



*Dedicated to
Satisfying our Community's
Water Needs*

**AGENDA
MESA WATER DISTRICT
BOARD OF DIRECTORS
Tuesday, February 18, 2020
1965 Placentia Avenue, Costa Mesa, CA 92627
3:30 p.m. Special Board Meeting**

ENGINEERING AND OPERATIONS COMMITTEE MEETING

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.

6. Capital Improvement Program Renewal

PRESENTATION AND DISCUSSION ITEMS:

None

REPORTS:

7. Report of the General Manager
8. Directors' Reports and Comments



INFORMATION ITEMS:

9. Mesa Water Reliability Facility Parking Project

CLOSED SESSION:

10. CONFERENCE WITH LABOR NEGOTIATOR PURSUANT TO CALIFORNIA GOVERNMENT CODE 54957.6:
District Negotiator: General Manager
Employee Organization: District Employees

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. 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	Plans received and plan check fees paid on 1/21/16. Hydraulic model initiated 2/24/16. 2nd plan check submitted on 3/24/16 and picked up 4/17/16. Permit issued on 7/11/16. Mainline installation on 12/6/16. 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. Backflows tested on 10/9/18, 2/27/19, 11/18/19 and again on 11/21/19. 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, 4/26/19, 7/15, 7/16/19, and again on 10/15/19. Another batch of backflows tested on 12/20/19. Phase 2 construction still on-going. Remaining meters installed on 2/10/20.
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. Services installed on 8/31/17. Mainline turned on 9/14/17. Meters installed and locked on 2/26/18. Awaiting call for backflow testing to complete project. Meters installed and locked on 8/6/18. Backflow tested on 8/24/18. Site check done on 9/25/18, homes are still under construction. Meters installed and locked off on 11/2/18. Meters installed again on 1/10/19. Flow thru system tested on 3/22/19. Coordinating backflow testing for irrigation services. Backflow testing for irrigation services completed on 4/25/19. Abandonments done on 5/14/19. Meters installed 5/2/19, and flow thru systems tested on 6/6/19. Meters installed on 2/4/20.
C0056-18-01	2033 Republic Avenue	Single Family Home Service & Meter Upgrade	Plans received and plan check fees paid on 6/19/18. Comments returned for 2nd plan check review on 6/28/18. 2nd plan check submitted 7/26/18, and redlines picked up on 8/20/18. 3rd 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. Precon held on 9/4/19. Hot tapping completed on 10/28/19. Waiting for contractor to complete work. (2/9/20)

DEVELOPER PROJECT STATUS REPORT

PROJECT STATUS - DEVELOPER PROJECTS			
FILE NO.	PROJECT ADDRESS	PROJECT DESCRIPTION	PROJECT NOTES/STATUS
C0058-19-01	585 & 595 Anton Boulevard (P2)	Apartment Complex	Plans received and plan check fees paid on 2/5/19. Customer picked up redlines on 2/8/19. 2nd 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. Pipeline installed on 11/19/19. Waiting for contractor to complete work. (2/9/20)
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 flow thru testing to be scheduled. Waiting for contractor to complete work. (2/9/20)
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. 2nd plan check submitted on 1/11/19, and redlines picked up on 1/29/19. 3rd plan check submitted on 1/31/19. Final permit fees paid on 6/20/19 and permit issued on 6/25/19. Precon held on 1/10/20. Mainline excavation done on 1/14/20. Pipeline installed on 1/16/20.
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 2nd plan check on 5/9/19. 2nd 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. Precon meeting held on 1/9/20. Installed services and abandoned old service on 2/3/20.
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. 2nd 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. Letter of water terminaton sent to business on 1/9/20 for failure to complete backflow certification.

DEVELOPER PROJECT STATUS REPORT

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. 2nd plan check was submitted on 4/23/19 and redlines to be picked up on 5/6/19. 3rd 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. Services installed on 10/2/19 and 10/2/19. Pressure test performed on 10/9/19. Hot tapping completed on 10/14/19. Shutdown to tie-in valves on 10/24/19. Meters installed on 12/23/19. Backflow tested on 1/10/20.
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. 2nd plan check submitted 3/26/19, and redlines picked up on 4/2/19. 2nd 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. Pre-con held on 12/5/19. Shutdown for valve connection on 1/7/20. Services installed on 1/13/20. Chlorination swab, Bac-T, pressure test and mainline charged on 1/14/20.
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. 2nd plan check submitted on 9/4/19 and redlines picked up on 9/10/19. 3rd Plan check submitted on 9/26/19. Precon held on 11/20/19. Service modification and meter/meter box installed on 1/14/20. Backflow tested on 2/4/20.
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. 2nd plan check submitted on 5/9/19. Customer to pick up 2nd plan check redlines on 5/6/19. 3rd 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. Waiting for contractor to complete work. (2/9/20)
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. 2nd plan check submitted 04/19/19 and redlines picked up on 4/25/19. Final permit fees paid on 6/18/19. Project on hold per John Wayne staff. (2/9/20)

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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. 2nd 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. Two abandonments occurred on 11/22/19. Waiting for contractor to complete work. (2/9/20)
C0091-19-01	368 Magnolia	Single Family Home	Plans received and meter replacement fees paid on 4/15/19. 1st 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. Flowthru tested on 1/15/20.
C0092-19-01	Harbor and Hamilton	29 New Townhomes	Plans received and plan check fees paid on 4/23/19. 1st plan check submitted 4/23/19 and redlines to be picked up on 5/6/19. 2nd plan check submitted on 6/11/19 and redlines picked up on 6/18/19. 3rd Plan Check submitted on 11/25/19 and redlines returned to customer on 11/27/19. 4th Plan Check submitted on 2/4/20 and redlines picked up on 2/11/20.
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. 2nd Plan check submitted 6/4/19 and redlines to be picked up on 6/11/19. Final permit fees paid on 8/27/19. Precon held on 10/30. Meter installed 11/18/19. Waiting for contractor to complete work. (2/9/20)
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. 4th Plan check submitted 1/29/20 and picked up on 2/4/20. Final permit fees paid on 2/10/20.
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. Waiting for contractor to complete work. (2/9/20)
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. 2nd Plan check submitted on 1/7/20 and redlines emailed on 1/15/20. Permit issued on 2/4/20.

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FILE NO.	PROJECT ADDRESS	PROJECT DESCRIPTION	PROJECT NOTES/STATUS
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. 3rd plan check resubmitted on 10/8/19. Permit approved and final fees paid on 10/24/19. Precon held on 11/24/19. Temporary RW pipeline inspected and approved on 11/27/19 and report sent to DDW on 12/4/19.
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. 2nd plan check submitted on 9/10/19 and picked up on 9/24/19. 3rd plan check resubmitted on 10/3/19. Final fees paid on 10/24/19. Permit approved and issued on 11/19/19. Precon held on 11/22/19. Meter installed on 12/30/19. Waiting for contractor to complete work. (2/9/20)
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. Developer still on hold for construction. (2/9/20)
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 redlines picked up on 11/5/19. Permit issued 1/6/20. Precon held on 1/7/20.
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. 2nd Plan check submitted on 1/9/20 and returned on 1/21/20. Permit issued on 2/4/20.
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. Precon held on 11/26/19 and meter installed on 12/2/19. Waiting for contractor to complete work. (2/9/20)
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. Permit issued on 10/24/19. Waiting for contractor to complete work. (2/9/20)
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.

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FILE NO.	PROJECT ADDRESS	PROJECT DESCRIPTION	PROJECT NOTES/STATUS
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.
C0122-20-01	925 W 18th Street	Commercial	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. 2nd plan check submitted 12/4/19. 3rd Plan check submitted on 1/2/20 and redlines picked up on 1/6/20.
C0123-20-01	449 W Bay Street	Commercial	Plans received and plan check fees paid on 11/18/19. 1st Plan check submitted 11/18/19 and redlines picked up on 11/22/19. 2nd Plan check submitted on 1/7/20 and redlines emailed on 1/15/20. Final permit fees paid on 1/28/20, and permit issued on 1/29/20. Precon held on 2/6/20.
C0124-20-01	2209 Fairview Road	Commercial	Plans received and plan check fees paid on 11/18/19. 1st Plan check submitted 11/5/19 and redlines picked up on 11/19/19. 2nd Plan check submitted on 11/21/19 and redlines picked up on 11/27/19. 3rd Plan check submitted on 2/3/20 and redlines returned to customer on 2/4/20.
C0125-20-01	3080 Airway Avenue	Commercial	Plans received and plan check fees paid on 11/18/19. 1st Plan check submitted 11/7/19 and redlines picked up on 11/27/19. 2nd Plan check submitted on 1/16/20 and relines picked up on 2/11/20.
C0126-20-01	1646 Santa Ana Avenue	Single Family Home	Plans received and plan check fees paid on 11/18/19. 1st Plan check submitted 11/18/19 and redlines picked up on 11/26/19. 2nd Plan Check submitted on 1/2/20 and redlines picked up on 1/6/20.
C0128-20-01	901 B South Coast Drive	Commercial	Plans received and plan check fees paid on 11/25/19. 1st Plan check submitted 11/25/19 and redlines picked up on 12/3/19.
C0129-20-01	3590 Cadillac Avenue, Suite B	Commercial	Plans received and plan check fees paid on 11/25/19. 1st Plan check submitted 11/25/19 and redlines picked up on 12/4/19. 2nd Plan check submitted 1/14/20 and redlines emailed on 1/21/20.
C0102-20-01	3560 Cadillac Avenue	Commercial	Plans received and plan check fees paid on 11/25/19. 1st Plan check submitted 11/25/19 and redlines picked up on 12/4/19.
C0102-20-02	3550 Cadillac Avenue	Commercial	Plans received and plan check fees paid on 11/25/19. 1st Plan check submitted 11/25/19 and redlines emailed on 12/4/19.

DEVELOPER PROJECT STATUS REPORT

PROJECT STATUS - DEVELOPER PROJECTS			
FILE NO.	PROJECT ADDRESS	PROJECT DESCRIPTION	PROJECT NOTES/STATUS
C0130-20-01	2940 College Avenue	Commercial	Plans received and plan check fees paid on 11/25/19. 1st Plan check submitted 11/25/19 and redlines picked up on 12/3/19. 2nd Plan check submitted on 12/9/19 and redlines emailed on 12/14/19. Final permit fees paid on 1/27/20, and permit issued on 1/29/20.
C0131-20-01	1975 Wallace Avenue	6 Unit Apartments	Plans received and plan check fees paid on 11/18/19. 1st Plan check submitted 11/18/19 and redlines picked up on 11/22/19. 2nd Plan check submitted on 12/2/19 and redlines picked up on 12/3/19.
C0132-20-01	3070, 3080, 3090 Bristol Street	Commercial	Plans received and plan check fees paid on 12/5/19. 1st Plan check submitted on 1/21/20 and redlines returned to customer on 1/29/20.
C0133-20-01	3100 and 3150 Bristol Street	Commercial	Plans received and plan check fees paid on 12/5/19. 1st Plan check submitted on 1/21/20 and redlines returned to customer on 1/29/20.
C0134-20-01	2227 Donnie Street	SFH	Plan check fees paid on 1/14/20 and waiting for revised plans.
C0135-20-01	3150 Bear Street	College	Plans received and plan check fees paid on 1/21/20. 1st Plan check submitted on 1/21/20 and redlines returned to customer on 2/4/20.

MESA WATER AND OTHER AGENCY PROJECTS STATUS REPORT
February 2020

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

File No.: M 2034

Description: Evaluate potential repair and replacement options.

Status: 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 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 is substantially complete and line is ready for use. Native planting is ongoing and final completion is scheduled for early March 2020. (2/7/20)

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 approved by the E&O Committee in September 2019. Staff developed a process for classifying pipeline breaks, and provided a class to the Distribution crews on November 21, 2019. Four AC pipe samples collected during valve replacements were sent for EDS testing on January 28, 2020. Staff is planning for nondestructive testing of 3 miles of CMLC steel distribution pipelines in March 2020. (2/10/20)

Project Title: Chandler & Croddy Wells and Pipeline Project

File No.: M18-113

Description: Design, documentation, and permitting for two new wells located on

MESA WATER AND OTHER AGENCY PROJECTS STATUS REPORT

February 2020

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 reviewed by staff. The design team met on October 7, 2019, to review design options for the Croddy Pipeline. A corrosion potential report for the Croddy pipeline alignment was received on December 23, 2019, and reviewed by staff. A design team workshop is scheduled for February 13, 2020. (2/10/20)

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.

