. Per the project manager, the closeout phase would be completed once the O&M Plan is finalized.

**Use of most current version of released documents:** The internal auditors observed use of obsolete documents, such as F75101 from 2016 for Close-out checklist, instead of current version, F-751-098 Rev K. It was recommended that the unit reviews copies of all controlled documents in use to ensure that the current versions are used at all times.

In a follow-up email dated 9/30/19, the auditees reassured the auditors that the Unit members navigate to Capital Program Resources Process Management page on District's intranet page and retrieve the latest version of forms prior to routing for signature(s).

**Change Management Process:** Per document W-751-125 Rev E for Change Management Practice (Effective 4/15/19, and at the time of this audit), whenever there is a project change, the project manager is to assess the change and prepare a decision memo/change management memo. Quality records for decision memo/change management memo were not available at the time of this audit for several changes to the Permanente Creek project, such as change in cost, schedule, and scope. However, the auditees reported that that work instruction W-751-125 Rev E does not apply to Watersheds projects. Upon request for follow-up information, the Deputy Operating Officer of Watersheds Design and Construction Division informed the auditors that the process was updated after August 2016 to capture all project changes in Vena software instead of the memos required by the work instruction. The work instruction had not been updated to reflect the change.

Following the audit, revision of this work instruction was initiated by Unit staff and updated W-751-125 Rev F was released on 10/9/19.

As an objective evidence, the auditors were provided a copy of project change documentation from Vena software for the Permanente Creek project during the period of 2017-2018, which captured decisions related to changes in project cost, schedule, scope, etc. Change History is located in the Additional Inputs tab in Vena and approved by the Deputy Operating Officer.

**Record Retention:** Record retention period in the Valley Water's record retention schedule, update date 9/18/19, for record series number RS-003 (Work Plans, Budget-Finance, Schedule, Project Scope, Correspondence, Outreach, Project Logs) is listed as Completion + 10 years or After Funding Agency Audit, if required, whichever is longer. The record retention period for record series number RS-0054 (Neighborhood Communications: Outreach / Community Files / Good Neighbor Program / Log of Community Calls Received / Correspondence) is listed as 'When no longer required - minimum 2 years'. Auditors requested additional information about alignment of these record series.

In a follow up response on 9/30/19, the auditors were informed that all of the outreach materials created for projects are saved in respective project folders overseen by Office of Communications and achieved once the project is completed. Achieved files are kept as permanent records for reference purposes by the Office of Communications.

**Suggestion:** Records for capital projects related communications are stored by Office of Communications, which was not in the scope of this internal audit. It was suggested to the Office of

## QEMS INTERNAL AUDITOR REPORT

	Communications staff to review the details of record series RS-0054 for alignment to capital projects related outreach and communications.
<b>Objective Evidence</b>	<ul style="list-style-type: none"> <li>• <i>W-751-125 Rev F Change Management Practice</i></li> <li>• <i>W-751-125 Rev E Change Management Practice</i></li> <li>• <i>Permanente Creek Quarterly Update FY19Q4, July 16, 2019</i></li> <li>• Project change documentation in Vena software for the Permanente Creek project during the period of 2017-2018</li> </ul>
<b>Non-Conformance</b>	<i>None</i>
<b>CPAR Type</b>	<input checked="" type="checkbox"/> None <input type="checkbox"/> Corrective Action <input type="checkbox"/> Preventive Action <input type="checkbox"/> Opportunity For Improvement
<b>CPAR Title</b>	<i>[if applicable, create a brief, clear title for the new CPAR]</i>

## QEMS INTERNAL AUDITOR REPORT

<b>Process/Area Assessed</b>	<ul style="list-style-type: none"> <li>• Capital Project Delivery</li> <li>• Planning, Design, and Closeout Processes</li> <li>• Risk Management Process</li> </ul>
<b>Business Unit</b>	Watersheds Design & Construction Unit #2
<b>ISO Requirement</b>	ISO 9001: 2015 – 8.1 Operational Planning and Control ISO 9001: 2015 – 8.2 Requirements for Products and Services ISO 9001: 2015 – 8.3 Design and Development of Products and Services ISO 9001: 2015 – 8.5 Production and Service Provision ISO 14001:2015 – 6.1.3 Compliance Obligations ISO 14001:2015 – 6.1.4 Planning Action
<b>District Requirement</b>	<ul style="list-style-type: none"> <li>• Risk Management Process W-710-128, Rev. B, 04/15/2019</li> <li>• Capital Project Delivery, Q-751-013, Rev. K, 09/19/2019</li> <li>• Design Phase WBS Descriptions and Instructions W-730-122, Rev. L, 09/09/2019</li> <li>• Ends Policy 3.2: Reduce potential for flood damages</li> <li>• Ends Policy 4.1: Protect and restore creek, bay, and other aquatic ecosystems</li> <li>• Ends Policy 4.2: Improved quality of life in Santa Clara County through appropriate public access to trails, open space, and District facilities.</li> </ul>
<b>Regulatory/Legal Requirement</b>	None reviewed or required during this audit
<b>Audit Findings</b>	<p><b>Project Selected:</b> Lower Berryessa Creek Flood Protection Project</p> <p><b>Project Elements:</b></p> <ul style="list-style-type: none"> <li>• Build flood walls</li> <li>• Improve levees</li> <li>• Widen the creek channel to accommodate high flows</li> <li>• Enhance and enlarge tidal and freshwater wetland and riparian habitat.</li> </ul> <p><b>Current Phase:</b></p> <ul style="list-style-type: none"> <li>• Phase 1: Construction completed</li> <li>• Phase 2, Section 1: Design completed</li> <li>• Phase 2, Section 2: Design in progress</li> <li>• Phase 2: Construction in progress (est. completion Dec. 2019)</li> <li>• Phase 3: Planning to begin FY 2026</li> </ul> <p><b>Project Owner:</b> Deputy Operating Officer, Watersheds Design and Construction Division</p> <p><b>Audit Focus</b></p> <ul style="list-style-type: none"> <li>• Management of key Capital Project Delivery processes and assurance that they are carried out effectively.</li> <li>• Control of documented information and completion of quality records.</li> <li>• Risk management throughout project phases.</li> <li>• Financial impact of project changes and associated communications to the Project Owner and Valley Water Board of Directors.</li> </ul>

## QEMS INTERNAL AUDITOR REPORT

**Audit Summary:** Watersheds Design & Construction Unit #2 manages a variety of Capital projects in Watershed Operations. The Lower Berryessa Creek project was randomly selected for this audit.

**Risk Register:** A risk register for this project was created while the project was in the 90% design-phase in July 2019. The register for this project was available for review by the internal auditors as objective evidence. Per document W-170-128, the register is re-evaluated every 6 months and/or with important milestones. Per the project manager, the register will be re-evaluated prior to the start of construction, which is expected to begin May 2020.

**Identification of Stakeholders:** The planning for projects lead by the Design and Construction Unit #2 occurs within a different unit. It is during this phase that stakeholders are identified. On 12/11/19, the Lower Berryessa Creek Project Planning Phase Work Plan was provided that includes and documents the identification of stakeholders for the project.

**Capital Project Delivery:** Per document Q-751-013, monthly meetings for project update status are conducted. As objective evidence, the monthly meeting agenda for the 11/6/19 meeting was reviewed by the internal audit team. Also, per document Q-751-013, project close-out reports are generated as a quality record. As the Lower Berryessa Creek Project is still in-progress, a close-out report for the Cunningham project was available for review by the internal audit team as objective evidence and is signed by the project manager.

**Design Phase WBS:** Per document W-730-122, a large number of deliverables are generated through the steps of the design phase. These deliverables are tracked in the VENA software system. A “dashboard” view for the project was shown as objective evidence.

**Controlled Document Review:** During review of documents W-730-122 and Q-751-013, the auditors noted:

- Page 3 of W-730-122 states that the flow charts available in Appendix F are also found in document Q-751-013, however, the flow charts could not be located.
- The footnotes to appendices A, B, D, E, F, H, J and K of document number W-730-122 reference document number W73004.
- Appendices G and I of document number W-730-122 lack a footnote/document reference.

**Suggestion:** Update document Q-751-013 to include the flow charts, if necessary, or remove the statement from page 3 of document W-730-122. Update the appendices for document W-730-122 to include the correct document number in the footer for ease of use/traceability.

**Objective Evidence**

- Risk Register (F-170-111) for Lower Berryessa Creek Project
- Lower Berryessa Creek Project Planning Phase Work Plan
- Monthly Meeting Agenda from 11/6/19 meeting
- Close-out report for Cunningham project
- W-730-122 deliverables tracked in VENA software. Documentation for Lower Berryessa Creek Project shown.

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<b>Non-Conformance</b>	None
<b>CPAR Type</b>	<input checked="" type="checkbox"/> None <input type="checkbox"/> Corrective Action <input type="checkbox"/> Preventive Action <input type="checkbox"/> Opportunity For Improvement
<b>CPAR Title</b>	NA

## QEMS INTERNAL AUDITOR REPORT

<b>Process/Area Assessed</b>	<ol style="list-style-type: none"> <li>1. Capital Project Delivery</li> <li>2. Planning, Design and Closeout Processes</li> <li>3. Project Phase Transition Process</li> </ol>
<b>Business Unit</b>	Design & Construction Unit #4
<b>ISO Requirement</b>	<p>Q: 8.1 Operation planning and control              8.2 Requirements for products and services              8.3 Design and development of products and services              8.5 Production and service provision              8.6 Release of products and services</p> <p>E: 6.1.3 Compliance obligations              6.1.4 Planning action</p>
<b>District Requirement</b>	<ul style="list-style-type: none"> <li>• Capital Project Delivery – Q-751-013, Rev K, 03/06/2019</li> <li>• District File Instructions for Capital Projects – W-423-127, Rev G, 10/29/2018</li> <li>• Create Work Plan – W-751-123, Rev J, 04/11/2019</li> </ul>
<b>Regulatory/Legal Requirement</b>	None reviewed or required during this audit
<b>Audit Findings</b>	<p><b>Project Selected:</b> Lower Penitencia Creek Improvements Project</p> <p><b>Current Phase:</b> Design – reviewing 100% Design submittals. Comments from the QC team have begun to come in. Project Team demonstrated knowledge of where these documents are stored and discussed the next steps to prepare transition reports from Design to Construction and prepare to go to Construction in mid-2020, with anticipated completion of Construction at end of 2021.</p> <p><b>Project Owner:</b> Deputy Operating Officer, Watersheds Design and Construction Division</p> <p><b>Audit Focus:</b></p> <ul style="list-style-type: none"> <li>• Management of key Capital Project Delivery processes and assurance that they are carried out effectively.</li> <li>• Control of documented information and completion of quality records.</li> <li>• Change management/history associated with cost, schedule and regulatory requirements.</li> <li>• As there had been a prior CPAR related to records retention, the Project Team was asked to demonstrate ability to identify records retention requirements and provided evidence that retention schedules are aligned on the Project’s File Key document.</li> </ul> <p><b>Audit Summary:</b> Watersheds Design &amp; Construction Unit #4 manage a variety of Capital projects in Watershed Operations. The Lower Penitencia Creek Improvements Project was selected for this audit as it is the one project within the unit that falls under the parameters of the ISO standards.</p> <p><b>Design Phase Status:</b> As the project is in the 100% Design phase review, this audit focused on ensuring that controlled documents up to this phase have been completed, signed where necessary, and filed correctly within the project files.</p> <p><b>Suggestion:</b> When reviewing the Close Out document for the Planning phase, it was discovered that the Project Owner Customer Satisfaction Survey (Form F-831-099)</p>

