



*Dedicated to  
Satisfying our Community's  
Water Needs*

**AGENDA  
MESA WATER DISTRICT  
BOARD OF DIRECTORS  
Tuesday, October 17, 2017  
1965 Placentia Avenue, Costa Mesa, CA 92627  
3:30 p.m. Special Board Meeting**

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**ENGINEERING AND OPERATIONS COMMITTEE MEETING  
Tuesday, October 17, 2017 at 3:30 p.m.**

**CALL TO ORDER**

**PLEDGE OF ALLEGIANCE**

**PUBLIC COMMENTS**

**Non-Agendized Matters:** Members of the public are invited to address the Board on matters which are not on the Agenda. Each speaker is limited to three (3) minutes. The Board will set aside thirty (30) minutes for public comments.

**Agendized Matters:** 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 five (5) minutes.

**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 or Development
5. Water Operations Status Report

**PRESENTATION AND DISCUSSION ITEMS:**

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

6. City/Districts Liaison Committee Topic Update – Public Restrooms for the Homeless
7. Main Line Break Summary Report

**ACTION ITEMS:**

8. Valve Replacements Project
9. Well Automation and Rehabilitation Project - Construction Management

**REPORTS:**

10. Report of the General Manager
11. 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 2149	1620-1644 Whittier Ave and 970 16th St	89 Single Family Homes	Plans received and plan check fees paid 2/2/14. Permit issued on 7/23/15. Pre-con meeting held on 7/27/15. Pipeline installation on 10/21/15. Pressure test and chlorination on 11/5/15. Bac-T testing completed on 11/24/15 and 11/25/15. Waterline tied-in at Whittier, Newhall, and West 16th Street and angle-stops locked on 12/14/15. 4 - 1" meters installed on model homes on 2/25/16. 1 - 1.5" irrigation meter and 1 - 1" domestic meter installed and locked on 4/5/16. Inspected rock base on 7/11/16. Installed 7 - 1" meters on 7/13/16. Flow-thru tested on 8/25/16 and 9/8/16. Rock base and meters installed on 11/3/16. Flow-thru check on 12/1/16. Flow-thru check on 4/5/17. Meters installed on 8/21/17. Meter box placement on 10/5/17. (10/13/17)
MC 2177	125 East Baker Street	240 Unit Apartment Complex	Concept plans received and plan check fees paid on 6/11/15. Final mylars and payment received and permit issued on 5/4/16. Permit issued on 5/10/16. Precon held on 5/24/16. Abandoned water connections on 6/28/16. Installed hydrant, domestic, and fireline tap on 7/7/16. Abandoned 2 services on 7/27/16. Installed 1 fire hydrant on 8/1/16. Pipeline lateral installed on 10/5/16. Backflows tested on 10/24/16. Turned on mainline on 11/18/16. Site visit on 10/4/17, construction of parking garage and apartment complex in progress. Irrigation meters will be installed near project completion. (10/13/17)
MC 2196	580 Anton Ave	250 Unit Apartment Complex	Plans received and plan check fees paid on 7/28/15. Plan check comments returned 8/28/15, requesting information to complete a hydraulic model. Requested information provided on 10/25/15. Hydraulic model initiated on 11/5/15. Hydraulic model completed on 2/1/16. Mesa Water system improvements are not required. Fees paid and permit issued on 2/9/16. Pre-con held on 2/29/16. Abandoned waterline on 3/15/16. Shutdown test on 7/19/16. Valve replaced on 10/3/16 to allow for abandonment. Pressure test and backflow placement on 3/6/17. Bac-t test on 3/18/17. Site visit and abandonment coordination on 10/3/17. (10/13/17)

# DEVELOPER PROJECT STATUS REPORT

PROJECT STATUS - DEVELOPER PROJECTS			
FILE NO.	PROJECT ADDRESS	PROJECT DESCRIPTION	PROJECT NOTES/STATUS
MC 2204	1672 Placentia	31 Single Family Homes	Plans received and plan check fees paid on 8/26/15. Plan check picked up by customer on 10/6/15. Second plan check submitted on 2/11/16 and returned on 2/26/16. Mylars submitted, fees paid, and permit issued on 5/5/16. Tee cut-ins on 6/22/16. Pressure Test and Bac-T test on 7/7/16. Water main turned on 7/21/16. Services installed and locked off on 9/6/16. Meter installation on 10/28/16. Backflows tested on 11/16/16. Backflow tested on 12/9/16. Rock base on 2/1/17. Service placement on 2/16/17. Meters installed on 3/28/17. Backflows tested on 3/30/17. Meters installed on 6/5/17. Site visit to check progress on 10/4/17. (10/13/17)
MC 2208	353 & 355 Rochester St.	2 Single Family Homes	Plans received and plan check fees paid on 9/22/15. First submittal picked up on 10/23/15. Second plan check submitted on 11/19/15. Second plan check completed 12/3/16. Second plan check picked up from counter on 2/29/16. Third plan check submitted on 3/14/16. Fees paid and permit issued on 11/4/16. Pre-con held on 8/2/17. Meter placement on 8/28/17. (10/13/17)
MC2232	189-191 Merrill Place	2 Single Family Homes	Plans received and plan check fees paid on 2/1/16. Plan check completed on 2/12/16 and picked up on 2/29/16. Second plan check received on 3/10/16. Fees paid and permit issued on 5/8/17. Meters installed on 7/27/17. (10/13/17)
MC2233	1560 Placentia	81 Single Family Homes	Plans received and plan check fees paid on 1/20/16. Request for additional information requested on 1/28/16. Requested information submitted on 2/24/16. Plan check picked up on 4/18/16. Second plan check submitted on 5/18/16. Mylar drawings and fee payment received on 7/5/16. Permit issued on 7/11/16. Mainline installed on 8/24/16. Hydrant laterals installed on 8/25/16. Services installed on 9/1/16. Mainline installed on 9/20/16. Pressure and Bac-T test on 9/28/16. Laterals installed on 9/29/16 and 10/5/16. Mainline charged on 10/17/16. Angle stop adjusted on 12/6/16. Meter and meter box placement on 1/5/17. Services adjusted to grade on 3/2/17. Meter installation on 5/3/17. Site coordination meeting on 7/26/17. Service placement on 9/6/17. (10/13/17)

# DEVELOPER PROJECT STATUS REPORT

PROJECT STATUS - DEVELOPER PROJECTS			
FILE NO.	PROJECT ADDRESS	PROJECT DESCRIPTION	PROJECT NOTES/STATUS
MC2235	671 W 17th Street	177 Condos	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. (10/13/17)
MC2236	527-531 Bernard Street	10 Single Family Homes	Plans received and plan check fees paid on 2/8/16. Plan check returned on 2/12/16. Second plan check received on 4/21/16. Fees paid and permit issued on 6/13/16. Manifold installed on 7/19/16. Meter placement on 5/18/17. Meter boxes cleared of construction debris on 9/5/17. (10/13/17)
MC2243	165-171 22nd Street	2 Single Family Homes	Plans received and plan check fees paid on 4/20/16. Plan check picked up on 5/17/16. Fees paid and permit issued on 11/18/16. Water service installed on 12/1/16. Rock base installed on 1/3/17. Meters installed on 4/5/17. Relocate service and meter outside of driveway on 8/1/17. One flow thru test on 9/6/17. (10/13/17)
MC2245	522-526 Bernard Street	10 Single Family Homes	Plans received and plan check fees paid on 5/11/16. Second plan check received on 6/10/16. Second plan check returned on 6/22/16. Permit issued on 7/11/16. Manifold installed on 7/19/16. Regular inspection site visit on 11/4/16 with no progress to report. Site visit on 10/4/17, homes in construction. (10/13/17)
MC2247	1808-1810 Pomona Ave	2 Single Family Homes	Plans received and plan check fees paid on 5/20/16. Second plan check received on 6/23/16. Second plan check returned on 7/11/16. Fees paid and permit issued on 7/28/16. Pre-con on 9/9/17. (10/13/17)
MC2252	1100 South Bristol Street	Ganahl Lumber	Plans received and plan check fees paid on 6/1/16. Hydrant flow test completed on 9/7/16. Final plan check completed and returned on 10/28/16. Fees paid and permit issued on 11/29/16. Pre-con held on 4/17/17. Potholing inspection on 5/8/17. Mainline installation on 6/6/17. Fireline installation on 6/29/17. Backflow tested on 7/13/17. Irrigation meter placement on 9/7/17. (10/13/17)

