



*Dedicated to  
Satisfying our Community's  
Water Needs*

**AGENDA  
MESA WATER DISTRICT  
BOARD OF DIRECTORS  
Tuesday, November 19, 2019  
1965 Placentia Avenue, Costa Mesa, CA 92627  
3:30 p.m. Special Board Meeting**

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**ENGINEERING AND OPERATIONS COMMITTEE MEETING  
Tuesday, November 19, 2019 at 3:30 p.m.**

**CALL TO ORDER**

**PLEDGE OF ALLEGIANCE**

**PUBLIC COMMENTS**

**Items Not on the Agenda:** Members of the public are invited to address the Board on items which are not on the agenda. Each speaker is limited to three minutes. The Board will set aside 30 minutes for public comments.

**Items on the Agenda:** Members of the public may comment on agenda items before action is taken, or after the Board has discussed the item. Each speaker is limited to three minutes. The Board will set aside 60 minutes for public comments.

**CONSENT CALENDAR ITEMS:**

*Approve all matters under the Consent Calendar by one motion unless a Board member, staff, or a member of the public requests a separate action.*

1. Developer Project Status Report
2. Mesa Water and Other Agency Projects Status Report
3. Water Quality Call Report
4. Committee Policy & Resolution Review
5. Water Operations Status Report

**ACTION ITEMS:**

*Items recommended for approval at this meeting may be agendized for approval at a future Board meeting.*

None

**PRESENTATION AND DISCUSSION ITEMS:**

6. OC-44 Pipeline Rehabilitation Project
7. Fiscal Year 2019 Water Loss Audit
8. Fiscal Year 2019 Customer Service Audit



**REPORTS:**

9. Report of the General Manager
10. Directors' Reports and Comments

**INFORMATION ITEMS:**

None

*In compliance with California law and the Americans with Disabilities Act, if you need disability-related modifications or accommodations, including auxiliary aids or services in order to participate in the meeting, or if you need the agenda provided in an alternative format, please contact the District Secretary at (949) 631-1206. Notification 48 hours prior to the meeting will enable Mesa Water District (Mesa Water) to make reasonable arrangements to accommodate your requests.*

*Members of the public desiring to make verbal comments utilizing a translator to present their comments into English shall be provided reasonable time accommodations that are consistent with California law.*

*Agenda materials that are public records, which have been distributed to a majority of the Mesa Water Board of Directors (Board), will be available for public inspection at the District Boardroom, 1965 Placentia Avenue, Costa Mesa, CA and on Mesa Water's website at [www.MesaWater.org](http://www.MesaWater.org). If materials are distributed to the Board less than 72 hours prior or during the meeting, the materials will be available at the time of the meeting.*

**ADJOURNMENT**

## DEVELOPER PROJECT STATUS REPORT

PROJECT STATUS - DEVELOPER PROJECTS			
FILE NO.	PROJECT ADDRESS	PROJECT DESCRIPTION	PROJECT NOTES/STATUS
MC 2235	671 W 17th Street	177 Condos	<p>Plans received and plan check fees paid on 1/21/16. Hydraulic model initiated 2/24/16. Second plan check submitted on 3/24/16 and picked up 4/17/16. Mylar drawings and fee payment received on 7/5/16. Permit issued on 7/11/16. Demolition of existing services on 8/16/16. Mainline installation on 12/6/16. Service laterals installed on 1/9/17. Pressure test on 2/6/17. Bac-t test on 2/15/17. Bedding and service line placement on 4/3/17. Meter box placement on 5/8/17. Follow-up site visit on 5/17/17. Service abandonment on 8/30/17. Valve cans raised on 9/22/17. Meter box placement on 10/19/17. Gravel base on 12/5/17. Meter box placement on 2/14/18. Meters installed and locked off on 6/1/18, 7/17/18, on 8/1/18, and again on 9/7/18. Backflow tested on 9/11/18. Meters installed and locked off on 9/18/18, 9/25/18, and again on 10/5/18. Backflow tested on 10/9/18 and again on 2/27/19. Meters installed and locked off on 11/27/18, 12/5/18, 12/18/18, 1/10/19, 2/8/19, 2/21/19, 3/4/19, 3/12/19, again on 4/26/19. Phase 2 construction still on-going.</p>
C0056-18-01	2033 Republic Avenue	Single Family Home Service & Meter Upgrade	<p>Plans received and plan check fees paid on 6/19/18. Comments returned for second plan check review on 6/28/18. Second plan check submitted 7/26/18, and redlines picked up on 8/20/18. Third plan check submitted on 12/13/18, and redlines picked up on 1/15/19. Fourth and final plan check submitted on 1/24/19, and redlines picked up on 1/29/19. Final approval by District Engineer on 4/18/19. Final permit fees paid on 4/18/19. Permit issued on 4/30/19. Revised drawings issued 7/1/19 and returned 7/1/19.</p>
C0058-19-01	585 & 595 Anton Boulevard (P2)	Apartment Complex	<p>Plans received and plan check fees paid on 2/5/19. Customer picked up redlines on 2/8/19. Second plan check submitted 3/11/19, and redlines picked up on 3/25/19. Hydraulic Analysis received on 4/5/19. Received Water Service Agreement on 4/30; Final permit fees paid on 5/8/19. Permit issued on 5/8/19. Precon meeting held on 5/16/19. Waiting for revised Easements and Quit Claims regarding legal entities. Services installed 6/28/19. Pressure tests done on 7/2/19, Bac-T tests done on 7/8/19. Fireline charged on 9/12/19. Mesa Water staff removed two fire hydrants from jobsite on 9/18/19.</p>

## DEVELOPER PROJECT STATUS REPORT

PROJECT STATUS - DEVELOPER PROJECTS			
FILE NO.	PROJECT ADDRESS	PROJECT DESCRIPTION	PROJECT NOTES/STATUS
C0062-19-01	1591 & 1593 Riverside	Two Single Family Homes	Plans received and plan check fees paid on 12/14/18. Final fees paid on 2/6/19. Permit issued on 2/13/19. Precon held on 2/28/19. Services installed on 3/4/19. Waiting for meter installation and flowthru testing to be scheduled.
C0063-19-01	1375 Sunflower	Commercial Building	Plans received and plan check fees paid on 12/14/18. Customer picked up redlines on 12/31/18. Second plan check submitted on 1/11/19, and redlines picked up on 1/29/19. Third plan check submitted on 1/31/19. Final permit fees paid on 6/20/19 and permit issued on 6/25/19.
C0071-19-01	2277 Harbor Boulevard	Commercial Building	Plans received and plan check fees paid on 1/7/19. Customer picked up redlines on 1/25/19. Second plan check submitted on 1/28/19, and redlines picked up on 1/31/19. Final permit fees paid on 5/28/19. Permit issued on 5/30/19.
C0072-19-01	168 & 170 Cabrillo	Two Single Family Homes	Plans received and plan check fees paid on 1/14/19. Customer picked up redlines on 1/24/19. Customer submitted second plan check on 5/9/19. Second plan check submitted on 5/13/19 and redlines picked up on 5/20/19. Final permit fees paid on 9/26/19. Permit issued on 10/3/19.
C0073-19-02	55 Fair Drive	Vanguard University East Annex Science Modular	Plans received and meter replacement fees paid on 3/14/19. First plan check completed on 5/9/19 and redlines mailed on 5/14/19. Second plan check submitted 7/3/19. Precon held on 7/3/19. Servies installed on 8/8/19, Backflow prevention devices tested on 8/20/19.
C0074-19-01	2538 Oxford Lane	Single Family Home	Plans received and plan check fees paid on 11/14/18. Customer picked up redlines on 1/31/19. Second plan check submitted on 2/1/19, and redlines picked up on 2/5/19. Waiting for 3rd plan check submittal. Received fire department approval on 5/31/19.
C0077-19-01	1922 Pomona	Commercial Building	Plans received and plan check fees paid on 1/28/19. Customer picked up redlines on 2/1/19. Second plan check submitted on 2/5/19, and redlines picked up again on 2/12/19. Final fees paid on 2/27/19. Permit issued on 3/11/19. Precon meeting held on 3/19/19. Meter installed 3/28/19.