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

MESA WATER AND OTHER AGENCY PROJECTS STATUS REPORT

February 2020

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 evaluated each Route 600 meter and vault for meter, register, and end point replacement to assist with installation activities. A purchase order was issued for the first set of cellular endpoints. (2/10/20)

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 use Mesa Water's standardized analytical equipment to maintain disinfectant residual in the reservoirs. (2/10/20)

Water Quality Call Report

January 2020

Date: 1/8/2020
Source: Phone/Visit
Address: 1605 Coriander Drive
Description: Customer concerned about the water having a dark amber tint.
Outcome: Spoke to customer and arranged for a site visit. Water had cleared up by the time staff visited customer. Chlorine residual was checked from both inside the home and outside and were within normal range. Customer was satisfied and let her know if issue reoccurs to contact Mesa Water.

Date: 1/15/2020
Source: Phone
Address: 1117 Buckingham Drive, #E
Description: Customer inquired via email about getting the water tested. He is concerned about the old pipes in the apartment building.

Outcome: Spoke to customer and assured him the water meets/exceeds all drinking water standards. Offered and provided the customer a list of local, state-certified drinking water laboratories since he is interested in testing the water internally.



COMMITTEE POLICY & RESOLUTION REVIEW

ENGINEERING and OPERATIONS COMMITTEE

Policy Assignments for 2020

Policy Name	Resolution No.	Date Adopted	Revision Schedule	Last Reviewed
Replacement of Assets Including Pipeline and Well Rehabilitation	1525	10/10/19	Review and update every 5 years	10/10/19
Rules and Regulations for Water Service	1527	11/25/19	Review and update as needed	11/25/19
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 - January 31, 2020

Operations Department Status Report	Wk Unit	Plan Days	Act Days	Plan Qty	Act Qty	Plan Cost	Actual Cost
01 - HYDRANTS							
WD-0101 - HYDRANT MAINTENANCE	HYDRANTS	98	68	1962	1328	\$38,930	\$27,882
WD-0102 - HYDRANT PAINTING	HYDRANTS	8	14	245	402	\$2,908	\$5,000
WD-0103 - HYDRANT REPAIR	HYDRANTS	31	29	36	41	\$10,100	\$16,728
Program 01 TOTAL		137	111			\$51,938	\$49,610
02 - VALVES							
WD-0201 - DISTRIBUTION VALVE MAINTENANCE	VALVES	70	63	1395	1313	\$30,205	\$26,346
WD-0202 - NIGHT VALVE MAINTENANCE	VALVES	6	0	82	0	\$2,786	\$0
Program 02 TOTAL		76	63			\$32,991	\$26,346
03 - METERS							
WD-0305 - ANGLE STOP/BALL VALVE REPLACE	REPLACE	15	15	30	30	\$9,551	\$5,470
Program 03 TOTAL		15	15			\$9,551	\$5,470
04 - MAIN LINES							
WD-0401 - MAIN LINE REPAIR	REPAIRS	70	43	12	6	\$35,066	\$20,910
WD-0402 - AIR VAC MAINTENANCE/REPAIR	REPAIRS	15	11	92	69	\$5,684	\$3,802
Program 04 TOTAL		85	54			\$40,750	\$24,712
05 - SERVICE LINES							
WD-0501 - SERVICE LINE REPAIR	REPAIRS	33	63	12	22	\$13,888	\$29,742
Program 05 TOTAL		33	63			\$13,888	\$29,742
06 - CAPITAL							
CAP AV - CAPITAL AIR VACUUM REPLACE	AIR VACS	30	50	5	21	\$12,405	\$22,193
CAP BI - CAPITAL BYPASS & METER INSTALL	REPLACE	12	0	1	0	\$6,425	\$0
CAP FH - CAPITAL HYDRANT UPGRADE	HYDRANTS	138	54	20	9	\$106,449	\$41,941
CAP MV - CAPITAL MAINLINE VALVE REPLACE	VALVES	115	75	20	8	\$77,176	\$38,498
CAP SL - CAPITAL SERVICE LINE REPLACE	SERVICES	22	24	6	6	\$11,906	\$12,264
CAP SS - CAPITAL SAMPLE STATION REPLACE	STATIONS	5	1	5	1	\$2,488	\$184
Program 06 TOTAL		322	204			\$216,849	\$115,080
VACANT POSITIONS	1		250				
TOTAL						\$365,967	\$250,960



Dedicated to
Satisfying our Community's
Water Needs

MEMORANDUM

TO: Engineering and Operations Committee
FROM: Phil Lauri, P.E., Assistant General Manager
DATE: February 18, 2020
SUBJECT: Capital Improvement Program Renewal

RECOMMENDATION

Recommend that the Board of Directors approve the proposed Capital Improvement Program Renewal.

STRATEGIC PLAN

- Goal #2: Practice perpetual infrastructure renewal and improvement.
- Goal #4: Increase public awareness about Mesa Water® and about water.
- Goal #6: Provide outstanding customer service.

PRIOR BOARD ACTION/DISCUSSION

At its November 14, 2019 workshop, the Board of Directors (Board) provided direction to staff to develop funding options to complete the next phase of projects from the 2014 Capital Improvement Program Master Plan Update.

BACKGROUND

Mesa Water District (Mesa Water®) takes great pride in the concept of perpetual infrastructure renewal. Since 2012, Mesa Water has expended a total of \$68.6M with an average of \$8.6M per year on capital related projects as illustrated in Figure 1.

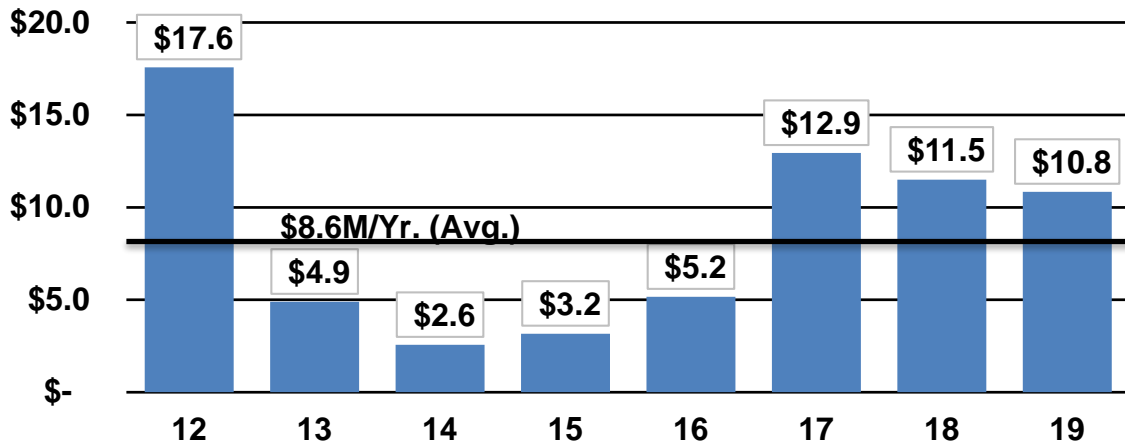


Figure 1. FY2012 – FY2019 CIP Expenditures

Mesa Water has an extensive preventative maintenance and capital replacement program that includes routine exercising of its mainline and fire line valves, production and reservoir equipment maintenance, and routine capital replacement of its water meters. The effectiveness of Mesa Water’s commitment to its routine preventative maintenance and capital replacement program is demonstrated through Mesa Water’s low water loss of only 2.2%.



In 2014, Mesa Water updated its Water Master Plan Update (Master Plan). The Capital Improvement Plan (CIP) identified \$272M of proposed CIP projects (near-term/\$48M and long-term/\$224M). These projects were prioritized and categorized based on condition assessment, remaining useful life, and future water supply needs to meet future population growth and continued 100% local reliability. Project prioritization was defined and assigned in the following three categories:

- Priority 1: 0-5 years
- Priority 2: 6-10 years
- Priority 3: >10 years

Priority 1 projects included the Well Automation Project, Reservoirs 1 and 2 Silencer and Roof Replacements, OC-44 Pipeline Rehabilitation, Imported Water Turnout Meter Replacements, and implementation of a Pipeline Integrity Testing Program to identify remaining useful life of Mesa Water's pipeline infrastructure. Another key Priority 1 project identified the need for Mesa Water to provide 115% of its peak demands from the principal ground water aquifer. Some of the Priority 2 and 3 projects include the replacement of aging distribution system pipelines identified through the Pipeline Integrity Testing Program, refurbishment of pipeline cathodic protection, reservoir natural gas engine replacements, and abandonment of end-of-life imported water metering vaults.

With many of the Priority 1 projects completed or in progress, Mesa Water is focusing on the Priority 2 and 3 projects. Due to good economic conditions and a low interest rate environment, Mesa Water is considering using Certificates of Participation to construct a considerable amount of the remaining Master Plan Priority 1 projects and pending Priority 2 and 3 projects.

DISCUSSION

Capital Improvement Program Renewal (CIPR)

Mesa Water's CIPR initiative is divided into seven main program disciplines that complement the Master Plan and project prioritization is based on input from several key stakeholders, including the District's Board of Directors, Water Operations Department, Information Technology consultants, Management Team, and the Master Plan condition assessment. The following is a summary of the CIPR effort:

- 1. Wells:** The Well Program has one main project (two new wells and pipeline) and has a total budget of **\$15.23** million. The Well Program is a key initiative for Mesa Water to maintain its ability to serve its customer water demands with 100% local groundwater supplies and achieve the Board's goal of being able to achieve 115% of its demands in any season. Two new wells will be constructed on two commercial properties purchased in the City of Santa Ana along with approximately 4,000 feet of pipeline to connect to Mesa Water's distribution system.
- 2. Reservoirs:** The Reservoir Program has three main projects and has a total program budget of **\$10.56M**. The three projects include design and construction of: a) Real-Time Chemical Management Systems, b) Pump/Motor/Engine Replacements, and c) Full Mesa Water Reliability Facility (MWRF) Back-up Power. As part of this program, Mesa Water will evaluate and identify the long-term power and water supply reliability challenges and



determine what types of systems provide the most beneficial long-term regional back-up solutions.

3. **Distribution:** The Distribution Program has four main projects and a total budget of **\$21.7M**. The four main projects include: a) Rehabilitation/abandonment of 9 large vaults hosting divisional valves or intertie connections with neighboring agencies, b) Mainline valve replacements, c) Replacement of approximately 4 miles of 6" to 12" steel pipelines approaching the end-of-life, and d) Service Line Replacements.
4. **Routine Capital:** Mesa Water maintains and funds a routine operations capital replacement program each year as part of its regular annual budgeting process. Routine operations capital replacement work includes mainline and fire hydrant valve replacements, small and large meter replacements, service line replacements, air-vacuum valves replacements, and other miscellaneous responsive capital repair work (e.g., mainline repairs, service line repairs, etc.). This program is funded at approximately \$1.0M each year, which includes labor, parts, equipment, and District overhead. As part of the CIPR, the Routine Capital Program will continue to be funded at **\$1.0M** each year.
5. **Fleet:** Mesa Water has a proactive fleet replacement program that uses the American Public Works Association (APWA) model to determine when fleet equipment should be replaced. The Fleet Replacement Program is budgeted for **\$445K** and will include replacement of five crew trucks (F-350s), one skid steer, and one backhoe.
6. **District Facilities:** This program has seven main projects and has a total budget of **\$6.21M**. The seven main projects include a) Design and construction of the MWRF Outreach Center, b) MWRF Parking Improvements, c) Development and implementation of the MWRF Education Program, d) Design and implementation of a District-wide security system, e) Construction of garage storage system, f) Design and construction of a well parts storage building, and g) Design and construction of a soils dewatering pit.
7. **Information Technology (IT):** The IT Program has 23 main projects and a total budget of **\$3.78M**. The 23 projects focus on enhancing Mesa Water's cyber-security across its networks, upgrading the IT infrastructure, and replacement of its end-of-life servers and storage systems.

A more detailed CIPR and associated project descriptions can be found in the attached CIPR Proposal (Attachment A).