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FILE NO.	PROJECT ADDRESS	PROJECT DESCRIPTION	PROJECT NOTES/STATUS
C003-16-01	788 Center Street	2 Single Family Homes	Plans received and plan check fees paid on 6/28/16. Plans returned on 7/14/16. Fees paid and permit issued on 1/6/17. Owner contact on 9/25/17, construction to begin in December 2017. (10/13/17)
C004-16-01	2073-2080 Tablelands Way	8 Single Family Homes	Plans received and plan check fees paid on 6/23/16. Resubmittal received on 7/29/16. Fees paid and permit issued on 8/24/16. Manifold installed on 9/27/16. Meters and backflows installed on 11/13/16. Meters installed on 5/31/17. (10/13/17)
C0005-17-01	22nd and Santa Ana	12 Single Family Homes	Plans received and plan check fees paid on 7/22/16. Plans returned on 8/3/16. Fees paid and permit issued on 9/28/16. Manifold installed on 11/2/16. Service abandonment on 12/7/16. Meter installation on 12/19/16. Meters installed on 3/15/17. Site visit on 6/16/17, homes under construction. (10/13/17)
C0006-17-01	155 Flower Street	2 Single Family Homes	Plans received and plan check fees paid on 8/1/16. Plans returned on 8/11/16. Fees paid and permit issued on 9/22/16. Service installation on 6/8/17. Meter installation on 7/3/17. (10/13/17)
C0006-17-02	163 Flower Street	2 Single Family Homes	Plans received and plan check fees paid on 8/1/16. Plans returned on 8/11/16. Fees paid and permit issued on 9/22/16. Service installation on 6/8/17. Meter installation on 7/3/17. (10/13/17)
C0008-17-01	410 Walnut Place	4 Single Family Homes	Plans received and plan check fees paid on 8/10/16. Plans returned on 8/24/16. Awaiting resubmittal. Fees paid and permit issued on 4/7/17. Service installation on 7/5/17. Meters installed on 7/13/17. (9/11/17)
C0010-17-01	1053 W. Wilson	2 Single Family Homes	Plans received and plan check fees paid on 8/30/16. Plans picked up on 10/4/16. Fees paid and permit issued on 11/18/16. Pre-con on 6/5/17. Meters installed on 7/11/17. Meter box placement on 9/19/17. (10/13/17)
C0012-17-01	2626 Harbor Blvd	33 Detached Condos	Plans received and plan check fees paid on 9/15/16. Plans picked up on 10/18/16. Plans submitted for second plan check on 12/6/16. Fees paid and permit issued on 3/24/17. Mainline turned on 5/8/17. Gravel base on 6/16/17. Meters installed on 7/26/17. Gravel base on 10/3/17. (10/13/17)
C0012-17-02	929 Baker Street	55 Detached Condos	Plans received and plan check fees paid on 9/27/16. Plans picked up on 10/18/16. Plans submitted on 2/22/17. Plans returned on 3/6/17. Fees paid and permit issued on 3/21/17. Precon held on 6/1/17. Mainline turned on 9/14/17. (10/13/17)

# DEVELOPER PROJECT STATUS REPORT

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FILE NO.	PROJECT ADDRESS	PROJECT DESCRIPTION	PROJECT NOTES/STATUS
C0013-17-01	2803 Royal Palm Drive	Fire Station	Plans received and plan check fees paid on 8/25/16. Plans picked up on 10/4/16. Plans resubmitted on 3/1/17. Fees paid and permit issued on 5/5/17. City has issued a contract for construction, awaiting call for inspection of water utility. (10/13/17)
C0014-17-01	Segerstrom Center for the Arts	Water Main Relocation	Plans received and plan check fees paid on 10/19/16. Plans picked up on 11/5/16. Fees paid and permit issued on 2/16/17. Mainline placement on 4/7/17. Mainline tie-in on 4/19/17. Site coordination meeting on 7/3/17. Service abandonment on 9/10/17. (10/13/17)
C0015-17-01	548 Victoria Street	5 Single Family Homes	Plans received and plan check fees paid on 10/26/16. Plans returned on 11/9/16. Awaiting final fee payment. Owner notified project will be voided on 10/27/17. (10/13/17)
C0017-17-01	166 Rochester	2 Single Family Homes	Plans received and plan check fees paid on 12/7/16. Plans returned on 12/15/16 and resubmitted on 1/5/17. Fees paid and permit issued on 5/5/17. Precon held on 10/4/17. (10/13/17)
C0018-17-01	1951 Tustin	2 Single Family Homes	Plans received and plan check fees paid on 12/6/16. Plans returned on 12/7/16. Fees paid and permit issued on 4/13/17. Owner indicated construction to begin in February. (10/13/17)
C0021-17-01	2068 Maple Ave	4 Single Family Homes	Plans received and plan check fees paid on 1/13/17. Fees paid and permit issued on 4/21/17. Hot-tap on 5/31/17. Meter box installed on 6/28/17. Backflow tested on 9/13/17. (10/13/17)
C0024-17-01	1989 Orange	Meter Upgrade	Plans received and plan check fees paid on 3/27/17. Fees paid and permit issued on 4/25/17. (10/13/17)
C0025-17-01	2053 Tustin	2 Single Family Homes	Plans received and plan check fees paid on 3/22/17. Awaiting final fee payment. (10/13/17)
C0026-17-01	326 E 16th Street	2 Single Family Homes	Plans received and plan check fees paid on 3/20/17. Awaiting final fee payment. (10/13/17)
C0027-17-01	231 Flower Street	Meter Upgrade	Plans received and plan check fees paid on 3/23/17. Fees paid and permit issued on 4/21/17. (10/13/17)
C0029-17-01	127 23rd St.	4 Single Family Homes	Plans received and plan check fees paid on 5/12/17. Fees paid and permit issued on 8/3/17. (10/13/17)
C0030-17-01	208 Camella Lane	New Home	Plans received and plan check fees paid on 5/12/17. Fees paid and permit issued on 5/25/17. Service installation on 6/8/17. Meter box placement on 9/8/17. (10/13/17)
C0031-17-01	235 Paularino Ave	Service Abandonment	Plans received and plan check fees paid on 6/5/17. First plan check returned on 6/22/17. Field verified service connections on 7/3/17. Fees paid and permit issued on 7/31/17. Precon on 9/11/17. (10/13/17)

## DEVELOPER PROJECT STATUS REPORT

PROJECT STATUS - DEVELOPER PROJECTS			
FILE NO.	PROJECT ADDRESS	PROJECT DESCRIPTION	PROJECT NOTES/STATUS
C0033-17-01	353 E 18th Street	4 Single Family Homes	Plans received and plan check fees paid on 7/5/17. Fees paid and permit issued on 7/27/17. (10/13/17)
C0034-17-01	350 E 17th Street	Commercial Building	Plans received and plan check fees paid on 7/18/17. Plans returned on 7/27/17. Fees paid and permit issued on 9/27/17. (10/13/17)
C0035-18-01	146 18th Street	2 Single Family Homes	Plans received and plan check fees paid on 8/8/17. Awaiting final fee payment. (10/13/17)
C0036-18-01	196 E. 17th Street	Restaurant	Plans received and plan check fees paid on 8/10/17. Awaiting final fee payment. (10/13/17)
C0037-18-01	2850 Mesa Verde Drive East	11 Single Family Homes	Plans received and plan check fees paid on 8/17/17. Plans returned on 8/30/17. Awaiting final fee payment. (10/13/17)
C0039-18-01	172/174 Costa Mesa Street	2 Single Family Homes	Plans received and plan check fees paid on 8/22/17. Fees paid and permit issued on 8/29/17. (10/13/17)
C0040-18-01	365 Costa Mesa Street	Meter Upgrade	Plans received and plan check fees paid on 8/22/17. Fees paid and permit issued on 8/24/17. (10/13/17)



# MESA WATER® AND OTHER AGENCY PROJECTS STATUS REPORT

October 2017

**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 forward to all agencies, including 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 held on 9/7/17. Project in progress.