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	<p>(POCSS) had been filed in Work Space. While having it available somewhere in the files is certainly best, it was suggested that a copy of it <u>also</u> be filed with the Close-Out Report in Controlled Documents. Document #W-730-124 discusses a Deliverable of the Close-Out Checklist, document #F-751-098. Appendix A: of W-730-124 has various examples of Key Deliverables, all of which include a Close Out checklist. The Close Out Checklist, document #F-751-098, indicates that, when completed for that phase, a POCSS should be attached to the Close-Out Checklist. As such, the POCSS is part of the overall Close Out Report.</p> <p><b>Controlled Document Repository:</b> The Project Team adequately demonstrated that required controlled documents had been placed in the proper project folders.</p> <p><b>Use of the most current version of released documents:</b> As the Project Team prepares to create Close Out and Transition Reports, the Auditors reminded them to ensure they are using the most current versions of forms prior to routing for signature(s).</p> <p><b>Record Retention:</b> The Project Team readily demonstrated compliance with record retention requirements for controlled documents, as well as listing retention schedules in the working document, the File Key.</p>
<p><b>Objective Evidence</b></p>	<p><i>Shown during the interview:</i></p> <ul style="list-style-type: none"> <li>• Planning Close Out Report</li> <li>• File Key</li> <li>• Waiver document</li> </ul> <p><i>Other:</i></p> <ul style="list-style-type: none"> <li>• Project change history documentation in Vena software</li> <li>• Lower Penitencia Fact Sheet</li> <li>• Lower Penitencia Creek Improvements web page</li> </ul>
<p><b>Non-Conformance</b></p>	<p>None</p>
<p><b>CPAR Type</b></p>	<p><input checked="" type="checkbox"/> None <input type="checkbox"/> Corrective Action <input type="checkbox"/> Preventive Action <input type="checkbox"/> Opportunity For Improvement</p>
<p><b>CPAR Title</b></p>	<p></p>



## QEMS INTERNAL AUDITOR REPORT

<b>Process/Area Assessed</b>	Planning, Design, and Closeout Processes
<b>Business Unit</b>	Design and Construction Unit 5 – Unit 336
<b>ISO Requirement</b>	<p>ISO 9001:2015 8.1 – Operational planning and control</p> <p>ISO 9001:2015 8.2 – Requirements for products and services</p> <p>ISO 9001:2015 8.3 – Design and development of products and services</p> <p>ISO 9001:2015 8.5 – Production and service provision</p> <p>ISO 14001:2015 6.1.3 – Compliance obligations</p> <p>ISO 14001:2015 6.1.4 – Planning action</p>
<b>District Requirement</b>	<p>W-730-124 Planning Phase WBS Item Descriptions and Instructions</p> <p>W-751-123 Create Work Plan</p> <p>Q-751-013 Capital Project Delivery</p>
<b>Regulatory/Legal Requirement</b>	N/A
<b>Audit Findings</b>	<p>Design and Construction Unit 5 has a Program called Watershed Asset Rehabilitation Program (WARP) and a Project called Palo Alto Flood Basin Tide Gate Structure Improvement Project (PABTGSI). Both WARP and PABTGSI have Project Plans in the VENA system. Under WARP, Design and Construction Unit 5 performs multiple O &amp; M Projects as Small Capital Projects. PABTGSI is a continuation of an old Project that Design and Construction Unit 5 took over in the beginning of 2018. PABTGSI is in the planning phase with a Planning Phase document and WBS.</p> <p>A sampling of the Watershed Asset Rehabilitation Program and the Palo Alto Flood Basin Tide Gate Structure Improvement Project was requested and discussed.</p> <p>For WARP, the deliverables not captured in planning had approved waivers with appropriate justifications, which evidences that the project did meet project deliverables described in the planning phase.</p> <p>During the interview, the project manager for PABTGSI, currently in planning, provided information demonstrating his knowledge of the Planning Phase WBS Item Descriptions and Instructions, Create Work Plan, and Capital Project Delivery of the project.</p> <p>Additionally, the PABTGSI project is in the planning phase. The project objectives are to: 1) replace or repair the existing structure to improve the functionality of the flood barrier system; 2) reduce the possibility of flooding in the lower reaches of Matadero, Adobe, and Barron Creeks; 3) prevent environmental impacts due to submergence of habitat areas within the PAFB for Salt Marsh Harvest Mouse, California Clapper Rail, and the Black Rail; and 4) prevent impacts to flood protection due to future sea level rise. Multiple meetings with the Project Owner and O&amp;M/Small Caps were held to discuss and finalize scope, criteria, and alternatives. The following planning phase deliverables from the Planning Phase WBS Item Descriptions and Instructions W-730-124 have been completed and accepted by the Project Owner (Watersheds Design &amp; Construction Division DOO): Planning Phase Work Plan and Customer, Partner, and Stakeholder list. There is a draft Planning Study Report with the Project Owner for finalizing, review, and acceptance.</p> <p>Here is the list of deliverables identified from the Planning Phase WBS Item Descriptions and Instructions W-730-124 captured on the Master List of QEMS documents:</p> <p style="text-align: center;">- Planning Phase Work Plan</p>

## QEMS INTERNAL AUDITOR REPORT

	<ul style="list-style-type: none"> <li>- Project Plan</li> <li>- Relevant reports, data and drawings that are useful for project-related work</li> <li>- Customer, partner and Stakeholder list</li> <li>- Planning Phase Quality Control Plan</li> <li>- Draft Problem Definition/Refined Objectives Report</li> <li>- Outreach Strategy Plan</li> <li>- Final Problem Definition/Refined Objectives Report</li> <li>- Planning-to-Design Transition Report</li> <li>- Planning Study Report</li> <li>- Planning Phase Close-Out Checklist</li> </ul> <p>Here is the list of deliverables identified from the Create Work Plan W-751-123 captured on the Master List of QEMS documents:</p> <ul style="list-style-type: none"> <li>- Objectives</li> <li>- Description</li> <li>- Scope of Work/Work Breakdown Structure (WBS)</li> <li>- Resources</li> <li>- Schedule</li> <li>- Budget/Funding/Expenditures</li> <li>- Quality Control Plan</li> <li>- Role of Project Management Team</li> <li>- Outreach Strategy</li> <li>- Communications/Documents</li> </ul> <p>Here is the list of deliverables identified from the Capital Project Delivery Q-751-013 captured on the Master List of QEMS documents:</p> <ul style="list-style-type: none"> <li>- Project Status Agenda for monthly meetings w/Owner/Oversight Manager</li> <li>- Updated Business Case Report</li> <li>- QEMS Waiver Request Form F-422-092</li> </ul>
<b>Objective Evidence</b>	<p>Master List of QEMS Documents for the PABTGSI project with all quality documents identified in the Planning Phase WBS Item Descriptions and Instructions, Create Work Plan, and Capital Project Delivery were all accounted for.</p> <p>Approved QEMS Waiver Request form F-422-092 for the WARP was provided.</p>
<b>Areas(s) of Merit</b>	None
<b>Non-Conformance</b>	None
<b>CPAR Type</b>	<input checked="" type="checkbox"/> None <input type="checkbox"/> Corrective Action <input type="checkbox"/> Preventive Action <input type="checkbox"/> Opportunity For Improvement
<b>CPAR Title</b>	

## QEMS INTERNAL AUDITOR REPORT

<b>Process/Area Assessed</b>	Land Surveying and Mapping
<b>Business Unit</b>	Land Surveying and Mapping Unit - 367
<b>ISO Requirement</b>	ISO 9001:2015: <ul style="list-style-type: none"> <li>• 8.5.1 – Control of Production &amp; Services Provision</li> <li>• 8.5.5 – Post-Delivery Activities</li> </ul>
<b>District Requirement</b>	<ul style="list-style-type: none"> <li>• District Record Retention Schedule</li> <li>• Internal Desk Procedure – Land Surveying and Mapping Services Doc. No. 100.000</li> </ul>
<b>Regulatory/Legal Requirement</b>	None identified
<b>Audit Findings</b>	<p>The Land Surveying and Mapping Unit (LSMU) provides professional land surveying and mapping services in support of planning, design, construction, and maintenance of District water resource facilities. The work product falls generally into two categories: Right-of-Way Survey and Field Survey. Each area is led by a Supervising Land Surveyor who is a licensed Professional Land Surveyor (PLS). The supporting staff include Survey Party Chiefs, Senior Surveyors and Assistant Surveyors.</p> <p><b><u>8.5.1 - Control of Production &amp; Services Provision</u></b></p> <p>The LSMU receives requests for services via an online request. This database has been in development for a number of years, but within the last two years, significant collaboration with IT has produced a nearly paperless service production tool. The online request prompts the requestor to consider various aspects of their request and easily allows for attachments to assist the LSMU with the request, which make it a superior tool than the formerly used FC 136. After the request is submitted, an automatic email notifies senior staff, who review and assign the work. Upon acceptance of the task, the tool auto-populates a file with subfolders and creates a line item in the database. The database, accessible by LSMU staff only, is managed internally, with both “active” and “completed” lists.</p> <p><b><u>8.5.5 – Post-Delivery Activities</u></b></p> <p>The Unit’s customers are District personnel. The database has been loaded with historic requests and work delivered as well as current and ongoing services, for future reference. Upon completion of work, staff emails the report or other outcome to the requestor and includes a link to a SurveyMonkey survey offering the requestor an opportunity to provide feedback on the service they’ve received. This survey is also available on the LSMU website page on Aqua.gov.</p> <p><b><u>ISO Clause 7.2 Competence and 7.3 Awareness</u></b></p> <p>The Unit Manager stressed that significant training is made available to staff related to their job function. Additionally, within the Unit, staff is cross-trained to allow for “mini-rotations” or covering for staff who are out of office. The training required by the District is reviewed by the Unit Manager during mid-year and year-end reviews and communicated with staff.</p>
<b>Objective Evidence</b>	<ul style="list-style-type: none"> <li>• Digital Survey Request Form</li> <li>• Unit 367 Training Records</li> <li>• Land Surveying and Mapping Services Desk Procedure No. 100.000</li> </ul>