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PROJECT STATUS - DEVELOPER PROJECTS			
FILE NO.	PROJECT ADDRESS	PROJECT DESCRIPTION	PROJECT NOTES/STATUS
C0079-19-01	1957 Newport Boulevard	Meter Upgrade	Plans received and plan check fees paid on 2/5/19. Customer picked up redlines on 2/27/19. Meeting on 3/5/19 with customer to discuss easement. Second plan check was submitted on 4/23/19 and redlines to be picked up on 5/6/19. Third plan check submitted on 5/16/19. Permit approved on 8/23/19. Precon held on 9/3/19. Shutdown to tie in tee & valve service line placement and pipeline installation completed on 9/11/19.
C0082-19-01	3323 Hyland Avenue	Pipeline relocation	Plans received and plan check fees paid on 2/20/19. Customer picked up redlines on 3/4/19. Second plan check submitted 3/26/19, and redlines picked up on 4/2/19. Second plan check submitted 6/11/19, and redlines picked up on 6/18/19. Final permit fees paid on 7/23/19 and permit issued on 8/6/19. Waiting for Contractor to pick up permit.
C0084-19-01	410 E 17th Street	Commercial Business	Plans received and plan check fees paid on 2/20/19. Customer picked up redlines on 3/4/19. Second plan check submitted on 9/4/19 and redlines picked up on 9/10/19. 3rd Plan check submitted on 9/26/19.
C0085-19-01	3030 Airway Avenue, Suite B	Commercial Business	Plans received and plan check fees paid on 3/5/19. Customer picked up redlines on 3/12/19. Second plan check submitted 04/1/19, and redlines picked up on 4/8/19. Final permit fees paid on 5/2/19 and permit issued on 6/6/19. Precon held on 6/20/19. Backflow device tested 7/27/19. Existing meter downgraded on 7/30/19. Backflow tested on 8/7/19. Flow tests performed by customer service and operations on 9/11/19.
C0086-19-01	285 22nd Street	Residential Care Facility	Plans received and plan check fees paid on 3/11/19. Customer picked up redlines on 3/19/19. Second plan check submitted on 5/9/19. Customer to pick up Second plan check redlines on 5/6/19. Third plan check submitted on 5/14/19 and picked up on 5/30/19. Precon held on 8/30/19. Service connection on 9/3/19. Abandonments completed on 9/6/19. Meter installed on 9/12/19.
C0089-19-01	3160 Airport Way	John Wayne Airport Taxilot	Plans received and plan check fees paid on 4/8/19. 1st Plan Check submitted on 4/9/19. Second plan check submitted 04/19/19 and redlines picked up on 4/25/19. Final permit fees paid on 6/18/19.

## DEVELOPER PROJECT STATUS REPORT

PROJECT STATUS - DEVELOPER PROJECTS			
FILE NO.	PROJECT ADDRESS	PROJECT DESCRIPTION	PROJECT NOTES/STATUS
C0090-19-01	2831 Bristol Street	Parking Lot	Plans received and plan check fees paid on 4/9/19. 1st Plan Check submitted on 4/11/19. Customer picked up redlines on 4/16/19. Second plan check submitted 04/19/19 and redlines picked up on 4/25/19. Final permit fees paid on 5/2/19 and permit issued on 6/6/19. Precon held on 9/5/19. Backflow device tested on 4/25/19.
C0091-19-01	368 Magnolia	Single Family Home	Plans received and meter replacement fees paid on 4/15/19. First plan check submitted on 4/18/19 and redlines picked up on 4/23/19. Final permit fees paid on 5/20/19 and permit issued on 5/20/19. Precon held on 8/8/19. Service laterals installed and approved on 8/27/19.
C0092-19-01	Harbor and Hamilton	29 New Townhomes	Plans received and plan check fees paid on 4/23/19. First plan check submitted 4/23/19 and redlines to be picked up on 5/6/19. Second plan check submitted on 6/11/19 and redlines picked up on 6/18/19.
C0093-19-01	163 Broadway	Single Family Home	Plans received and meter replacement fees paid on 4/24/19. 1st Plan check submitted on 4/24/19 and redlines picked up on 5/6/19. Second plan check submitted on 5/13/19 and redlines picked up on 5/24/19. Final Permit fees paid on 7/3/19 and permit issued on 7/3/19. Precon held on 7/9/19.
C0095-19-01	272 Esther Street	Single Family Home	Plans received and plan check fees paid on 4/30/19. 1st Plan check submitted 4/30/19 and redlines to be picked up on 5/7/19. Second Plan check submitted 6/4/19 and redlines to be picked up on 6/11/19. Final permit fees paid on 8/27/19.
C0096-19-01	333 E. 17th Street, Suite 22	Commercial	Plans received and plan check fees paid on 4/30/19. 1st Plan check submitted 4/23/19 and redlines picked up on 5/9/19. Permit issued 9/6/19. Precon held on 9/12/19.
C0097-19-01	3505 Cadillac, Suite L-3	Commercial	Plans received and plan check fees paid on 4/30/19. 1st Plan check submitted 4/30/19 and redlines to be picked up on 5/9/19. Second plan check submitted on 6/4/19 and redlines picked up on 6/11/19. Final permit fees paid on 8/6/19 and permit picked up on 8/6/19. Precon conducted on 8/13/19. Hot-tapping, service line placement and thrustrblock placement completed on 8/29/19. Chlorination flush, pressure test and Bac-T sample on 9/3/19. Bac-T sample and backfill completed on 9/4/19. Backflow placement and test, and fireline charged on 9/11/19.