**Project Title:** Well Automation and Rehabilitation

**File No.:** MC 2101

**Description:** Rehabilitate all clear water wells and add remote control SCADA capabilities

**Status:** Construction activities began at Well 5 on October 3, 2016 with demolition and well rehabilitation beginning in the first week. Video of Well 5 showed scale on the louvers, and potential failure of an unused sounding tube and a small area of the louvers potentially requiring swage patches. Repair completed on November 29, 2016. Well 5 rehabilitation resumed on December 3, 2016. Well 5 chemical facility pad has been constructed and is awaiting a weather forecast of 8 days with no predicted rain to apply the chemical-resistant coatings to the concrete. Well 5 pumping development began on January 4, 2017, and produced fine sand at pumping rates above 1100 gpm. Repairs were made to Well 5, and test pumping performed in February showed acceptable well production over 2500 gpm with manageable sand. Construction is substantially complete at the Well 5 site. A start up planning meeting was held on March 29, 2017. Well 5 is running as needed and producing good quality water. Well

## MESA WATER® AND OTHER AGENCY PROJECTS STATUS REPORT

October 2017

7 rehabilitation is complete, The Well 7 pump was installed the week of August 28, 2017, and the Well 7 is producing 1500 gpm of good quality water during its 7 day test. Construction of the Well 3 chemical facilities was begun in July 2017. The concrete for the Well 3 chemical facilities is in its 28 day cure period, and coating is scheduled for the week of Oct 23. At Well 9, construction will start in October with relocation of the back up generator and over excavation for the chemical facility.

**Project Title:** Two New Wells

**File No.:** MC 2158

**Description:** New wells and real estate services to identify and acquire property

**Status:** Change Order to Well Rehabilitation and Automation approved at January 20, 2015 E&O to retain Carollo and subconsultant Geotechnical Consultants Inc. (GTC) to provide typical well site layout and hydrogeological investigation to identify promising locations for two new 2,000-gpm clear wells. Met with Real Estate Professionals on February 2, 2015, to discuss scope of work for well site property identification and acquisition. Met with OCWD Chief Hydrogeologist on March 24, 2015, to identify study area for new well sites. Gave Notice to Proceed to Real Estate company on May 4, 2015, and provided consultant report on preferred well site property characteristics. Real Estate consultant developed an advertisement postcard to describe the type of property needed, and sent it to over 1,000 commercial and industrial property owners in the study area. Three sites have been presented for evaluation. Also met with the Laguna Beach County Water District (LBCWD) Manager of Engineering and Operations on October 13, 2015, to discuss development of a jointly-owned well on property in Fountain Valley owned by LBCWD. An offer to purchase one site was presented to the property owner on November 16, 2016. The owner has not responded, and the offer time frame has expired. An offer for a different property was prepared and presented on January 6, 2016. Owner has decided to lease the property rather than selling. A third property is being evaluated by staff and OCWD for potential interference from the OCWD mid-basin injection. Travel time analysis results from OCWD showed that the property is inside the six month travel time window. A meeting was held on February 22, 2016, with OCWD and DDW to discuss the travel time analysis, and DDW determined that it would not issue a permit for a drinking water well at the site. A meeting with the City of Santa Ana Water Department was held to discuss the possibility of a jointly-owned well on a City of Santa Ana-owned site. An offer to purchase was presented to a property owner for an underutilized portion of a property on May 4, 2016. The offer was rejected. A revised offer was submitted on June 7, 2016. The owner has decided not to sell the property. Staff is working with Voit Real Estate to identify and evaluate underutilized sites in the vicinity of the study area. One underutilized site on Sunflower Boulevard was considered but rejected for being only 200 feet from the current Well 9B site, which would add significantly to pumping costs at both sites. Another site near Bristol and St. Gertrude was considered, but rejected due to the cost of the property, its location adjacent to a residential area, and the cost

## MESA WATER® AND OTHER AGENCY PROJECTS STATUS REPORT

October 2017

of construction of two miles of pipeline to Mesa Water's service area. A purchase agreement for an industrial site at 4011 W. Chandler Avenue in Santa Ana was negotiated in January 2017. The purchase agreement includes a 45 day contingency period, escrow close date of March 31, 2017, and 18 month leaseback to the seller. The Phase 1 Environmental Site Assessment and Property Condition Assessment were received on February 23, 2017, and showed the site and property to be in good condition. The lease was executed on March 27, 2017, and escrow closed on April 5, 2017. A request for proposal for design services for the new well and pipeline was released in May 2017. An offer for a second new well site at 3120 S. Croddy, which would utilize the same water transmission pipeline as planned for the W. Chandler well site. A contract for purchase of 3120 S. Croddy was signed on July 6, 2017, and escrow opened on July 7, 2017 with a 45 day contingency period for property assessment. The Phase 1 Environmental Site Assessment and Property Condition Assessment were received and showed the site and property to be in good condition. Escrow closed on September 27, 2017. The site acquisitions are complete and this project will be removed from this report. The status of new wells can be found in this report under the Chandler and Croddy Wells and Pipeline Project

**Project Title:** MWRF Parking Project

**File No.:** M 2052

**Description:** Conduct parking layout design

**Status:** Parking study prepared by Onward Engineering in November 2013. The Board approved alternative # 3 Parking Along the MWRF Frontage on Gisler Ave. on 3/15/2014. RFP for the parking design in consultants' review (11/6/14). RFP sent out to consultants 11/25/14. Proposals due 12/19/14. Interview with three consultants held on 1/7/15. Recommendation brought to January E and O for consideration of approval and will be brought to the Board on 2/12/15 for approval. Project approved 2/12/15. Kick-off meeting held on 2/19/15. Design in progress. 30% design submittal submitted 3/23/15. Staff met with C.J. Segerstrom and discussed concept and details of the proposed parking layout. Segerstrom verbally approved the project. City of Costa Mesa approved the concept and currently consultant is evaluating the landscape requirements with the City of Costa Mesa. E and O Committee accepted the conceptual design and provided comments on 5/19/15. The condition approval from Segerstrom received on 6/29/15. Staff is working with the designer (CivilSource), Mesa Water's attorney, and City of Costa Mesa on addressing Segerstrom's comments. Staff is reviewing the Initial Study/Summary of Findings Report received on 8/3/15. Staff has addressed all Segerstrom's requests included in their 6/29/15 letter and prepared a response letter. Approved construction plans were received from the City of Costa Mesa on 12/29/15. The final bid package completed 3/15/16. Encroachment Permit Application submitted to the City on 3/6/16. Hold Harmless Agreement for the Installation of Off-Site Parking Improvements within Public Right-of-Way received on 5/4/16. Staff reviewed the Agreement and sent comments to the City of Costa Mesa on

## MESA WATER® AND OTHER AGENCY PROJECTS STATUS REPORT

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5/27/16. City approved all revisions as proposed by Mesa Water® and sent the agreement for signature on 6/24/16. The Engineering and Operations Committee reviewed the Agreement at July 19, 2016 meeting and recommended Board approval. Board approval obtained on August 11, 2016. Agreement sent to the City for execution and recording on 9/7/16. Recorded Agreement received from the City on 10/19/16.

**Project Title:** Pipeline Testing Program

**File No.:** MC 2112

**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:** Identifying segments for FY 2015 non-destructive testing and arranging for excavation and removal of segments that tested below 70% remaining wall thickness in FY2014 non-destructive testing. Released a Request for Proposal for a consultant to administer the program and develop standard operating processes on February 6, 2015. Three proposals were received on February 26, 2015, and interviews conducted on March 4, 2015. A contract with RBF was approved by the Board on April 9, 2015. Kickoff meeting held on April 21, 2015. Project status meeting held on June 8, 2015. Draft deliverable of prioritization of asbestos concrete pipe (ACP) for non-destructive testing received on June 26, 2015; updated draft received on August 7, 2015. Draft deliverable with recommendations for non-destructive testing technologies for metallic pipe received on August 7, 2015. Draft evaluation of destructive testing laboratories and tests received on August 21, 2015; final report received on September 16, 2015. Echologics performed non-destructive testing of 3 miles of ACP from July 13-17, 2015. Draft report received on August 14, 2015; final report received on September 1, 2015. Based on the Echologics reports from 2013 and 2015, ten ACP segments were selected for sampling and destructive testing. Three ferrous material pipelines with a history of repairs were also selected for field sampling and destructive testing. Draft bid documents for field sampling received on October 16, 2015. Final bid documents were released to three on-call contractors on November 23, 2015, for bids. Pre-bid meeting was held on December 7, 2015 and attended by all three of the bidders. Three bids were received on December 16, 2015. All bids exceeded the budget and the General Manager's signing authority. An action item to approve a contract with the low bidder was approved by the Engineering and Operations Committee on January 19, 2016, and by the Board on February 11, 2016. Notice to Proceed with field sampling was given on March 7, 2016. An encroachment permit from the City of Costa Mesa was received on April 25, 2016. Field sampling began on May 16, 2016 and completed on June 28, 2016. Samples were shipped to MEIC Lab in Portland, Oregon, for destructive testing on July 7, 2016. Samples were received at MEIC on July 11, 2016. Lab results, including estimates of remaining useful life, were received on October 24, 2016. Non-destructive testing of the next 3 miles of ACP was completed on September 16, 2016,