Budget

CIPR funds will include expenditures in the following program areas of Table 1:



Table 1. CIP Program Expenditures

Program	Budget	%
Wells	\$ 15,234,200	21.8%
Reservoirs	\$ 10,559,238	15.1%
Distribution	\$ 21,697,470	31.0%
Routine Capital	\$ 3,500,000	5.0%
Fleet	\$ 445,000	0.6%
District Facilities	\$ 6,212,888	8.9%
Information Technology	\$ 3,777,830	5.4%
Staff Resources	\$ 2,912,572	4.2%
Subtotal	\$ 64,339,197	91.9%
10% Contingency	\$ 5,656,574	8.1%
Total	\$ 69,995,771	100.0%

Cost estimates for each program were developed from a combination of planning level cost estimates to actual engineering cost estimates from projects currently in design. Due to the level of uncertainty in planning level cost estimates, a 10% contingency has been included for those projects.

The CIPR is budgeted to expend funds starting in mid Fiscal Year (FY) 2020 through FY 2023. Table 2 provides a CIPR cost by fiscal year and discipline area.

Table 2. CIP Program Expenditures by Fiscal Year & Discipline

Fiscal Year	Budget	Avg. \$/ Month (Mil \$)	Design (Mil \$)	Construct. (Mil \$)	CMI* (Mil \$)	Resources (Mil \$)	Other** (Mil \$)
2020	\$4.86	\$0.81	\$0.50	\$4.38	\$0	\$0.24	\$0.34
2021	\$20.87	\$1.74	\$2.22	\$13.73	\$1.09	\$0.93	\$2.31
2022	\$24.77	\$2.06	\$1.40	\$18.66	\$1.59	\$0.93	\$2.19
2023	\$19.49	\$1.62	\$0.25	\$15.18	\$1.10	\$0.82	\$2.14
Total	\$69.99		\$4.37	\$51.95	\$3.78	\$2.91	\$6.98

* Construction Management and Inspection Services

** Other includes Fleet Program, Pipeline Integrity Testing activities, and 10% CIPR Contingency

Schedule

Projects have been sequenced considering criticality level, operational system constraints, and available staffing resources to deliver each program. Projects currently in design (e.g., New Wells and Pipeline, MWRP Parking, etc.) will be initiated in early FY 2021 along with the design of the more critical projects. A detailed schedule can be viewed in Appendix A of the CIPR Proposal (Attachment A).



Staff Resources

The CIPR will be managed by Mesa Water's Engineering Department with support from other Mesa Water departments (e.g., Operations, Administrative Services, Finance, etc.). The Mesa Water Engineering Department is overseen by the Assistant General Manager/District Engineer and has two Senior Engineers and a Department Assistant. Mesa Water uses a Program Manager Model (PMM) to manage and deliver its regular CIP each year. This approach uses external consulting professional services to provide design, construction management, and inspection services. Implementation of a PMM is highly effective at delivering multiple concurrent projects without maintaining a large in-house design, construction management, and inspection staff that needs specific multi-discipline experience (e.g., structural, geotechnical, pipeline, pump station, environmental, drafting, construction management, inspection, etc.). The cost for staff resources is **\$2.91M**.

Mesa Water will continue its PMM approach to deliver the CIPR. Mesa Water will be soliciting competitive professional design and construction management/inspection services from its industry partners to assist in delivering the CIPR in an approximately 42-month time-frame starting from January 2020. The proposed professional services recommendations will be brought to the Board for their consideration of approval.

Specific CIPR resource recommendations will be presented in closed session with the Board due to the nature of labor negotiations.

Staff recommends that the Board consider approving the proposed CIPR Program of \$70M. Funding options will be brought to the Board for consideration at a future Board meeting.

FINANCIAL IMPACT

Funding options for the proposed \$70M CIPR will be considered by the Board at a future Board Meeting.

ATTACHMENTS

Attachment A: Capital Improvement Program Renewal



MesaWater
DISTRICT®

**CAPITAL IMPROVEMENT
PROGRAM RENEWAL**

FEBRUARY 10, 2020

**Mesa Water District
Capital Improvement Program Renewal
FY2020 – FY2023**

Executive Summary

Mesa Water is a retail water agency that provides approximately 16,065 acre-feet per year (AFY) of domestic water and approximately 1,100 AFY of recycled water to approximately 110,000 residents throughout the Cities of Costa Mesa and Newport Beach and unincorporated portions of Orange County. Mesa Water uses 100% groundwater supplies to meet its customer's demands with 317 miles of pipeline, seven domestic groundwater wells, three reservoirs, five imported back-up water supply connections (w/Metropolitan Water District) and an advanced membrane treatment facility.

Mesa Water's 2014 Water Master Plan Update (Master Plan) provided recommendations for replacement and rehabilitation of its capital assets estimated at \$272 million (M) with \$48M in near term projects (2015-2020) and \$224M in long-term projects (2021-2040) each with three priority levels. Many of the Priority 1 near-term projects have been accomplished (e.g., Well Automation Project, OC-44 Pipeline Rehabilitation, etc.) or are in process with the Priority 2 and 3 projects pending. The Master Plan Priority 2 and 3 projects include pipeline replacements, valve and service line replacements, reservoir rehabilitation, and District facilities improvements. Mesa Water has expended an average of \$8.6M per year on CIP replacements since 2012 with a total expenditure of \$68.6M.

Mesa Water's Board of Directors has determined that due to good economic conditions and a low interest rate environment Mesa Water's Board will consider using Certificates of Participation to fund a majority of the Master Plan Priority 2 and 3 pending projects and other critical projects arising after the Master Plan was completed totaling approximately \$70M. The following is a brief summary of the programs and projects that the CIP Renewal (CIPR) will include:

1. Wells

- Chandler & Croddy Wells & Pipeline

2. Reservoirs

- Chemical Management System
- Water and Power System Reliability Assessment
- Reservoirs 1 & 2 Pump, Engine/Motor, and Control System Replacement
- MWRP Back-up Power

3. Distribution

- Pipeline Replacements (~6 miles)
- Vault Rehabilitation & Abandonments
- Valve Replacements

- Service Line Replacements

4. Routine Capital

- Mainline & Fire Hydrant Valves Replacements
- Small & Large Meters Replacements
- Responsive Mainline and Service Line Capital Repairs

5. Fleet

- Three Crew Truck Replacements
- Two Duty Truck Replacements
- Skid Steer Replacement
- Dump Truck Replacement

6. District Facilities

- MWRF Outreach Center
- MWRF Parking Improvements
- MWRF Education Program
- District Wide Security System
- Well Parts & Garage Storage
- Dewatering Pit

7. Information Technology

- Cyber-Security Enhancements
- IT Infrastructure Update
- Network Monitoring & Reporting

The aforementioned proposed projects are at varying levels ranging from planning to ready for construction. The CIPR is estimated at \$64.34M with a 10% contingency of \$5.66M for a total \$70.00M in expenditures with a design and construction time horizon of three years and 6 months. Work is scoped to start in January 2020 and all proposed CIPR work completed by June 2023. Attachment 1 provides a detailed project schedule with phasing for each program and project phasing.

The proposed CIPR will be managed by Mesa Water's Engineering's Department with support from professional consulting design and construction management and inspection services for each of the program. Mesa Water will also be enhancing its Engineering and Operations staff with an additional engineer and field crew members to assist in delivering the proposed CIPR in a three year and six-month time period. The aforementioned resources are included as part of the \$70M budget.

Introduction

Mesa Water is a retail water agency that provides domestic water and recycled water service to approximately 110,000 residents throughout the City of Costa Mesa, portions of City of Newport Beach and unincorporated Orange County. Some of Mesa Water's largest customers include John Wayne Airport, South Coast Plaza, and Newport-Mesa Unified School District.

Mesa Water services approximately 16,065 AFY of domestic water supplies and approximately 1,100 AFY of recycled water. Mesa Water's infrastructure consists of 317 miles of pipeline that vary in size from 4" to 42" in diameter, seven potable ground water wells, three reservoirs with a storage capacity of approximately 31 million gallons, and an advanced nano-membrane treatment facility that treats amber-tinted ground water for domestic water supply service. Mesa Water also has five main imported water turnouts that receive domestic water from the Metropolitan Water District of Southern California.

Mesa Water has a groundwater supply capacity of 28,973 AFY and an imported water backup supply capacity of 69,500 AFY for a total supply capacity of 98,473 AFY. Since 2013, Mesa Water traditionally uses no imported water supply as its groundwater capacity is sufficient to provide 100% of its demands. Mesa Water's vision and mandate to provide 100% local ground water supply results in significant cost savings to Mesa Water's customers and provides a high degree of water supply reliability.

Background

Mesa Water takes great pride in the concept of perpetual infrastructure renewal. Since 2012, Mesa Water has expended a total of \$68.6 million with an average of \$8.6 million per year on capital related projects as illustrated in Figure 1.

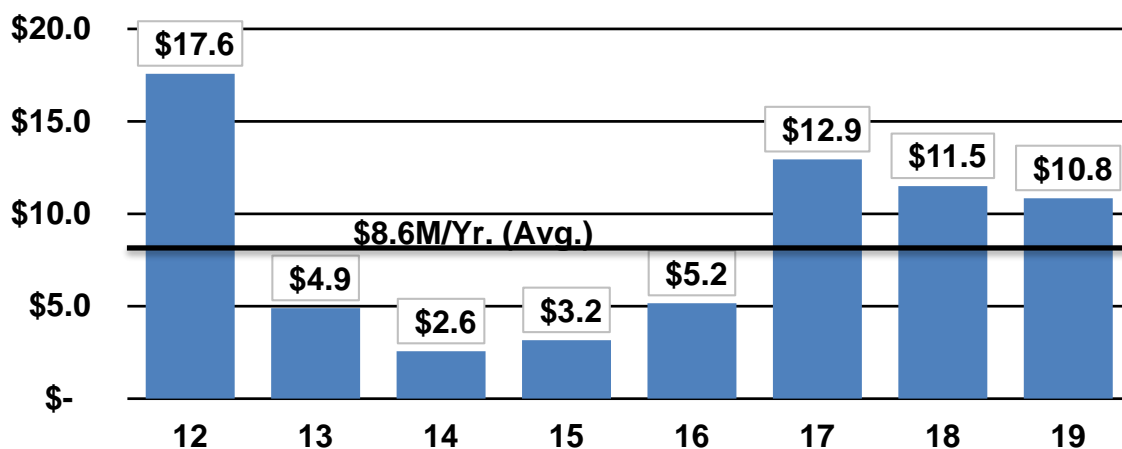


Figure 1 – FY2012 –FY2019 CIP Expenditures

Mesa Water also has an extensive routine preventative maintenance and capital replacement program that includes routine exercising of its mainline and fire line valves, production and reservoir equipment maintenance, and routine capital replacement of its water meters. The effectiveness of Mesa Water's commitment to its routine preventative maintenance and capital replacement programs is demonstrated through Mesa Water's low water loss of only 2.2%.

In 2014 Mesa Water updated its Master Plan. The CIP plan identified \$272 M of proposed near-term (\$48M) and long-term (\$224M) CIP projects. These projects were prioritized and categorized based on condition assessment, remaining useful life, and future water supply needs to meet future population growth and continued 100% local reliability. Project prioritization was defined and assigned in the following three categories:

- Priority 1: 0-5 years
- Priority 2: 6-10 years
- Priority 3: >10 years

Priority 1 Projects: Priority 1 projects included the Well Automation Project, Reservoirs 1 and 2 Silencer and Roof Replacements, OC-44 Pipeline Rehabilitation, Imported Water Turnout Meter Replacements, and implementation of a Pipeline Integrity Testing Program to identify remaining useful life of Mesa Water's pipeline infrastructure. Another key Priority 1 project identified the need for Mesa Water to provide 115% of its peak demands from the principal ground water aquifer. Since the Master Plan, Mesa water has also identified other key priority projects that include implementation of real-time chemical management facilities at Reservoirs 1 and 2 and replacement of several key mainline valves.

Priority 2 & 3 Projects: Some of the Priority 2 and 3 projects included the replacement of aging distribution system pipelines identified through the Pipeline Integrity Testing Program, refurbishment of pipeline cathodic protection, reservoir natural gas engine replacements, and abandonment of end-of-life imported water metering vaults.

With many of the Priority 1 projects completed or in progress, Mesa Water is focusing on the Priority 2 and 3 projects. Due to good economic conditions and a low interest rate environment, Mesa Water is considering using Certificates of Participation to construct a considerable amount of the remaining Master Plan Priority 1 projects and pending Priority 2 and 3 projects. In the following sections these projects are described along with Prioritization, Sequencing, Schedule, and Project Management and Resource requirements.