## DEVELOPER PROJECT STATUS REPORT

PROJECT STATUS - DEVELOPER PROJECTS			
FILE NO.	PROJECT ADDRESS	PROJECT DESCRIPTION	PROJECT NOTES/STATUS
C0099-19-01	3505 Cadillac, Suite E	Commercial	Plans received and plan check fees paid on 6/3/19. 1st Plan check submitted 6/3/19 and redlines picked up on 6/6/19. 2nd Plan check submitted on 6/10/19 and redlines picked up on 6/13/19. Final permit fees and permit picked up on 8/15/19. Precon conducted on 8/22/19, Bac-T samples taken on 8/27/19. Hot-tapping, service line placement and thrustrblock placement completed on 8/23/19. Backflow test and mainline turned on 9/5/19. Backflow preventers certified on 9/11/19. Fireline charged on 9/30/19.
C0101-19-01	1275 Bristol Avenue	Car Dealership	Plans received and plan check fees paid on 6/11/19. 1st Plan check submitted 6/11/19 and redlines picked up on 6/18/19. 2nd Plan check submitted on 8/13/19 and picked up on 8/20/19. 3rd Plan check submitted 9/3/19 and returned on 9/10/19. Permit approved and final fees paid on 10/24/19.
C0102-19-01	3560 Cadillac Avenue	Commercial	Plans received and plan check fees paid on 6/18/19. 1st Plan check submitted 6/18/19 and redlines to be picked up on 7/2/19. 2nd Plan check submitted on 7/9/19 and picked up on 7/16/19. Final permit fees paid and permit issued on 8/6/19.
C0103-19-01	150 Paularino	Commercial	Plans received and plan check fees paid on 6/18/19. 1st Plan check submitted 6/18/19 and redlines to be picked up on 7/3/19. 2nd Plan check submitted on 7/19/19 and picked up on 7/23/19. 3rd Plan check submitted on 8/20/19 and picked up on 8/28/19. 4th Plan check submitted on 9/3/19 and returned on 9/3/19. Permit fees paid on 9/11/19 and permit issued on 9/26/19. Precon held on 9/30/19. Services installed on 10/2/19.
C0104-19-01	413 E. 20th Street	Single Family Home	Plans received and plan check fees paid on 7/1/19. 1st Plan check submitted 7/1/19 and redlines picked up on 7/1/19.
C0105-20-01	3333 Avenue of the Arts	Commercial	Plans received and plan check fees paid on 7/24/19. 1st Plan check submitted 7/26/19 and redlines to be picked up on 7/26/19. 2nd Plan check submitted on 8/30/19 and resubmitted on 9/11/19. Third plan check resubmitted on 10/8/19. Permit approved and final fees paid on 10/24/19.

## DEVELOPER PROJECT STATUS REPORT

PROJECT STATUS - DEVELOPER PROJECTS			
FILE NO.	PROJECT ADDRESS	PROJECT DESCRIPTION	PROJECT NOTES/STATUS
C0106-20-01	224 Flower	Single Family Home	Plans received and plan check fees paid on 7/24/19. 1st Plan check submitted 7/26/19 and redlines picked up on 7/26/19. Second plan check submitted on 9/10/19 and picked up on 9/24/19. Third plan check resubmitted on 10/3/19. Permit approved and final fees paid on 10/24/19.
C0107-20-01	1835 Newport Blvd, Suite F	Commercial	Plans received and plan check fees paid on 7/15/19. 1st Plan check submitted 7/26/19 and redlines to be picked up on 7/26/19. Second plan check submitted on 7/30/19 and picked up on 8/6/19. Permit approved and final fees paid on 8/15/19. Precon held on 9/5/19 and again on 9/20/19. New 6-inch valve installed to assist with shutdowns on 9/30/19. Service line placement for 10/3/19. Pressure test completed on 10/4/19.
C0108-20-01	130 Magnolia Street	Single Family Home	Plans received and plan check fees paid on 7/30/19. 1st Plan check submitted 7/30/19 and redlines picked up on 8/6/19. Second plan check submitted on 9/18/19, and redlines picked up on 9/24/19. Permit approved and final fees paid on 9/30/19. Precon held on 10/2/19. Meter upgraded on 10/8/19. Flowthru system tested on 10/8/19.
C0110-20-01	861 Governor Street	Single Family Home	Plans received and plan check fees paid on 7/15/19. 1st Plan check submitted 7/26/19 and redlines picked up on 7/26/19.
C0112-20-01	1626 Ohms Way	Commercial	Plans received and plan check fees paid on 7/16/19. 1st Plan check submitted 7/29/19 and redlines picked up on 7/29/19. 2nd Plan check submitted 8/7/19 and picked up on 8/20/19. 3rd Plan check submitted on 8/22/19 and picked up on 8/29/19. Pre-con occurred on 10/30/19.
C0113-20-01	1588 South Coast Drive (Vans Headquarters)	Commercial	Plans received and plan check fees paid on 8/13/19. 1st Plan check submitted 8/13/19 and redlines picked up on 8/20/19. 2nd plan check submitted 9/12/19 and picked up on 10/1/19. 3rd plan check submitted 10/21/19 and picked up on 11/5/19.
C0114-20-01	279 Flower Street	Single Family Home	Plans received and plan check fees paid on 8/20/19. 1st Plan check submitted 8/27/19 and redlines picked up on 8/27/19. 2nd Plan check submitted on 10/8/19 and picked up on 10/9/19.
C0115-20-01	2179 Miner Street	Single Family Home	Plans received and plan check fees paid on 8/20/19. 1st Plan check submitted 8/27/19 and redlines picked up on 8/27/19.



## DEVELOPER PROJECT STATUS REPORT

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FILE NO.	PROJECT ADDRESS	PROJECT DESCRIPTION	PROJECT NOTES/STATUS
C0116-20-01	418 E. 18th Street	Single Family Home	Plans received and plan check fees paid on 10/7/19. 1st Plan check submitted 10/7/19 and redlines picked up on 10/16/19.
C0117-20-01	192 Flower Street	Single Family Home	Plans received and plan check fees paid on 10/7/19. 1st Plan check submitted 10/7/19 and redlines picked up on 10/16/19. 2nd Plan check submitted on 10/29/19.
C0118-20-01	487 Abbie Way	Single Family Home	Plans received and plan check fees paid on 10/14/19. 1st Plan check submitted 10/21/19 and redlines picked up on 10/21/19. Permit approved and final fees paid on 10/22/19.
C0119-20-01	1555 Adams Avenue, Suite 102	Commercial	Plans received and plan check fees paid on 10/14/19. 1st Plan check submitted 10/21/19 and redlines picked up on 10/21/19. Permit approved and final fees paid on 10/22/19.
C0120-20-01	934 Congress Street	Single Family Home	Plans received and plan check fees paid on 10/28/19. 1st Plan check submitted 10/28/19 and redlines picked up on 11/5/19.
C0121-20-01	372 Bucknell Road	Single Family Home	Plans received and plan check fees paid on 10/28/19. 1st Plan check submitted 10/28/19 and redlines picked up on 10/29/19.