## MESA WATER® AND OTHER AGENCY PROJECTS STATUS REPORT

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and the draft report was received October 1, 2016. All of the ACP and Cast Iron Pipe (CIP) showed less than 70% remaining wall thickness compared to its assumed original thickness. Extraction of six sections of ACP and two sections of CIP are in process for 2017 destructive testing. ACP samples were sent to WSP Canada for destructive testing. Results were received on August 1, 2017. CIP samples will be sent to McWane Ductile's lab in Ohio for destructive testing. Results were received on June 30, 2017. A Request for Qualifications for consulting services for the Pipeline Integrity Testing Program was released in May 2017. Four Statements of Qualifications were received and a recommendation for contract award was approved by the Committee on July 20, 2017. ACP test results were received on July 31, 2017. Results are being analyzed, and will be presented at the November Committee meeting.

**Project Title:** MWRF Outreach Center

**File No.:** MC 2147

**Description:** Report on the feasibility of reconfiguring and potentially expanding the functional uses of the MWRF Operations and Administration Building to include a multi-purpose room and educational forum.

**Status:** Mesa Water® is coordinating with IBI Group (designer) on the feasibility of implementing an education and outreach center at the MWRF. Kick-off meeting was held on 6/1/2015. Program Requirement Questionnaire meetings were held on 6/9/2015 and 6/17/15. Program Report delivered to Mesa Water® for review on 7/7/2015. 60% design concepts are scheduled for submittal on 08/14/15. 100% concept design received on 09/29/15. Virtual rendering received on 10/6/15. Concept designs presented at the October Board Workshop. A follow-up planning session was held at the November Engineering and Operations Committee Meeting to capture the Board's input on evaluating reduced cost options and to revisit the existing Boardroom improvements. Board directed staff to develop a scope of work to evaluate scaled down layouts of the MWRF Outreach Center and revisit expanded layouts of the main Boardroom. Engineering and Operations Committee approved a contract amendment with IBI Group to reflect the revised scope of work. Item was approved by the Board February 11, 2016. IBI Group performed an inspection of the existing Boardroom on February 25, 2016 and are in the process of developing conceptual layouts. Staff review and meeting occurred on April 11, 2016. Conceptual layout work has been completed.

**Project Title:** Mesa Water® Main Office HVAC Study

**File No.:** MC 2171

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

**Status:** Mesa Water® has contracted with Goss Engineering Inc. to perform this study.

## MESA WATER® AND OTHER AGENCY PROJECTS STATUS REPORT

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Kick off meeting was held January 13, 2016. Goss Engineering performed a field survey of both main campus buildings over the course of three days. Draft report with results and recommendations was reviewed by staff. The final report was delivered on June 30, 2016 and was reviewed by staff for completeness. Staff presented the findings and recommendation to the Board of Directors at the July E&O Committee Meeting. Board approved contract to move forward with the design of a complete Variable Refrigerant Flow system. Contract has been executed and returned to Goss Engineering. Project kick-off and notice to proceed was issued on November 30, 2016. 50% drawings have been delivered for review and comments returned. Stakeholder meeting was held on February 2, 2017 to provide comments for the new VRF system 50% design. 90% design drawings and specifications were submitted for Mesa Water® review on March 10, 2017. Roof design is currently being developed by the sub-consultant. HVAC final design will integrate roof design and construction phasing.

**Project Title:** Reservoirs 1 & 2 Pumps, Controls, and Chemical System Assessment Project

**File No.:** MC 2173

**Description:** Evaluate the existing Pumps, Controls, and Chemical Systems at Reservoirs 1 & 2. The project includes lab testing of pump efficiency, physical assessment of pumps and pipework, assessment of the existing control system, and preliminary design of a chemical dosing system. Recommendations for improved efficiency and operations of the system will be included in a final report.

**Status:** Mesa Water® has contracted with Hazen & Sawyer to perform this study. Kick off meeting was held September 30, 2015. The consultant performed a field survey of both Reservoirs 1 & 2 over two days. A preliminary outline of technical memo 1 was provided on December 11, 2015. Initial data requests were responded to by December 7, 2015, with follow up responses provided on January 7, 2016 (SCADA Data) and February 9, 2016 (Jockey Pump Data). Pump testing scope of work has been reviewed by Mesa Water® and returned to the Consultant for revision. TM-1 has been reviewed by staff and returned to the consultant. Pump extraction plan and bid documents are currently being reviewed by staff. The Consultant has begun the preliminary design of a chemical dosing system. Request for bids for the pump extraction will be released in August 2016. Bids for the pump extraction were submitted and reviewed. The item was presented to the Engineering and Operations Committee at the September 20, 2016 meeting. Contract has been executed. Field assessment was completed on October 19, 2016. Factory pump testing scheduled in early January 2017. Further field tests conducted on December 2, 2016. Pump 2 from Reservoir 1 was removed and sent to the factory test facility on January 3, 2017. Factory testing was completed on February 27, 2017 with results aligning with the results obtained in the field. The pump has undergone a physical assessment and a refurbishment scope of work developed. The pump will be installed and operational on May 9, 2017. TM-2,

## MESA WATER® AND OTHER AGENCY PROJECTS STATUS REPORT

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TM-3, and PDR final revisions are due on October 20, 2017.

**Project Title:** Mesa Water® Valve Replacements Project

**File No.:** M18-104

**Description:** Replacement of water main and hydrant valves in various locations in the City of Costa Mesa.

**Status:** The Request for Proposals (RFP) for the Mesa Water District Valve Replacements Project was completed and put out to bid in September 2017. The RFP consisted of the Base bid that included replacement of 17 valves and two Alternative bids consisting of replacement additional 3 and 5 valves, respectively. Three bids were received on October 4, 2017. Staff has recommended that the construction contract be awarded to Paulus Engineering, Inc., as the lowest responsive bidder. (10/5/17)

**Project Title:** Other Agency Project Coordination

**File No.:**

**Description:** Median construction in Placentia Ave. between Wilson St. and Adams Ave.

**Status:** Mesa Water® 16" main runs 5' East of the street center line. Mesa Water® is coordinating with designer and City on design of necessary protection and root barrier for the water main. 85% design plans received on (12/22/14). Plan review in progress 1/8/15. Plan review comments sent to the City 2/6/15. Mesa Water® provided update comments to landscaping plans on 6/17/15. Mesa Water® continuing to coordinate with the City, Stivers and Associates, Inc., and City Designer on layout of project. Revised final plans submitted for Mesa Water® review on 11/19/15. Staff reviewed the submittal in cooperation with Mesa Water® landscape consultant (Stivers Associates) and submitted comments to the City Designer on 12/28/15. The comments have been accepted by the Designer and Final Plans were submitted on 2/9/16. New comments sent to the Designer on 2/18/16. The revised final plans received on 3/21/16 and approved by Mesa Water® on 3/31/16. On May 24, 2017 the City Designer notified Mesa Water® that the City was planning to advertise the project in the first half of June, 2017. City received bids at the end of June, 2017 and is taking the project to the City Council for approval on 7/18/17. The project kicked off on 7/28/17 and construction is scheduled to start on October 11, 2017 (10/5/17)

**Project Title:** Well 8 Demolishing Project

**File No.:** M 2219

**Description:** Prepare Well 8 demolishing plans and remove above-ground portions of the well and onsite facilities at the well facility to the scope and extent acceptable to the land owner Interinsurance Exchange of the Automobile Club of Southern California (the

# MESA WATER® AND OTHER AGENCY PROJECTS STATUS REPORT

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“Exchange”) to return the site to its near original condition.