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	<ul style="list-style-type: none"> <li>○ During the interview, some minor edits to this procedure were noted, based on the recent change from a physical request, to the online request for services. These corrections were performed and the auditor was provided with an updated document within the week.</li> </ul>
<b>Areas(s) of Merit</b>	Creating the digital platform for Survey Requests was a long process, including converting requests and work output pre-dating the online tool, and brings this Unit's work to a nearly paperless process. The auto-population of folders in the Unit's working folders saves a good deal of time with each request, allowing staff more time to respond to the request. The database is user friendly and intuitive.
<b>Non-Conformance</b>	None
<b>CPAR Type</b>	<input checked="" type="checkbox"/> None <input type="checkbox"/> Corrective Action <input type="checkbox"/> Preventive Action <input type="checkbox"/> Opportunity For Improvement
<b>CPAR Title</b>	<i>[if applicable, create a brief, clear title for the new CPAR]</i>

## QEMS INTERNAL AUDITOR REPORT

<b>Process/Area Assessed</b>	Watersheds Design and Construction Division – Real Estate Services
<b>Business Unit</b>	Real Estate Services
<b>ISO Requirement</b>	<p>ISO 9001:2015</p> <ul style="list-style-type: none"> <li>• Q-8.5.1 Control of Production and Service Provision</li> <li>• 8.5.5 Post Delivery Activities</li> </ul>
<b>District Requirement</b>	
<b>Regulatory/Legal Requirement</b>	All documents must be notarized and filed with the county recorder
<b>Audit Findings</b>	<p>During the audit, the Real estate unit was able to identify their customers, which is primarily internal customers only. They use a process management system (OCS) that tracks all of their work requests and assigns it to the agent. The agent is able to work on the work request and track the progress as well as close it out once it is completed. Due to the complexity of some properties, there is no standard set completion time. In order to help prevent human error, the documents (titles, deeds ect.) are reviewed by the senior agents and/or our internal lawyers, prior to being submitted and completed.</p> <p>Once the project is completed, the post-delivery entails having the documents completed on a specific form and notarized prior to being submitted to the County to be recorded. Customers can submit feedback on the project via email, phone call or meeting. New staff members are trained on the management system through on the job training. They sit with the main system user prior to starting work on their own.</p>
<b>Objective Evidence</b>	Submitted County Recorded Documents: Temporary Construction Easement (Document 1028-173)
<b>Areas(s) of Merit</b>	All staff in the Unit completed QEMS refresher training.
<b>Non-Conformance</b>	No
<b>CPAR Type</b>	<input checked="" type="checkbox"/> None <input type="checkbox"/> Corrective Action <input type="checkbox"/> Preventive Action <input type="checkbox"/> Opportunity For Improvement
<b>CPAR Title</b>	

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<b>Process/Area Assessed</b>	Refrigerant Use, Recovery and Disposal Work Instruction
<b>Business Unit</b>	Facilities Management (General Services Division – Unit 887)
<b>ISO Requirement</b>	ISO 14001:2015 6.1.2 – Environmental aspects ISO 14001:2015 6.1.3 – Compliance obligations ISO 14001:2015 8.1 – Operational planning and control ISO 14001:2015 9.1.2 – Evaluation of Compliance
<b>District Requirement</b>	Refrigerant Use, Recovery and Disposal Work Instruction
<b>Regulatory/Legal Requirement</b>	EPA Regulations - Clean Air Act, Section 608
<b>Audit Findings</b>	<p>The Facilities Management Unit provides building services, facilities project management, and space planning management for Valley Water. One team in this unit is the Heating, Venting and Air Conditioning or Refrigeration (HVACR) team. They maintain the HVACR systems in all of the facilities throughout Valley Water.</p> <p>During the interview, the supervising HVACR mechanic explained the process of how the team use, recover and dispose of the refrigerant. Refrigerant is used to cool the refrigeration systems. Each technician has a log sheet to capture why they had to use the refrigerant, the Supervising HVACR assigns the refrigerant to the tech, and the log is not returned to the Supervising HVACR until it's empty. Refrigerant stock and usage are documented on the Refrigerant Cylinder Inventory sheet and disposal is documented on the Refrigerant Disposal log. This process is captured in the Refrigerant Use, Recovery and Disposal Work Instructions which complies with EPA regulations under section 608 of the Clean Air Act including the record keeping requirements.</p> <p>A sampling of the two mechanic's Cylinder Refrigerant Log, Refrigerant Cylinder Inventory sheet, and Refrigerant Disposal Log was collected. During the review, it was discovered one of the mechanic's Cylinder Refrigerant Log was not complete and was missing the equipment # which links up to Maximo. The supervising HVACR mechanic decided the best way to ensure the consistency for all parties is to conduct a refresher training on how to complete the form properly. Corrective action was done when this refresher training was conducted on July 24, 2019 which was less than 30 days from when the internal audit was conducted. The unit confirms that a training on this process will be done in the future should new staff or turnover in the HVACR team occur and refreshers will continue to be scheduled, as determined by the Supervisor.</p>
<b>Objective Evidence</b>	Refrigerant Use, Recovery and Disposal Work Instructions Cylinder Refrigerant Log Refrigerant Cylinder Inventory Sheet Refrigerant Disposal Log
<b>Areas(s) of Merit</b>	CPAR 668 was closed pertaining to an intake system through Maximo to Facilities. The acting unit manager is working to revisit the topic to find a better key performance indicator to refine Maximo's data and tie it back to customer satisfaction. The team also plans to update the Refrigerant Use, Recovery and Disposal Work Instruction to ensure it's reflective of current processes and expects to do so by the end of October 2019.

## QEMS INTERNAL AUDITOR REPORT

<b>Non-Conformance</b>	None
<b>CPAR Type</b>	<input checked="" type="checkbox"/> None <input type="checkbox"/> Corrective Action <input type="checkbox"/> Preventive Action <input type="checkbox"/> Opportunity For Improvement
<b>CPAR Title</b>	

## QEMS INTERNAL AUDITOR REPORT

<b>Process/Area Assessed</b>	Infrastructure Services/IT – Information Technology Division
<b>Business Unit</b>	Information Technology Division Deputy's Office #715
<b>ISO Requirement</b>	<p><b>7.1.3 Infrastructure,</b>            7.1.5 Monitoring &amp; Measuring resources,            7.1.6 Organizational knowledge,            7.3 Awareness,            8.4.2 Type &amp; Extent of Control (of externally provided processes, products &amp; services)</p>
<b>District Requirement</b>	<p>EL-6 The BAO's shall protect and adequately maintain corporate assets. Further, a BAO shall:</p> <p>6.1 Not unnecessarily expose the organization, its Board and staff to claims of liability.            6.2 Protect intellectual property, information and files from loss or significant damage.            6.3 Prepare the organization to respond and recover from an emergency or disaster.</p>
<b>Regulatory/Legal Requirement</b>	None
<b>Audit Findings</b>	<p>The Information Security processes are managed by the Information Technology Manager/Deputy whose unit provides the cyber-security risk management, information security governance, and cyber incident response management for the District and ensures that the confidentiality, integrity and availability of District information is met. This includes the planning, design, development, integration, implementation, administration and evaluation of District-wide cyber security standards, procedures, policies and systems for all aspects of the District's information technology (IT) systems.</p> <p>The process(es) addressed in this audit were related to the management of content or <b>content management</b> for the District (e.g. maps, photos, drawings, etc.). Currently, there is not a QEMS procedure that directly addresses this area, however, the audit's core focus was on processes that have a nexus to content management. Due to the limited time to cover all processes related to I.T., processes related to other I.T. areas of responsibility were not discussed but may be an area for a future auditor to consider.</p> <p><b>QEMS Awareness</b>            The team is well versed in QEMS and aware of the database where procedures and cpars are located. In fact, two of the team members participate in the continuous improvement committee. The manager/Deputy frequents the QEMS system for various needs.</p> <p><b>Content Management</b>            I.T. security administration includes controlling access to over 1,000 folders and is managed by two groups within I.T. One group is designated as the "read-only" group and the other is the "read/write" team. The application "Active Directory" by Microsoft managed services, stores all the user words and passwords used for security.</p> <p>To ensure proficient staff is in place to ensure proper management of content, training is</p>



## QEMS INTERNAL AUDITOR REPORT

scheduled and subsequently stored as record in the District's ATMS system. The Deputy showed this auditor a softcopy of the training form that is used by staff for training.

The consultants/contractors are also a potential risk to the District content management system. They are required to sign a non-disclosure agreement (NDA) stating that their own hardware/computer is secured from vulnerabilities and will not place the Districts' system or information at risk. A confidentiality agreement is signed and background checks for consultants/contractors is included as part of the process.

**Database Content:** In terms of managing database content, the past historical state of the District was as follows: if the stand-alone database (DB) was not supported by I.T. the individual unit with the DB could conceivably place the District's internal data at risk. For example, if the stand-alone DB owner leaves the unit or the District, then the data would become "stuck" placing project progress at risk. In the past this was flagged as an *opportunity for improvement (OFI)* that would address the data risk.

In 2019 the current effort to eradicate stand-alone databases are (1) the Deputy and Sr. Engineer are both on two different RFP committees and working with the purchasing department to circumvent possible internal rogue database implementations, (2) I.T. has Purchasing Card control when it comes to technology purchases. Purchasing has the P-Card policy/procedure.

### Training

Training is scheduled by staff using a form to state the specific course and skills to be gained. This week of the audit, 3 staff members are in training. Furthermore, with the impending ERP transition staff is earnestly gaining all necessary training for this big change. Staff (5 internal) will be paired with 5 consultants to form the ERP conversion team. They will take approximately 18-24 months for the conversion and will be located at the Santa Teresa office location. It is expected that with the new ERP, the security of the District's content will be enhanced.