## MESA WATER AND OTHER AGENCY PROJECTS STATUS REPORT

November 2019

**Project Title:** OC-44 Replacement and Rehabilitation Evaluation and Cathodic Protection Study

**File No.:** M 2034

**Description:** Evaluate potential repair and replacement options.

**Status:** The Habitat Mitigation and Monitoring Plan (HMMP) has been updated by Michael Baker (former RBF) to reflect the USACE's process and submitted to Mesa Water for review on 1/8/16. Once the HMMP is revised and approved (1/19/16) it will be forwarded to all agencies, including the Coastal Commission. Draft 1602 Streambed Permit obtained on 12/18/15. Final 1602 Streambed Permit pending CDFW will be issued while HMMP is accepted. U.S. Army Corps of Engineers' 404 permit received on 2/10/16. Revised HMMP sent to CCC for review and approval. Project is pending CCC's approval at an upcoming hearing. On 2/29/16, a meeting with Fletcher Jones Motorcars, City of Newport Beach, MBI (former RBF), and City of Huntington Beach was held to discuss issues associated with proposed construction activities. Traffic Plan prepared and submitted to the City of Newport Beach for approval on 6/29/16. Per request of CCC a dewatering plan was prepared and submitted for approval. Mesa Water staff, MBI and CCC met on 10/6/16 and discussed mitigation conditions. Project approved at CCC Public Hearing on 12/7/16. MBI is working on finalizing the HMMP and construction plans and will submit them to CCC. Staff met with MBI on 5/1/17 and discussed comments after reviewing the draft final HMMP. New proposed mitigation criteria received from CCC on 7/5/17 reducing mitigation requirements from 1.6 acres to 0.66 acres. Coastal Development Permit for Construction is anticipated in December, 2017. The project re-start meeting was held on 9/7/17. On 10/30/17 met with City of Newport Beach and City of HB to discuss permit requirements and project access. Met w/Fletcher Jones, Skender Construction, City of HB, MBI to discuss access to the site and scheduling on November 21, 2017. Reviewing the 100% Design Plans & Specs (received on 11/28/17) along with the Pipeline Design Schedule, Construction Monitoring Treatment Plan (CMTP), and proposal for Natural Resources/Regulatory Services during construction activities. Bid solicitation is scheduled for late January 2018. Project sent out to bid on January 30, 2018. Pre-bid meeting held on 2/15/18. Construction bid solicitation was cancelled due to ongoing coordination issues for the final Coastal Development permit. Project was deferred to FY20. On 8/1/18, Orange County Public Works issued a one-year extension to the previously issued Encroachment Permit. The Caltrans Encroachment Permit extension application is under review as of 8/13/18. The CCC extended the permit a year without hearing. MBI moved forward with the amendment to reduce mitigation. The updated information was forwarded by MBI to CCC in the week of August 6, 2018 and November 2, 2018. Staff held a stakeholder coordination meeting on 1/3/2019. Request for Bids sent out to contractors on February 6, 2019. Six bids received on 3/6/19. E&O Committee recommended award of the contract to lowest bidder (E.J. Meyer Company) on 3/19/19. Kick-off meeting held on 4/25/2019. Staff is working on reviewing submittals. Met with SARWQB on 5/24/19 and discussed water discharge permit requirements w/Susan Beeson. On 5/30/19 met with OCSD and went over requirements for the Special

## MESA WATER AND OTHER AGENCY PROJECTS STATUS REPORT

November 2019

Purpose Discharge Permit (SPDP). Held Project Progress meeting on 6/6/19 and coordination meeting with Metropolitan Water District on 6/20/19. Held Permit Status Meeting on 7/11/2019, Traffic Coordination Meeting with Fletcher Jones Mercedes Dealership on 7/23/2019 and Project Progress Meeting on 7/23/2019. Submitted Application Package to OCSD for SPDP on 7/31/2019. Received Special Purpose Discharge Permit from OCSD on September 1, 2019. Coordination meeting with Fletcher Jones and Project Progress Meeting was held on 9/11/19. Contractor mobilized on 9/15/19 and started dewatering efforts. Project in Progress. (10/3/19)

**Project Title:** Pipeline Testing Program

**File No.:** MC 2141

**Description:** Implement Resolution No. 1442 Replacement of Assets to annually perform non-destructive testing of 1% of the distribution system, and destructive testing of segments that are shown to have less than 70% of original wall thickness by non-destructive testing.

**Status:** Three miles of AC pipe constructed in 1956 were selected for non-destructive wall thickness measurement, which occurred during the week of January 14, 2019. The report was received on February 8, 2019. Five AC pipe samples are planned to be collected and sent for wall thickness measurements as part of routine valve replacements in April 2019. Samples were sent to the testing lab in May 2019, and the wall thickness measurement report was received on June 24, 2019. With more data collected from AC pipe samples, a proposed update the Res. 1442 Replacement of Assets was presented to the E&O Committee in September 2019. Staff is developing a more detailed process for understanding pipeline breaks, and planning for nondestructive testing of 5 miles of CMLC steel distribution pipelines. (11/8/19)

**Project Title:** Mesa Water Administration Building Improvements & HVAC Replacement/Operation Building Repair Projects

**File No.:** MC 2171

**Description:** Evaluate the existing HVAC system, provide recommendations for improved efficiency and operations of the system, provide design, construction management, and construction.

**Status:** On 2/11/19 Snyder completed painting, carpeting and concrete floor polishing, installation of interior portion of the HVAC system, ceiling tiles and baseboards, rehabilitation of the upstairs and downstairs restrooms, overall cleaning. Also the furniture in supervisors and water quality office were reassembled. The contractor continued working on the roof of the Ops Building on installation of ducts and preparing for the upcoming rain. Starting from February 15 the contractor worked on the HVAC replacement on the second floor of the Administration building and EOC. The work included demolishing of old ducted HVAC piping, blocking for HVAC units, installation of HVAC units, installation of refrigerant and condensate piping, electrical work, painting, installation of the ceiling and carpet tiles, new water fountains and partial demolition of roofing for HVAC platform installation. The work on the second floor was completed on 4/24/2019 and the contractor started working on the first floor on 4/30/2019. The work

## MESA WATER AND OTHER AGENCY PROJECTS STATUS REPORT

November 2019

included installation of HVAC units, installation of refrigerant and condensate piping, electrical work, and plumbing. Work on the first floor of the Administration Building including installation of skylight completed on 6/8/19. Project was completed on 9/20/19. The "Punch List" items will be addressed after 10/15/19. (10/3/19)

**Project Title:** Chandler & Croddy Wells and Pipeline Project

**File No.:** M18-113

**Description:** Design, documentation, and permitting for two new wells located on Chandler Avenue and Croddy Way in the City of Santa Ana and the distribution pipeline connecting the wells to Mesa Water's supply system.