**Status:** Prepare Well 8 demolishing plans and remove above-ground portions of the well and onsite facilities at the well facility to the scope and extent acceptable to the land owner Interinsurance Exchange of the Automobile Club of Southern California (the “Exchange”) to return the site to its near original condition.

Status: The Consultant has performed the required site Investigation and final design Services. In November 2016, the property owner assigned a project manager to work with Mesa Water® to move the project forward. The Consultant provided a 90% design which was reviewed by Mesa Water®. On February 6, 2017, Mesa Water® staff met with the Exchange personnel and discussed the 90% plan review comments. The Exchange decided to use the facility as a gated parking for their equipment and thus requested that all underground and aboveground structures be removed and wells properly destructed. The comments were incorporated into the 100% design. Well 8 demolition was scheduled for early June and should take approximately 60 calendar days to complete. Received 100% construction plans on 4/19/17. Project sent out to bid (13 contractors) on 4/20/17. The pre-bid job walk held on 4/26/16. One bid received on 5/4/17. Board of Directors awarded a contract to RC Foster Corporation on May 16, 2017. The kick-off meeting took place on 6/15/17 and construction started on 6/20/17. The scope of project includes removal of the transformer with concrete pad and electrical system, CMU Control Building, two wooden sheds, 120 feet of 14” piping, two chemical injection vaults, Well 8 pump, 11 feet of Well casings (well 8 and two monitoring wells), filling the wells with concrete, backfilling and repaving. To date the contractor has demolished the aboveground structures, two underground vaults; removed 80 feet of 12” pipeline, transformer, well pump, 12” R/W valve in South Coast Drive, destroyed Well 8 and two monitoring wells 8A and 8B by filling them with cement-sand slurry and sodium bentonite, and restored pavement. Project is completed (10/5/17).

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

**File No.:** M18-113

**Description:** Design, documentation, and permitting for two new wells located on Chandler and Croddy 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 and currently under review. Preliminary design report due on October 13, 2017.



# Water Quality Call Report

## September 2017

**Date:** 9/5/2017  
**Source:** Phone  
**Address:** Azalea  
**Description:** Customer reported earthy taste and smell from the water within the last 2 days.

**Outcome:** Explained to customer that we are using a blend of different water sources and using less groundwater. Perhaps she is noticing a difference in taste and odor. Offered to send staff but customer said she will call back later in the week if taste and odor continues.

**Date:** 9/6/2017  
**Source:** Phone/Visit  
**Address:** 857 Darrell  
**Description:** Customer reported seeing green water in sink and tub from time to time.

**Outcome:** Water from the front hose bib and tub spout were checked during site visit. Both samples were clear and chlorine and pH were normal. Customer has a 20 year old section of PVC pipe supplying some of the internal fixtures and is exposed to direct sunlight. She is remodeling her home and is looking to re-pipe soon.

**Date:** 9/12/2017 & 9/26/17  
**Source:** Phone/visit  
**Address:** 1101 Valley Cir  
**Description:** Customer concerned about the white flakes in the glass of ice water after the ice melted.

**Outcome:** Customer was not home during the first site visit which water was collected from the front hose bib and was clear with normal pH and temperature. Called customer back and explained to him that the white particles may be mineral precipitation from the ice. Customer called again on 9/26/17 with the same concern. Staff went out and met with the customer. Customer filled his glass with water and it had many particles and bubbles on the surface. Staff used a clean clear plastic bottle to collect the sample which was clear. Customer's glassware had some type of residue on it and he agreed the water is fine.

**Date:** 9/19/2017  
**Source:** Phone/ visit  
**Address:** 3375 Marigold Cir  
**Description:** Customer reported the water having fish odor for the past 3 days and making her clothes smell like fish.

**Outcome:** Water was sampled from the front hose bib and no odor was present and customer agreed. The washer is a front loader, which may have caused the odor issue with the clothes.

**Date:** 9/19/2017  
**Source:** Phone  
**Address:** 2026 Lemnos Dr.  
**Description:** Customer just moved in and is comfortable with quality of water served by Mesa Water but would like to get the water tested after it goes through the internal plumbing.

**Outcome:** Assured customer that the water supplied to the property meets state and federal drinking water standards and explained to her the extensive sampling Mesa Water conducts. Per customer's request, a list of local state certified drinking water laboratories was e-mailed to customer.

**MESA WATER DISTRICT  
COMMITTEE POLICY & RESOLUTION  
REVIEW OR DEVELOPMENT**

**ENGINEERING AND OPERATIONS COMMITTEE**

**Policy Assignments for 2017**

<b>Policy Name</b>	<b>Resolution</b>	<b>Date Adopted</b>	<b>Revision Schedule</b>	<b>Next Review</b>
Rules and Regulations for Water Services (will include review of meter capacity charges and easement procedures)	Resolution No. 1470	02/09/16	Review and update as needed	TBD
Standard Specifications and Drawings	Resolution No. 1449	01/12/17	Review and update as needed	TBD

Water Operations Status Report  
July 1, 2017 - September 30, 2017

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	44	12	880	243	\$34,934	\$8,556
WD-0102 - HYDRANT PAINTING	HYDRANTS	4	1	110	19	\$3,118	\$910
WD-0103 - HYDRANT REPAIR	HYDRANTS	13	5	15	11	\$8,465	\$3,577
<b>Program 01 TOTAL</b>		61	18			\$46,517	\$13,043
<b>02 - VALVES</b>							
WD-0201 - DISTRIBUTION VALVE MAINTENANCE	VALVES	29	30	625	626	\$23,040	\$22,430
WD-0202 - NIGHT VALVE MAINTENANCE	VALVES	8	0	82	0	\$6,487	\$0
<b>Program 02 TOTAL</b>		37	30			\$29,527	\$22,430
<b>03 - METERS</b>							
WD-0301 - NEW METER INSTALLATION	METERS	4	6	31	42	\$11,778	\$18,888
WD-0302 - RAISE REPLACE METER BOX	BOXES	6	2	26	8	\$6,616	\$1,829
WD-0303 - METER LEAK INVESTIGATION/REPAIR	INV/REP	7	13	50	91	\$3,888	\$12,098
WD-0305 - ANGLE STOP/BALL VALVE REPLACE	REPLACE	17	25	35	50	\$16,225	\$17,978
WD-0306 - LARGE METER TEST/REPAIR - C	TESTS	6	10	30	34	\$4,667	\$7,290
<b>Program 03 TOTAL</b>		40	56			\$43,174	\$58,083
<b>04 - MAIN LINES</b>							
WD-0401 - MAIN LINE REPAIR	REPAIRS	31	63	5	11	\$25,791	\$244,012
WD-0402 - AIR VAC MAINTENANCE/REPAIR	REPAIRS	7	5	41	33	\$5,147	\$3,311
WD-0403 - UNIDIRECTIONAL FLUSHING	FEET			92,363	0	\$0	\$0
<b>Program 04 TOTAL</b>		38	68			\$30,938	\$247,323
<b>05 - SERVICE LINES</b>							
WD-0501 - SERVICE LINE REPAIR	REPAIRS	15	33	5	13	\$11,412	\$24,871
<b>Program 05 TOTAL</b>		15	33			\$11,412	\$24,871
<b>06 - CAPITAL</b>							
CAP AV - CAPITAL AIR VACUUM REPLACE	AIR VACS	0	8	0	3	\$0	\$6,884
CAP BI - CAPITAL BYPASS & METER INSTALL	REPLACE	8	0	0	0	\$6,809	\$0
CAP FH - CAPITAL HYDRANT UPGRADE	HYDRANTS	53	62	8	9	\$61,324	\$67,795
CAP LM - CAPITAL LARGE METERS	METERS	13	4	36	10	\$41,005	\$8,699
CAP MV - CAPITAL MAINLINE VALVE REPLACE	VALVES	39	42	8	6	\$42,654	\$37,523
CAP SL - CAPITAL SERVICE LINE REPLACE	SERVICES	6	15	3	4	\$5,224	\$11,139
CAP SM - CAPITAL SMALL METERS	METERS	29	15	360	160	\$43,499	\$25,542
CAP SS - CAPITAL SAMPLE STATION REPLACE	STATIONS	0	0	0	0	\$0	\$0
<b>Program 06 TOTAL</b>		148	146			\$200,515	\$157,582
<b>VACANT POSITIONS</b>							\$0
<b>TOTAL</b>						\$362,083	\$523,332



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Satisfying our Community's  
Water Needs*

## MEMORANDUM

TO: Engineering and Operations Committee  
FROM: Paul E. Shoenberger, P.E., General Manager  
DATE: October 17, 2017  
SUBJECT: City/Districts Liaison Committee Topic Update – Public Restrooms for the Homeless

---

### RECOMMENDATION

This item is provided for discussion only.