Program Prioritization

Mesa Water's CIPR initiative is divided into seven main program disciplines and project prioritization is based on input from several key stakeholders, including Mesa Water Operations Department, Information Technology Department, Mesa Water's

Management Team, Board of Directors, and the Master Plan condition assessment. The following is the proposed program discipline prioritization:

1. Wells
2. Vault Rehabilitation & Abandonments
3. Mainline Valve Replacements
4. Information Technology (IT)
5. Fleet
6. Pipeline Replacements
7. District Facilities

Program Projects

Proposed CIP projects are grouped into one of the aforementioned seven programs. The intent is to combine as many of the projects under one main design consulting team and construction management team for each program to allow for economies of scale, quick delivery of projects, allow for project coordination efforts, and recognition of program management efficiencies. The following describes each program and project along with the proposed costs, schedule, and design approach and status:

A. Wells: The Well Program has one main project (two wells and pipeline) and has a total budget of \$15.23 million. The Well Program is a key initiative for Mesa Water to maintain its ability to serve its customer water demands with 100% local groundwater supplies. Start-up of the MWRP in January 2013 was a historical event in Mesa Water's history allowing it to achieve the 100% local groundwater reliability milestone. In adoption of the Master Plan the Mesa Water Board determined that two additional clear water wells were needed to provide 115% of its maximum day demands. This is a critical objective to maintaining 100% local groundwater reliability during high demand seasons (e.g., Summer) and during times when other groundwater facilities have to be taken offline for maintenance or repair.

1. Croddy & Chandler Wells and Pipeline Project: This project will construct two new ground water wells that will achieve the Master Plan goal of providing 115% of Mesa Water's demands. In fiscal years 2017 and 2018 Mesa Water purchased two commercial properties in Santa Ana located approximately 0.4 miles and 0.6 miles north of Mesa Water's service area. Each well is expected to provide 3,000 to 4,000 gallons per minute (4,840 AFY to 6,453 AFY) of domestic water supply and be conveyed via a 24" and 30" pipeline to connect to Mesa Water's distribution system.

- **Design:** Well and pipeline design was initiated in FY2018 and is scheduled to be complete by the end of May 2020. The project will be broken into four main construction packages which includes; 1) Demolition (W-CP1), 2) Well Drilling (W-CP2), 3) Well Equipping (W-CP3), and 4) Pipeline Construction (W-CP4).

- **Costs:** The Engineer’s Estimate for this project is \$13.97 million. Total project cost, including remaining design services, and construction management and inspection services is \$15.23 million.
- **Construction Management/Inspection Services (CMI):** CMI services were competitively selected and will be provided by Butier Engineering for a contract value of \$1,069,200. In order to expedite the construction of the MWRF Parking Improvements Project (DF-CP2), it is the intent to have Butier Engineering perform the construction management and inspection services of this project as an addendum to their contract. \$110,000 will come the MWRF Outreach Center Project construction management line item budget.
- **Schedule:** This project is scheduled to begin at the beginning of July 2020 with each construction package sequenced to recognize the economies of scale with construction starting at the Croddy property (southern-most property). Well drilling and development of both wells will be sequenced to occur immediately following site demolition of the existing commercial structures. Well Equipping and Pipeline construction will begin immediately following pump testing of each well.

Projects	Costs	FY 2020					FY 2021					FY 2022					FY 2023													
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	J	A	S	O	N	D	J	F	M	A
Wells	\$ 15,234,200																													
Site Demo	\$ 488,750																													
Well Drilling	\$ 2,908,750																													
Well Equipping	\$ 7,748,750																													
Pipeline	\$ 3,018,750																													
CM/Inspection	\$ 1,069,200																													

RFP	Design	Bid/Adv/Award	Construction	Construction Management/Insp.
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B. Reservoir: The Reservoir Program has three main projects and has a total program budget of **\$10.56M**. The three projects include 1) Chemical Management System, 2) Power & Water Supply Reliability Study and Pump/Motor/Engine Replacement, and 3) MWRF Back-up Power Project.

Mesa Water’s Reservoirs 1&2 provide approximately 30 million gallons of storage or approximately 1.5 to 2 days of storage depending on the time of year. While Mesa Water maintains natural gas engines at each of its reservoirs for energy diversity and back-up supply, Reservoirs 1 and 2 provide minimal long-term storage should a significant regional emergency occur. As part of the Reservoir CIPR, Mesa Water will evaluate and identify the long-term power and water supply reliability challenges and determine what types of systems provides the most beneficial long-term regional back-up solutions.

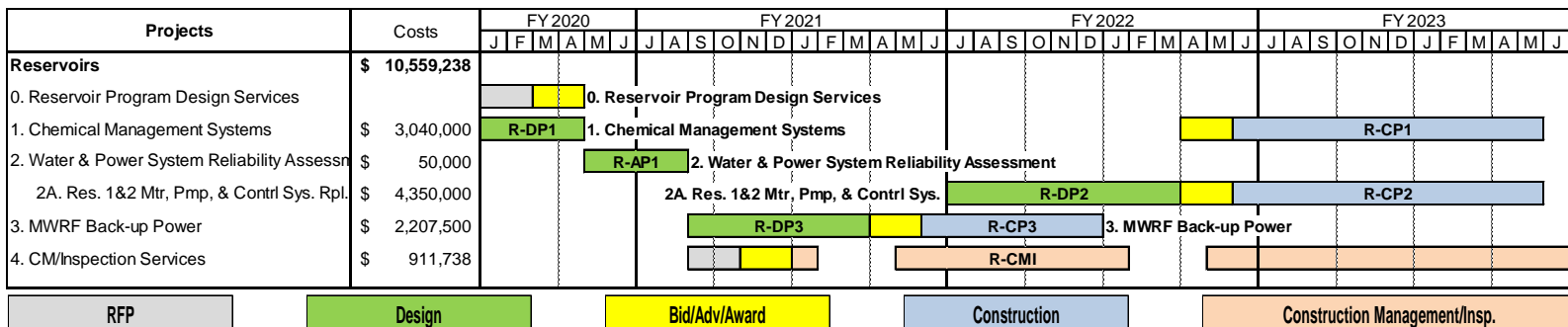
To better manage distribution system chlorine residual levels real-time chemical management is necessary at Reservoirs 1 and 2. In 2018 Mesa Water completed assessment of Reservoirs 1 and 2 pumps, engines, and engine control system and

determined that these systems have reached the end-of-life and require replacement. The CIPR will provide replacement of these main reservoir systems and equipment.

The Reservoir Program is envisioned to have one main design Consultant for design projects R-DP2 and R-DP3 (R-DP1 is currently in design) and a comprehensive Construction Management and Inspection team for projects R-CP1, R-CP2, and R-CP3. All consulting teams will be competitively selected with design consultant selection starting in January 2020 and construction management selection starting in September 2020. Each project is described below along with project phasing.

1. Chemical Management System (DP1/CP1): This project will provide real-time chemical management systems at Reservoirs 1 and 2. Real-time chemical management is critical to ensure stable chlorine disinfection residuals are maintained in the reservoirs and distribution system.

- **Design (R-DP1):** Design was initiated in FY2018 and is scheduled to be complete by the end of June 2020. The project will be bid as one construction package (R-CP1) to include both reservoirs. It is planned that R-CP1 will be bid along with R-CP2 to the same Contractor for purposes of allowing project coordination and scheduled downtime.
- **Costs:** The Engineer’s Estimate for this project is \$2.98 million. Total project cost, including remaining design services is \$3.04 million.
- **Construction Management/Inspection Services (CMI):** CMI services will be competitively selected for the entire Reservoir Program and is budgeted for \$912K. Construction Management/Inspection services are budgeted at 10% of the estimated planning construction budget.
- **Schedule:** Project construction is scheduled to begin June 2023 to coincide with Reservoir Project R-CP2 to minimize downtime of Mesa Water’s reservoirs. Reservoirs 1 and 2 will each be taken off-line for 6 months individually to allow for construction and to ensure system reliability. The Reservoir Program schedule is as follows:



2. Power & Water System Reliability Study (R-AP1): Mesa Water's access to the Orange County Groundwater Basin is one of its greatest assets providing long-term low cost water supplies to its customers and 100% local reliability. This activity will evaluate Mesa Water's power and water systems challenges, state of reliability, and provide a recommendation on the level of reliability/redundancy that Mesa Water desires to maintain during regional emergencies. This effort will be performed prior to the start of R-DP2/R-CP2 and R-DP3/CP3 starting in May 2020. This task is budgeted for \$50,000.

2A. Reservoirs 1 & 2 Motor/Engine, Pump, & Control System Replacement (R-DP2/CP2): Reservoirs 1 and 2 engines, pumps, and control system have reached the end-of-life and require replacement. This project will evaluate which energy systems, pumps, and control system is most beneficial based on the recommendations from R-AP1.

- **Design (R-DP2):** Design will be initiated in July 2022. The project will be bid as one construction package R-CP2 to include both reservoirs. It is planned that R-CP1 will be bid along with R-CP2 to the same Contractor for purposes of project construction coordination and scheduled downtime.
- **Costs:** The planning level estimate for this project is \$4.40M. Project costs may change based upon the recommendations from the Power and Water System Reliability Study.
- **Construction Management/Inspection Services (CMI):** CMI services will be competitively selected for the entire Reservoir Program and is budgeted for \$912K. Construction Management/Inspection services are budgeted at 10% of the estimated planning construction budget.
- **Schedule:** Project construction is scheduled to begin in June 2023 to coincide with Reservoir Program R-CP1 to minimize downtime of Mesa Water reservoirs. Reservoirs 1 and 2 will each be taken off-line for 6 months individually to allow construction and to ensure system reliability. Please refer to the Reservoir Program schedule in item no. 1 above.

3. Mesa Water Reliability Facility (MWRF) Back-up Power: This project is scoped to provide full back-up power to the MWRF processes as a potential solution to provide regional emergency water and power supply reliability to run during a prolonged power outage. Currently, the MWRF back-up power generator only provides power to the MWRF Administration Facility to maintain SCADA functionality to shut down the MWRF during a power outage and building power.

- **Design (R-DP3):** Design will be initiated in September 2020 and will be facilitated by the Reservoir Program design consultant. The project will be bid as one construction package independent of R-CP1 and R-CP2. This project

is prioritized over R-CP1 and R-CP2 to have the work designed and constructed prior to the MWRP Outreach Center (DF-CP1) construction but after the MWRP Parking Project (DF-CP3) completion so there is adequate contractor parking.

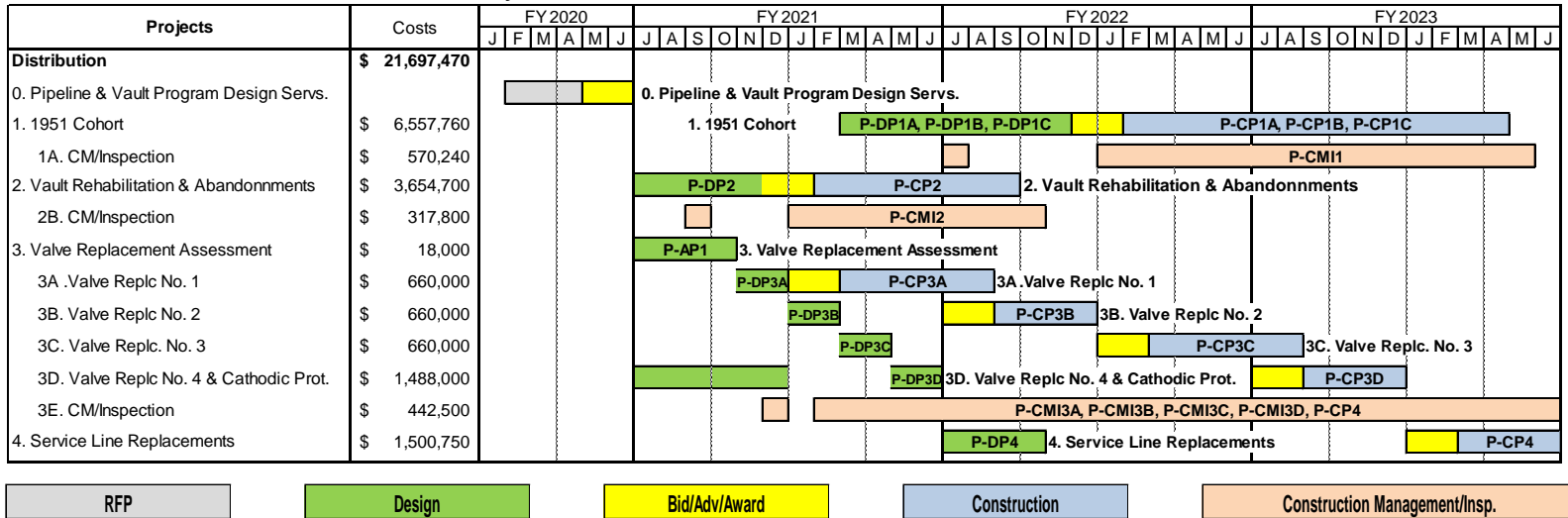
- **Costs:** The planning level estimate for this project is \$2.21 million.
- **Construction Management/Inspection Services (CMI):** CMI services will be competitively selected for the entire Reservoir Program and is budgeted for \$912K. Construction Management/Inspection services are budgeted at 10% of the estimated planning construction budget.
- **Schedule:** Project construction is scheduled to begin at the beginning of June 2021 and completed by December 2021 and to be completed prior to DF-CP1. Please refer to the Reservoir Program schedule in item no. 1 above.

C. Distribution: The Distribution Program has four main projects and a total budget of **\$21.70M** (excluding items 4-8 in the master schedule). The four main projects include 1) Rehabilitation/abandonment of 9 large vaults hosting divisional valves or intertie connections with neighboring agencies, 2) Mainline valve replacements, 3) Replacement of approximately 4 miles of 6" to 12" steel pipelines approaching the end-of-life, and 4) Service Line Replacements. This program is envisioned to have one main design Consultant for all design projects and a comprehensive Construction Management and Inspection team for all projects. All consulting teams will be competitively selected with design consultant selection starting in February 2020 and construction management selection starting shortly thereafter. Each project is described below along with project phasing.

1. Pipelines (P-DP1A-DP1C/P-CP1A-CP1C): This project will provide replacement of approximately 4 miles of 6" to 12" steel pipelines originally installed as part of the 1951 Cohort as Costa Mesa was developed. These pipelines span along Wilson Street, College Avenue, Avocado Street, Anaheim Avenue, Wallace Avenue, Maple Avenue, Bernard Street, and Placentia Avenue. The exact replacement length of the 1951 steel pipe cohort will be confirmed in March 2020 as part of the Pipeline Integrity Program non-destructive testing. However, due to the number of breaks per mile per year it is expected that at least 4 miles of the 5.7 miles of this pipeline cohort will require replacement.

- **Design (P-DP1A-1C):** The Pipeline Replacement Project design will start in March 2021 and be complete in November 2021. Three design packages will be developed with each construction bid package competitively bid.
- **Costs:** The planning estimate for this project is \$7.13M including design services, construction, and construction management/inspection services.

- **Construction Management/Inspection Services (CMI):** Total CMI services will be competitively selected for the Distribution Program and is budgeted for \$1.3M. Construction Management/Inspection services are budgeted at 10% or \$570K of the estimated planning construction budget for this component of work.
- **Schedule:** Project construction (P-CP1A-CP1C) is scheduled to begin in February 2022 and last for 15 months ending in April 2023. Each pipeline bid package will be sequentially bid and constructed to minimize traffic impacts to the community. Please refer to the Distribution schedule below.



- 2. Vault Rehabilitation & Abandonment (P-DP2/P-CP2):** This project will provide rehabilitation of Bonita Creek Park Divisional valve vault and 5 intertie vaults. This project will also include abandonment of 3 older meter turn-out vaults along the OC-44 that have not been used for several years but were never abandoned.
- **Design (P-DP2):** Design is scheduled to start in July 2020 and be complete in November 2020. The project will be bid as one construction package (P-CP2).
 - **Costs:** The planning estimate for this project is \$3.97 million including design services, construction, and construction management/inspection services.
 - **Construction Management/Inspection Services (CMI):** CMI services will be competitively selected for the Distribution Program and is budgeted for \$1.3M. Construction Management/Inspection services are budgeted at 10% or \$318K of the estimated planning construction budget for this component of work.
 - **Schedule:** Project construction (P-CP2) is scheduled to begin in February 2021 and last for 8 months. Please refer to Distribution schedule in item no. 1 above for more information.

3. **Valves (P-AP1/P-DP3A-D/P-CP3A-D):** This project will provide replacement of mainline and fire hydrant valves across the distribution system. Mesa Water annually replaces 40 to 50 mainline and fire hydrant valves. As part of this project Mesa Water will evaluate and develop a standard for mainline valve spacing that focuses on where valves shall be placed based on residential and commercial population densities that could face water outages during a mainline repair or shut-down for maintenance. This project will also rehabilitate Mesa Water's existing cathodic protection stations located along its larger diameter steel and cast iron pipelines.
- **Design (P-DP3A-3D):** The Valve Replacement Assessment (VRA) that will evaluate and define mainline valve spacing will start in July 2020. Recommendations from the VRA will be integrated into the mainline valve design project. It is expected that more than 160+ valves could need replacement, abandonment, or installation of a new valve as a result of the VRA recommendations. Design is scheduled to start in November 2020 and grouped into 4 bid packages with design activities being complete in June 2021. The project will be competitively bid as four individual construction packages (P-CP3A-CP3D). Two construction packages will target commercial valve replacements/installations/abandonments and two construction packages will target residential valve replacements, installations, and abandonments. Bid packages will be released and constructed sequentially to give consideration to community construction impacts, project management controls, and weather impacts.
 - **Costs:** The planning estimate for this project is \$3.80M including design services, construction, and construction management/inspection services.
 - **Construction Management/Inspection Services (CMI):** Total CMI services will be competitively selected for the Distribution Program and is budgeted for \$1.3M. Construction Management/Inspection services are budgeted at 10% or \$312K of the estimated planning construction budget for this component of work.
 - **Schedule:** Project construction (P-CP3A-CP3D) is scheduled to begin at the beginning of March 2021 and last for 22 months ending in December 2022. Please refer to the Distribution schedule in item no. 1 above for more information.
4. **Service Lines (P-DP4/P-CP4):** This project will replace approximately 66-2" and 195-1" plastic service lines with copper service lines originally installed in 1974 along Shasta Lane, Rainier Way, Whitney Way, Lassen Lane, Rhine Lane, Thames Way, Skyview Lane, Lakeview Lane, and Brookview Way. An increasing number of responsive repairs are made to these service lines each year and require replacement.

- **Design (P-DP4):** The Service Line Replacement Project design will start in July 2022 and be complete in October 2022. One design package will be developed for bid.
 - **Costs:** The planning estimate for this project is \$1.50M including design services, construction, and construction management/inspection services.
 - **Construction Management/Inspection Services (CMI):** Total CMI services will be competitively selected for the Distribution Program and is budgeted for \$1.63M. Construction Management/Inspection services are budgeted at 10% or \$130K of the estimated planning construction budget for this component of work.
 - **Schedule:** Project construction (P-CP4) is scheduled to begin in March 2023 and last for 4 months ending in June 2023. One bid package will be bid. Please refer to the Distribution schedule in item no. 1 herein.
- 5. Pipeline Integrity Testing:** Mesa Water will continue to perform routine non-destructive and destructive testing of its infrastructure each year. Non-destructive testing includes acoustical wall thickness measurements of approximately 3 miles per year of its pipeline infrastructure and numerous destructive pipeline tests when Mesa Water performs capital valve replacements or mainline repairs. This information is used to estimate remaining useful life of Mesa Water's 317 miles of pipeline infrastructure and perform timely replacement. The Pipeline Integrity Testing Program is budgeted for \$250,000 per year or \$875,000 for FY2020 through FY2023.
- 6. On-Call Design & Construction Management:** Mesa Water will continue to budget for the use of its On-Call Design and Construction Management professional services. These contracts are instrumental in quickly delivering small projects that arise outside of the traditional planning, design and construction process. The On-Call Design and Construction Management Program is budgeted for \$250K per year or \$875K for FY2020 through FY2023.
- 7. Other Agency Projects:** Mesa Water works closely with other agencies (e.g., City of Costa Mesa, Caltrans, County of Orange, etc.) to coordinate relocation work of its pipeline and ancillary infrastructure as needed to accommodate road maintenance, street widening projects, and other infrastructure improvements (e.g., Storm drain improvements, etc.). In FY2020 Mesa Water is partnering with I-405 Partners to relocate the 12" Fairview Road water main where it crosses the I-405. This relocation is budgeted in Mesa Water's 2020 CIP for a cost of \$1.02M. Other Agency projects will continue to be budgeted at \$75K per year or a total of **\$1.31M** for FY2020 through FY2023 including the 12" Fairview Road water main replacement.

8. OC-44 Pipeline Rehabilitation: Mesa Water is in process of rehabilitating 1,800 feet of 42" steel pipeline across the Newport Backbay. There have been three pipeline failures over the past 18 years in this section of pipe totaling approximately \$1M for each repair since 2002. The OC-44 Pipeline is jointly owned with the City of Huntington Beach. Work will be complete by mid-March 2020. The total construction cost is **\$3.13M** with Mesa Water's portion of work budgeted at **\$2.11M** including design, construction management and inspection.

D. Routine Capital: Mesa Water maintains and funds a routine operations capital replacement program each year as part of its regular annual budgeting process. Routine operations capital replacement work includes mainline and fire hydrant valve replacements, small and large meter replacements, service line replacements, air-vacuum valves replacements, and other miscellaneous responsive capital repair work (e.g., Mainline repairs, service line repairs, etc.). This program is funded at approximately \$1.0M each year, which includes labor, parts, equipment, and District overhead. As part of the CIPR the Routine Capital Program will continue to be funded at **\$1.0M** each year.

E. Fleet: Mesa Water has a proactive fleet replacement program that uses the American Public Works Association (APWA) model to determine when fleet equipment should be replaced. Replacement criteria are based on numerous factors, such as, age, mileage, run-time hours, annual maintenance costs, depreciation, and other regulatory factors (e.g., SQAQMD compliance requirements, etc.). Because Mesa Water's geographical area is only 18 square miles its vehicles and equipment typically reach end-of-life status due to maintenance costs in lieu of high miles.

The CIPR proposes to replace older equipment that is reaching the end-of-life for one or several of the aforementioned criterions. These replacements will include five crew trucks (F-350s), one skid steer, and one backhoe. Two of the five crew trucks will be equipped with lift arms to allow replacement of large meters, vaults, production equipment repair/maintenance that was traditionally performed with the boom truck. The boom truck is no longer a viable fleet asset due to recent extensive California crane operator certification and SCAQMD requirements. Thus, Mesa Water will be unable to train and maintain compliance with either of these program's regulatory requirements using the boom truck due to the number of hours required for training each field worker while staying under the SCAQMD operations limit for diesel engines. The Fleet Replacement Program is budgeted for **\$445K**. Replacement of the backhoe and skid steer is planned for June 2020 and the crew trucks are planned for early 2021.

F. District Facilities: This program has seven main projects and has a total budget of **\$6.21M**. The seven main projects include 1) Design and construction of the Mesa Water Reliability Facility (MWRF) Outreach Center, 2) MWRF Parking Improvements, 3) Development and implementation of the MWRF Education Program, 4) Design and implementation of District wide security system, 5)

2020 to accommodate construction parking for the future projects discussed herein.

- **Costs:** The Engineer's Estimate for construction is \$1.39M.
 - **Construction Management/Inspection Services (CMI):** It is recommended that due to the timing of the MWRF Parking Project construction that construction management and inspection services be assigned to Butier Engineering as a change order to project W-CP1 to deliver this portion of the project on schedule. \$110K for CMI services is budgeted as part of the \$474K for the MWRF Outreach Center Project.
 - **Schedule:** Project construction (DF-CP2) is scheduled to begin in July 2020 and be complete in November 2020. A detailed schedule of the District Facilities Program is included in item no. 1 above.
3. **MWRF Education Program (DF-EPA/DF-DP3/CP3):** This project will provide the education program development that will be implemented in the newly constructed MWRF Outreach Center. The MWRF Education Program will have a focus on regional and statewide water issues that can be used for school programs, public education, and legislative outreach.
- **Education Program Assessment (DF-EPA):** The MWRF Education Program Assessment will be the tool for the District to define the educational goals, target audiences, level and types of exhibits implementation, and budget. The EPA is scheduled to start in May 2020 and be completed in July 2020.
 - **Design (DF-DP3):** Recommendations from the EPA will be designed into educational exhibits that will be placed within the completed MWRF Outreach Center. Design will start in August 2020 and be complete in March 2021.
 - **Costs:** The planning estimate for this project is \$1.00M including the EPA, design services, and exhibit construction and implementation.
 - **Schedule:** Exhibit implementation (DF-CP3) will start in November 2021 and be complete in February 2022.
4. **Security System Replacement (DF-DP4/CP4):** This project will provide a comprehensive and integrated security system across all of Mesa Water's facilities. Mesa Water's current security system is beyond end-of-life and each site is independently alarmed with multiple contracts to handle each facility.
- **Design (DF-DP4):** Mesa Water will competitively solicit professional design services from experts in the building security industry to provide a comprehensive assessment of Mesa Water's security requirements and

provide a design that supports those requirements. Design is scheduled to start in May 2020 and be complete by October 2020.

- **Costs:** The planning estimate for this project is \$315K including design services and security system implementation.
- **Construction Management/Inspection Services (CMI):** CMI services will be overseen by the competitively selected team for the MWRF Outreach Center construction.
- **Schedule:** Security system implementation (DF-CP4) will start in January 2021 and be complete by April 2021.

5. **Garage Storage (DF-DP5/CP5):** This project will provide a parts and equipment storage system in the Mesa Water garage space. Mesa Water no longer uses its garage space as a fleet service garage. Thus, this space can be more beneficially used for parts and equipment that need to be stored and protected from weather.

- **Construction (DF-CP5A):** An interior garage demolition project (DF-CP5A) is currently in the bid process that will remove the existing hydraulic lifts, concrete filling of the below grade hydraulic chambers, overhead compressed air pipe works, and other miscellaneous equipment. This project is scoped to start in January 2020 and be completed by the end of February 2020. The cost for this project is \$87,000.
- **Design (DF-DP5B):** This project will use the MWRF Outreach Center design consultant to provide a storage system design that supports the needs of Mesa Water's Operations Department. Design is scheduled to start in May 2020 and be complete in June 2020.
- **Costs:** The planning estimate for this project is \$50K including design services.
- **Construction Management/Inspection Services (CMI):** CMI services will be overseen by Mesa Water staff.
- **Schedule:** Garage storage implementation (DF-CP5B) will be performed in August 2020.

6. **Well Parts Storage (DF-DP6/CP6):** This project will provide a spare parts and equipment storage facility for Mesa Water's well equipment. It is the goal of Mesa Water to ensure online reliability of its well facilities by having the requisite spare parts on hand to make timely repairs. It is essential that this facility be located near Mesa Water's well field (e.g., Likely located at one of Mesa Water's well site) to allow for easy access and timely staff response.

- **Design (DF-DP6):** This project will use the MWRF Outreach Center design consultant to provide a well parts facility design that supports the needs of Mesa Water's Operations Department. Design is scheduled to start in May 2020 and be completed in September 2020.
 - **Costs:** The planning estimate for this project is \$306K including design services.
 - **Construction Management/Inspection Services (CMI):** CMI services will be overseen by the MWRF Outreach Center competitively selected construction management/inspection team.
 - **Schedule:** The Well Parts Storage construction (DF-CP6) will be bid with the MWRF Outreach Center Project (DF-CP1) and start in March 2021 and be completed in June 2021. The start of this project is set to coincide with the MWRF Outreach Center construction to take advantage of the shared construction management services.
- 7. Dewatering Pit (DF-DP7/CP7):** This project will provide a dewatering pit at the Mesa Water Operations yard that will separate excavation slurry material that results from using the vacuum trailer on valve installation work. The current process of dewatering vacuum trailer spoils is to let the spoils evaporate on a drying surface. A dewatering pit will eliminate several challenges of long evaporation times in cooler weather, limited real-estate for spoils spreading, and substantial cleanup activities that comes with the mess of this material. This project will also increase the efficiency of the operations field work and handling of excavated material.
- **Design (DF-DP7):** This project will use the design consultant from the Reservoir 1 Pump Replacement Project (R-DP2) to provide a dewatering pit design that supports the needs of Mesa Water's Operations Department and meets regulatory permitting requirements. Design is scheduled to start in August 2020 and be completed by January 2021.
 - **Costs:** The planning estimate for this project is \$575K including design services, construction, and construction management/inspection services.
 - **Construction Management/Inspection Services (CMI):** CMI services will be overseen by the Reservoir Program competitively selected construction management team.
 - **Schedule:** The Dewatering Pit construction (DF-CP7) will start in April 2021 and be completed in August 2021.

G. Information Technology: The IT Program has 23 main projects and a total budget of **\$3.78M**. Unlike traditional water works types of capital improvement projects that have a traditional design, bid, and construction approach and span several months or years, IT projects have much more rapid deployment of design and implementation project cycles that last only a few weeks to a few months. Thus, the CIPR IT Program has been structured to provide implementation of the most critical projects in FY21 with FY22 and FY23 projects building on top of the FY21 backbone implementation. There are four main work components to the IT Program project implementation; these include design/engineering, hardware/software, project implementation, and project management oversight. The following is a summary description of the IT Program projects by fiscal year:

Fiscal Year 2021

- 1. Office 365 Migration:** This project will provide the latest generation of Microsoft Windows Office system. The effort includes the migration of email and individual file shares to Microsoft Office365 cloud platform and will result in reduced on premise Mesa Water servers, storage, security and backup support requirements. This infrastructure improvement aligns with the Mesa Water IT operations model of reducing the need for internal IT expertise and support services personnel. The project will also restructure Mesa Water's Microsoft license agreement and ongoing support providing a simplified subscription model.
Project Budget: \$222,840
- 2. SolarWinds (Phase 2):** This project will improve visibility and proactive management of Mesa Water's IT environment. The efforts provide patch and database management and improve visibility as to how all current hardware and software works within the environment. This will reduce the risk of not having the correct security patches on any single device or application. Additional visibility will be provided to the performance and capacity of each application database housing critical data to improve the IT operations and maintenance of Mesa Water's IT activities.
Project Budget: \$100,520
- 3. OKTA:** This project will improve the security of Mesa Water's remote access services. OKTA will align Mesa Water's IT remote access services to industry best practices commonly used by most banks, financial services and other major institutions. Mesa Water's staff will receive a text (code) or email (secure link) that provides a second form of identity (multi-factor authentication) to confirm their identity when accessing the network externally. In addition, OKTA will also enable the capability to use a single password (single sign-on) eliminating the necessity of signing into both Windows and each department's applications where possible.
Project Budget: \$84,070

4. **SCADA Metrics:** The SCADA Metrics project will expand the existing Mesa Water IT monitoring platform SolarWinds and extend Mesa Water's IT reporting metrics, monitoring and reporting methodology to the mission critical SCADA system. The effort will include additional infrastructure licenses and defining the metrics for daily, weekly and monthly reporting.
Project Budget: \$139,400
5. **Converged Infrastructure:** This project will refresh the end of life servers and storage using the latest converged technology which combines servers, storage, and the virtual environment into a single management platform reducing future maintenance and support. This converged technology will provide a more scalable platform that can expand and grow with minimal effort. Additionally, using the latest flash and compute technology will provide higher performance and increase the speed to backup and manage the platform.
Project Budget: \$439,520
6. **Application Security:** This project will transition the Mesa Water application environment to industry best IT security practices. This will involve rebuilding each application on the new converged infrastructure utilizing industry best practices such as being on compliant Windows Server versions, separating each application functional layer into separate security zones, etc.
Project Budget: \$222,440
7. **NIST Compliance/Recommendation:** This project will remediate gaps in Mesa Water processes and documentation based on the NIST audit recommendations. This will involve aligning how documents are maintained and managed. Mesa Water will also add additional security metrics to meet the NIST Cybersecurity standards.
Project Budget: \$63,800
8. **EOC Storage/Server Upgrade:** This project will upgrade the EOC server hardware, storage infrastructure, and system configurations to provide standalone core services (email, document directory, internet, etc....) functionality in the event of total operational failure to the main datacenter. The effort will align Mesa Water's EOC technology with the primary data center and standardize all hardware and technology.
Project Budget: \$237,920

FY21 contains 8 projects with a project budget of \$1,510,510.

Fiscal Year 2022

9. **MWRF Dedicated Circuit:** This project will align the MWRF facility to Mesa Water enterprise IT standards. This involves the installation of a dedicated switched circuit between the MWRF building and the data center, replacing the current broadband coax internet connection used today. This connection will

leverage the security benefits provided by the data center that currently do not exist at the MWRF facility.

Project Budget: \$33,200

10. **MWRF Data Center Remodel:** This project will align the MWRF facility to Mesa Water enterprise IT standards. This involves the installation of cabinets, PDU's, cabling, patch panels to industry standards.

Project Budget: \$83,400

11. **MWRF DR Remote Site:** This project will be the build out of a disaster recovery (DR) site to support all Mesa Water's critical applications at a data center not located on the same property as the primary data center. This site will provide services in the event Mesa Water lost all services to the administration and operation buildings.

Project Budget: \$277,560

12. **Network Infrastructure Refresh:** This project will be the build out of a disaster recovery (DR) site to support all Mesa Water's critical applications at a data center not located on the same property as the primary data center. This site will provide services in the event Mesa Water lost all services to the administration and operation buildings.

Project Budget: \$247,040

13. **IT Security Vulnerability Tools:** This project will improve the visibility of the Mesa Water IT security environment. This involves the installation of a security penetration tester to scan the Mesa Water network for vulnerabilities on a weekly basis and provide an automated report identifying risk across the Mesa Water IT infrastructure. This test will comply with industry standards and not only look for security vulnerabilities, but also validate that all operating systems and applications are meeting security standards.

Project Budget: \$116,560

14. **IT Disaster Recovery Architecture:** This project will provide the architecture and build out of the recovery process for each application if the Mesa Water District experience a loss of their on-premise Data Center facility. The project will include the necessary redesign of how each application is installed, managed and monitored. This project contributes to reducing and eliminating and disruption of services in the event of any device or application failure. This project will also provide the disaster recovery framework for all new Mesa Water District IT systems.

Project Budget: \$173,240

15. **IT Security-OKTA Life Cycle Management:** This project will provide additional security and automation during the onboarding process of new employees and the management during termination. The security tools will create or delete all necessary accounts validating all terminated employees are unable to access

any systems within minutes of their termination. Additional enhancements will provide password management for IT administrators by automating and assigning randomly generated passwords for limited durations. Lastly, the new management abilities will allow the sharing and federation access between applications requiring a single point to manage and change login credentials across most of Mesa Water applications.

Project Budget: \$136,800

16. **IT Electrical Closet/IDF Cleanup:** This project will decommission legacy telephone infrastructure and remove cabling from the previous analog phone system. The project will simplify the cabling system enabling more accurate and efficient cable tracing and replacement for operational support.

Project Budget: \$74,000

FY22 contains 8 projects with a project budget of \$1,143,600.

Fiscal Year 2023

17. **IT Application Run Books & Monitoring:** This was identified as a gap in the 2020 Nth Generation IT report. This project will provide the necessary IT workflows to support activating, restarting and moving each application. The project will reduce the amount of time to recover from an application failure and provide the necessary sequence of event to recover in the fastest possible time. The effort will provide a better understanding of the RPO (Recover Point Objective) and RTO (Recovery Time Objective) helping the Mesa Water understand the impact and risk of any application failure. Monitoring and maintaining the runbooks will be structured and included into the IT change control process.

Project Budget: \$167,920

18. **Managed Print Services:** This project involves replacing the current large copiers, small personal printers and engineering plotter with the latest hardware and management applications. This effort transition Mesa Water print services to align with the IT enterprise standards and management processes. Project benefits include consolidation of all printer/copiers/plotters into a single management console and managed services to a single vendor, automated ink replacement and service tickets, integration with document management systems and policies simplifying maintenance and support for operational staff. Additionally, users will have the ability to print from cell phones and automatically connect to the closest printer increasing employee mobility and efficiency.

Project Budget: \$100,400

19. **Fire & Security Alarm Systems Communication Infrastructure:** This project will convert critical fire and security alarm system PRI communications lines to Mesa Water District IT enterprise network communications standards. This will

increase reliability, lower monthly costs, and enable the ability of monitoring through integration with the IT infrastructure environment.

Project Budget: \$62,000

20. **Fax Services:** This project will convert the Mesa Water fax services to align with the IT enterprise standards and management processes. This will increase reliability, lower monthly recurring costs, enable cloud-based monitoring/management, enhance security and simplify the faxing processes. Users will have the ability to send and receive faxes from their workstations in addition to the printer/fax devices.