The I.T. unit demonstrates a commitment not only to stay fresh on technical knowledge but a degree of control over maintaining systems/applications. No specific or canned classes are required as the need varies from position-to-position given the technical needs in this IT space and the knowledge gained, historically matures quickly. Again, all training records are stored in the ATMS system.

### Policy/Governance

There are a half-dozen policies for I.T. articulated in Board governance, EL-6 speaks to Asset Protection and provides direction for staff. In addition, a lot of what governs I.T. practices are industry Best Management Practices. The unit subscribes to Gartner Research and is well connected to what is best. For example, to determine what company provides the best firewall in the industry, Gartner accomplishes the research and provides evaluation and reporting to its customers like Valley Water. Gartner currently identifies Palo Alto Networks as the best fire-wall provider and that is precisely the company that Valley Water has hired. One final note, to best manage over 100 projects associated with the upcoming ERP conversion, the unit/division is in the process of forming an "I.T. Governance Committee" to help steer and prioritize all the projects.

## QEMS INTERNAL AUDITOR REPORT

<b>Objective Evidence</b>	<p><i>[list the objective evidence that was reviewed during the audit to support audit findings, i.e., conformities, non-conformities, preventive actions, and opportunities for improvement]</i></p> <ol style="list-style-type: none"> <li>1. The manager demonstrated the ATMS system as visual evidence of the real-time system currently in place that holds training records to ensure staff competency.</li> <li>2. The manager showed an electronic training form that staff fills out to secure formal training</li> <li>3. The manager provided the actual PowerPoint presentation that was presented to executive staff communicating the strategic Objectives (pg. 10) on implementing the I.T. tactics to ensure integrity of I.T. infrastructure.</li> <li>4. For measurement of project progress, the manager provided an example of the application that tracks projects, for example when the District converted to Windows 10, he was able to see the progress on how many computers had been upgraded to Windows 10 and how much more workload was needed and the average time it was taking for each upgrade.</li> </ol>
<b>Areas(s) of Merit</b>	<p><i>[list any area(s) of merit observed during the audit]</i></p> <ol style="list-style-type: none"> <li>1. The ability to manage over 100 projects with the ERP upgrade is a good measure on the structure and management skills demonstrated by this team.</li> <li>2. Keeping staff continuously trained to maintain the capability to do its jobs as technology moves quickly and District staff continues to retire should not go unrecognized as a big challenge and big achievement currently and moving forward.</li> </ol>
<b>Non-Conformance</b>	<p><i>[if applicable, succinctly describe the non-conformance or indicate "None"]</i></p> <p>None</p>
<b>CPAR Type</b>	<p><input checked="" type="checkbox"/> None   <input type="checkbox"/> Corrective Action   <input type="checkbox"/> Preventive Action   <input type="checkbox"/> Opportunity for Improvement</p>
<b>CPAR Title</b>	

## QEMS INTERNAL AUDITOR REPORT

<b>Process/Area Assessed</b>	Equipment Management Procedure (Q630D02), Equipment Management Unit (EMU) Document Control Instructions (W630D14), Vehicle replacement/disposal, chemical and hazardous waste handling.
<b>Business Unit</b>	Equipment Management Unit
<b>ISO Requirement</b>	<ul style="list-style-type: none"> <li>• Hazardous, universal, and electronic waste handling processes (E-6.1.3, 8.1, 9.1.2)</li> <li>• BMP Process (E-6.1.2, 8.1, 9.1.2)</li> <li>• Chemical inventory and SDS Processes (E 6.1.2, 8.1, 9.1.2)</li> <li>• Outdoor storage Process (E- 6.1.2, 8.1, 9.1.2) (Class IV Shop)</li> </ul>
<b>District Requirement</b>	<ul style="list-style-type: none"> <li>• Executive Limitation 6 – Asset Management</li> <li>• Administrative Policy Ad-5.5 – Disposition of Surplus District Property</li> <li>• Board Ends Policies E-1 and E-7.4</li> </ul>
<b>Regulatory/Legal Requirement</b>	<ul style="list-style-type: none"> <li>• California Code of Regulations Titles 13 and 17 for the California Air Resources Board</li> <li>• California regulations regarding waste stream and emissions</li> </ul>
<b>Audit Findings</b>	<p>The Equipment Management Unit (EMU) provides overall planning, management, administrative oversight, maintenance and repairs for Valley Water’s fleet and welding services, which includes approximately 300 vehicles and 550 pieces of equipment. This also includes certified mechanics and auto parts specialists.</p> <p><b>Findings:</b>            EMU acting manager was familiar with the previous QEMS landing webpage and was able to navigate to the QEMS online database after internal auditing staff provided a demonstration.</p> <p>EMU implements written policies and procedures for the use and maintenance of Valley Water-owned motor pool vehicles, assigned vehicles, construction equipment, and Class I, II, III, and IV vehicles and equipment while conducting Valley Water business. Step-by-step instructions as well as which forms to use are detailed in their Equipment Management Process (Q630D02) controlled document. The process is very thorough and covers over 25 categories of fleet/equipment use. Generally, customers email or call the Fleet/EMU hotline and their request is entered in Maximo for EMU staff to be assigned the work order.</p> <p><b>Recommendation</b>            The internal auditor recommends that staff update the process owner(s) of their documents and also conduct an annual review and update of their controlled document. This is also stated in their Equipment Management Unit Document Control Instructions (W630D14).</p> <p><b>Hazardous Chemicals and Waste, SDS, and Outdoor Storage Process</b>            For the transport and storage of hazardous chemicals and waste, EMU implements the work instruction “Transport, Handling, and Storage of Hazardous Chemicals, Including Flammable and Combustible Liquids” (W640D18), which is owned by the Environmental, Health and Safety (EH&amp;S) unit. EMU labels and stores the hazardous waste in designated area and coordinates with EH&amp;S on a quarterly pick-up.</p> <p>EMU does not allow any chemicals from vendors which does not have a Safety Data Sheet (SDS), and staff can access all SDS via the database on the intranet.</p>

## QEMS INTERNAL AUDITOR REPORT

	<p>Equipment and items in the Class IV Shop are stored in designated locations. No secondary containment should be out or left uncovered, which can catch contaminated rainfall, per CPAR 638. EMU has also purchased a storage/shed to keep equipment and items covered at all times.</p> <p><b>Customer Satisfaction Surveys</b>          EMU sends out an automated survey to customers once a work order is closed via Maximo, using Survey Monkey. The ratings include overall satisfaction with time, quality, completeness, overall experience, comments/feedback and follow-up. The results are used to better serve customers in the future. EMU manager did note that they may not receive responses to the surveys if it is a quick and simple job that has been done for the customer previously (i.e. an oil change). Since the 2017 implementation of the surveys, EMU has received positive customer satisfaction results:</p> <ul style="list-style-type: none"> <li>• Length of time to complete service/repair – 93.5% very satisfied or satisfied</li> <li>• Quality of service/repair – 94.98% very satisfied or satisfied</li> <li>• Completeness of service/repair – 94.26% very satisfied or satisfied</li> <li>• Overall experience – 95.14% very satisfied or satisfied</li> </ul> <p><b><u>Continual Improvement</u></b>          Currently, EMU is refining Class IV equipment (generators, pumps, lamps) and undergoing a live inventory in order to better prepare and assist O&amp;M during Stream Maintenance Program (SMP) season. This allows staff to plan the purchase or leasing of equipment with contractors prior to the busy SMP season.</p> <p>EMU is doing excellent in terms of customer service and they continue to send out and review the survey results to better improve their services.</p>
<p><b>Objective Evidence</b></p>	<ul style="list-style-type: none"> <li>• Fleet Work Order Sample</li> <li>• Maximo Survey Monkey Email</li> <li>• Satisfaction Survey (via Survey Monkey)</li> <li>• Survey Report with Results</li> </ul>
<p><b>Areas(s) of Merit</b></p>	<p>The Maximo system is a great tool that allows EMU to create and track work orders, vehicles and equipment records, and send out customer service surveys. Overall, EMU has very thorough work instructions and forms, which follows legal and regulatory requirements.</p>
<p><b>Non-Conformance</b></p>	<p>None</p>
<p><b>CPAR Type</b></p>	<p><input checked="" type="checkbox"/> None <input type="checkbox"/> Corrective Action <input type="checkbox"/> Preventive Action <input type="checkbox"/> Opportunity For Improvement</p>
<p><b>CPAR Title</b></p>	<p>N/A</p>

## QEMS INTERNAL AUDITOR REPORT

<b>Process/Area Assessed</b>	Procurement of General Services (Q-741-004)
<b>Business Unit</b>	Purchasing and Consultant Contracts Unit
<b>District Requirement</b>	
<b>Regulatory/Legal Requirement</b>	
<b>Audit Findings</b>	<p>For this audit, I asked Jeff Ham for a short list of vendors whose provision of goods and services to the District was below \$25,000. From this list, I chose to audit Xylem, the vendor associated with PR # 300181, versus the requirements noted in Q-741-004.</p> <p>The process of procuring vendor services as prescribed in Q-741-004 was followed and supporting quality records were provided as indicated below.</p> <ol style="list-style-type: none"> <li>1. The PR (#300181) was initiated by Matthew Sunseri (Field Operations Administrator) and approved by his unit manager, Jonathan Burgess, with an estimate of the goods and services to be provided by Xylem Water Solutions USA, Inc, Wedeco Products (Xylem).</li> <li>2. A quotation was provided by Xylem detailing the itemized parts and labor necessary to meet District requirements for a project at the Penitencia Treatment Plant.</li> <li>3. A Short Form Contract for Services (F741D19) was provided detailing the terms and conditions upon which the goods and services were provided by Xylem to the District.</li> <li>4. A copy of the Certificate of Liability Insurance and associated Endorsements for the vendor (Xylem) was provided.</li> <li>5. The PO (0000033728) was provided detailing the goods and labor to be provided by Xylem to the District.</li> </ol>
<b>Objective Evidence</b>	<ol style="list-style-type: none"> <li>1. PR (#300181) initiated by Matthew Sunseri for the procurement of goods and services under \$25,000.</li> <li>2. A quote provided by Xylem associated with PR #300181.</li> <li>3. Short Form Contract for Services (F741D19).</li> <li>4. Evidence of Insurance and associated endorsements.</li> <li>5. PO (0000033728) issued with authorized signature.</li> </ol>
<b>Areas(s) of Merit</b>	<p>During the audit of the procurement of general services (Q-741-004), we were made aware of an internal audit program and associated audit plan that Tom Esch, Procurement manager, developed with his staff using rigorous mechanisms and principles developed by the Federal Transit Administration (FTA). With the District no longer possessing ISO certification, but still required to be fiscally responsible and accountable, it is commendable that the Purchasing and Consultant Contracts Unit is developing its own audit program which integrates the spirit of ISO: say what you do, do what you say, prove it and improve it.</p>
<b>Non-Conformance</b>	None
<b>CPAR Type</b>	<input checked="" type="checkbox"/> None <input type="checkbox"/> Corrective Action <input type="checkbox"/> Preventive Action <input type="checkbox"/> Opportunity for Improvement