### STRATEGIC PLAN

Goal #4: Increase public awareness about Mesa Water® and about water.  
Goal #7: Actively participate in regional water issues.

### DISCUSSION

Staff will provide a verbal update to the Board of Directors on the City/Districts Liaison Committee topic of Public Restrooms for the Homeless.

### FINANCIAL IMPACT

None.

### ATTACHMENTS

None.



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Water Needs*

## MEMORANDUM

TO: Engineering and Operations Committee  
FROM: Tracy E. Manning, Water Operations Manager  
DATE: October 17, 2017  
SUBJECT: Main Line Repair Summary Report

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### RECOMMENDATION

Receive the presentation and approve an increase to the On-Call Pipeline Repair and Construction contracts by \$100,000 for a total not-to-exceed amount of \$250,000 for Fiscal Year 2018, and authorize execution of the change order.

### STRATEGIC PLAN

Goal #1: Provide a safe, abundant, and reliable water supply.  
Goal #2: Practice perpetual infrastructure renewal and improvement.  
Goal #3: Be financially responsible and transparent.

### PRIOR BOARD ACTION/DISCUSSION

At its June 20, 2017 meeting, the Engineering & Operations (E&O) Committee received an information item on the preparation of the Request for Bid for On-call Emergency Pipeline Repair and Construction.

At its September 14, 2017 meeting, the Board of Directors (Board) approved On-Call Pipeline Repair & Construction contracts with Paulus Engineering, Inc. (Paulus), GCI Construction, Inc. (GCI), and W.A. Rasic Construction Company, Inc. (Rasic) for an amount not to exceed \$150,000 per year in total.

### DISCUSSION

The use of on-call pipeline construction contractors allows Mesa Water District (Mesa Water®) to react quickly to urgent operational events, such as the series of main line breaks that occurred between August 29 and August 31, 2017 when ten main line breaks were repaired in a 48-hour period. The unprecedented number of breaks occurring in such a short time required the combined effort of Mesa Water staff and on-call pipeline contractors to restore service to customers as quickly as possible. Due to the foresight and support of the Board, Mesa Water was able to mobilize the necessary additional resources quickly. Five repairs were completed by Mesa Water crews and five were completed using two on-call contractors with the support of Mesa Water staff. Both staff and contractors worked tirelessly to restore service to all customers as quickly as possible.

The general timeline of repairs between August 29 and August 31, 2017 was as follows:

1. **2000 block of Meyer:** Mesa Water was notified 8/29/17 in the late afternoon of a wet spot in the asphalt. It was determined by responding staff that the leak was minor; repair was scheduled for 8/30/2017 to allow time for underground utilities to be safely marked and notifications to be made. This line was a 6" concrete mortar lined and coated steel (CML&C) pipe. Mesa Water staff were able to install a temporary repair clamp that restored



service by 1:00 pm and would allow for a more permanent repair to be planned and executed when the impacted school was not in session. A permanent repair was made the week of 9/11/17.

2. **Orange/Costa Mesa:** Mesa Water was notified at approximately 7:00 pm on 8/29/17 of a large volume of water flowing down the north bound side of Newport Blvd. Mesa Water crews repaired the 6" asbestos-cement pipe (ACP) and restored water service at 11:00 pm that evening. The leak damaged a sewer lateral to a home that was repaired by Kilbride Construction. A tree was removed by the city of Costa Mesa to ensure the sewer lateral repair and backfill could be performed safely. Pavement was restored on 9/5/17.
3. **Mendoza:** Mesa Water was notified at approximately 1:00 am on 8/30/17 of a water leak. The on-call operator shut off the flow to the damaged 12" steel siphon that brought water over a flood control channel bridge. It was determined that the 47 foot siphon required replacement and would need to be fabricated; Paulus was mobilized to cut in an isolation valve in the 12" ACP to restore service to all customers. This work was completed by 5:00 pm. A new cement lined and epoxy coated siphon is being fabricated and will be installed by Paulus in October.
4. **Airport Loop:** Mesa Water was notified at approximately 9:00 am on 8/30/17 that the parking lot was flooded. Mesa Water staff isolated the leak and Paulus was mobilized to replace a 90 degree fitting, 4 foot section of 8" ACP, and a tee and hydrant valve. Water service was restored by 1:00 am on 8/31/17. Pavement repair was completed the week of 9/15/17.
5. **Harbor & Wilson:** Mesa Water was notified at approximately 9:30 am on 8/30/17. Mesa Water staff isolated the leak and no customers were out of service. GCI mobilized to repair a 4 foot section of 12" CML&C pipe. Repairs were completed by 10:00 pm on 8/31/17. Due to the condition of the existing pipe, design and specifications have been requested from our on-call professional design services consultant for the replacement of the CML&C lines within the intersection of Harbor and Wilson.
6. **936 Wilson:** Mesa Water was notified at approximately 12:00 pm on 8/30/17. Paulus mobilized to replace a 6 foot section of 6" CML&C pipe. Water service was restored by 1:00 pm on 8/30/17. Pavement repair was completed the week of 9/15/17.
7. **2145 Placentia:** Mesa Water was notified at approximately 1:00 pm on 8/30/17. Mesa Water staff isolated the leak and Paulus mobilized to replace a 6 foot section of 14" CML&C pipe. Specialized flex couplings were required as the pipe material was not suitable for welding and the pipe size is not standard. Water service was restored to all customers by 12:00 pm on 8/31/17. The permanent pavement repair is being coordinated with City of Costa Mesa staff.
8. **943 Evergreen:** Mesa Water was notified at approximately 3:00 am on 8/31/17. A repair was made to the 4" ACP line by Mesa Water staff and water service was restored to all customers by 8:30 am.



9. **943 Evergreen:** A second leak in the 4" ACP was reported in the late afternoon of 8/31/17 several feet west of the previous repair. The second repair was made by Mesa Water staff and service was restored by 7:30 pm. Pavement for both repairs was restored on 9/11/17.

10. **2050 Wallace:** Mesa Water was notified at approximately 1:30 pm on 8/31/17. Mesa Water staff repaired the 6" ACP line and restored water service that evening. Pavement was restored on 9/11/17.

### REPAIR COST SUMMARY

Location Name	Pipe Size	Pipe Material	Mesa Water	Contractor	Paving	Total
2000 Meyer	6"	CML&C	\$6,018	N/A	In-house	\$6,018
Orange/Costa Mesa	6"	ACP	\$6,835	N/A	\$9,557	\$16,392
Mendoza	12"	CML Steel	\$234	\$25,432*	included	\$25,666
Airport Loop	8"	ACP	\$4,422	\$32,920	\$14,075	\$51,417
Harbor & Wilson	12"	CML&C	\$2,887	\$37,821	included	\$40,708
936 Wilson	6"	CML&C	\$388	\$16,837	included	\$17,225
2145 Placentia	14"	CML&C	\$2,016	\$24,855	\$21,010	\$47,881
943 Evergreen	4"	ACP	\$6,116	N/A	\$12,885	\$19,001
2050 Wallace	6"	ACP	\$6,104	N/A	\$10,316	\$16,420
<b>TOTALS:</b>			<b>\$35,020</b>	<b>\$137,865</b>	<b>\$67,843</b>	<b>\$240,728</b>

\*Does not include the cost for siphon fabrication and installation

Staff recommends that the Board of Directors consider approving an additional \$100,000 for Fiscal Year 2018 for On-Call Pipeline Repair and Construction contracts with GCI, Paulus, and W.A. Rasic, and authorize execution of the contract change order. This increase will not be made available in subsequent years of the contract without prior approval from the Board of Directors.





FINANCIAL IMPACT

\$150,000 is budgeted in Fiscal Year 2018; requested funding will come from Cash on Hand.