**Status:** Tetra Tech has been contracted to complete the design, documentation, and permitting for the Chandler and Croddy Wells and Pipeline Project. Initial data request sent to Tetra Tech on September 7, 2017. Met with Division of Drinking Water regarding well locations on September 20, 2017. Preliminary hydrological evaluation received on September 29, 2017. Board approved demolition of existing structures and dedicated well facility with option to evaluate long-term lease potential as market conditions dictate at both sites at November 2017 E&O. Butier Engineering has been contracted to provide Construction Management Services. Preliminary Design Report (PDR) for the distribution pipeline was reviewed and returned on March 6, 2018. Well site layouts were presented to the Board in May. DDW waiver for 50-foot control zone is currently being drafted. The revised PDR for the pipeline and the well sites was received in June 2018. A workshop to discuss review comments was held on August 14, 2018. 50% design for the Croddy Pipeline was received and the design review workshop occurred on November 26, 2018. 50% design for the wells is scheduled for submittal in February 2019. The draft CEQA Mitigated Negative Declaration was received on January 22, 2019, and filed for 30-day public comment on February 20, 2019 and completed on March 22, 2019. Four agencies submitted minor comments. A public meeting to adopt the Mitigated Negative Declaration has been noticed for the April 11, 2019 Board of Directors meeting. The revised Preliminary Design Report for the Chandler and Croddy Wells was received on March 5, 2019. 50% design documents for the existing building demolitions and well drilling were received on April 16, 2019. 50% design documents for well equipping were received on September 9, 2019 and are being reviewed by staff. The design team met on October 7, 2019, to review design options for the Croddy Pipeline. (11/8/19).

**Project Title:** Meter Technology Evaluation

**File No.:** MC 2248

**Description:** The lifespan of a water meter is approximately 15 years. As a meter ages, the accuracy drops off due to wear. In preparation for its annual water meter replacement, staff has been reviewing water meter technology determining what water meter and reading solutions would be the best fit for Mesa Water's aging register technology. With today's technology, there are several types of meters and meter reading solutions available. The most common are as follows: Fixed Network, Automatic Meter Reading (AMR) System, Handheld or Touch Technology, and Advanced Metering Analytics - Cellular Endpoint.

## MESA WATER AND OTHER AGENCY PROJECTS STATUS REPORT

November 2019

**Status:** Mesa Water prepared a Technical Memo with information of the existing aging metering technology in comparison with proposed new meter reading solutions. The Technical memo was presented to the April E&O Committee and approved by the Board at the May 2019 Board meeting. Recommendations approved by the Board for early implementation include ensuring competitive pricing from the standardized meter supplier, making cellular endpoint meters available to customers who wish to have access to real-time water use data, and working with the meter reading software vendor to configure a software upgrade. Staff has compiled the total installed cost of the cellular endpoint meters and presented an implementation plan to the Engineering and Operations Committee on August 20, 2019. Staff also negotiated a contract with National Meter and Automation for preferred customer pricing and limiting annual price escalation, and presented the contract to the Engineering and Operations Committee on August 20, 2019. Staff is working with Badger Meter and Cogsdale to add cellular endpoints to large customer meters to automate meter reading and billing. Staff is evaluating each Route 600 meter and vault for meter, register, and end point replacement. (11/8/2019)

**Project Title:** Reservoirs 1 & 2 Chemical Systems Design

**File No.:** M18-117

**Description:** Improve disinfection and mixing in both reservoirs to improve water quality and minimize nitrification.

**Status:** Final Design Contract awarded to Hazen & Sawyer on February 14, 2018. 50% design report received on July 17, 2018. Design review workshop took place in September 2018. A site visit to Laguna Beach County's El Morro reservoirs occurred on November 8, 2018, to evaluate the Vortex mixing system. Staff met with the designer on December 5, 2018, to incorporate design-for-reliability and design-for-maintainability principals into the mixing system design. The consultant provided a Technical Memo summarizing the options for maintainability and reliability of the Vortex mixer system on April 4, 2019. The 90% design deliverable was received on June 4, 2019, and is being reviewed by staff. Per the E&O Committee's request, the Preliminary Design Report describing the basis of this project was included in the October E&O Committee package. The consultant is working with the reservoir management system supplier to utilize the Hach analytical equipment used District-wide to maintain disinfectant residual in the reservoirs.(11/8/2019)

# Water Quality Call Report

## October 2019

**Date:** 10/1/2019

**Source:** Phone

**Address:** 2282 Waterman Way

**Description:** Customer stated that someone from US Water called him to let him know his water is contaminated and he should get it tested.

**Outcome:** Customer added that he knows about the Annual Water Quality Report and he trusts Mesa Water. He just wanted to suggest that Mesa Water run a story in the newsletter to warn people about these types of calls. The suggestion was sent to Public Affairs.

**Date:** 10/2/2019

**Source:** Phone

**Address:** 1650 Monrovia

**Description:** Customer inquired on how to get laundry as white as possible.

**Outcome:** Suggested that customer go online to research solutions to his specific laundry questions, as Mesa Water staff are not experts in cleaning laundry. The level of hardness was provided per customer's request.

**Date:** 10/4/2019

**Source:** Phone (Duty)/Visit

**Address:** 2908 and 2909 Jacaranda

**Description:** Customers reported discolored water coming from the fixtures.

**Outcome:** Duty operator responded to the call. Staff was in the area earlier in the day performing hydrant maintenance and may have disturbed sediments in the line. The duty operator flushed the nearby fire hydrant to clear the sediments since the customers live at the end of the cul-de-sac with a dead-end line. The customers also flushed their internal lines until the water cleared up.

**Date:** 10/10/2019

**Source:** Phone (Duty)/Visit

**Address:** 2940 Java

**Description:** Customer called to report discolored water when taking a bath.

**Outcome:** The crew was replacing an angle stop and may have disturbed the line. Duty operator responded to the call and flushed the water until clear. Customer was satisfied.

**Date:** 10/11/2019

**Source:** Phone

**Address:** 3333 Bristol Street

**Description:** Customer called and wanted to make sure he can't get *Naegleria fowleri* (brain eating amoeba) from the tap water. He fills his neti pot from the tap at Nordstroms.

**Outcome:** Assured customer that the water meets all drinking water regulatory requirements. Provided customer with the average chlorine residual in the distribution system. Told customer that he should check with his doctor regarding his concern with *Naegleria fowleri* and using the tap water for his neti pot.

**Date:** 10/16/2019

**Source:** Phone

**Address:** 335 Nassau

**Description:** Customer inquired about PFOA/PFOS after reading an article in the LA Times.

**Outcome:** Let the customer know that sampling results for PFOA and PFOS were non-detect. Also e-mailed him the PFOA/PFOS fact sheet as recommended by Public Affairs.

**Date:** 10/23/2019

**Source:** Phone

**Address:** 1432 Deauville

**Description:** Customer wanted to be sure our water is safe because he is tired of paying for bottled water.

**Outcome:** Assured customer that our tap water meets all state and federal drinking water standards. Also provided customer with the Annual Water Quality Report.