Project Budget: \$80,000

21. **Document Management System:** This project will establish the framework to centralize all documents within Mesa Water and providing the framework and workflows needed for each type of document to be added, managed and or used. The effort will include the build out of the needed workflows required based on the type of document automating the routing of documents for approval, escalation, signature, history and more. This project will include migration of the highest priority documents identified by Mesa Water District management to the document management platform. The objective of this project will be to provide the framework and methodology to move to a paperless system over time.

Project Budget: \$420,520

22. **Physical Security Systems Transition:** This project will align the main Placentia site and MWRF facility physical security systems to Mesa Water District IT enterprise standards and AWAI standards. This involves replacing the current security camera application and hardware, badge entry application and legacy hardware, and gate access systems. Enabling integration of all physical security systems into a single management console. Additionally, this project will consolidate the managed services to a single vendor simplifying maintenance and support for operational staff.

Project Budget: \$127,520

23. **Department IT Metrics:** This project will improve visibility and proactive management of the various department IT systems within Mesa Water. The efforts include the expansion of Mesa Water's management system to include all department IT systems providing monitoring and reporting of mission critical services. This effort will standardize IT systems monitoring and reporting across all of Mesa Water including IT, operations and the various departments.

Project Budget: \$165,360

FY23 contains 7 projects with a project budget of \$1,123,720.

- H. **Staff Resources:** This program budgets the time Mesa Water's Engineering and Operations staff will expend on CIP related work for the duration of this program. It is also assumed that additional Engineering and Operations staff will be required to

deliver the CIPR in 42 months. Please refer to the Program Management/Resources Section herein for more detail on additionally required Engineering and Operations staff positions. Total staffing resource costs is **\$2.91M**. It is assumed that these positions will expend approximately 78% of their time on capital related work and will be evenly distributed throughout the 42 months of the CIPR and include Mesa Water’s overhead rate. Routine Operations capital work staff time is accounted for in the Routine Operations Capital Budget. Department Managers’ time who function as Program Manager’s (see Resources Section below) are captured in the District’s overhead rate.

Budget

The CIPR is budgeted to expend funds starting in mid FY2020 through FY2023. CIPR funds will include expenditures in the following program areas of Table 1:

Table 1 –CIP Program Expenditures

Program	Budget	%
Wells	\$ 15,234,200	21.8%
Reservoirs	\$ 10,559,238	15.1%
Distribution	\$ 21,697,470	31.0%
Routine Operations	\$ 3,500,000	5.0%
Fleet	\$ 445,000	0.6%
District Facilities	\$ 6,212,888	8.9%
Information Technology	\$ 3,777,830	5.4%
Staff Resources	\$ 2,912,572	4.2%
Subtotal	\$ 64,339,197	91.9%
10% Contingency	\$ 5,656,574	8.1%
Total	\$ 69,995,771	100.0%

The Distribution Program has the largest proposed CIP expenditure at 31% which will focus on replacement of end-of-life pipelines, valves, and service lines. Mesa Water’s past eight years CIP expenditures has largely focused on construction of the MWRF, the Well Automation Project, the OC-44 Pipeline and Turnout Rehabilitation Projects, Routine Operations, and District Administration Facility Improvements. The proposed CIPR continues to enhance the Wells, Reservoirs, and Distribution Programs by providing Mesa Water with local supply capacity to meet 115% of its maximum day demands with the construction of two new wells and pipeline and rehabilitation of its two storage reservoirs. These aforementioned three programs account for 68% of the proposed CIP expenditures. Mesa Water will continue to upgrade its Information Technology Program to maintain relevant in the cyber-security environment along with implementation of the MWRF Outreach Facility rounding out Mesa Water’s District Facilities Program.

The Staff Resources budget line item is to provide an additional Engineering Department resource for project management responsibilities that will be shared among the Engineering, Operations, and Information Technology Programs (See Project Management and Resources Section Below) and provide CIPR tracking and reporting Program Management to the Assistant General Manager.

The proposed CIPR budget is comprised of projects that are comprised of detailed cost estimates in the final stages of design (e.g., Chandler/Croddy Wells & Pipeline, Reservoir Chemical Management System, etc.) and planning level cost estimates (e.g., Valves, Pipelines, District Facilities, etc.). Thus, due to the planning level cost estimates (e.g., -15% to +40% accuracy) a 10% contingency has been included in the overall CIPR budget (excluding the Wells Program & MWRf Outreach Facility – contingencies were already included in these cost items).

Table 2 provides a CIPR cost by fiscal year and discipline area.

Table 2 – CIP Program Expenditures by Fiscal Year & Discipline

Fiscal Year	Budget	Avg. \$/ Month (Mil \$)	Design (Mil \$)	Construct. (Mil \$)	CMI* (Mil \$)	Resources (Mil \$)	Other** (Mil \$)
2020	\$4.86	\$0.81	\$0.50	\$4.38	\$0	\$0.24	\$0.34
2021	\$20.87	\$1.74	\$2.22	\$13.73	\$1.09	\$0.93	\$2.31
2022	\$24.77	\$2.06	\$1.40	\$18.66	\$1.59	\$0.93	\$2.19
2023	\$19.49	\$1.62	\$0.25	\$15.18	\$1.10	\$0.82	\$2.14
Total	\$69.99		\$4.37	\$51.95	\$3.78	\$2.91	\$6.98

* Construction Management and Inspection Services

** Other includes Fleet Program, Pipeline Integrity Testing activities, and 10% CIPR Contingency

The goal of the CIPR is to balance the expenditure of funds across each year using both internal and external resources. Resource requirements are discussed in the Resources Section herein. The largest design effort occurs in FY2021 followed by FY2022. Construction funding is roughly the same in FY2021 and FY2023 at approximately \$20M per year and peak in FY22. Figure 2 provides an approximation of expenditures by month for the duration of the CIPR effort.

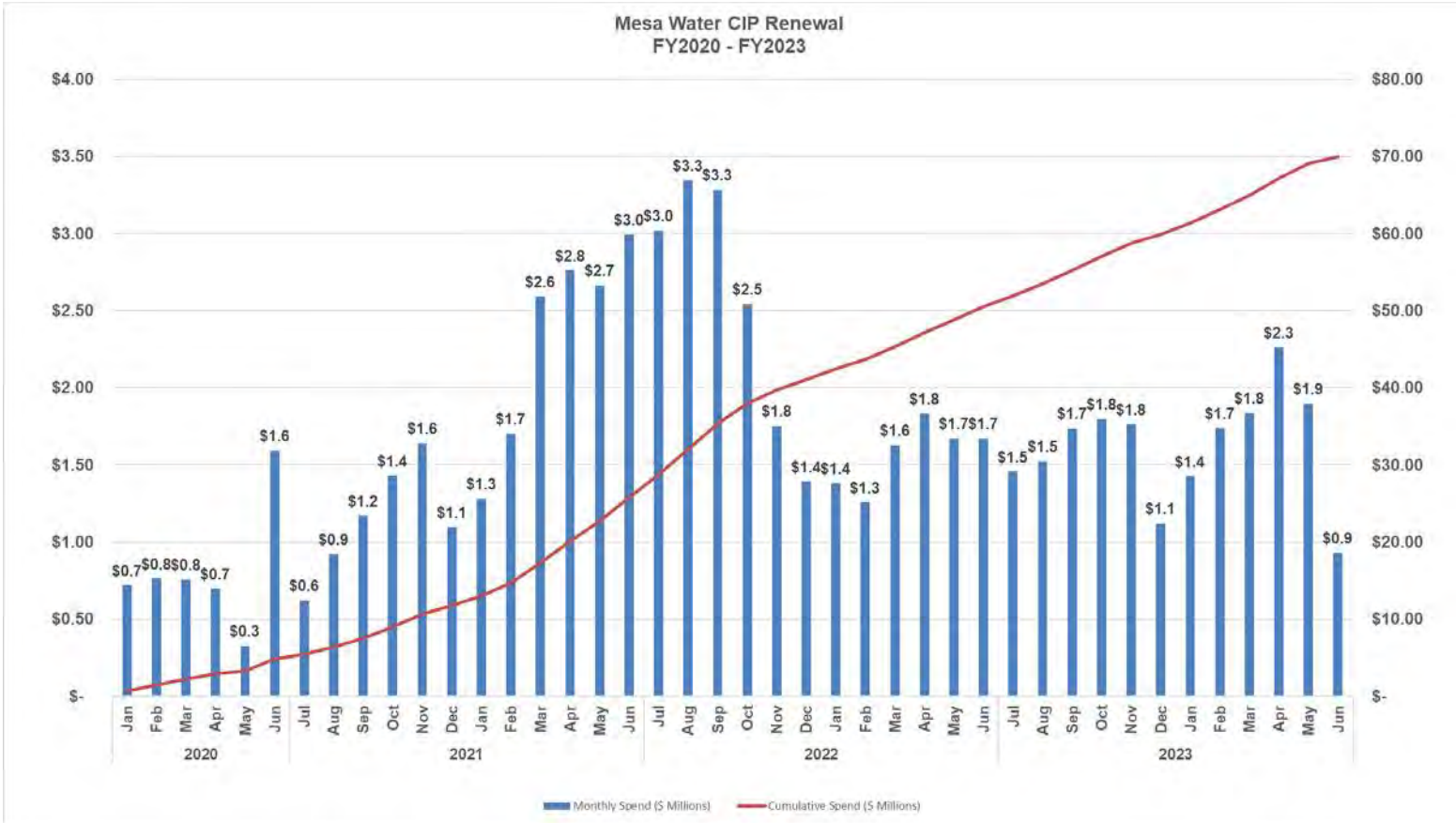


Figure 2 – CIP Expenditures by Month

The goal of a well-managed CIP is to have fairly uniform expenditures over the life of the program. Table 2 demonstrates that the average expenditure per month is \$1.74M, \$2.06M, and 1.62M for FY2021, FY2022, and FY2023, respectively. While the average expenditure per month is within a reasonable range, there are peaking expenditures that occur (e.g., Mar. 2021 to Oct. 2021, etc.) while design efforts are being completed and projects are put into the advertisement and construction phases. The proposed program has been optimized to evenly smooth monthly CIP expenditures considering project sequencing, construction restrictions and operational constraints.

Program Management/Resources

The CIPR will be managed by Mesa Water’s Engineering Department with support from other Mesa Water departments (e.g., Operations, Information Technology, Finance, etc.). The Mesa Water Engineering Department is overseen by the Assistant General Manager/District Engineer and has two Senior Engineers and a Department Assistant. Mesa Water uses a Program Manager Model (PMM) to manage and deliver its regular CIP each year. This approach uses external consulting professional services to provide design, construction management, and inspection services. Implementation of a PMM is highly effective at delivering multiple concurrent projects without maintaining a large in-house design, construction management, and inspection staff that needs specific

multi-discipline experience (e.g., Structural, geotechnical, pipeline, pump station, environmental, drafting, construction management, inspection, etc.).

The CIPR has been designed to have a lead Project Manager for each of the aforementioned Programs with oversight from a Program Manager. The following is a proposed CIPR assignment allocation:

Table 3 – Project Manager & Program Manager Assignments

Program	Program Manager	Project Manager			
		FY2020	FY2021	FY2022	FY2022
Wells	AGM	SE A	SE A	SE A	SE A
Reservoirs	AGM	SE B	SE B	SE B	SE B
Distribution	AGM	SE A	PE	SE A/B	SE A/B
Routine Ops.	OM	OM/ENR	OM/ENR	OM/ENR	OM/ENR
Fleet	OM	OM	OM	OM	OM
District Facilities	AGM	SE A/B	SE A/B	SE A/B	SE A/B
Info. Technology	AM	AM/ENR	AM/ENR	AM/ENR	AM/ENR
Staff Resources	AGM	AGM	ENR	ENR	ENR

Notes:

AGM/DE = Assistant General Manager/District Engineer

AM = Administration Manager

OM = Operations Manager

ENR = Engineer

SE = Senior Engineer

Engineering & Operations Resources: It is proposed that an additional Engineering resource be procured to provide project management support. The additional engineer would report to the Assistant General Manager and provide project management responsibility to the Distribution Program and partial support to the Information Technology and Operations Programs at varying levels through each fiscal year. The additional engineer would also be responsible for tracking overall CIPR performance throughout the program and recommending adjustments to project scopes, sequencing, scheduling, and coordination issues. Table 4 demonstrates the following resource allocations along with specific program responsibilities.

Program	FY2020			FY2021			FY2022			FY2023		
	SE A	SE B	ENR	SE A	SE B	ENR	SE A	SE B	ENR	SE A	SE B	ENR
Wells	0.0	0.4	0.0	0.0	0.4	0.0	0.0	0.2	0.0	0.0	0.0	0.0
Reservoirs	0.2	0.1	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0
Distribution	0.1	0.2	0.0	0.0	0.1	0.4	0.2	0.3	0.0	0.1	0.3	0.0
Routine Operations	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2	0.0	0.0	0.2
District Facilities	0.5	0.2	0.0	0.6	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Info. Technology	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.5	0.0	0.0	0.5
Program Mang.	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.2
On-Going/Ops. Proj.	0.0	0.2	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.5	0.4	0.0
Expense Proj./Leave	0.2	0.2	0.0	0.2	0.3	0.0	0.2	0.3	0.0	0.2	0.3	0.0
Total	1.0	1.3	0.0	1.0	1.1	1.0	0.9	0.9	0.9	1.0	1.0	0.9

Table 4 – CIPR Resource Allocation

Table 4 resource allocations were derived from existing Mesa Water Project Management work reporting statistics gathered from fiscal years 2019 and 2020. The following assumptions are made for CIP related project management resource allocations:

- Project Management design oversight is allocated at 16 hours/month with 24 hours/month for a design submittal review
- Bid & Award oversight is allocated 40 hours/month with a 2-month approval cycle
- Construction Management oversight is allocated 16 hours/month (20 hours/month for projects involving electrical and instrumentation construction)
- Construction Management Consultant oversight is allocated 2 hours/month
- MWRF Outreach Center Project: 40 hours/month (Design) and 80 hours/month (construction)
- Project resourcing is based on a 40 hours/week work-load

Mesa Water's Engineering staff also oversee CIP support programs that account for part of their average monthly project management responsibilities as follows:

- Board/Committee Meetings: 5 hours/month
- Water Loss Audit: 13 hours/month
- Geographical Information System: 5 hours/month
- Plan Check: 10 hours/month
- Leave/Training: 24 hours/month

The aforementioned resource allocations indicate that the addition of an engineer is required to assist in effectively delivering the proposed CIPR in the 42-month time frame with each position fully loaded. Other assumptions about the additional engineer position include the following:

- Additional engineer will start at beginning of FY2021

- Additional engineer will be Project Manager of the Distribution Program in FY2021
- In FY2021 additional engineer will provide project management support with 0.12 FTE to Operations Program and 0.12 FTE to Information Technology Program and 0.25 FTE overall support to CIPR reporting and tracking
- In FY2022 Distribution Program project management support provided by Senior Engineers A & B.
- In FY2022/2023 additional engineer will provide project management support with 0.25 FTE to Operations Program and 0.5 FTE to Information Technology Program and 0.25 FTE overall support to CIPR reporting and tracking

Please note that the goal is to procure an additional engineer prior to FY2021 to assist in reallocating the additional 0.3 FTE of work assigned to Senior Engineer B.

Operations Resources: Other required resources include the addition of a distribution field crew. This field crew will assist with facilitating distribution shut-downs for pipeline, valve, and service line replacement work. Approximately 132 staff days of a 2-person crew are required to perform shut-downs and oversight of contractor field work for the installation of 50 valves similar to that proposed under the Distribution Program Valve Replacement Project. This metric was comprised from a 2018 Mesa Water contractor installed valve replacement project using Mesa Water's Computerized Maintenance Management System.

The Distribution Program construction work is planned to start in February 2021 and last until June 2023. While Mesa Water's existing field crews could assist with this work other Routine Capital and Maintenance work would have to be deferred. Thus, it is recommended to enhance Mesa Water's field crews with additional field crew members.

Resource Options: The level of the proposed additional engineer and number of additional Operations field crew members will be discussed in a separate memo to the Board of Directors as this will need to be considered in closed session due to labor negotiations.

Appendix A
Attachment 1 – CIPR Schedule

Mesa Water® Capital Improvement Program Renewal

Projects	Costs		FY 2020						FY 2021						FY 2022						FY 2023																						
	Costs	Package	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Wells	\$ 15,234,200																																										
Site Demo	\$ 488,750	CP1	W-DP1 (FY20), W-CP1 (FY21) Site Demo																																								
Well Drilling	\$ 2,908,750	CP2	W-DP1 (FY20), W-CP2 (FY21) Well Drilling																																								
Well Equipping	\$ 7,748,750	CP3	W-DP1 (FY20), W-CP3 (FY21) Well Equipping																																								
Pipeline	\$ 3,018,750	CP4	W-DP1 (FY20), W-CP4 (FY21) Pipeline																																								
Construction Management/Inspection	\$ 1,069,200	CMI	CMI (FY21)																																								
Reservoirs	\$ 10,559,238																																										
0. Reservoir Program Design Services			R-DP1 (FY20)																																								
1. Chemical Management Systems	\$ 3,040,000	DP1/CP1	R-AP1 (FY20), R-CP1 (FY21)																																								
2. Water & Power System Reliability Assessment	\$ 50,000	AP1	R-AP1 (FY20)																																								
2A. Res. 1&2 Motor/Engine, Pump, & Control System Replac	\$ 4,350,000	DP2/CP2	R-DP2 (FY20), R-CP2 (FY21)																																								
3. MWRF Back-up Power	\$ 2,207,500	DP3/CP3	R-DP3 (FY20), R-CP3 (FY21)																																								
4. Construction Management/Inspection Services	\$ 911,738	CMI	R-CMI (FY21)																																								
Distribution	\$ 21,697,470																																										
0. Pipeline & Vault Program Design Services			P-DP1A, P-DP1B, P-DP1C (FY20)																																								
1. 1951 Cohort/Harbor & Wilson Pipeline	\$ 6,557,760	DP1A-1C/CP1A-1C	P-DP1A, P-DP1B, P-DP1C (FY20), P-CP1A, P-CP1B, P-CP1C (FY21)																																								
1A. Construction Management/Inspection	\$ 570,240	CMI1A, 1B, 1C	P-CMI1A, P-CMI1B, P-CMI1C (FY21)																																								
2. Vault Rehabilitation & Abandonments	\$ 3,654,700	DP2/CP2	P-DP2 (FY20), P-CP2 (FY21)																																								
2B. Construction Management/Inspection	\$ 317,800	CMI2	P-CMI2 (FY21)																																								
3. Valve Replacement Assessment	\$ 18,000	AP1	P-AP1 (FY20)																																								
3A. Valve Replacement No. 1	\$ 660,000	DP3A/CP3A	P-DP3A (FY20), P-CP3A (FY21)																																								
3B. Valve Replacement No. 2	\$ 660,000	DP3B/CP3B	P-DP3B (FY20), P-CP3B (FY21)																																								
3C. Valve Replacement No. 3	\$ 660,000	DP3C/CP3D	P-DP3C (FY20), P-CP3C (FY21)																																								
3D. Valve Replacement No. 4 & Cathodic Protection	\$ 1,488,000	DP3D/CP3D	P-DP3D (FY20), P-CP3D (FY21)																																								
3E. Construction Management/Inspection	\$ 442,500	CMI3A-3D/CMI4	P-CMI3A, P-CMI3B, P-CMI3C, P-CMI3D, P-CMI4 (FY21)																																								
4. Service Line Replacements	\$ 1,500,750	DP4/CP4	P-DP4 (FY20), P-CP4 (FY21)																																								
5. Pipeline Integrity Testing	\$ 875,000	OGP	OGP (FY20)																																								
6. On-Call Design/CM	\$ 875,000	OGP	OGP (FY20)																																								
7. Other Agency Projects	\$ 1,308,000	OGP	OGP (FY20)																																								
8. OC-44 Pipeline Rehabilitation	\$ 2,109,720	OGP	OGP (FY20)																																								
Routine Operations	\$ 3,500,000		Routine Operations (FY21)																																								
Fleet	\$ 445,000		Fleet (FY21)																																								
District Facilities	\$ 6,212,888																																										
0. MWRF Design Services			DF-DP1 (FY20)																																								
1. MWRF Outreach Center	\$ 1,995,786	DP1/CP1	DF-DP1 (FY20), DF-CP1 (FY21)																																								
1a. Construction Management/Inspection	\$ 473,500	CMI	DF-CMI (FY21)																																								
2. MWRF Parking Improvements	\$ 1,391,500	CP2	DF-CP2 (FY21)																																								
3. MWRF Education Program	\$ 1,000,102	EPA/DP3/CP3	DF-EPA (FY20), DF-DP3 (FY21), DF-CP3 (FY21)																																								
4. Security System Replacement	\$ 315,000	DP4/CP4	DF-DP4 (FY20), DF-CP4 (FY21)																																								
5. Garage Storage	\$ 155,750	DP5A/CP5A, CP5B	DF-CP5A, DF-DP5B, DF-CP5B (FY21)																																								
6. Wells Parts Storage	\$ 306,250	DP6/CP6	DF-DP6 (FY20), DF-CP6 (FY21)																																								
7. Dewatering Pit	\$ 575,000	DP7/CP7	DF-DP7 (FY20), DF-CP7 (FY21)																																								
Information Technology	\$ 3,777,830																																										
Program Management																																											

Notes:
 1. Bid w/MWRF Outreach Center Construction and use same CMI
 2. Design performed under Res. 1 Pump Replacement Project and use same CMI
 3. Assumes Well Program CM team will perform CMI on MWRF Parking Lot w/C.O. to contract. CMI for building will be competitively selected via RFP.



REPORTS:

7. REPORT OF THE GENERAL MANAGER

REPORTS:

8. DIRECTORS' REPORTS AND COMMENTS



*Dedicated to
Satisfying our Community's
Water Needs*

MEMORANDUM

TO: Engineering and Operations Committee
FROM: Phil Lauri, P.E., Assistant General Manager
DATE: February 18, 2020
SUBJECT: Mesa Water Reliability Facility Parking Project

RECOMMENDATION

This item is provided for information.

STRATEGIC PLAN

Goal #2: Practice perpetual infrastructure renewal and improvement.
Goal #4: Increase public awareness about Mesa Water® and about water.
Goal #6: Provide outstanding customer service.

PRIOR BOARD ACTION/DISCUSSION

At its March 15, 2014 workshop, the Board of Directors (Board) discussed the Mesa Water Reliability Facility (MWRF) Parking Design concepts and adopted Option 3 (Gisler Parking Design).

At its February 12, 2015 meeting, the Board awarded a contract to CivilSource, Inc. for the MWRF Parking Design.

At its May 19, 2015 meeting, the Engineering and Operations (E&O) Committee reviewed the 30% design layout and provided input.

At its September 15, 2015 meeting, the E&O Committee was provided an update on the MWRF Parking Design progress and permitting status.

BACKGROUND

Parking at the MWRF is currently limited to approximately 20 internal unofficial spaces that surround Mesa Water District's (Mesa Water®) treatment and storage facilities (i.e., high lift reservoir, chemical handling facilities, etc.). Spaces are unmarked and require a dedicated staff person to direct traffic flow and ensure visitors find their way to on-site events. Due to limited parking and the risks associated with non-Mesa Water staff driving on-site, District staff evaluated several options to address parking issues at the MWRF and proposed alternative parking options for consideration. The Board directed staff to develop a parking design based on Option No. 3 presented at the March 15, 2014 workshop. The MWRF Parking Design was initiated on February 12, 2015. The scope of work included providing professional engineering services to prepare final plans, specifications, permitting, preparing bid package and cost estimates, and providing bid and construction support services for implementation of the MWRF Parking Project.



DISCUSSION

100% plans were completed in March 2016. Mesa Water also coordinated with the City of Costa Mesa to obtain the necessary encroachment permits to construct 58 parking spaces.

As a part of the Capital Improvement Program Renewal Mesa Water will be soliciting Request for Bids for construction of the aforementioned parking.

The following is a project schedule:

- RFB out to bid: February 12, 2020
- Construction Bid/Award: March 3, 2020 – April 10, 2020
- Construction: April 20, 2020 – August 18, 2020

Construction Bids will be brought to the Board for their consideration and approval.

FINANCIAL IMPACT

Funding options will be presented to the Board for consideration at a future Board Meeting.

ATTACHMENTS

None.

CLOSED SESSION:

10. CONFERENCE WITH LABOR NEGOTIATOR PURSUANT TO CALIFORNIA GOVERNMENT CODE 54957.6:
District Negotiator: General Manager
Employee Organization: District Employees