	<u>Contract Actual Amounts</u>	<u>Contract Cost Amounts</u>
Initial Contract Estimate (FY 2018)	\$ 150,000	
Original Contracts		\$ 150,000
Change orders		\$ 0
Requested funding		<u>\$ 100,000</u>
Revised Contracts		<u>\$ 250,000</u>
Actual spent to date		\$ 137,865
Revised Contract Estimate	\$ 250,000	

ATTACHMENTS

None.



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Water Needs*

## MEMORANDUM

TO: Engineering and Operations Committee  
FROM: Phil Lauri, P.E., Assistant General Manager  
DATE: October 17, 2017  
SUBJECT: Valve Replacements Project

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### RECOMMENDATION

Recommend that the Board of Directors reject the bid of J.A. Salazar as non-responsive due to its failure to include certain required bid documentation, and award a contract to the lowest responsive bidder, Paulus Engineering, Inc., for \$305,330 and a 10% contingency for a not-to-exceed amount of \$335,863 to perform the Mesa Water District Valve Replacements Project, and authorize execution of the contract.

### STRATEGIC PLAN

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

Goal #2: Practice Continuous Infrastructure Renewal and Improvement

### PRIOR BOARD ACTIONS

At its August 15, 2017 meeting, the Engineering & Operations (E&O) Committee received an information item on the Valve Replacements Project and that bids would be solicited for the project and the bid results brought back to the Board for consideration and contract award.

### BACKGROUND

As part of the routine maintenance of Mesa Water's mainline and fire hydrant valves, several valves have been identified that require replacement. Mesa Water's Operations Department has indicated that the selected valves exhibit leaks, the inability to turn, or have a low turn count.

Inoperable valves lead to challenging shutdowns during emergency and non-emergency repair of main lines. Challenging shutdown conditions consist of:

1. More customers taken out of service for repair work;
2. Excessive dewatering of main lines and excavations;
3. Project delays; and
4. Higher cost for main line repairs.

Mesa Water will use a combination of District crews and contractors to perform valve replacement work in Fiscal Year 2018. Mesa Water uses contractor services as a benchmark to compare work performance efficiencies (i.e., costs, installation time, etc.) and evaluate work process for potential areas of improvement within Mesa Water crews. Approximately 55 valves will be replaced using Mesa Water resources and 17 valves (6" – 12") will be replaced using contractor services.

### DISCUSSION

The Request for Bids (RFB) for the Mesa Water District Valve Replacements Project was completed and put out to bid in September 2017. The RFB consisted of the base bid that included replacement of 17 valves and two alternative bids consisting of the replacement of an additional 3



and 5 valves, respectively. Twelve prospective contractors (Paulus Engineering, Inc., R.C. Foster, J.A. Salazar Construction, J.R. Filanc Construction Company, Doty Brothers Construction Company, Kennedy Pipeline Company, Fraijo Brothers Company, GCI Construction, Inc., L&S Construction, Inc., E.J. Meyer Company, PCL Construction, and Kisling Construction) were contacted for a pre-bid meeting (September 26, 2017) and requested to submit a bid for the aforementioned project. Two contractors (Paulus Engineering, Inc., GCI Construction, Inc.) attended the pre-bid meeting.

Three base bids were received on October 4, 2017 from the following contractors:

- J.A. Salazar Construction (Base Bid \$288,140)
- Paulus Engineering, Inc. (Base Bid \$305,330), and
- GCI Construction, Inc. (Base Bid \$425,000)

The proposed project bids have been evaluated. The bids of Paulus Engineering and GCI Construction were found to be compliant with all the bid package requirements. The bid of J.A. Salazar was missing required documentation, including an acknowledgement to Addendum No. 2, along with pricing detail required by that addendum, as well as Noncollusion Declaration, Statement of Bidders, signed Contract Acceptance Form, and Subcontractor Listing, and for that reason, it is recommended that the J.A. Salazar bid be found non-responsive.

Evaluation of the subject bids indicate that contractor-installed valves have an average cost of \$17,960 and take approximately 2.4 days for installation. Mesa Water's installed cost for the same valve is approximately \$10,100 and takes approximately 2.4 days for installation. Mesa Water crews continue to provide a high level of efficiency of work performance with an economic savings of approximately 44%.

Construction is scheduled to last 40 calendar days from Notice-to-Proceed. Staff recommends that the Board consider awarding a not-to-exceed construction contract to Paulus Engineering, Inc., as the lowest responsive bidder, for \$305,330 and a 10% contingency for a not-to-exceed amount of \$335,863 to perform the Mesa Water District Valve Replacements Project.

#### FINANCIAL IMPACT

\$300,000 is budgeted in Fiscal Year 2018; no funds have been spent to date and the requested funding will come from Cash on Hand.

#### ATTACHMENTS

None.



*Dedicated to  
Satisfying our Community's  
Water Needs*

## MEMORANDUM

TO: Engineering and Operations Committee  
FROM: Phil Lauri, P.E., Assistant General Manager  
DATE: October 17, 2017  
SUBJECT: Well Automation and Rehabilitation Project - Construction Management

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### RECOMMENDATION

1. Recommend that the Board of Directors approve a change order to Michael Baker International's contract for \$420,673, for a total not-to-exceed amount of \$1,276,770, to continue construction management services for the Well Automation and Rehabilitation Project.
2. Recommend that the Board of Directors approve an increase in the authorized contingency to the Well Automation and Rehabilitation construction contract with Pacific Hydrotech, Inc. from 5% (\$524,425) to 7.5% (\$786,637).

### 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 March 15, 2014 meeting, the Board of Directors (Board) adopted Resolution No. 1442 Replacement of Assets, which calls for rehabilitation of groundwater production wells if, and when well production drops by more than 20% for a given well and 10% for overall clear water well production.

At its March 18, 2014 meeting, the Engineering & Operations (E&O) Committee received an information item describing the scope of the Well Automation and Rehabilitation Project.

At its September 11, 2014 meeting, the Board approved a contract with Carollo Engineers, Inc. in the amount of \$749,995 with a 10% contingency for a not-to-exceed amount of \$824,995 to provide professional design services for the Well Automation and Rehabilitation Project.

At its March 12, 2015 meeting, the Board approved a contract with RBF Consulting, a Michael Baker International Company (MBI), in the amount of \$778,270 with a 10% contingency for a not-to-exceed amount of \$856,097 for professional Construction Management Services of the Well Automation and Rehabilitation Project.

At its May 19, 2015 meeting, the E&O Committee received an information item on the planned appearance of the well sites, including the new chemical facility aesthetics.

At its October 20, 2015 meeting, the E&O Committee received an update and overview of the Well Automation and Rehabilitation Project, and approved the project as well as the Notice of Categorical Exemption from the California Environmental Quality Act (CEQA) for the project.



At its February 11, 2016 meeting, the Board approved a contract with Pacific Hydrotech Corporation for construction of the Well Automation and Rehabilitation Project for \$10,488,500 plus a 5% contingency for a not-to-exceed amount of \$11,012,925.

At its August 16, 2016 meeting, the E&O Committee received an information item update on the Well Automation and Rehabilitation Project.

At its July 13, 2017 meeting, the Board received an update on the Well Automation and Rehabilitation Project and approved a change order to Carollo Engineers, Inc. in the amount of \$195,960 to continue providing engineering services for the Well Automation and Rehabilitation Project.

At its September 19, 2017 meeting, the E&O Committee received an update on the Well Automation and Rehabilitation Project and approved a change order to Pacific Hydrotech for a not to exceed amount of \$800,000 to furnish, install, and integrate variable frequency drives for the motors at Wells 1, 3, 7, and 9.

## BACKGROUND

The Well Automation and Rehabilitation Project was recommended as part of the 2014 Master Plan Update and included in the adopted Capital Improvement Program. The project provides the necessary improvements to Mesa Water's clear well sites and includes the following key objectives:

1. Rehabilitation of clear wells 1, 3, 5, and 7 that were shown to have lost more than 20% of production as a result of the condition assessment performed in October 2013;
2. Design of well automation functionality for all clear wells, including remote well start/stop capabilities and chemical addition system based on real-time system chemical demands;
3. Standardization of clear well operations across all well sites;
4. Reducing the frequency of chemical deliveries by increasing the size of the storage tanks;
5. Reducing the energy and labor costs of well operations;
6. Replacement of equipment that has exceeded its useful life, including well pumps, motors, and electrical switchgear;
7. Back-up power for all wells to maintain operation when grid power is not available; and
8. Installation of well site security system infrastructure.