## QEMS INTERNAL AUDITOR REPORT

<b>Process/Area Assessed</b>	Procurement of Goods and Related Services (Q-471-003)
<b>Business Unit</b>	Purchasing and Consultant Contracts Unit
<b>District Requirement</b>	
<b>Regulatory/Legal Requirement</b>	
<b>Audit Findings</b>	<p>For this audit, I chose to assess the procurement of goods over \$25,000 versus the Procurement of Goods &amp; Related Services (Q-741-003) work instruction. PR#: 2018923 was selected, given it was the purchase of an Uninterruptable Power Supply (UPS) system exceeding \$25,000. Overall, the process as described in Q-741-003 was followed and supporting documentation was readily available and well-organized as noted below.</p> <ol style="list-style-type: none"> <li>1. The PR was completed by Matt Sunseri, Maintenance Planner, and authorized by his UM, Jonathan Burgess. The PR specified the purchase of a specific piece of equipment, Eaton 9355 UPS, as specified by PR requestor.</li> <li>2. Upon receiving PR Procurement staff uploaded PR information into Quest which allows District staff to track progress of PR. Via Quest, the requestor could see the PR was assigned to Kimberly Grundy, Buyer.</li> <li>3. As Request for Quotation (F741-015) was sent to five vendors soliciting bids which included the following; 1) Instructions to Bidder, 2) product specification, 3) terms &amp; conditions of the contract, 4) required bid forms, and 5) bid due date.</li> <li>4. Bids were received from all five vendors and summarized on the Abstract of Bid form (F741D17) Bids received ranged from \$27,637.57 to \$39,137.25. Computerland provided the lowest bid price.</li> <li>5. Prior to awarding the PR to Computerland a Notice of Intent to Award was sent to all responding vendors informing them of the outcome. This Notice of Intent to Award provided information to each unsuccessful bidder on the bid protest process.</li> <li>6. Lastly, a PR was awarded to Computerland and a Purchase Order #: 33276 was established to support the purchase of the Eaton 9355 UPS.</li> </ol>
<b>Objective Evidence</b>	<ol style="list-style-type: none"> <li>1. PR generated by Matt Sunseri for the purchase of good greater than \$25,000</li> <li>2. Printout from Quest noting PR#218923 was assigned to Kimberly</li> <li>3. Request for Quotations (F-741-015) sent to Computerland. One of five sent such a request.</li> <li>4. Abstract of Bid (F741D07)</li> <li>5. Notice of Intent to Award</li> <li>6. PO issued to Computerland which includes Standard Term &amp; Conditions</li> </ol>
<b>Areas(s) of Merit</b>	<p>Based on my review of PR#:218923, supporting documentation resulted in PO#:33276 being issue to Computerland. It was demonstrated Procurement staff followed steps spelled out in Q-741-003. The files I reviewed were well organized, readily available for review, and present a clear methodology for awarding the PO to Computerland.</p>
<b>Non-Conformance</b>	None

## QEMS INTERNAL AUDITOR REPORT

**CPAR Type**

None  Corrective Action  Preventive Action  Opportunity for Improvement

Stated in the work instruction under Section 6. Monitoring & Measurement is the following, "Monitoring and Measurement of purchasing activities will be performed monthly by the Purchasing Unit Manager to ensure quality and timely delivery of services." There is no evidence that the UM developed formal metrics therefore no monthly assessment regarding the quality or timely delivery of service is being evaluated. It is recommended that the UM develop such metrics to track delivery times and ensure quality service is provided.

## QEMS INTERNAL AUDITOR REPORT

<b>Process/Area Assessed</b>	Emergency Operations Plan (Q-830-016), Disaster Service Worker (DSW) Program (Q-830-017), District EOC Activation and Deactivation Process (W-830-103), Emergency Operations Center Switchboard Operations (W830D05), Violence in the Workplace (W-640-044), District Employee and Visitor Identification and Access Card – Access Control to District Facilities (W-640-102)
<b>Business Unit</b>	Emergency Services and Security Unit
<b>ISO Requirement</b>	<p>ISO 9001:2015</p> <ul style="list-style-type: none"> <li>• 8.5.1 - Control of production and service provision</li> <li>• 8.5.2 - Identification and traceability</li> </ul> <p>ISO 14001:2015</p> <ul style="list-style-type: none"> <li>• 8.2 - Emergency preparedness and response</li> </ul>
<b>District Requirement</b>	<p>Boards Ends Policies:</p> <ul style="list-style-type: none"> <li>• 2.1.6 - Prepare for and respond effectively to water utility emergencies.</li> <li>• 3.2.3 - Prepare and respond effectively to flood emergencies countywide to protect life and property.</li> <li>• CPAR 646</li> <li>• District Records Retention Schedule: <a href="http://www.aqua.gov/home/scvwd/main/admin/records/Retention2018.pdf">http://www.aqua.gov/home/scvwd/main/admin/records/Retention2018.pdf</a></li> </ul>
<b>Regulatory/Legal Requirement</b>	Regulatory/Legal requirements established by: The Department of Homeland Security National Response Framework, National Incident Management System (NIMS), CAL-OES National Incident Management System (NIMS), Federal Emergency Management Agency (FEMA), and California Standardized Emergency Management System (SEMS).
<b>Audit Findings</b>	<p>The mission of the Emergency Services and Security Unit (ESSU) is to help Valley Water shorten the disruption period and operational impacts of emergencies and disasters. This mission is accomplished by preparing Valley Water’s management and staff to respond to emergencies and disasters including field responses, coordinating field responses, and coordinating with other government and county agencies. The ESSU complies with several emergency and disaster preparedness programs including the Department of Homeland Security’s National Response Framework, the National Incident Management System (NIMS), the Federal Emergency Management Agency (FEMA), and the California Standardized Emergency Management System (SEMS). ESSU also provides security services in HQ and Admin Lobby and around Valley Water campuses, including Valley Water ID/access badges, security escorts for staff, and security consultations, warning and advisories.</p> <p><b><u>Area of Focus:</u></b> Auditor evaluated ESSU’s compliance of ISO 9001 Clause 8.5.1 Control of production and service provision; and 8.5.2 Identification and traceability. This was performed by reviewing:</p> <ul style="list-style-type: none"> <li>• Disaster Service Worker (DSW) Program (Q-830-017)</li> <li>• District EOC Activation and Deactivation Process (W-830-103)</li> <li>• Violence in the Workplace (W-640-044)</li> <li>• District Employee and Visitor Identification and Access Card – Access Control to District Facilities (W-640-102)</li> </ul> <p>Auditor also evaluated ESSU’s compliance of ISO 14001 Clause 8.2 Emergency preparedness and response. This was performed by reviewing:</p> <ul style="list-style-type: none"> <li>• Emergency Operations Plan (Q-830-016)</li> <li>• CPAR 646 – Regularly scheduled emergency exercise drills</li> </ul>



**Findings:**

Staff in ESSU were able to navigate to the QEMS online database and showed a previous report demonstrating staff completed QEMS training.

**Disaster Service Worker (DSW) Program**

The purpose of this program is to prepare Valley Water and Valley Water staff for response in the event of an emergency or catastrophic disaster. This program includes program administration, staff preparedness and training, declaration of Disaster, and activation. The process of activation assures readiness by providing training of who can activate and at which level, binders and logs in the EOC, and quarterly testing of the hotline. Training is updated by Workforce Development on the SST system and reports are provided as needed. Training monitoring and measuring were met with 100% of signed DSW oaths on file and >80% of staff completing DSW training. There is also a spreadsheet maintained by ESSU and WFD staff which lists Valley Water staff with special skills, such as CPR trained, vehicle licenses, Radio Operator, etc. This allows the EOC to identify and deploy the rightfully skilled people to support during a large disaster.

**EOC Activation and Deactivation Process**

The purpose of this work instruction is to describe the process and establish the authority for activation and deactivation of the Santa Clara Valley Water District Emergency Operations Center (EOC). Recently, the EOC Activation and Deactivation Process document had a major revision to align with the current Emergency Operations Plan (EOP) and state and federal guidelines in regards to categorization. There are now three levels of activation and a standby level:

- Standby
- Level 3 Monitoring
- Level 2 Partial
- Level 1 Full

The process steps were also simplified and the chiefs' nomenclature were updated.

**Violence in the Workplace**

The Violence in the Workplace procedure provides guidance and steps focused on the prevention of, response to, and protection from threats or acts of workplace violence against any person or property at Valley Water facilities or elsewhere that affects the interests of Valley Water. The Incident Management Team (IMT) meets regularly and is more active as need. In-take form, interviews, evaluations and all other supporting documents during an investigation are confidential.

**Staff and Visitor Access Control to Valley Water Facilities**

The Identification Access Card (IAC) procedure provides standards and requirements for facility access and displaying of identification; provides a consistent method of identification and facility access; provides an additional means of establishing a safe work place for employees; and provides a safe environment for the public to conduct business. All Valley Water employees, temporary employees, contractors, vendors, consultants, interns and others must display a valid Identification Access Card/Visitor Badge while at Valley Water facilities. Currently, the entire access card system is being updated campus-wide. There is also an access management policy being developed, which identifies levels of access to different areas depending on sensitivity of information.

**CPAR 646 – Regularly scheduled emergency exercise drills**

## QEMS INTERNAL AUDITOR REPORT

	<p>As observed during the October 2015 Internal Audit, it was noted that staff resources are not in place to conduct regularly scheduled emergency exercise drills and there was an observed deficiency of documented processes to support carrying out such drills. This was the subject of a preventive action, which was completed and closed in September 2018. The following three documents were reviewed and sampled as part of this evaluation and were found to be thorough and verified.</p> <ol style="list-style-type: none"> <li>1. FY2019 Emergency Operations Plan (EOP) for FY2019</li> <li>2. Emergency Operations Center (EOC) Position Checklist - excerpt from EOC Responder Handbook</li> <li>3. FY2019 Training and Exercise Plan (TEP): Emergency Preparedness Response and Recovery</li> </ol> <p>There was an Anderson Dam Tabletop Exercise and EAP Drill conducted in October 2018 and Internal EOC Exercises in November 2018. Future EOC exercises are scheduled to be conducted from August-November 2019:</p> <ul style="list-style-type: none"> <li>• Water Utility Exercise: August 2019</li> <li>• Joint EAP: Sept. – Nov. 2019</li> <li>• Public Information Officers – September 2019</li> <li>• County-wide EOC Training – Oct. – Nov. 2019</li> <li>• SFC-MAC: In 2020</li> </ul> <p><b><u>Continual Improvement</u></b> The ESSU manager indicated they gather feedback via surveys regarding the tabletop EOC exercises. There are also after-action reports that are sent to the State of CA. Staff use the feedback and reports to look at process improvements.</p>
<b>Objective Evidence</b>	<ul style="list-style-type: none"> <li>• Halogen Staff Special Skills Report</li> <li>• SST Training Report</li> <li>• Anderson Dam EAP Tabletop Exercise 2018 – After-Action Report/Improvement Plan</li> <li>• EAP Call Down Drill/Test Report</li> <li>• 2018 District EOC Exercise – After-Action Report-Improvement Plan</li> </ul>
<b>Area(s) of Merit</b>	<p>ESSU staff conduct an annual review of their procedures and work instructions to ensure compliance with Board Ends policies as well as Federal and State regulations. The reports that are produced from tabletop exercises ensure emergency preparedness and readiness.</p>
<b>Non-Conformance</b>	None
<b>CPAR Type</b>	<input checked="" type="checkbox"/> None <input type="checkbox"/> Corrective Action <input type="checkbox"/> Preventive Action <input type="checkbox"/> Opportunity For Improvement
<b>CPAR Title</b>	N/A

## QEMS INTERNAL AUDITOR REPORT

<b>Process/Area Assessed</b>	Contractor Safety Program Work Instructions (W640D07)
<b>Business Unit</b>	Environmental, Health & Safety (Audit Report 1 of 2)
<b>ISO Requirement</b>	Evaluation of Compliance (Q-8.1)
<b>District Requirement</b>	Environmental Health and Safety Management System Framework Document (Q640D01) Contractor Safety Program Work Instructions (W640D07)
<b>Regulatory/Legal Requirement</b>	Environmental Regulatory Compliance
<b>Audit Findings</b>	<p>The Environmental, Health and Safety Unit (EH&amp;S) provides technical expertise in working with Valley Water management, supervision and employees to ensure Valley Water meets its regulatory obligations for compliance with applicable environmental, occupational health and safety regulations.</p> <p><b><u>Areas of Focus:</u></b> Auditor evaluated EH&amp;S's compliance of ISO Clause 8.1 Operational planning and control, by reviewing the main procedure and a work instruction mentioned in the procedure:</p> <ul style="list-style-type: none"> <li>• Environmental Health and Safety Management System Framework Document (Q640D01)</li> <li>• Contractor Safety Program Work Instructions (W640D07)</li> </ul> <p>Auditor also evaluated EH&amp;S's QEMS Awareness and their commitment to continual improvement.</p> <p><b><u>Findings:</u></b> <b>QEMS Knowledge and Awareness, Training</b></p> <ul style="list-style-type: none"> <li>• Staff was able to navigate to the QEMS online database and bring up EH&amp;S Controlled Docs.</li> <li>• Staff has taken the required Valley Water trainings as indicated by Workforce Development's May 20<sup>th</sup> Stoplight Report (92.67% mastered).</li> </ul> <p><b>Environmental Health and Safety Management System Framework Document (Q640D01)</b> EH&amp;S's framework document is to support the environmental, health and safety compliance continuous improvement process, which includes planning, implementation, and measurement. It is the intent of the Valley Water to make environmental, health and safety compliance integral components of all Valley Water processes, services, and operations and this document serves as the structure for accomplishing that intent.</p> <ul style="list-style-type: none"> <li>• The last major revision made to this document was on January 2, 2013. While reviewing it with staff, it was pointed out that references to certain documents need to be updated. For example, the Internal Reference Documents on page 2 has outdated links and the document Q741D01 on page 10 has been made obsolete by the Purchasing Unit.</li> <li>• On page 15, Item #27, the process for Documents and Records Management is described. The intent of this step is to design and implement a system for creating, distributing, controlling, and managing documents and records prepared in support of the Environmental, Health and Safety Program. Staff indicated that there is no annual review of their Controlled Docs (over 40 forms and 50 work instructions).</li> </ul>

## QEMS INTERNAL AUDITOR REPORT

	<p><b>Contractor Safety Program Work Instructions (W640D07)</b>  This work instruction establishes the safety program requirements for contractors/vendors (the term contractor will represent both contractors and vendors throughout this work instruction) performing construction, maintenance, or other services that require qualification per the definition within this work instruction. This work instruction does not apply to construction projects sourced through the Construction Services Unit that are submitted and managed by Capital Programs Services since there are contractor safety qualifications integrated into the solicitation package.</p> <ul style="list-style-type: none"> <li>• On Step 1, the work instruction refers to a Contractor Safety Qualification Package (F460D18) that is compiled by EH&amp;S staff. The form consists of the company's data (name, address, etc.), company history, work to be performed, workers' compensation insurance, OSHA lost workday incident rates and citation history, safety policies and procedures, and certification statement. This document is updated annually as long as the Contractor/Vendor is performing work for Valley Water. Staff provided a copy of Harris Blade Rental's packet.</li> <li>• On step 6 of the work instruction, it states Valley Water must notify management of Contractor mishaps. EH&amp;S staff explained that notification and copies of incident reports depends on each Contractor as safety is their legal responsibility. The Contract must have the required legal language in their document to be qualified as a potential Contractor. If there is a mishap, the Project Manager notifies EH&amp;S as well. Staff provided a sample of the Contractor/Vendor Safety Guide which details safety procedures and rules, such as compliance to state and federal safety and environmental regulations, emergency evacuation, hazardous materials, personal protective equipment, etc. This guide is signed by the Contractor/Vendor and returned to EH&amp;S for their records. Staff provided a copy of the signed Safety Guide from Advance Chemical Transport.</li> </ul> <p><b><u>Recommendations</u></b></p> <ul style="list-style-type: none"> <li>• Staff demonstrates great record keeping as well as providing a large amount of work instructions and forms for staff to use in order to perform their work. With that said, it is recommended that EH&amp;S perform an annual review (at a minimum) of their Controlled Documents to ensure accuracy as well as relevancy. For example, the Work Instructions reviewed had information that need to be updated throughout the document (see examples listed in findings above).</li> </ul>
<p><b>Objective Evidence</b></p>	<ul style="list-style-type: none"> <li>• QEMS Online Database – EH&amp;S Folder</li> <li>• Stoptlight Report for the week of May 20, 2019</li> <li>• Contractor Vendor Safety Guide (Blank)</li> <li>• Contractor Vendor Safety Guide (Completed by Advance Chemical Transport)</li> <li>• Contractor Safety Qualification Packet for Harris Blade Rental</li> </ul>
<p><b>Areas(s) of Merit</b></p>	<p>Staff demonstrates great record keeping and filing, and quickly provided examples of completed packets and forms. The unit also shows support of knowledge transfer, as they provide a large volume of work instructions and forms for staff to use in order to perform their work.</p> <p>EH&amp;S manager has a card posted on his office wall of each project/task within the unit and the progress of that task. This is a great example of project tracking and organization.</p>

## QEMS INTERNAL AUDITOR REPORT

<b>Non-Conformance</b>	None.
<b>CPAR Type</b>	<input checked="" type="checkbox"/> None <input type="checkbox"/> Corrective Action <input type="checkbox"/> Preventive Action <input type="checkbox"/> Opportunity For Improvement
<b>CPAR Title</b>	N/A

<b>Process/Area Assessed</b>	Chemical Inventory and Safety Data Sheets and Waste Accumulation
<b>Business Unit</b>	Environmental, Health & Safety (Audit Report 2 of 2)
<b>ISO Requirement</b>	Evaluation of Compliance (Q-8.1, E-6.1.3, 6.1.4, 9.1.2)
<b>District Requirement</b>	Environmental Health and Safety Management System Framework Document (Q640D01) Hazardous Waste Work Instructions
<b>Regulatory/Legal Requirement</b>	Environmental Regulatory Compliance
<b>Audit Findings</b>	<p>The Environmental, Health and Safety Unit (EH&amp;S) provides technical expertise in working with Valley Water management, supervisors and employees to ensure Valley Water meets its regulatory obligations for compliance with applicable environmental, occupational health and safety regulations.</p> <p><b>Areas of Focus:</b></p> <ul style="list-style-type: none"> <li>• Chemical inventory and Safety Data Sheets (SDS)</li> <li>• Evaluation of Compliance (Q-8.1, E-6.1.3, 6.1.4, 9.1.2)</li> <li>• Waste Accumulation (E-8.1, 9.1.2)</li> </ul> <p><b>Findings:</b></p> <p><b>Safety Data Sheets (SDS)</b> Staff provided examples of the Safety Data Sheets available online via MSDSONline HQ. There are over 20,000 SDS on the online database, which is available to all employees and is maintained by EH&amp;S staff.</p> <ul style="list-style-type: none"> <li>• <a href="http://www.aqua.gov/organization/divisions-offices/watersheds-operations/office-emergency-environmental-health-safety-services/msds">http://www.aqua.gov/organization/divisions-offices/watersheds-operations/office-emergency-environmental-health-safety-services/msds</a></li> </ul> <p>The SDS includes information such as the properties of each chemical; the physical, health, and environmental health hazards; protective measures; and safety precautions for handling, storing, and transporting the chemical. All hazardous chemicals on site must have an associated SDS and the records are kept as long as the chemicals are on site.</p> <p><b>Evaluation of Compliance</b> It is the Valley Water's objective to ensure a safe workplace environment for its employees and all services and activities ensure environmental regulatory compliance. EH&amp;S has made all Valley Water processes, services, and operations part of its compliance. Valley Water maintains a safety training record of all its employees, which includes job specific training that addresses safety hazards and risks, environmental aspects and impacts, prevention, and control practices that are conditions of employment. All employees can access training records or sign up for trainings at the Self-Service Training (SST) site.</p>

## QEMS INTERNAL AUDITOR REPORT

	<p>Inspections are conducted periodically in compliance with applicable environmental legal requirements through facility inspections. Routine periodic inspections are conducted by the responsible area's staff using checklists and protocols to report Valley Water environmental activities. EH&amp;S has a 3 Tier process approach to monitor and evaluate compliance with applicable environmental legal requirements.</p> <ul style="list-style-type: none"> <li>• Tier I Inspections are internal facility safety inspections performed monthly by a designated individual.</li> <li>• Tier II Inspections are internal performed by a designated individual from EH&amp;S performed twice a year. Random chemicals per facility are checked for compliance and the results are entered in the Quarterly Report.</li> <li>• Tier III Inspections are conducted by external inspectors from the Santa Clara County Hazardous Materials Compliance Division and San Jose Fire. This inspection is conducted annually.</li> </ul> <p>To mitigate, reduce, and/or eliminate risk, evaluations in the handling of chemicals are specific to the unit or area of work. Valley Water established an annual environmental health and safety plan in conjunction with the business planning cycle. The annual plan addresses risk reduction.</p> <p><b>Waste Accumulation</b> Handling or disposal of hazardous waste requires compliance with local, state and federal regulations and coordination of authorization from the General Services Division Facilities Management Haz Waste handling/disposal coordinator. Vendors must meet Cal/OSHA standards and utilized as identified by Valley Water procedures and Cal/OSHA regulations. Facilities has a chemical storage plan from the County, known as the Hazardous Material Business Plan (HMBP).</p> <p>Off-site hazardous waste disposal can be held for 180 days. Hazardous waste pick-up at Valley Water is regularly scheduled 3 times per year: April, August and December. A manifest of the hazardous waste to be picked up is communicated to the transporter prior to disposal pick-up to identify what type of disposal is needed. EH&amp;S staff reviews the manifest for accuracy and provides approval via signature. The vendor reviews the manifest upon pick-up and the disposal facility reviews the manifest upon delivery. This Cradle-to-Grave tracking is governed by state and federal agencies.</p>
<b>Objective Evidence</b>	<ul style="list-style-type: none"> <li>• SDS online database</li> <li>• Safety Data Sheet example for Aqua Ammonia</li> <li>• Transport, Handling, and Storage of Hazardous Chemicals, Including Flammable and Combustible Liquids Work Instruction (W640D18)</li> </ul>
<b>Areas(s) of Merit</b>	See Part 1 of EH&S Audit Report. Again, staff was able to readily provide copies of information as evidence of quality records. EH&S staff keeps meticulous records and have an exceptional filing system.
<b>Non-Conformance</b>	None.
<b>CPAR Type</b>	<input checked="" type="checkbox"/> None <input type="checkbox"/> Corrective Action <input type="checkbox"/> Preventive Action <input type="checkbox"/> Opportunity For Improvement
<b>CPAR Title</b>	N/A

## QEMS INTERNAL AUDITOR REPORT

<b>Process/Area Assessed</b>	Training Process – Employees
<b>Business Unit</b>	Workforce Development Unit
<b>Related ISO Clauses</b>	ISO 9001:2015 7.2 Competence; ISO 9001:2015 7.3 Awareness ISO 14001:2015 7.2 Competence; ISO 14001:2015 7.3 Awareness ISO 14001:2015 8.1 Operational planning and control
<b>District Requirement</b>	N/A
<b>Regulatory/Legal Requirement</b>	N/A
<b>Audit Findings</b>	<p>The Workforce Development Unit (WFD) is responsible for training and development within the Santa Clara Valley Water District. Training may originate from WFD, the Environmental Health &amp; Safety Unit (EH&amp;S), or the division/unit of the employee. WFD maintains records of training in the organization.</p> <p>All employees are required to take a core curriculum of 9 EH&amp;S courses, such as Office Safety and Workplace Violence. In the past, these universally required compliance courses would have been added to each employee’s required-training list manually. In the past year, WFD has upgraded its Learning Management Software, Self-Service Training (SST), to assign the core classes automatically to each employee’s SST profile. SST tracks the completion dates and renewal timeline of each course and sends a reminder email to the employee and their supervisor when a required training course is nearing expiration. Automating this process has reduced labor time as well as the errors inherent in a manual, repetitive task.</p> <p>The need for additional safety training for specific work is evaluated by EH&amp;S and, if necessary, added to an employee’s SST profile manually.</p> <p>Employees can access SST on the intranet to view their training status and sign up for training courses. A spotlight report can also be generated to more visually show the training status of an employee or unit.</p> <p>Feedback on classroom training is obtained via a questionnaire in Survey Monkey sent to attendees after the class. Answers are used to determine effectiveness and to make improvements. An employee’s supervisor may also be contacted for feedback regarding certain targeted training programs, such as the Emerging Leaders Certification Program.</p> <p>WFD also keeps records of other non-WFD, non-EH&amp;S trainings. These may include training for a subset of employees in a specific unit or division, such as the Capital Program Services process training. The Individual Process Training forms (IPTs) from these other trainings are sent to WFD for record keeping and placed in an employee file. WFD does not actively track such training.</p> <p>A total of five documents were found on the QEMS Database relating to WFD and training. WFD staff acknowledged that the documents are out of date and need to be revised. CPO Anna Noriega stated that all Human Resources documents are currently being reviewed and updated, including those for WFD.</p> <p>Several Opportunities For Improvement were mentioned by the auditees:</p> <ol style="list-style-type: none"> <li>1. Simplify the method of adding additional job-specific safety courses to an employee’s profile.</li> </ol>

## QEMS INTERNAL AUDITOR REPORT

	<ol style="list-style-type: none"> <li>2. Improve the communication between WFD and EH&amp;S regarding the addition of safety courses to an employee's profile. Develop a form for requesting changes.</li> <li>3. Transfer the storage of IPTs for non-WFD, non-EH&amp;S training to Records Management.</li> </ol>
<b>Objective Evidence</b>	<p>Observed navigation to an SST employee profile and the Learning tab.  Observed a stoplight report in SST.  Observed the WFD view of a training class and the attendance list in SST.</p>
<b>Areas(s) of Merit</b>	<p>WFD staff has good control over the primary training activities for the organization and utilizes their resources well.  Continual improvement is incorporated into training feedback/follow-up.</p>
<b>Non-Conformance</b>	None
<b>CPAR Type</b>	<input checked="" type="checkbox"/> None <input type="checkbox"/> Corrective Action <input type="checkbox"/> Preventive Action <input type="checkbox"/> Opportunity For Improvement
<b>CPAR Title</b>	N/A



<b>Process/Area Assessed</b>	District Document Control Process ...
<b>Business Unit</b>	Continual Improvement Unit
<b>ISO Requirement</b>	<b><i>District Document Control Process</i></b> – ISO Related Clauses: ISO 9001:2015 7.5.2, 7.5.3
<b>District Requirement</b>	N/A
<b>Regulatory/Legal Requirement</b>	N/A
<b>Audit Findings</b>	<p><b>District Document Control Process</b></p> <p>The Continual Improvement Unit (CIU) ensures that the Document Control Process of the District's Quality and Environmental Management System (QEMS) is being followed by District Process Owners and Oversight Managers. This will ensure that only approved and current versions of QEMS Documents are available to staff.</p> <ul style="list-style-type: none"> <li>• Process Owners and Oversight Managers are responsible for approving revisions/changes to Controlled Documents.</li> <li>• When there are significant changes to a Controlled Document or process the Process Owner is responsible to announce and train staff on the new process.</li> <li>• The Document Control Administrator (DCA)/CIU maintains the Document Control Database. The Document Control Database keeps a log of all changes.</li> <li>• The Document Control Database is maintained on the Intelex software.</li> <li>• The Intelex software Document Control Database notifies Process Owners annually (the date the Controlled Document was initiated, unless changed by the DCA) to review and update their Controlled Document(s).</li> <li>• The Controlled Document Procedure Q-423-008 and Controlled Document Administrator Work Instructions W-423-048 explains the step-by-step process. The Controlled Document Procedure is reviewed annually by the CIU to ensure the procedure is current.</li> </ul> <p><b>Findings:</b></p> <p>The Document Control Process was clearly explained and the Controlled Documents were shown on the Intelex software by Felicia Hernandez and Peggy Lam. The process seems very clear and concise. The Intelex software's ability to notify and remind Process Owners to review and update their Controlled Document on an annual basis is a good automated feature to help keep the documents up-to-date. However, the system does not acknowledge a response nor follows up or escalate (e.g. if a process owner is not available/responding, the system does not attempt to contact their manager)</p>
<b>Objective Evidence</b>	<p><i>Intelex Software</i></p> <p><i>Review of:</i></p> <p><i>Q-423-008 – Controlled Document Procedure</i></p> <p><i>W-423-046 – Controlled Document Administrator Work Instructions</i></p>

## QEMS INTERNAL AUDITOR REPORT

<b>Areas(s) of Merit</b>	
<b>Non-Conformance</b>	<i>None</i>
<b>CPAR Type</b>	<input checked="" type="checkbox"/> None <input type="checkbox"/> Corrective Action <input type="checkbox"/> Preventive Action <input type="checkbox"/> Opportunity For Improvement
<b>CPAR Title</b>	<i>None</i>

## QEMS INTERNAL AUDITOR REPORT

<b>Process/Area Assessed</b>	QEMS Internal Audit Program
<b>Business Unit</b>	Continual Improvement Unit
<b>ISO Requirement</b>	<b>QEMS Internal Audit Program</b> – ISO 9001:2015 9.2, 10, 10.1, ISO 14001:2015 9.2
<b>District Requirement</b>	N/A
<b>Regulatory/Legal Requirement</b>	N/A
<b>Audit Findings</b>	<p><b>QEMS Internal Audit Program Process</b></p> <p>The Continual Improvement Unit (CIU) directed by the Chief Executive Officer (CEO) determines the Quality and Environmental Management Systems (QEMS) Annual Scope and Plan.</p> <p>The District’s Internal Audit Program applies to the scope of the QEMS. Internal audits are necessary to maintain an ISO-Compliant management system and to facilitate process improvement.</p> <p>The District’s QEMS Internal Audits:</p> <ul style="list-style-type: none"> <li>• Provide feedback to management to evaluate the effectiveness of the District’s QEMS.</li> <li>• The QEMS Internal Audit Program Coordinator implements the Annual Internal Audit Program and maintains Procedures, Work Instructions, Forms and is responsible to ensure that internal auditors are competent to perform their duties, such as:             <ul style="list-style-type: none"> <li>a. Completing Standards training on ISO 9001, 14001, and 19011 for new auditors;</li> <li>b. Provide training on any revisions of the internal audit procedures as needed;</li> <li>c. Provide audit tools, forms, and work instructions;</li> <li>d. Ensure attendance at Audit Planning Meetings; and</li> <li>e. Provide refresher training to ensure auditing skills are competent.</li> </ul> </li> <li>• Staff who wish to become District Internal Auditors must obtain approval from management to participate.</li> <li>• Internal auditors are trained and certified in auditing skills and the ISO standards.</li> <li>• Auditors must attend the QEMS Audit Team meetings and prepare for audits using auditing forms, and policies and procedures.</li> <li>• Auditors set-up interviews with staff that are responsible to perform the activities and perform the audit.</li> <li>• Utilizing interview notes and Interview Questionnaire, the auditor needs to summarize the findings and complete the Auditor Report.</li> </ul>

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	<ul style="list-style-type: none"> <li>• There is a QEMS Audit Wrap-up Meeting to discuss and share audit findings and lessons learned.</li> </ul> <p><b>Findings:</b></p> <p>The QEMS Audit Program has changed. As of 2018, the District has chosen not to renew ISO certification, and as such, there are no more external ISO audits. However, Board-commissioned audits are being conducted.</p> <p>The District continues to conduct internal audits to ensure continual improvement of the Quality and Environmental Management System.</p> <p>Items no longer addressed by the Internal Audit Program include:</p> <ul style="list-style-type: none"> <li>• QEMS Policy (refer to Board policies)</li> <li>• ISO Management Review</li> <li>• External Audits</li> <li>• Environmental Aspects</li> <li>• Risk Assessment</li> <li>• Training (QEMS Awareness)</li> <li>• Documents of External Origin</li> </ul> <p>Commitment by managers and the auditing team are vital for the continued success of the QEMS Internal Audit Program. Commitment from managers and staff seems to have waived due to no external audits.</p> <p>Annual recruitment of new auditors and refresher training for existing auditors annually or as needed is imperative in:</p> <ul style="list-style-type: none"> <li>• Maintaining QEMS knowledge throughout the District</li> <li>• Ensuring QEMS process improvement continues.</li> </ul>
<b>Objective Evidence</b>	<p><i>Observed Controlled Documents on the Intelelex software</i></p> <p><i>Review of the following documents:</i></p> <ul style="list-style-type: none"> <li>• Q-822-006 – QEMS Internal Audit Program Procedure</li> <li>• W-822-032 – QEMS Internal Audit Program Coordinator Work Instructions</li> <li>• W-822-033 – QEMS Internal Auditor Work Instructions</li> <li>• F-822-041 Rev: G – QEMS Internal Audit Interview Questionnaire</li> </ul>
<b>Areas(s) of Merit</b>	
<b>Non-Conformance</b>	None
<b>CPAR Type</b>	<input checked="" type="checkbox"/> None <input type="checkbox"/> Corrective Action <input type="checkbox"/> Preventive Action <input type="checkbox"/> Opportunity For Improvement
<b>CPAR Title</b>	None

## QEMS INTERNAL AUDITOR REPORT

<b>Process/Area Assessed</b>	Customer Communications and Satisfaction
<b>Business Unit</b>	Office of Communications
<b>ISO Requirement</b>	ISO 9001:2015 Clauses 8.2.1 and 9.1.2
<b>District Requirement</b>	Access Valley Water Work Instructions to respond and communicate with customers (W-723-051).
<b>Regulatory/Legal Requirement</b>	N/A
<b>Audit Findings</b>	<p>The Office of Communications (Communications) provides customer service, community and public outreach, graphics and media (news and social media) services at Valley Water, with the purpose of improving communication. Many of the projects worked on by the Communications team reaches external audiences, i.e. neighborhoods and communities where projects occur, but also internal projects as well, i.e. new program launches and annual reports.</p> <p><b><u>Area of Focus:</u></b> Auditor evaluated Communications compliance of ISO Clause 8.2.1 Customer communication – the interface between the organization and the customer; and 9.1.2 Customer satisfaction – the organization’s monitoring of customers’ perception of the degree to which their needs and expectations have been fulfilled. This was performed by reviewing:</p> <ul style="list-style-type: none"> <li>• Access Valley Water Work Instruction (W-723-051)</li> <li>• Customer satisfaction survey reports and results</li> </ul> <p><b><u>Findings:</u></b> Staff in Communications was able to navigate to the QEMS online database and the Communications folders, where their controlled documents are stored:</p> <ul style="list-style-type: none"> <li>• Naming of District-Owned Land, Facilities and Amenities (Work Instruction)</li> <li>• Access Valley Water Work Instruction</li> <li>• Crisis Communications Plan (Work Instruction)</li> <li>• Naming of District Lands, Facilities, and Amenities Nomination Form</li> </ul> <p>The internal auditor recommended that staff in Communications update the process owners of their documents as the Program Administrator recently retired. Staff is also in the process of conducting the annual review and update of the above documents, as well as adding two new work instructions: the new customer relationship system (replacing Access Valley Water described below) and Graphics Services.</p> <p><b>Customer Service System - Access Valley Water</b> A major key role in the Office of Communications is that they provide customer service to the public regarding information requests, complaints, compliments, comments and questions. Currently, this is done using Access Valley Water (AVW), a customer relationship management system that can be accessed through Valley Water’s external website. Access Valley Water offers a comprehensive and seamless web-based approach to tracking email, postal mail, phone calls, and customer communications. Use of a customer relationship management system such as Access Valley Water saves time on administrative tasks by:</p> <ul style="list-style-type: none"> <li>• Automated routing and tracking of requests</li> <li>• Central database makes information easily accessible</li> <li>• Cases tracked to resolution with robust case management tools</li> </ul>

## QEMS INTERNAL AUDITOR REPORT

	<ul style="list-style-type: none"> <li>• Automatic notification of unresolved cases and open tasks</li> </ul> <p><b>Customer Satisfaction Reports</b></p> <p>In order to improve on the customer service provided to both internal and external customers, Communication’s AVW System Administrator produces three reports which are provided to management:</p> <ul style="list-style-type: none"> <li>• Overdue Case Report</li> <li>• Aged Complaint Report</li> <li>• Customer Satisfaction Index (CSI) Report. This reports uses information from AVW and other sources, such as surveys.</li> </ul> <p>These reports provide useful information about response time and customer satisfaction. The surveys provided to the public include community meeting surveys and project update surveys. The surveys include questions and ratings of the event and the methods of communication. It allows the team to gauge whether projects are meeting customer expectations and offers an avenue for the community to provide feedback or ask questions. If there are many of the same questions regarding a project, the team develops a FAQ and distributes it to the community. The CSI Report for January to June 2019 had a combined index of 86%, which is Good – Excellent. The Graphics team utilizes an automatic email with a link to a satisfaction survey that is sent at the close of a request. In 2019, they received &gt;90% in customer satisfaction, which meets the goal on their work plan.</p> <p><b><u>Continual Improvement</u></b></p> <p>The Communications team uses a web-based project/task management web application called Trello to organize and coordinate their teams’ work. They stated that this application has allowed them to make improvements to their work process and has allowed more efficiency as each team member can access project tasks and it reduces time spent chasing down information.</p>
<p><b>Objective Evidence</b></p>	<ul style="list-style-type: none"> <li>• Valley Water Customer Satisfaction Index January to June 2019 Report</li> <li>• 2018 Well Owner Survey (Sample)</li> <li>• Coyote Creek Public Meeting Event Survey and Comment Card</li> <li>• Saratoga Creek Hazard Tree Removal &amp; Restoration Project Event Survey and Comment Card</li> <li>• Upper Penitencia Public Meeting Event Survey and Comment Card</li> <li>• Anderson Dam Seismic Retrofit Project Meeting Survey and Comment Card</li> <li>• Trello Demonstration</li> </ul>
<p><b>Areas(s) of Merit</b></p>	<p>Staff demonstrated great tools and reports used in the method of how they monitor customer satisfaction. Creating FAQs from the comment cards and Q&amp;A sessions at public meetings also demonstrates great customer service and responsiveness.</p>
<p><b>Non-Conformance</b></p>	<p>None</p>
<p><b>CPAR Type</b></p>	<p><input checked="" type="checkbox"/> None   <input type="checkbox"/> Corrective Action   <input type="checkbox"/> Preventive Action   <input type="checkbox"/> Opportunity For Improvement</p>
<p><b>CPAR Title</b></p>	<p>N/A</p>

## QEMS INTERNAL AUDITOR REPORT

<b>Process/Area Assessed</b>	Customer Communications/Satisfaction: External Communications – customers including complaints through Board Correspondence
<b>Business Unit</b>	Office of the Clerk of the Board (Unit 604)
<b>ISO Requirement</b>	ISO 9001:2015 8.2.1 – Customer Communication ISO 9001:2015 9.1.2 – Customer Satisfaction
<b>District Requirement</b>	W-723-052 Board Correspondence Work Instruction Board Governance Policy EL 2.6
<b>Regulatory/Legal Requirement</b>	N/A
<b>Audit Findings</b>	<p>The Office of the Clerk of the Board (COB) manages the Board’s correspondence process and monitors the Board Correspondence daily. The COB uses work instruction W-723-052 to respond to correspondence addressed to the Board. Responses are tracked via the BiTrak system and completed within the 14 calendar-day window for the final response deadline in accordance with Board Governance Policy EL 2.6. The electronic BiTrak system has useful features, such as automated reminders to ensure timely completion of correspondence.</p> <p>The COB demonstrated that they are well versed in this process and the District’s Quality and Environmental Management System. Specifically, correspondence not requiring a response is noted and filed, and if there is a request(s) requiring a response, the COB assigns the task to the respective Chief and Unclassified Manager who in turn prepares a draft response and submits it to the COB by the due date assigned on the BiTrak report.</p> <p>When the response is submitted, the COB staff reviews and edits the response as needed, and forwards to the Board Chair or Director for final approval. Once final approval is received, the response is sent to the constituent.</p> <p>The COB is knowledgeable about analyzing the incoming requests and routing them to the respective business area for a response. It may be helpful for the COB to analyze the outputs of this process to assist in the continual improvement efforts.</p>
<b>Objective Evidence</b>	Board Correspondence Work Instruction (W-723-052)
<b>Areas(s) of Merit</b>	The Office of the Clerk of the Board is to be commended for the automation of its Board Communications process. Specifically, for an improvement of its BiTrak system, which now offers the option to add attachments.
<b>Non-Conformance</b>	None.
<b>CPAR Type</b>	<input checked="" type="checkbox"/> None <input type="checkbox"/> Corrective Action <input type="checkbox"/> Preventive Action <input type="checkbox"/> Opportunity For Improvement
<b>CPAR Title</b>	N/A