## COMMITTEE POLICY & RESOLUTION REVIEW

### ENGINEERING and OPERATIONS COMMITTEE

#### Policy Assignments for 2019

Policy Name	Resolution No.	Date Adopted	Revision Schedule	Last Reviewed
Rules and Regulations for Water Service	1514	07/12/18	Review and update as needed  *Scheduled for the 11/25/19 Finance Committee Meeting	07/12/18
Replacement of Assets Including Pipeline and Well Rehabilitation	1525	10/10/19	Review and update every 5 years	10/10/19
Standard Specifications and Standard Drawings		05/03/18	Review and update as needed	05/03/18
Urban Water Management Plan	1477	06/09/16	Review and update as required every 5 years	06/09/16



Water Operations Status Report  
July 1, 2019 - October 31, 2019

Operations Department Status Report	Wk Unit	Plan Days	Act Days	Plan Qty	Act Qty	Plan Cost	Actual Cost
<b>01 - HYDRANTS</b>							
WD-0101 - HYDRANT MAINTENANCE	HYDRANTS	59	50	1184	996	\$23,492	\$20,667
WD-0102 - HYDRANT PAINTING	HYDRANTS	5	14	148	402	\$1,755	\$5,000
WD-0103 - HYDRANT REPAIR	HYDRANTS	18	15	21	22	\$5,820	\$7,564
<b>Program 01 TOTAL</b>		82	79			\$31,067	\$33,231
<b>02 - VALVES</b>							
WD-0201 - DISTRIBUTION VALVE MAINTENANCE	VALVES	42	28	842	599	\$18,227	\$12,290
WD-0202 - NIGHT VALVE MAINTENANCE	VALVES	6	0	82	0	\$2,786	\$0
<b>Program 02 TOTAL</b>		48	28			\$21,013	\$12,290
<b>03 - METERS</b>							
WD-0305 - ANGLE STOP/BALL VALVE REPLACE	REPLACE	9	13	18	25	\$5,764	\$4,607
<b>Program 03 TOTAL</b>		9	13			\$5,764	\$4,607
<b>04 - MAIN LINES</b>							
WD-0401 - MAIN LINE REPAIR	REPAIRS	42	26	7	5	\$21,161	\$12,562
WD-0402 - AIR VAC MAINTENANCE/REPAIR	REPAIRS	9	7	56	26	\$3,430	\$2,317
<b>Program 04 TOTAL</b>		51	33			\$24,591	\$14,879
<b>05 - SERVICE LINES</b>							
WD-0501 - SERVICE LINE REPAIR	REPAIRS	20	29	7	13	\$8,381	\$13,190
<b>Program 05 TOTAL</b>		20	29			\$8,381	\$13,190
<b>06 - CAPITAL</b>							
CAP AV - CAPITAL AIR VACUUM REPLACE	AIR VACS	0	5	0	1	\$0	\$1,808
CAP BI - CAPITAL BYPASS & METER INSTALL	REPLACE	0	0	0	0	\$0	\$0
CAP FH - CAPITAL HYDRANT UPGRADE	HYDRANTS	84	29	12	5	\$64,237	\$25,109
CAP MV - CAPITAL MAINLINE VALVE REPLACE	VALVES	69	57	12	6	\$46,572	\$30,355
CAP SL - CAPITAL SERVICE LINE REPLACE	SERVICES	13	20	4	5	\$7,185	\$10,282
CAP SS - CAPITAL SAMPLE STATION REPLACE	STATIONS	0	1	0	1	\$0	\$184
<b>Program 06 TOTAL</b>		166	112			\$117,994	\$67,738
<b>VACANT POSITIONS</b>	2		181				
<b>TOTAL</b>						\$208,810	\$145,935



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## MEMORANDUM

TO: Engineering and Operations Committee  
FROM: Phil Lauri, P.E., Assistant General Manager  
DATE: November 19, 2019  
SUBJECT: OC-44 Pipeline Rehabilitation Project

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### RECOMMENDATION

Receive the presentation.

### STRATEGIC PLAN

Goal #1: Provide a safe, abundant, and reliable water supply.

Goal #2: Practice perpetual infrastructure renewal and improvement.

### PRIOR BOARD ACTION/DISCUSSION

At its February 12, 2013 meeting, the Board of Directors (Board) awarded a contract to RBF Consulting for the OC-44 Pipeline Rehabilitation/Replacement Evaluation.

At its December 16, 2013 meeting, the Board authorized execution of a contract change order to RBF Consulting for the design of the OC-44 Pipeline Rehabilitation.

At its April 9, 2015 meeting, the Board reviewed and discussed the Initial Study/Mitigated Negative Declaration (IS/MND), conducted a public hearing, and adopted the IS/MND.

At its March 16, 2016 meeting, the Board was updated on the design and permitting requirements associated with the OC-44 Pipeline Rehabilitation.

At its September 19, 2017 meeting, the Board was updated on the mitigation requirements, permitting status and anticipated project schedule.

At its March 8, 2018 meeting, the Board awarded a contract to Dudek Engineering to provide Construction Management Services for the OC-44 Pipeline Rehabilitation Project in the amount of \$253,720 and a 10% contingency for an amount not to exceed \$279,092, and authorized execution of the contract.

At its January 15, 2019 meeting, the Engineering and Operations (E&O) Committee received information on the OC-44 Pipeline Rehabilitation Project and that staff would be soliciting construction bids to allow for timely procurement of long lead-time materials and equipment.

At its April 11, 2019 meeting, the Board awarded a contract to E.J. Meyer Company to provide Construction Services for the OC-44 Pipeline Rehabilitation Project for \$3,133,333 and a 10% contingency for an amount not to exceed \$3,446,666, and authorized execution of the contract.



### DISCUSSION

Staff will provide a presentation to the Board that includes an overview of the ongoing OC-44 Pipeline Rehabilitation Project.

### FINANCIAL IMPACT

None.

### ATTACHMENTS

None.



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## MEMORANDUM

TO: Engineering and Operations Committee  
FROM: Phil Lauri, P.E., Assistant General Manager  
DATE: November 19, 2019  
SUBJECT: Fiscal Year 2019 Water Loss Audit

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### RECOMMENDATION

Receive the presentation.

### STRATEGIC PLAN

Goal #1: Provide a safe, abundant, and reliable water supply.

Goal #2: Practice perpetual infrastructure renewal and improvement.

### PRIOR BOARD ACTION/DISCUSSION

At its May 17, 2016 meeting, the Engineering and Operations (E&O) Committee received an information item entitled, "Water Loss Update."

At its October 16, 2018 meeting, the E&O committee received a presentation on the results of the Fiscal Year (FY) 2018 Water Loss Audit.

### BACKGROUND

California Senate Bill No. 555 requires urban retail water suppliers to perform an annual water audit using the American Water Works Association's (AWWA) Free Water Audit Software, version 5.0. The water audit must be validated by a third party certified Water Audit Validator. The validated water audit must be submitted to the State Department of Water Resources by October 1<sup>st</sup> of each year. Mesa Water District's (Mesa Water) FY 2019 Water Loss Audit is included as Attachment A.

### DISCUSSION

The annual water loss audit starts with a water balance for water that entered the distribution system (water supplied) and water that reached customer meters (water consumed). The difference between water supplied and water consumed is considered water loss. The water loss is further classified and adjusted by production meter and customer meter accuracy testing, estimates of authorized consumption but unmetered water uses, estimates of water theft, and estimates of billing errors. Water losses are characterized as Apparent (or unavoidable) Losses or Real Losses. An example of an Apparent Loss is billing errors, and an example of a real loss is a main line break. Costs are applied to the losses, and a total cost impact is calculated for evaluation. Operations data is also used to normalize the water losses to system pressure and number of connections. To compare urban systems (more than 3000 customers) on the same scale, the Infrastructure Leakage Index (ILI) is calculated as a ratio of the actual water loss to the theoretical minimum water loss given the system pressure, length of main lines, and number of connections based on industry standards.

For each input to the water loss audit, the validity of the input is scored by the third party water



audit validator based on criteria in AWWA M36 Water Audits and Loss Control Programs, Fourth Edition. A final data validity score is an output of the AWWA Free Water Audit Software. It is a weighted calculation based on inputs, and normalized to a 100-point scale. The algorithm for the weighting and normalization is proprietary. A data validity score of 51 or higher indicates actionable data for setting goals and strategies for water loss improvement.

**Fiscal Year 2019 Water Loss Audit Results**

Table 1 summarizes Mesa Water’s Water Loss Audit Key Performance Indicators (KPI), and compares Mesa Water’s FY 2019 performance to aggregated data from Water Loss Audits submitted by October 1, 2019. Of the water produced by Mesa Water, only 2.17% is attributed to real losses from breaks and background leakage, and is considered the actual loss from leaking infrastructure. State statistics on real water loss percentages are not available for comparison. Rather than comparing agencies on percentage of real loss, the State standard for comparing real loss is normalized to gallons of real loss per connection per day. For FY 2019, Mesa Water’s real loss was calculated to be 12.25 gallons per connection per day, and its Infrastructure Leakage Index (ILI) of 0.69 are in the best quartile of all of the agencies reporting in 2019. Mesa Water’s data validity score of 84 is among the best in the State.

**Table 1. Water Loss Audit Key Performance Indicators**

KPI	Target	Mesa Water	State of CA Agency Average	MWDOC Member Agency Average
Real Loss (as percent of water supplied)	Low	2.17%	Not Tracked	Not Tracked
Real Loss (Gal/connection/day)	Low	12.25	29.7	18.9
Infrastructure Leakage Index (ILI)	Low	0.69	1.79	1.14
Data Validity	High	84	65	68

**FINANCIAL IMPACT**

In Fiscal Year 2020, no funds are budgeted for Water Loss Audits; no funds have been spent to date.

**ATTACHMENTS**

Attachment A: Fiscal Year 2019 Validated Water Loss Audit

# AWWA Free Water Audit Software: Reporting Worksheet

WAS v5.0

American Water Works Association,  
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 +

**Water Audit Report for:** Mesa Water District (CA30100004)  
**Reporting Year:** 2019      7/2018 - 6/2019

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

**All volumes to be entered as: ACRE-FEET PER YEAR**

To select the correct data grading for each input, determine the highest grade where

**WATER SUPPLIED**

----- Enter grading in column 'E' and 'J' ----->

Volume from own sources:	+ ? 7	13,375.500	acre-ft/yr
Water imported:	+ ? 7	2,492.333	acre-ft/yr
Water exported:	+ ? n/a		acre-ft/yr

**Master Meter and Supply Error Adjustments**

Pcnt:	Value:		acre-ft/yr
+ ? 10	0.40%	<input type="radio"/>	
+ ? 7	-0.30%	<input checked="" type="radio"/>	
+ ?		<input type="radio"/>	

Enter negative % or value for under-registration  
 Enter positive % or value for over-registration

**WATER SUPPLIED:** 15,822.044 acre-ft/yr

**AUTHORIZED CONSUMPTION**

Billed metered:	+ ? 10	15,023.590	acre-ft/yr
Billed unmetered:	+ ? n/a		acre-ft/yr
Unbilled metered:	+ ? n/a		acre-ft/yr
Unbilled unmetered:	+ ? 10	97.160	acre-ft/yr

Click here: ?  
 for help using option buttons below

Pcnt:	Value:		acre-ft/yr
<input type="radio"/>	<input checked="" type="radio"/>	97.160	

Use buttons to select percentage of water supplied OR value

**AUTHORIZED CONSUMPTION:** 15,120.750 acre-ft/yr

**WATER LOSSES (Water Supplied - Authorized Consumption)**

701.294 acre-ft/yr

**Apparent Losses**

Unauthorized consumption:	+ ? 9	4.000	acre-ft/yr
Customer metering inaccuracies:	+ ? 9	342.668	acre-ft/yr
Systematic data handling errors:	+ ? 9	11.310	acre-ft/yr

Pcnt:	Value:		acre-ft/yr
<input type="radio"/>	<input checked="" type="radio"/>	4.000	

2.23%	<input checked="" type="radio"/>		acre-ft/yr
<input type="radio"/>	<input checked="" type="radio"/>	11.310	acre-ft/yr

**Apparent Losses:** 357.978 acre-ft/yr

**Real Losses (Current Annual Real Losses or CARL)**

**Real Losses = Water Losses - Apparent Losses:** 343.316 acre-ft/yr

**WATER LOSSES:** 701.294 acre-ft/yr

**NON-REVENUE WATER**

**NON-REVENUE WATER:** 798.454 acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

**SYSTEM DATA**

Length of mains:	+ ? 9	328.4	miles
Number of active AND inactive service connections:	+ ? 9	25,013	
Service connection density:	? 76		conn./mile main

Are customer meters typically located at the curbside or property line?

Average length of customer service line:  (length of service line, beyond the property boundary, that is the responsibility of the utility)

**Average length of customer service line has been set to zero and a data grading score of 10 has been applied**

Average operating pressure:  psi

**COST DATA**

Total annual cost of operating water system:	+ ? 10	\$25,247,466	\$/Year
Customer retail unit cost (applied to Apparent Losses):	+ ? 9	\$4.06	\$/100 cubic feet (ccf)
Variable production cost (applied to Real Losses):	+ ? 7	\$613.43	\$/acre-ft <input type="checkbox"/> Use Customer Retail Unit Cost to value real losses

**WATER AUDIT DATA VALIDITY SCORE:**

**\*\*\* YOUR SCORE IS: 84 out of 100 \*\*\***

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

**PRIORITY AREAS FOR ATTENTION:**

Based on the information provided, audit accuracy can be improved by addressing the following components:

- 1: Volume from own sources
- 2: Variable production cost (applied to Real Losses)
- 3: Water imported

## AWWA Free Water Audit Software: System Attributes and Performance Indicators

WAS v5.0

American Water Works Association.  
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Water Audit Report for: Mesa Water District (CA30100004)  
 Reporting Year: 2019 | 7/2018 - 6/2019

\*\*\* YOUR WATER AUDIT DATA VALIDITY SCORE IS: 84 out of 100 \*\*\*

### System Attributes:

	Apparent Losses:	357.978	acre-ft/yr
+	Real Losses:	343.316	acre-ft/yr
=	<b>Water Losses:</b>	<b>701.294</b>	acre-ft/yr

? avoidable Annual Real Losses (UARL): 495.43 acre-ft/yr

Annual cost of Apparent Losses: \$633,096

Annual cost of Real Losses: \$210,600

Valued at **Variable Production Cost**

Return to Reporting Worksheet to change this assumption

### Performance Indicators:

Financial:	{	Non-revenue water as percent by volume of Water Supplied:	5.0%	
		Non-revenue water as percent by cost of operating system:	3.6%	Real Losses valued at Variable Production Cost

Operational Efficiency:	{	Apparent Losses per service connection per day:	12.78	gallons/connection/day
		Real Losses per service connection per day:	12.25	gallons/connection/day
		Real Losses per length of main per day*:	N/A	
		Real Losses per service connection per day per psi pressure:	0.15	gallons/connection/day/psi

From Above, Real Losses = Current Annual Real Losses (CARL): 343.32 acre-feet/year

? Infrastructure Leakage Index (ILI) [CARL/UARL]: 0.69

\* This performance indicator applies for systems with a low service connection density of less than 32 service connections/mile of pipeline

# AWWA Free Water Audit Software: Water Balance

WAS v5.0

American Water Works Association.  
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Water Audit Report for:	<b>Mesa Water District (CA30100004)</b>	
Reporting Year:	<b>2019</b>	<b>7/2018 - 6/2019</b>
Data Validity Score:	<b>84</b>	

	Water Exported	Billed Water Exported				
	<i>0.000</i>		Billed Authorized Consumption	Billed Metered Consumption (water exported is removed)	Revenue Water	
<b>Own Sources</b> (Adjusted for known errors)  <b>13,322.211</b>	<b>Water Supplied</b>  <b>15,822.044</b>	<b>Authorized Consumption</b>  <b>15,120.750</b>	<b>15,023.590</b>	<b>15,023.590</b>	<b>15,023.590</b>	
			<b>Unbilled Authorized Consumption</b>	<b>0.000</b>		
		<b>Water Losses</b>  <b>701.294</b>	<b>Apparent Losses</b>  <b>357.978</b>	<b>97.160</b>	<b>0.000</b>	<b>Non-Revenue Water (NRW)</b>  <b>798.454</b>
				<b>Unbilled Authorized Consumption</b>	<b>97.160</b>	
				<b>Unauthorized Consumption</b>	<b>4.000</b>	
		<b>Water Imported</b>  <b>2,499.832</b>	<b>Real Losses</b>  <b>343.316</b>	<b>97.160</b>	<b>342.668</b>	
<b>Unbilled Authorized Consumption</b>	<b>11.310</b>					
<b>Unauthorized Consumption</b>	<b>Not broken down</b>					
			<b>342.668</b>			
			<b>11.310</b>			
			<b>Not broken down</b>			
			<b>Not broken down</b>			
			<b>Not broken down</b>			





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## MEMORANDUM

TO: Engineering and Operations Committee  
FROM: Kurt Lind, Business Administrator  
DATE: November 19, 2019  
SUBJECT: Fiscal Year 2019 Customer Service Audit

---

### RECOMMENDATION

Receive the presentation.

### STRATEGIC PLAN

Goal #5: Attract and retain skilled employees.  
Goal #6: Provide outstanding customer service.

### PRIOR BOARD ACTION/DISCUSSION

At its March 7, 2019 Workshop, the Board of Directors (Board) received a presentation item on the 2<sup>nd</sup> Quarter results of the Fiscal Year (FY) 2019 Customer Service Audit.

### BACKGROUND

In 2016, Moran Consulting, Inc. (Moran) was selected through a competitive bid process to evaluate Mesa Water District's (Mesa Water®) customer service processes. Based on their findings, Moran developed and implemented a training program to elevate customer service to an elite level. To ensure this high level of customer service continues to be provided by Mesa Water, an accountability program that includes routine audits and additional training was implemented.

### DISCUSSION

The Customer Service Audit focuses on the following key performance indicators:

- Overall Customer Satisfaction
- First Call Resolution
- Overall Call Quality
- Speed to Answer
- Call Abandonment

Overall KPI scores of 91% and 92% were achieved for the FY 2019 third and fourth quarter audits. This marks the first time that staff has achieved and maintained the gold status. These scores demonstrate a strong commitment to service excellence for our Mesa Water customers. Going forward, Mesa Water is focused on maintaining this high level of Elite Customer Service.

A gold performance level of 100% was achieved in Overall Customer Satisfaction which is based on customer feedback provided via phone and walk-in surveys. Staff also achieved a gold performance level of 94% for Overall Call Quality which is based on the Customer Services Manager's review and evaluation of recorded customer phone calls and validated further by Mesa Water's third party auditor.



In addition to identifying and coaching through the challenges associated with Mesa Water's goal of maintaining an Elite Customer Service performance level, Moran will continue to perform similar reviews on a quarterly basis to ensure long-term monitoring for success. Going forward, the Board will be provided the annual results at the end of each fiscal year.

#### FINANCIAL IMPACT

In Fiscal Year 2019, \$17,000 was budgeted for the task Conducting Audit and Report on Quarterly Customer Service Metrics; \$17,000 has been spent to date.

#### ATTACHMENTS

Attachment A: FY 2019 Customer Service Audit Report



### Customer Service Dashboard

Key Performance Indicator	Industry Standard	Best Practice	KPI Weight	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Current Qtr Trend	New Goal
<b>Overall Customer Satisfaction</b>									
Phone: Very Satisfied / Satisfied	72%	90%	30%	98%	91%	96%	100%	Improved	98%
Walk-in: Very Satisfied / Satisfied			5%	95%	91%	93%	100%		
<b>First Call Resolution</b>									
Percentage of customers whose needs were met on the first call.	95%	97%	20%	76%	88%	89%	90%	Improved	97%
<b>Overall Call Quality: Call Center Evaluations</b>									
Average Score of all Call Center Evaluations conducted. (Scale is 1-12)	N/A	N/A	20%	86%	90%	96%	94%	Fluctuating	100%
<b>Service Level Agreement (Speed to Answer)</b>									
Percentage of calls answered within 10 seconds.	No data	100% within 20 seconds	15%	77%	70%	75%	75%	Fluctuating	90% within 10 seconds
<b>Call Abandonment Rate</b>									
Percentage of customers who hang up before an agent answers.	8%	2%	10%	4.57%	6.80%	5.97%	7.93%	Fluctuating	2%
<b>Current Qtr Audit Overall KPI Score</b>									
Combined and weighted five KPI's (above).	72%	90%	N/A	88%	87%	91%	92%	Improved	95%

Below Average Performance for Overall Satisfaction <72%
Industry Average for Overall Satisfaction - 72-89%
Industry Best Practice for Overall Satisfaction - >90%

**REPORTS:**

9. REPORT OF THE GENERAL MANAGER

**REPORTS:**

10. DIRECTORS' REPORTS AND COMMENTS