A construction contract was awarded to Pacific Hydrotech for \$10,488,500 for the construction of the Well Automation and Rehabilitation Project. The construction cost is spread over three fiscal years (FY 2016 - FY 2018).

## DISCUSSION

The Well Automation and Rehabilitation Project Notice-to-Proceed with construction was given on April 9, 2016. Pacific Hydrotech spent several months preparing the project submittals and procuring equipment. The following is a brief update of the progress at each well site:

**Well 5:** Construction on the Well Automation and Rehabilitation Project began at Well 5 in October 2016. Well 5 was returned to service in June 2017, after rehabilitation and repairs of the well,



replacement of all the electrical and mechanical equipment, and construction of new chemical handling facilities with automated water disinfection. Well 5 has been producing approximately 2,300 gallons per minute (gpm) of high quality drinking water throughout the summer. The Well 5 casing required extensive repair work (i.e., swaging, slurry fill, etc.) to allow continued use of the well. Repairs to Well 5 used approximately \$100,000 of the construction contract contingency. An additional \$38,000 of the contingency was used for unplanned site improvements such as removing an abandoned-in-place pipeline, bringing existing electrical conduit runs up to current code, modifications to the gas engine cooling system, and replacement of rusted expansion valves on the back-up propane system.

**Well 7:** Well 7 was returned to service on October 4, 2017. Work completed at Well 7 included a conservative rehabilitation program, demolition of the end of useful life equipment, and installation of the new pump, motor, and electrical equipment, and chemical handling facilities. Well 7 is producing about 1,450 gpm and is in process of completing its seven day run test.

**Well 3:** Construction is also underway at Well 3. The concrete for the chemical facilities is currently curing for 28 days. While the concrete is curing, well assessment and rehabilitation is also in process. Completion of Well 3 work is expected in March 2018.

**Well 9:** In October 2017, project work will start at Well 9. Since new Well 9B was recently drilled, base contract work at Well 9B includes construction of new chemical handling facilities and electrical equipment replacement. With the revised location of the new well at the Well 9B site, the project team has recommended reconfiguration of the overall site layout which will be beneficial for access and safety over the expected 60-100 years of the Well 9B useful life. In addition, the pump currently installed in Well 9B was configured for the original well which had a much smaller diameter. The pump is underperforming and producing only 1,250 gpm from a well that should produce 1,800 gpm. The pump should be replaced with a pump configured to Well 9B to produce more flow at a lower energy cost. The additional cost for reconfiguration of the Well 9 site and replacement of the pump is approximately \$300,000. Work at Well 9B is expected to be completed in April 2018.

**Well 1:** Once Well 3 and Well 9 are back in service, work at Well 1 will commence. Well 1 will be the most challenging site for construction due to its limited area and triangular configuration. Work at Well 1 is expected to be completed in September 2018.

**Construction Management Contract Amendment:** The Well Automation and Rehabilitation Construction Management contract was competitively bid and awarded to MBI in April 2015. The scope of construction management included a full-time resident engineer, half-time inspection services, and construction coordination for a 600-day construction schedule. The original Well Automation and Rehabilitation construction schedule was envisioned to take 600 calendar days. After hiring MBI for construction management to perform a constructability review of the 50% design in 2015, it was determined, after receiving feedback from multiple contractors, that the project sequencing would take more than the previously allotted 600 calendar days. The construction contract with Pacific Hydrotech, signed in March 2016, has a completion duration of 780 calendar days. Also, additional construction management time will be necessary beyond the 780 calendar days due to the unforeseen time delays as a result of the mitigation work required at Wells 5 and 7, as well as the addition of variable frequency drives at four of the five well sites.



The revised construction schedule anticipates substantial completion of all five wells in September 2018, or an additional 450 calendar days from the original 600 calendar day schedule. Following substantial completion, punch list items, record drawings, and operations and maintenance manuals are anticipated to be delivered by the end of calendar year 2018. MBI’s construction management team is doing an excellent job managing Pacific Hydrotech. It is therefore recommended that the Board of Directors consider approving a change order to Michael Baker International’s (MBI) Inc.’s contract in the amount of \$420,673 to continue construction management services for the Well Automation and Rehabilitation Project.

**Construction Contract Contingency Authorization:** The construction was authorized with a 5% contingency of \$524,425. The condition of Well 5, and the improvements/reconfiguration to the Well 9B site will consume a majority of the contingency. Therefore, it is recommended that the Board consider authorizing an additional 2.5%, or \$262,212 of contingency authorization, for a total not-to-exceed construction contract of \$11,275,137 to allow the project team to quickly address unforeseen conditions at the remaining well sites. This is especially important for the Well 1 site, which is approximately half the area of the other well sites and irregularly shaped. These factors may present new construction challenges that have not been encountered and solved already at the other well sites.

FINANCIAL IMPACT

\$3,740,000 is budgeted in Fical Year 2018; the requested additional funding will come from Cash on Hand.

	<u>Project Estimate Amounts</u>	<u>Project Cost Amounts</u>
Project Estimate (FY 2016)	\$12,032,045	
Original Contracts		\$12,032,045
Change orders		\$ 1,601,305
Requested funding		\$ 420,673
Revised Contracts		\$14,054,023
Actual spent to date		\$ 6,524,021
Revised Project Estimate	\$14,054,023	

ATTACHMENTS

Attachment A: MBI Request for Contract Amendment

October 5, 2017

JN 145898

Ms. Karyn Igar, PE  
Senior Civil Engineer  
Mesa Water District  
1965 Placentia Avenue  
Costa Mesa, CA 92627

Subject: Amendment request for Resident Engineering and Inspection Services in support of the Well Automation and Rehabilitation Project No. MC 2101

Dear Ms. Igar:

Michael Baker International (Michael Baker) appreciates the opportunity to be working with Mesa Water District towards the successful completion of the Well Automation and Rehabilitation Project. As we have discussed we are requesting an amendment to address the modification of the construction duration during the final design phase of the project, and enhancements to all the well sites.

As the well automation design neared completion, during a detailed review of the construction activities it was apparent that the previously estimated 600 day construction duration would not encompass the required construction durations for automation of 5 wells, assuring that all 5 wells were available during the summer months. The constructability review meetings identified a 780 day construction duration would facilitate completion of the project within the constraints of the project delivery, therefore an additional 180 days was added to facilitate a reasonable construction duration to deliver a successful project.

Recently the engineering team brought to the construction team the request to add Variable Frequency Drives (VFD's) to Wells 1, 3, & 7 & 9. We estimate the inclusion of the VFD's will extend the construction period to late September 2018, with punch list and project closeout complete by mid December 2018.

The December 2014 request for proposal included a proposed level of effort, and at this time we are tracking the budget which included the original 600 day contract. Based upon our current budget forecast, our budget will expire in December 2017, therefore we are requesting a budget augmentation commensurate with the anticipated level of effort, following the agreed upon Construction Management scope of services.



The following table outlines the requested budget to facilitate the extended project completion date as outlined above. For each task, the additional budget was calculated by using estimated hours for team members by month to complete the project. As shown, we anticipate that an additional 3,224 labor hours, for a total estimated increase \$498,028.

Anticipated Additional Budget				
Scope Item	Hours		Rate	Budget
<b>Extended Project Duration</b>				
Construction Administration (Full Time RE)	1984		\$167	\$331,328
Project Management	64		\$220	\$14,080
Inspection	644		\$145	\$93,380
Equipment and System Testing, Start-Up, and Training	12		\$170	\$2,040
Construction Coordinator	520		\$110	\$57,200
<b>Totals</b>	<b>3224</b>			<b>\$498,028</b>

Our Team remains committed to the common goal of providing these services in a manner that exceeds all others and to promoting the Mesa Water District's interests throughout the course of this project. Should you require additional information or have any questions then please contact me at 949.981.2679.

Sincerely,



Jerome Ruddins, CCM, QSP  
 Vice President  
 Construction Services

**REPORTS:**

10. REPORT OF THE GENERAL MANAGER:

**REPORTS:**

11. DIRECTORS' REPORTS AND COMMENTS: