CALL TO ORDER

PLEDGE OF ALLEGIANCE

RECOGNITION OF MESA WATER DISTRICT PAST PRESIDENT SHAWN DEWANE BY CONGRESSMAN ROHRABACHER

RECOGNITION OF PUBLIC WORKS MAGAZINE COVER STORY

PUBLIC COMMENTS

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

Agendized Matters: Members of the public may comment on Agenda items before action is taken, or after the Board has discussed the item. Each speaker is limited to five (5) minutes.

ITEMS TO BE ADDED, WITHDRAWN, OR REORDERED ON THE AGENDA

At the discretion of the Board, all items appearing on this agenda, whether or not expressly listed as an Action Item, may be deliberated and may be subject to action by the Board.

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. Approve minutes of regular Board meeting of December 8, 2016.
2. Approve minutes of special Board meeting of December 15, 2016.
3. Approve minutes of special Board meeting of December 19, 2016.
4. Approve minutes of special Board meeting of December 20, 2016.
5. Approve attendance considerations (additions, changes, deletions).
6. Board Schedule:
   • Conferences, Seminars, and Meetings
   • Board Calendar
   • Upcoming Community Outreach Events
7. Approve the 2017 Legislative Platforms.
8. Approve a contract change order with Lewis Consulting Group through June 30, 2017 for a not to exceed amount of $24,000 for Orange County Advocacy Consulting Services.
9. Approve a contract with California Advocates through December 31, 2017 for a not to exceed amount of $84,000 for State Advocacy Consulting Services.
10. Approve a contract change order with Fraser Communications for a not to exceed amount of $50,000 for Public Outreach Services.
11. Approve a two year extension to John Robinson Consulting, Inc. for a not to exceed amount of $75,000 per year and direct staff to competitively solicit proposals for the next contract term.

12. Approve an additional allocation of $100,000 to the On-Call Design and Construction Management budget for Fiscal Year 2017 for a not to exceed amount of $350,000 and approve an increase in the contract authority for the MWH Constructors’ On-Call Design and Construction Management contract in the amount of $50,000 for a not to exceed amount of $300,000 in Fiscal Year 2017.


14. Approve a contract with Carollo Engineering for a not to exceed amount of $100,000 to perform additional water system modeling.

15. Approve a proclamation honoring the career of Scott Peca for his more than 28 years of dedicated and committed service to Mesa Water District.

16. Approve a contract with White Nelson Diehl Evans LLP for a not to exceed amount of $100,000 to perform additional auditing services in Fiscal Year 2017.

17. Approve Option #6 - to advance refund the 2010 Certificates of Participation debt issuance along with adding $8 million of new money using existing debt service levels, utilizing the negotiated sale structure.

18. Ratify the 2017 Board Committee & Other Agency Liaison Assignments.

PRESENTATION AND DISCUSSION ITEMS:

19. BOARD WORKSHOP PLANNING:

    Recommendation: Discuss agenda topics and schedule the Board of Directors’ workshop for Friday, March 24, 2017.

ACTION ITEMS:

20. LONG RANGE FINANCIAL PLANNING:

    Recommendation: Staff will provide a recommendation for moving forward with a new Long Range Financial Plan at the Board meeting.

21. CLOSED SESSION:

    CONFERENCE WITH LEGAL COUNSEL – SIGNIFICANT EXPOSURE TO LITIGATION/ADJUDICATORY PROCEEDINGS:
    Pursuant to California Government Code Sections 54956.9 (d) (2) and 54954.5 (c) - based on existing facts and circumstances, the Board is meeting with General Legal Counsel to review matters relating to legal proceedings presented to the California Fair Political Practices Commission involving Mesa Water District.
    Number of Matters: 1

RETURN TO OPEN SESSION.
REPORTS:

22. REPORT OF THE GENERAL MANAGER:
   • December Key Indicators Report
   • Other (no enclosure)

23. DIRECTORS’ REPORTS AND COMMENTS:

INFORMATION ITEMS:

24. DIRECTORS’ REPORTS (AB 1234) PER CA GOVERNMENT CODE SECTION 53232.3 (D)

25. OTHER (NO ENCLOSURE)

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.

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.

ADJOURN TO A REGULAR BOARD MEETING SCHEDULED FOR THURSDAY, FEBRUARY 9, 2017 AT 6:00 P.M.
CALL TO ORDER

The meeting of the Board of Directors was called to order on December 8, 2016 at 6:04 p.m. by President Dewane at the District Office Boardroom, located at 1965 Placentia Avenue, Costa Mesa, California.

PLEDGE OF ALLEGIANCE

Director Atkinson led the Pledge of Allegiance.

Directors Present

Shawn Dewane, President
Ethan Temianka, Vice President
Jim Atkinson, Director
Fred R. Bockmiller, Director
James R. Fisler, Director

Directors Absent

None

Staff Present

Paul E. Shoenberger, P.E., General Manager
Coleen L. Monteleone, Assistant General Manager/District Secretary
Phil Lauri, Assistant General Manager
Andrew Hamilton, Chief Financial Officer
Stacy Taylor, External Affairs Manager
Stacie Sheek, Customer Services Manager
Cynthia Ragland, Interim Public Affairs Manager
Rob Anslow, Attorney, Bowie, Arneson, Wiles & Giannone

Others Present

Honorable John Moorlach, California State Senator, 37th Senate District
Doug Johnson, Vice President, Ralph Andersen & Associates Cities of Costa Mesa, Fountain Valley, Huntington Beach and Newport Beach Firefighters
Christina Parker, Member of the Public

ITEMS TO BE ADDED, WITHDRAWN, OR REORDERED ON THE AGENDA

General Manager Shoenberger offered there were no items to be added or withdrawn. The agenda was re-ordered to first take the Firefighter Recognition Ceremony. There were no objections.

RECOGNITION OF THE COSTA MESA, FOUNTAIN VALLEY, HUNTINGTON BEACH, AND NEWPORT BEACH FIRE DEPARTMENTS FOR THEIR EMERGENCY RESPONSE TO THE STRUCTURE FIRE ON NOVEMBER 11, 2016
President Dewane introduced Interim Public Affairs Manager Ragland who proceeded with a presentation recognizing the various local fire departments. She offered that the firefighters responded to a four-alarm structure fire at a storage facility in the 800 block of Production Place in Newport Beach, a location within Mesa Water’s service area. Extinguishing the blaze took over 40 hours and utilized 42 firefighters and 28 water suppression vehicles from the local fire departments of Costa Mesa, Fountain Valley, Huntington Beach and Newport Beach.

President Dewane offered comments and thanked the firefighters for their valiant efforts.

Proclamations were presented to:
- Fire Chief Dan Stefano and members of the Costa Mesa Fire Department
- Fire Chief Tony Coppolino and members of the Fountain Valley Fire Department
- Division Fire Chief Eric Engberg and members of the Huntington Beach Fire Department
- Battalion Chief Brian McDonough and members of the Newport Beach Fire Department

Photographs were taken.

**OATH OF OFFICE TO ELECTED AND RE-ELECTED DIRECTORS**

President Dewane introduced California State Senator, the Honorable John Moorlach. Senator Moorlach administered the Oath of Office to Directors Bockmiller, Fisler, and Temianka.

Photographs were taken.

**PRESENTATION OF DIRECTOR SERVICE AWARD PINS**

President Dewane presented service award pins to:
- Director Bockmiller first elected in 1996, Division 1
- Director Fisler appointed to the Board in 2009, first elected in 2010, Division 2
- Director Temianka, first elected in 2012, Division 3

Photographs were taken.

**RECOGNITION OF THE COSTA MESA, FOUNTAIN VALLEY, HUNTINGTON BEACH, AND NEWPORT BEACH FIRE DEPARTMENTS FOR THEIR EMERGENCY RESPONSE TO THE STRUCTURE FIRE ON NOVEMBER 11, 2016**

Item taken earlier in the agenda.

**PUBLIC COMMENTS**

President Dewane asked for public comments on non-agendized items. There were no comments and President Dewane proceeded with the meeting.

**ACTION ITEMS:**

1. ELECTION OF BOARD OFFICERS:
District Secretary Monteleone was introduced and proceeded to explain the election process, noting that the election of officers is conducted in accordance with Resolution No. 1457.

**Office of President:**

**MOTION**

Motion by Director Bockmiller, second by Director Atkinson, to nominate Ethan Temianka for President of the Board of Directors. Motion passed 5-0, by the following roll call vote:

**AYES:** DIRECTORS Atkinson, Bockmiller, Fisler, Temianka, Dewane

**NOES:** DIRECTORS None

**ABSENT:** DIRECTORS None

**ABSTAIN:** DIRECTORS None

**Office of Vice President:**

**MOTION**

Motion by President Temianka, second by Director Dewane, to nominate Jim Atkinson for Vice President of the Board of Directors. Motion passed 5-0, by the following roll call vote:

**AYES:** DIRECTORS Atkinson, Bockmiller, Dewane, Fisler, Temianka

**NOES:** DIRECTORS None

**ABSENT:** DIRECTORS None

**ABSTAIN:** DIRECTORS None

District Secretary Monteleone reviewed the length of term noting that officers are elected on even numbered years for a two year term and begin serving their term as soon as the officers are elected. Newly elected President Temianka was presented the gavel by immediate Past President Dewane in order to continue with the meeting.

Photographs were taken.

**CONSENT CALENDAR ITEMS:**

2. Approve minutes of adjourned regular Board meeting of November 8, 2016.
3. Approve minutes of regular Board meeting of November 10, 2016.
4. Approve minutes of special Board meeting of November 15, 2016.
5. Approve minutes of special Board meeting of November 17, 2016.
6. Approve minutes of special Board meeting of November 21, 2016.
7. Approve attendance considerations (additions, changes, deletions).
8. Board Schedule:
   - Conferences, Seminars, and Meetings
   - Board Calendar
   - Upcoming Community Outreach Events
9. Approve proclamations for the Cities of Newport Beach, Costa Mesa, Huntington Beach, and Fountain Valley showing Mesa Water District’s appreciation for their fire departments response to a structure fire on November 11, 2016.
10. Confirm District officers as follows: Coleen L. Monteleone as District Secretary, Denise Garcia as Assistant District Secretary, Andrew N. Hamilton as District Treasurer and Paul E. Shoenberger as Assistant District Treasurer; confirm the delegation of the same authority to the Assistant District Secretary and Assistant District Treasurer, as the District Secretary and District Treasurer respectively, as previously authorized and approved by the Board of Directors and authorized by the California Water Code; and authorize the continuance of the monthly stipends for the offices of District Secretary and District Treasurer in the amount of $285 and a prorated stipend of $155 per meeting for the Assistant District Secretary and Assistant District Treasurer. The prorated per meeting stipend would not apply if either position is held by the General Manager.

11. Approve a one-time variance to Section 4.2.15 Acceptance of Easements in the Mesa Water® Rules and Regulations for Water Service; this variance is an acceptance of an easement for the development project at 2626 Harbor Boulevard and allowance of an aboveground access gate.

President Temianka asked for public comments. There were no comments.

MOTION

Motion by Director Fisler, second by Vice President Atkinson, to approve Items 2 – 11 of the Consent Calendar. Motion passed 5-0.

PRESENTATION AND DISCUSSION ITEMS:

None.

ACTION ITEMS:

12. RESOLUTION NO. 1485 – APPROVING THE ESTABLISHMENT OF THE MESA WATER DISTRICT 401 (a) RETIREMENT PLAN AND TRUST:

President Temianka introduced Assistant General Manager Monteleone who provided an overview of the item.

MOTION

Motion by Director Bockmiller, second by Director Dewane, to adopt Resolution No. 1485 of the Mesa Water District Board of Directors Approving the Establishment of the Mesa Water District 401 (a) Retirement Plan and Trust. Motion passed 5-0, by the following roll call vote:

AYES: DIRECTORS Bockmiller, Dewane, Fisler, Atkinson, Temianka
NOES: DIRECTORS None
ABSENT: DIRECTORS None
ABSTAIN: DIRECTORS None
13. CLOSED SESSION:

AGM Monteleone announced that the Board was going into Closed Session at 6:52 p.m.

CONFERENCE WITH LABOR NEGOTIATOR PURSUANT TO GOVERNMENT CODE 54957.6:
District Negotiator: General Manager
Employee Organization: Represented and Non-Represented Employees

The Board returned to Open Session at 7:23 p.m.

AGM Monteleone announced that the Board conducted one Closed Session with the General Manager, Assistant General Manager Monteleone, and Ralph Andersen & Associates' Vice President Doug Johnson pursuant to California Government Code 54957.6. The Board received information and action will be taken under Item 14.

14. CLASSIFICATION AND COMPENSATION STUDY:

President Temianka asked for public comments. There were no comments.

MOTION

Motion by Director Dewane, second by Director Fisler, to approve the Classification and Compensation Study recommendations from Ralph Andersen & Associates. Motion passed 5-0.

REPORTS:

15. REPORT OF THE GENERAL MANAGER:

- November Key Indicators Report
- Other (no enclosure)

16. DIRECTORS’ REPORTS AND COMMENTS:

INFORMATION ITEMS:

17. DIRECTORS’ REPORTS (AB 1234) PER CA GOVERNMENT CODE SECTION 53232.3 (D)

18. OTHER (NO ENCLOSURE)
Mesa Water® Board Meeting December 8, 2016

President Temianka adjourned the meeting at 7:50 p.m. to a Regular Board Meeting scheduled for Thursday, January 12, 2017 at 6:00 p.m.

Approved:

______________________________
Ethan Temianka, President

______________________________
Coleen L. Monteleone, District Secretary

Recording Secretary: Sharon D. Brimer
LEGISLATIVE & PUBLIC AFFAIRS COMMITTEE MEETING

CALL TO ORDER

The meeting of the Board of Directors was called to order on December 15, 2016 at 3:31 p.m. by Chairman Fisler at the District Office Boardroom, located at 1965 Placentia Avenue, Costa Mesa, California.

PLEDGE OF ALLEGIANCE

Director Dewane led the Pledge of Allegiance.

Directors Present

Ethan Temianka, President (teleconference)
Jim Atkinson, Vice President
Fred R. Bockmiller, Director
James R. Fisler, Director, Chair

Directors Absent

Fred R. Bockmiller, Director

Staff Present

Paul E. Shoenberger, P.E., General Manager
Coleen L. Monteleone, Assistant General Manager/District Secretary
Stacy Taylor, External Affairs Manager
Cynthia Ragland, Interim Public Affairs Manager

Others Present

None

PUBLIC COMMENTS

There was no public present.

There was no public present at the teleconference site.

ITEMS TO BE ADDED, WITHDRAWN, OR REORDERED ON THE AGENDA

Assistant General Manager Monteleone stated that one Mesa Water Director was attending the meeting via teleconference.

For each action, a roll call vote was taken in accordance with The Brown Act Government Code Section 54953.(b).(2). which states, “all votes taken during a teleconferenced meeting shall be by roll call.”
CONSENT CALENDAR ITEMS:

1. Advocacy Consulting Services Report
2. Legislative Consulting Services Report
3. Outreach Update

MOTION

Motion by Director Dewane, second by Vice President Atkinson, to approve Items 1 - 3 of the Consent Calendar. Motion passed 4-0-1, with Director Bockmiller absent, by the following roll call vote:

AYES: DIRECTORS Dewane, Atkinson, Temianka, Fisler
NOES: DIRECTORS None
ABSENT: DIRECTORS Bockmiller
ABSTAIN: DIRECTORS None

PRESENTATION AND DISCUSSION ITEMS:

None.

ACTION ITEMS:

4. Advocacy Consulting Services Renewal

General Manager Shoenberger introduced External Affairs Manager Taylor who gave a brief overview of the topic.

MOTION

Motion by Director Dewane, second by Vice President Atkinson, to add to the next regular Board meeting Consent Calendar approval of a contract with California Advocates through December 31, 2017 for a not to exceed amount of $84,000 for State Advocacy Consulting Services. Motion passed 4-0-1, with Director Bockmiller absent, by the following roll call vote:

AYES: DIRECTORS Dewane, Atkinson, Temianka, Fisler
NOES: DIRECTORS None
ABSENT: DIRECTORS Bockmiller
ABSTAIN: DIRECTORS None

Discussion ensued amongst the Board.

MOTION

Motion by Director Dewane, second by Vice President Atkinson, to reopen Agenda Item #4, Advocacy Consulting Services Renewal. Motion passed 4-0-1, with Director Bockmiller absent, by the following roll call vote:
Motion by Vice President Atkinson, second by President Temianka, to add to the next regular Board meeting Consent Calendar approval of a contract with Lewis Consulting Group through June 30, 2017 for a not to exceed amount of $24,000 for Orange County Advocacy Consulting Services. Motion passed 4-0-1, with Director Bockmiller absent, by the following roll call vote:

AYES: DIRECTORS Dewane, Atkinson, Temianka, Fisler
NOES: DIRECTORS None
ABSENT: DIRECTORS Bockmiller
ABSTAIN: DIRECTORS None

5. Legislative Platform Update

Chairman Fisler introduced External Affairs Manager Taylor who gave a brief overview of the topic.

Discussion ensued amongst the Board regarding amended language to the proposed legislative platforms.

Motion by Director Dewane, second by Vice President Atkinson, to add to the next regular Board meeting Consent Calendar approval of the 2017 Legislative Platforms, as amended. Motion passed 4-0-1, with Director Bockmiller absent, by the following roll call vote:

AYES: DIRECTORS Dewane, Atkinson, Temianka, Fisler
NOES: DIRECTORS None
ABSENT: DIRECTORS Bockmiller
ABSTAIN: DIRECTORS None

6. Public Outreach Consulting Services

Chairman Fisler introduced Interim Public Affairs Manager Ragland who gave a brief overview of the topic.

Motion by Director Dewane, second by President Temianka, to add to the next regular Board meeting Consent Calendar approval of a contract change order with Fraser Communications for a not to exceed amount of $50,000 for Public Outreach Services. Motion passed 4-0-1, with Director Bockmiller absent, by the following roll call vote:
AYES: DIRECTORS Dewane, Atkinson, Temianka, Fisler
NOES: DIRECTORS None
ABSENT: DIRECTORS Bockmiller
ABSTAIN: DIRECTORS None

REPORTS:

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

INFORMATION ITEMS:

None.

The Board Meeting was adjourned at 3:59 p.m.

Approved:

_________________________
Ethan Temianka, President

_________________________
Coleen L. Monteleone, District Secretary
FINANCE COMMITTEE MEETING

CALL TO ORDER
The meeting of the Board of Directors was called to order on December 19, 2016 at 3:30 p.m. by Director Bockmiller at the District Office Boardroom, located at 1965 Placentia Avenue, Costa Mesa, California.

PLEDGE OF ALLEGIANCE
Chief Financial Officer Hamilton led the Pledge of Allegiance.

Directors Present
- Ethan Temianka, President (teleconference)
- Jim Atkinson, Vice President
- Fred R. Bockmiller, Director
- Shawn Dewane, Director
- James R. Fisler, Director

Directors Absent
None

Staff Present
- Paul E. Shoenberger, P.E., General Manager
- Coleen L. Monteleone, Assistant General Manager/District Secretary
- Andrew Hamilton, Chief Financial Officer/District Treasurer

Others Present
- Paul Pender, Vice President, Fieldman, Rolapp & Associates

PUBLIC COMMENTS
There was no public present.

There was no public present at the teleconference site.

ITEMS TO BE ADDED, WITHDRAWN, OR REORDERED ON THE AGENDA
Assistant General Manager Monteleone stated that one Mesa Water Director was attending the meeting via teleconference.

For each action, a roll call vote was taken in accordance with The Brown Act Government Code Section 54953.(b).(2) which states, “all votes taken during a teleconferenced meeting shall be by roll call.”
CONSENT CALENDAR ITEMS:

1. Accounts Paid Listing
2. Monthly Financial Reports
3. Major Staff Projects

MOTION

Motion by Vice President Atkinson, second by Director Fisler, to approve Items 1 - 3 of the Consent Calendar. Motion passed 5-0, by the following roll call vote:

AYES: DIRECTORS Dewane, Fisler, Atkinson, Temianka, Bockmiller
NOES: DIRECTORS None
ABSENT: DIRECTORS None
ABSTAIN: DIRECTORS None

PRESENTATION AND DISCUSSION ITEMS:

4. Refinancing of Debt

General Manager Shoenberger provided a brief overview of the topic. CFO Hamilton introduced Fieldman, Rolapp & Associates’ Vice President Paul Pender.

Mr. Pender proceeded with the presentation, entitled “Debt and Pension Liabilities Reduction and Saving Options”, which highlighted the following:
- Municipal Bond Market Update
- 2010 COP Refunding Opportunity/Savings
- Unfunded Pension Update
- Options for COP and Pension Savings
- Advance Refunding Mechanics
- Competitive Versus Negotiated Sale

Mr. Pender responded to questions and the Board thanked him for the presentation.

MOTION

Motion by Director Dewane, second by Vice President Atkinson, to add to the next regular Board meeting Consent Calendar approval of Option #6 of the presentation - to advance refund the 2010 Certificates of Participation debt issuance along with adding $8 million of new money using existing debt service levels, utilizing the negotiated sale structure. Motion passed 4-1, with Director Fisler voting no, by the following roll call vote:

AYES: DIRECTORS Dewane, Atkinson, Temianka, Bockmiller
NOES: DIRECTORS Fisler
ABSENT: DIRECTORS None
ABSTAIN: DIRECTORS None
5. **Debt Management Policy**

CFO Hamilton introduced the item and gave a brief overview of the topic.

No action was taken by the Board; the item will be brought back to a future meeting of the Finance Committee.

6. **Annual Audit Update**

General Manager Shoenberger introduced CFO Hamilton who gave a brief overview of the topic, noting the audit is slightly delayed due to reconciliation issues with the recent Project Accounting system conversion and implementation.

The Board thanked GM Shoenberger and CFO Hamilton for their comments; no action was taken by the Board.

**ACTION ITEMS:**

7. **Additional Auditing Services**

GM Shoenberger introduced the item and gave a brief overview of the topic.

**MOTION**

Motion by Director Dewane, second by Director Fisler, to add to the next regular Board meeting Consent Calendar approval of a contract with White Nelson Diehl Evans LLP for a not to exceed amount of $100,000 to perform additional auditing services in Fiscal Year 2017, as directed by the Ad-Hoc Audit Committee. Motion passed 5-0, by the following roll call vote:

AYES: DIRECTORS Dewane, Fisler, Atkinson, Temianka, Bockmiller
NOES: DIRECTORS None
ABSENT: DIRECTORS None
ABSTAIN: DIRECTORS None

**REPORTS:**

8. **Report of the General Manager**

9. **Directors’ Reports and Comments**

**INFORMATION ITEMS:**

None.
The Board meeting was adjourned at 4:48 p.m.

Approved:

_____________________________
Ethan Temianka, President

_____________________________
Coleen L. Monteleone, District Secretary
MINUTES OF THE BOARD OF DIRECTORS
MESA WATER DISTRICT
Tuesday, December 20, 2016
1965 Placentia Avenue, Costa Mesa, CA 92627
3:30 p.m. Special Board Meeting

ENGINEERING AND OPERATIONS COMMITTEE MEETING

CALL TO ORDER
The meeting of the Board of Directors was called to order on December 20, 2016 at 3:32 p.m. by Chairman Bockmiller at the District Office Boardroom, located at 1965 Placentia Avenue, Costa Mesa, California.

PLEDGE OF ALLEGIANCE
Assistant General Manager Lauri led the Pledge of Allegiance.

Directors Present
Ethan Temianka, President (teleconference)
Jim Atkinson, Vice President
Fred R. Bockmiller, Director, Chairman
Shawn Dewane, Director
James R. Fisler, Director

Directors Absent
None

Staff Present
Paul E. Shoenberger, P.E., General Manager
Phil Lauri, P.E., Assistant General Manager
Tracy Manning, Assistant Operations Manager
Denise Garcia, Executive Assistant to the General Manager/Assistant District Secretary
Karyn Igar, Senior Civil Engineer
Mark Pelka, Senior Civil Engineer
Tim Beaman, Associate Engineer

Others Present
Graham Juby, P.E., Partner, Carollo Engineers

PUBLIC COMMENTS
There were no comments on non-agendized topics.

There was no public present at the teleconference site.

ITEMS TO BE ADDED, WITHDRAWN, OR REORDERED ON THE AGENDA
Assistant District Secretary Garcia stated that one Mesa Water Director was attending the meeting via teleconference.

For each action, a roll call vote was taken in accordance with The Brown Act Government Code Section 54953.(b).(2). which states, “all votes taken during a teleconferenced meeting shall be by roll call.”
CONSENT CALENDAR ITEMS:

Director Fisler pulled Item 1 for discussion. There were no objections.

1. Developer Project Status Report
2. Mesa Water® and Other Agency Projects Status Report
3. Water Quality Call Report
4. Committee Policy & Resolution Review or Development
5. Water Operations Status Report
6. Municipal Water District of Orange County Activities Update
7. Orange County Water District Activities Update

MOTION

Motion by Director Fisler, second by Vice President Atkinson, to approve Items 2 – 7 of the Consent Calendar. Motion passed 5-0, by the following roll call vote:

AYES: DIRECTORS Dewane, Fisler, Atkinson, Temianka, Bockmiller
NOES: DIRECTORS None
ABSENT: DIRECTORS None
ABSTAIN: DIRECTORS None

Staff responded to Director Fisler’s question regarding the Developer Project Status Report.

MOTION

Motion by Director Fisler, second by Vice President Atkinson, to approve Item 1 of the Consent Calendar. Motion passed 5-0, by the following roll call vote:

AYES: DIRECTORS Dewane, Fisler, Atkinson, Temianka, Bockmiller
NOES: DIRECTORS None
ABSENT: DIRECTORS None
ABSTAIN: DIRECTORS None

PRESENTATION AND DISCUSSION ITEMS:

8. Nitrification Control Study Report

Assistant Operations Manager Manning introduced Graham Juby, Partner at Carollo Engineers, who gave a brief overview of the topic.

Mr. Juby proceeded with a presentation which highlighted the following:
- What is Nitrification?
- Factors Impacting Nitrification
- Strategies
- Higher Priority Recommendations
- Lower Priority Recommendations

Mr. Juby responded to questions and the Board thanked him for the presentation.
General Manager Shoenberger noted that funds required to complete the recommended projects will be budgeted in future fiscal years.

MOTION

Motion by Vice President Atkinson, second by Director Bockmiller, to add to the next regular Board meeting Consent Calendar approval of a contract with Carollo Engineering for a not to exceed amount of $100,000 in to perform additional water system modeling. Motion passed 5-0, by the following roll call vote:

AYES: DIRECTORS Dewane, Fisler, Atkinson, Temianka, Bockmiller
NOES: DIRECTORS None
ABSENT: DIRECTORS None
ABSTAIN: DIRECTORS None

ACTION ITEMS:

9. Proclamation Honoring the Career of Scott Peca

MOTION

Motion by Director Bockmiller, second by Director Fisler, to add to the next regular Board meeting Consent Calendar approval of a proclamation honoring the career of Scott Peca for his more than 28 years of dedicated and committed service to Mesa Water District. Motion passed 5-0, by the following roll call vote:

AYES: DIRECTORS Dewane, Fisler, Atkinson, Temianka, Bockmiller
NOES: DIRECTORS None
ABSENT: DIRECTORS None
ABSTAIN: DIRECTORS None

10. Water Industry Support Services

MOTION

Motion by Director Dewane, second by Director Fisler, to add to the next regular Board meeting Consent Calendar approval of a contract change order with John Robinson Consulting, Inc. for $50,000 per year for two years for a total not to exceed amount of $150,000 for Water Industry Support Services. Motion passed 5-0, by the following roll call vote:

AYES: DIRECTORS Dewane, Fisler, Atkinson, Temianka, Bockmiller
NOES: DIRECTORS None
ABSENT: DIRECTORS None
ABSTAIN: DIRECTORS None

Discussion ensued amongst the Board and a second Motion was made.
MOTION

Motion by Vice President Atkinson, second by Director Bockmiller, to add to the next regular Board meeting Consent Calendar direction to staff that, upon termination of the two-year contract with John Robinson Consulting, Inc., Water Industry Support Services will be procured using Mesa Water District’s Request For Proposal process. Motion passed 5-0, by the following roll call vote:

AYES: DIRECTORS Dewane, Fisler, Atkinson, Temianka, Bockmiller
NOES: DIRECTORS None
ABSENT: DIRECTORS None
ABSTAIN: DIRECTORS None

11. As-Needed Design and Construction Management Services

MOTION

Motion by Vice President Atkinson, second by Director Fisler, to add to the next regular Board meeting Consent Calendar approval of an additional allocation of $100,000 to the On-Call Design and Construction Management budget for Fiscal Year 2017 for a not to exceed amount of $350,000 and approval of an increase in the contract authority for the MWH Constructors’ On-Call Design and Construction Management contract in the amount of $50,000 for a not to exceed amount of $300,000 in Fiscal Year 2017. Motion passed 5-0, by the following roll call vote:

AYES: DIRECTORS Dewane, Fisler, Atkinson, Temianka, Bockmiller
NOES: DIRECTORS None
ABSENT: DIRECTORS None
ABSTAIN: DIRECTORS None

12. Updated Standard Specifications and Drawings

MOTION

Motion by Director Bockmiller, second by Director Dewane, to add to the next regular Board meeting Consent Calendar approval of the updated sections, with amended language, to Mesa Water’s Standard Specifications and Standard Drawings. Motion passed 5-0, by the following roll call vote:

AYES: DIRECTORS Dewane, Fisler, Atkinson, Temianka, Bockmiller
NOES: DIRECTORS None
ABSENT: DIRECTORS None
ABSTAIN: DIRECTORS None

REPORTS:


14. Directors’ Reports and Comments
INFORMATION ITEMS:

None.

The Board meeting was adjourned at 4:46 p.m.

Approved:

______________________________
Ethan Temianka, President

______________________________
Coleen L. Monteleone, District Secretary
MEMORANDUM

TO:       Board of Directors
FROM:     Paul E. Shoenberger, P.E., General Manager
DATE:     January 12, 2017
SUBJECT:  Attendance at Conferences, Seminars, Meetings, and Events

RECOMMENDATION

In accordance with Ordinance No. 25, adopted April 9, 2015, authorize attendance at conferences, seminars, meetings, and events.

STRATEGIC PLAN

Goal #1: Provide a safe, abundant, and reliable water supply.
Goal #2: Practice perpetual infrastructure renewal and improvement.
Goal #3: Be financially responsible and transparent.
Goal #4: Increase public awareness about Mesa Water® and about water.
Goal #5: Attract and retain skilled employees.
Goal #6: Provide outstanding customer service.
Goal #7: Actively participate in regional water issues.

PROPOSED LIST

None.

PRIOR BOARD ACTION

On July 14, 2016, the Board approved Fiscal Year 2017 attendance at Conferences, Seminars, Meetings, and Events.

DISCUSSION

During the discussion of this item, if any, the Board may choose to delete any item from the list and/or may choose to add additional conferences, seminars, meetings, or events for approval, subject to available budget or additional appropriation.

FINANCIAL IMPACT

None.

ATTACHMENTS

None.
# 2017 Conferences, Seminars, and Meetings:

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<tr>
<th>Date</th>
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<tr>
<td>February 2-3, 2017</td>
<td>CalDesal Conference</td>
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<td>February 8-10, 2017</td>
<td>Urban Water Institute Spring Conference</td>
<td>Palm Springs, CA</td>
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<td>March 8, 2017</td>
<td>ACWA Legislative Symposium</td>
<td>Sacramento, CA</td>
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<td>April 10-13, 2017</td>
<td>Jt. CA-NV AWWA/AMTA Spring Conference</td>
<td>Anaheim, CA</td>
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<td><strong>9:30AM - 10:30AM UWI Planning Meeting - Atkinson</strong></td>
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<td><strong>2:00PM - 3:30PM Executive Committee Meeting (Panian Conf. Room; Boardroom)</strong></td>
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## February 2017

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<td>8:30AM - 10:00AM Jt. MWDOC/MWD Workshop (MWDOC/OCWD Boardroom)</td>
<td>8:00AM LAFCO Meeting (OCTA Boardroom; 600 South Main Street Orange, CA)</td>
<td>7:30AM - 9:00AM OCBC Annual Meeting (Irvine, CA)</td>
<td>CalDesal Conference - Atkinson, Ethan TBD</td>
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<td>7:30AM - 9:00AM ISDOC Executive Committee - Fisler (MWDOC Conference Room 101)</td>
<td>8:30AM - 10:00AM MWDOC Board Meeting (MWDOC Boardroom)</td>
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<td>7:30AM - 9:00AM CM Chamber of Commerce Breakfast (1701 Golf Course Drive Costa Mesa, CA 92626)</td>
<td>Urban Water Institute Conference (Atkinson) Palm Springs</td>
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<td>7:30AM - 9:00AM ISDOC Executive Committee Meeting (Pianian Conf. Room Boardroom)</td>
<td>8:00AM OCWD Water Issues Committee (OCWD Boardroom)</td>
<td>8:00AM OCWD Water Issues Committee (OCWD Boardroom)</td>
<td>3:30PM - 5:00PM LPAC Committee Meeting (Boardroom)</td>
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<td>5:30PM - 7:00PM OCWD Board Meeting - Temianka, Atkinson (MWDOC/OCWD Boardroom)</td>
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### March 2017

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<td><strong>8:30AM - 10:00AM &amp; MWDOC/OCWD Workshop (MWDOC Conference Room)</strong></td>
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<td><strong>5:30PM - 7:00PM OCWD Board Meeting - Temianka, Atkinson (MWDOC/OCWD Boardroom)</strong></td>
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<td><strong>5:45PM - 7:00PM Los Angeles County Board of Supervisors Meeting</strong></td>
<td><strong>4:00PM - 5:00PM Chamber Board Meeting - Fisler (TBD)</strong></td>
<td><strong>7:30AM - 9:00AM GM Chamber of Commerce Breakfast (1701 Golf Course Drive Costa Mesa, CA 92626)</strong></td>
<td><strong>11:30AM - 1:00PM ISDOC Quarterly Meeting - Fisler (MWDOC/OCWD Boardroom)</strong></td>
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UPCOMING COMMUNITY OUTREACH EVENTS

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<thead>
<tr>
<th>Event:</th>
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<tbody>
<tr>
<td>5th Grade Assembly</td>
<td>Monday, January 30, 2017 9:00 a.m. to 9:30 a.m.</td>
<td>Kaiser Elementary</td>
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<td>2130 Santa Ana Avenue</td>
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<td>Costa Mesa, CA 92627</td>
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<tr>
<td>5th Grade Assembly</td>
<td>Monday, January 30, 2017 10:45 a.m. to 11:15 a.m.</td>
<td>Kaiser Elementary</td>
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<td>2130 Santa Ana Avenue</td>
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<td>Costa Mesa, CA 92627</td>
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MEMORANDUM

TO: Board of Directors  
FROM: Stacy Taylor, External Affairs Manager  
DATE: January 12, 2017  
SUBJECT: Legislative Platform Update

RECOMMENDATION

Approve the 2017 Legislative Platforms.

The Legislative & Public Affairs Committee reviewed this item at its December 15, 2016 meeting and recommends Board approval.

STRATEGIC PLAN

Goal #1: Provide a safe, abundant, and reliable water supply.  
Goal #2: Practice perpetual infrastructure renewal and improvement.  
Goal #3: Be financially responsible and transparent.  
Goal #4: Increase public awareness about Mesa Water® and about water.  
Goal #5: Attract and retain skilled employees.  
Goal #6: Provide outstanding customer service.  
Goal #7: Actively participate in regional water issues.

PRIOR BOARD ACTION/DISCUSSION

This item is updated annually and was reviewed at Mesa Water District’s Board workshop on November 8, 2016.

DISCUSSION

Mesa Water’s Legislative Platforms establishes a philosophical basis for policy principles and positions, agreed upon by the Board, to assist District staff and legislative advocates in monitoring, identifying, evaluating, and prioritizing legislation and/or regulations that may impact Mesa Water® and the interests of its constituents. Mesa Water continues to engage with state legislation, regulatory and industry groups, such as the Association of California Water Agencies, California Special Districts Association, State Water Resources Control Board, and others, as well as with regional and local industry associations, so that the District can be involved with, and influence, water issue discussions and policy decisions that can impact Mesa Water and its constituents.

Mesa Water’s proposed Legislative Platforms (Attachment A) provides advocacy guidelines that allow the District to respond in a timely manner to certain types of legislation and/or regulations affecting the District (i.e., infrastructure funding and fiscal policies, water pricing and conservation, water resources public policy, water quality mandates, development/treatment of new local water supplies including desalination, local governance/transparency issues, etc.). Any legislative/regulatory issues with
complex implications requiring further clarification will be presented to the Board for further guidance.

Mesa Water’s Legislative Platforms are updated on an as-needed basis and, minimally, annually. The District’s legislative platforms contribute to all seven of Mesa Water’s strategic plan goals.

FINANCIAL IMPACT

None.

ATTACHMENTS

Attachment A: Proposed Legislative Platforms
2017 Legislative Platforms
Proposed October December January 2016

Calendar year 2017 marks the first year of California’s next two-year (2017 and 2018) legislative session, with the State legislature slated to reconvene on Monday, December 5, 2016. It is expected that legislative proposals and ongoing discussion of issues from the prior two-year session will return in 2017, including legislation that could significantly impact Mesa Water®.

The State legislature explored several water industry issues in 2016, including, but not limited to: CEQA reform, desalination, flood management, statewide public goods charge/fee (tax), submetering, water/energy nexus, water district consolidation, water pricing (“conservation” rates) and water rates assistance programs (“lifeline” rates), water quality, water reuse (i.e., indirect and direct potable reuse, recycling, stormwater/urban runoff, etc.) water storage, water use efficiency, and the California WaterFix. These discussions will continue throughout the first year of the upcoming two-year legislative session.

Additionally, California’s drought may continue into next year, with probable permanent short-term and long-term drought-related legislation and regulations. Listed below, for the Board’s consideration, are Mesa Water’s proposed legislative and regulatory platforms for anticipated high-priority public policy issues in 2017 that may be relevant to the District:

• **Water Rates** – Mesa Water supports local rate-setting control with rate structures, set by publicly-elected boards and councils, that best serve customers and comply with the law. Furthermore, Mesa Water supports cost-based water rates that:
  
  o represent the true, full cost of water services, including the cost of District operations and infrastructure funding to ensure water system sustainability; and,
  
  o harmonize the concepts of conservation and legality, with rates that provide a strong price signal for ratepayers to conserve while also complying with legal mandates (i.e., Article X of the CA Constitution; SB X7-7: The Water Conservation Act of 2009 and any updates to such; and, Propositions 13, 26, and 218).

• **Proposition 218** – Mesa Water supports Article XIII C and D of the California Constitution (Prop. 218) regarding government service assessments, fees, rates and taxes, specifically:
  
  o the “2/3 vote” required from the legislature and voters for approval of new levies; and,
  
  o the “special benefit and proportionality requirements” provision which directly connects the special benefits received with reasonable proportionate costs, and ensures that assessments imposed for property-related (water) services must not exceed the proportional cost of the services attributable to the parcel.

  Mesa Water opposes amendments to Prop. 218.

• **Water Rate Assistance Programs (“WRAP”)** – Mesa Water opposes mandates and/or regulations for using water rates revenues, non-water-rates revenues and unrestricted revenues to fund supports “WRAP” (also called “lifeline” rates). Mesa Water supports voluntary contributions, such as ratepayer donations to a WRAP or lifeline rates program, and
facilitating voluntary contributions such as partnering with a local charity to support people who need help paying their water bills, programs that comply with Prop. 218 of the California Constitution OR are funded either voluntarily or via nonrestricted/non-water-rates revenues.

- **Orange County Groundwater Basin** – Mesa Water opposes any potential streamlined process for adjudicating groundwater basins, including the Orange County groundwater basin which is currently managed by the Orange County Water District (OCWD).

- **Proposition 1 (2014 Water Bond)** – Mesa Water supports Proposition 1 funding for OCWD’s priority projects.

- **Water Desalination** – Mesa Water supports CalDesal in its desalination advocacy efforts, as well as the local and regional development of cost-effective and environmentally sensitive water desalination projects statewide – including brackish water desalination, ocean water desalination and the proposed Huntington Beach and Dana Point projects – in order to enhance the availability and reliability of local and regional water supply sources, and improve water supply reliability for Orange County, Southern California, and statewide. Mesa Water supports an increase in the per-project grant funding cap for Proposition 1 desalination grant funds.

- **Water Conservation Use Efficiency** – Mesa Water opposes state-mandated water conservation, mandatory conservation efforts and water rationing that impedes local control, ignores the supply-demand equation, and that negatively impacts local investments in new sources of water supplies. Additionally, as part of any potential statewide effort to update urban water conservation goals, Mesa Water supports full (100% value) credit for new water supplies created for direct or indirect potable reuse, such as water from desalination, GroundWater Replenishment System (GWRS) and the Mesa Water Reliability Facility (MWRF) accounting for water resource and supply investments, such as desalination and water recycling, as part of any potential statewide effort to update urban water conservation goals. Mesa Water also supports:

  - policies that encourage stable end-user rates and the use of base-loaded water systems to supply reliable water;
  - maximizing investments in local water infrastructure, sources and supplies;
  - local control and baseline options similar to the four current 20x2020 options;
  - informing customers of their water use; and,
  - requesting customers’ voluntary conservation efforts when necessary to achieve conservation goals.

- **Water Recycling** – Mesa Water supports OCWD and WateReuse in its efforts to advance indirect and direct potable reuse legislation and/or regulations.

- **California Environmental Quality Act (CEQA) Reforms** – Mesa Water supports the efforts
of ACWA in streamlining CEQA to enhance efficiencies and reduce redundancies in the environmental review/permitting process and eliminate unnecessary, costly, and time-consuming litigation and related delays.

- **Local Government** – Mesa Water supports the efforts of California Special Districts Association (CSDA) and the Local Agency Formation Commission (LAFCO) to ensure efficient delivery of government services, optimal local governance structures, local control and representation, and appropriate reserve funds levels.

- **MWDOC/MWD Delta Solution** – Mesa Water supports the efforts of Municipal Water District of Orange County (MWDOC), Metropolitan Water District of Southern California (MWD), and/or Southern California Water Committee (SCWC) to achieve a long-term solution for the Sacramento-San Joaquin River Delta that includes optimal statewide water supply reliability, sustainability and quality, and Delta ecosystem health and restoration for the public benefit.

- **Federal Drought Legislation** – Mesa Water supports the efforts of ACWA and/or MWD in collaborating with U.S. representatives to develop bipartisan federal drought legislation.

- **Federal Tax Parity** – Mesa Water supports the efforts of ACWA and/or MWD in collaborating with U.S. representatives to make water use efficiency rebates exempt from Federal taxes.
MEMORANDUM

TO:       Board of Directors
FROM:     Stacy Taylor, External Affairs Manager
DATE:     January 12, 2017
SUBJECT:  Orange County Advocacy Consulting Services

RECOMMENDATION

Approve a contract change order with Lewis Consulting Group through June 30, 2017 for a not to exceed amount of $24,000 for Orange County Advocacy Consulting Services.

The Legislative & Public Affairs Committee reviewed this item at its December 15, 2016 meeting and recommends Board approval.

STRATEGIC PLAN

Goal #3: Be financially responsible and transparent.
Goal #4: Increase public awareness about Mesa Water® and about water.
Goal #7: Actively participate in regional water issues.

PRIOR BOARD ACTION/DISCUSSION

None.

DISCUSSION

Lewis Consulting Group (LCG) was initially retained in June 2016, under the General Manager’s authority, to provide Orange County Advocacy Consulting Services for the District. LCG’s services included government relations work at the local and County levels in collaboration with Mesa Water staff.

Staff recommends continuing work with Lewis Consulting Group as Mesa Water’s representative for Orange County advocacy issues important to the District.
FINANCIAL IMPACT

In Fiscal Year 2017, $50,000 is budgeted; $25,000 has been spent to date.

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<th>Orange County Advocacy Consulting Services</th>
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<td>Project Estimate</td>
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<tr>
<td>Initial Project Estimate (FY 2017)</td>
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<td>Original Contract</td>
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<td>Change order #1</td>
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<td>Revised Contracts</td>
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<td>Actual spent to date</td>
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<td>Revised Project Estimate</td>
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ATTACHMENTS

None.
MEMORANDUM

TO: Board of Directors
FROM: Stacy Taylor, External Affairs Manager
DATE: January 12, 2017
SUBJECT: State Advocacy Consulting Services

RECOMMENDATION

Approve a contract with California Advocates through December 31, 2017 for a not to exceed amount of $84,000 for State Advocacy Consulting Services.

The Legislative & Public Affairs Committee reviewed this item at its December 15, 2016 meeting and recommends Board approval.

STRATEGIC PLAN

Goal #3: Be financially responsible and transparent.
Goal #4: Increase public awareness about Mesa Water® and about water.
Goal #7: Actively participate in regional water issues.

PRIOR BOARD ACTION/DISCUSSION

At the November 21, 2013 Legislative & Public Affairs Committee meeting, the Committee determined that Mesa Water District should seek additional lobbyist services to advocate at the state level for the District’s legislative platforms. In Fiscal Year 2014, Mesa Water® retained, via a competitive process, California Advocates (CA Advocates) for State advocacy consulting services.

DISCUSSION

At its November 8, 2016 workshop, the Board provided updates to Mesa Water’s 2017 Legislative Platforms for anticipated high-priority public policy issues. Advocacy for the Districts’ platforms has and will continue to require significant work in Sacramento on multiple issues during calendar year 2017. CA Advocates has been effective for Mesa Water on several high-priority issues through active legislative monitoring and engagement with the: Governor’s administration; State legislature and its leadership, committees, consultants and staff; State Water Resources Control Board; Association of California Water Agencies; CalDesal; California Municipal Utilities Association; California State Association of Counties; League of California Cities; California Special Districts Association; WateReuse; and others.

Staff recommends continuing work with CA Advocates as Mesa Water’s lead Sacramento representative for State advocacy issues important to the District.

FINANCIAL IMPACT

In Fiscal Year 2017, $84,000 is budgeted; $35,000 has been spent to date.
ATTACHMENTS

None.
MEMORANDUM

TO: Board of Directors  
FROM: Cynthia Ragland, Interim Public Affairs Manager  
DATE: January 12, 2017  
SUBJECT: Public Outreach Services

RECOMMENDATION

Approve a contract change order with Fraser Communications for a not to exceed amount of $50,000 for Public Outreach Services.

The Legislative and Public Affairs Committee reviewed this item at its December 15, 2016 meeting and recommends Board approval.

STRATEGIC PLAN

Goal #1: Provide a safe, abundant, and reliable water supply.  
Goal #4: Increase public awareness about Mesa Water® and about water.  
Goal #6: Provide outstanding customer service.  
Goal #7: Actively participate in regional water issues.

PRIOR BOARD ACTION/DISCUSSION

At its November 13, 2014 meeting, the Board approved a contract with Fraser Communications as the District’s “Drought-Reach” campaign consultant. The public outreach campaign ran through June 2016 and resulted in Mesa Water meeting the State Water Resources Control Board’s 20% reduction mandate from June 2015 through February 2016.

DISCUSSION

For Fiscal Year 2017, staff recommends continuing the Fraser Communications contract for $50,000 for a public outreach campaign to raise public awareness and support of water-use efficiency. Funds would be used for new creative concepts, messaging, and production of materials and/or media placements.
FINANCIAL IMPACT

In Fiscal Year 2017, $50,000 is budgeted; no funds have been spent to date.

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ATTACHMENTS

None.
MEMORANDUM

TO: Board of Directors
FROM: Phil Lauri, P.E., Assistant General Manager
DATE: January 12, 2017
SUBJECT: Water Industry Support Services

RECOMMENDATION

Approve a two year extension to John Robinson Consulting, Inc. for a not to exceed amount of $75,000 per year and direct staff to competitively solicit proposals for the next contract term.

The Engineering and Operations Committee reviewed this item at its December 20, 2016 meeting and recommends Board approval.

The Executive Committee reviewed this item at its January 3, 2017 meeting and recommends Board approval.

STRATEGIC PLAN

Goal #1: Provide a safe, abundant, and reliable water supply.
Goal #7: Actively participate in regional water issues.

PRIOR BOARD ACTION/DISCUSSION

None.

BACKGROUND

Mesa Water actively participates in the development and collaboration of regional and state wide water management issues. These issues involve monitoring of the Orange County Groundwater Basin management and policies, monitoring of imported water rates and policy issues occurring at Metropolitan Water District (MWD) and the Municipal Water District of Orange County (MWDOC), and monitoring and development of state water policies.

DISCUSSION

Mesa Water uses professional water industry support services to assist management and the Board in advocating Mesa Water policies in regional and state wide water issues. This work includes performing necessary institutional, technical, financial and policy analyses, attending coordination meetings, and advocating on behalf of the Mesa Water Board's adopted policy positions.

Mesa Water competitively solicited bids for Water Industry Support Services in July 2015. John Robinson Consulting, Inc. was selected to assist with this effort and has provided excellent support in developing the strategic framework for several key initiatives (i.e., Mesa Water Reliability Facility Regional Water usage, etc.).
Over the next few years, support services may be necessary to assist in the evaluation and/or implementation of the following regional water issues:

- Green Acres Project (GAP) agreement development
- Orange County Groundwater Basin Storage
- Mesa Water Reliability Facility Regional Water use agreement development

The Executive Committee recommends that the Board consider extending this contract for two years for an additional $75,000 per year.

FINANCIAL IMPACT

In Fiscal Year 2017, $50,000 is budgeted. The requested funding will come from Cash on Hand.

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ATTACHMENTS

Attachment A: John Robinson Consulting, Inc. Proposal
November 4, 2016

Mr. Phil Lauri, Assistant General Manager  
Mesa Water District  
1965 Placentia Avenue  
Costa Mesa, CA 92627

Subject: Letter Proposal – Water Resources Support Services

Dear Mr. Lauri:

John Robinson Consulting, Inc. (JR Consulting) is pleased to submit this letter proposal to Mesa Water District (Mesa Water®) based upon our conversion on Wednesday, November 2nd as this would be an extension of our water resources support efforts that we have been performing since fall 2015. Our firm is a California S Corporation, is a Small Business Enterprise (SBE) and is located locally in Pasadena. We are in compliance with Mesa Water®’s Professional Service Agreement and have complied with the insurance requirements. This letter proposal outlines our scope of services, schedule and fee estimate to provide water resources support services to Mesa Water®.

Firm Experience: Mr. Robinson has over 20 years’ experience in a wide range of water resources and groundwater basin management projects. His responsibilities have included groundwater modeling and resource evaluations, development of groundwater basin water budgets, analysis and remediation of saltwater intrusion, evaluation of intakes for brackish and seawater desalination systems, aquifer testing, wellfield design, remedial investigations, evaluation of reclaimed water and flood water recharge, analysis of groundwater contamination, regional dewatering, and environmental impacts of construction projects to groundwater regimes.

Mr. Robinson has developed groundwater budgets for groundwater basins across the western United States. His most recent work is concentrated on groundwater modeling (of which development of water budgets based on field information is a key aspect). He has worked on numerous projects involving State of California water supply management protocols and regulations, involving groundwater and seawater flow in coastal areas of southern California include West Coast and Orange County groundwater basins.

Qualifications: John Robinson bring over 20 years of water resources qualifications working for Southern California municipal clients, with a focus on catalyzing innovative solutions in the areas of water resources, water management, conjunctive use, recycled water, master planning, groundwater storage, local supplies, wastewater, and water reclamation. We offer a unique combination of proven engineering and scientific professionals who deliver excellence in various groundwater extraction strategies, determining optimal groundwater recharge, storage, and extraction methods. JR Consulting qualifications include detailed studies of the confining layer prevalent, including aquifer test design and analysis, and field drilling and soil sampling. Our groundwater qualifications include the Main San Gabriel Basin, Central Basin, West Coast Basin and Orange County Groundwater Basin.
John Robinson Consulting, Inc.: John Robinson Consulting, Inc. (JR Consulting) firm was established in May 2013 as an S Corporation and is certified as a Small Business Enterprise (SBE) by the Metropolitan Water District of Southern California.

Mr. John Robinson is the Principal of John Robinson Consulting, Inc., and his experience encompasses a variety of wastewater engineering, water resources, water reclamation, and master plan projects. Over the last 20 years, Mr. Robinson has been heavily involved in assisting clients coordinate, manage, and write different types of local, state, and federal water resource projects including groundwater and recycled water planning, policies and infrastructure design. John has an intimate understanding of Orange County as he is a Treasurer of the Orange County Water Association and has worked in Orange County his entire consulting career.

Please refer to Attachment A for a detail resume.

Scope of Services: JR Consulting has reviewed the Scope of Services outline in the RFP and the associated deliverables for the tasks list below and is available to complete all task.

- TASK 1 – Orange County Water District (OCWD) Green Acres Project Analysis
- TASK 2 – As-Needed Support Services
- TASK 3 – Meetings

Compensation: JR Consulting will provide the scope of services based on the scheduled negotiated with Mesa Water®’s Project Manager. The services will be on a time and material basis with a not-to-exceed budget based on an hourly rate of $150 per hour with no “other direct costs” applied. Based on scope of services, it is recommended that $50,000 be budgeted for Tasks 1 through 3.

JR Consulting commits to timely, responsive services, and to deliver excellence in the offered services. We are eager and enthusiastic to begin supporting Mesa Water® with the water resources support services.

If there are any questions, please feel free to contact me at (626) 375-9389 or jrobinson@johnrobinsonconsulting.com

Very truly yours,

John Robinson Consulting, Inc.

John Robinson, Principal
Appendix A
JOHN ROBINSON, PRINCIPAL

EDUCATION:
B.S., Civil Engineering, California State University, Long Beach, 1993

REGISTRATION:
Engineering-in-Training, California, Registration No. 109865, 1997
USC Cross Connection Certified

PROFESSIONAL AFFILIATIONS:
American Society of Civil Engineers
California Water Environment Association (Board of Director – Corporate for Los Angeles Basin Section)
Orange County Water Association (Board of Directors – Treasurer)
Water Environmental Federation
WateReuse Association (Past President for the Los Angeles Chapter)

SUMMARY OF QUALIFICATIONS:
Mr. Robinson has more than 20 years of experience in engineering consulting, construction management, project leadership/project management, operational/fiscal management and market sector strategy development focused most recently on recycled water programs and infrastructure. Mr. Robinson’s experience encompasses a variety of wastewater engineering, water reclamation and planning projects. The clients he has provided services to are mostly municipalities and cities in Southern California and Arizona. The following is a quick summary of his skill set:

- Involved in feasibility/master studies and planning, technology evaluation and recommendations, preparation of study and design reports.
- Experienced in design for new water reclamation and wastewater facilities and expansion of existing facilities.
- Provided reclamation system computer hydraulic modeling, and has been intimately involved with regulatory agencies with permitting jurisdiction over recycled water projects.

Mr. Robinson provides technical direction and project oversight for the development of public infrastructure that includes pipelines, pumping stations, reservoirs, hydraulic structures, recharge basins, and wells. His technical expertise ranges from master planning and program management to final design and construction implementation. As a project manager, he has on numerous occasions successfully led my project teams to complete the work within the project budgets and time schedules and with a high degree of responsiveness to the clients.

KEY STRENGTHS:
Strengths include client and project management, development of strategic marketing plans/business development, leadership of staff, staff mentorship and guidance, verbal/written communications along with fiscal analysis and financial management.

RELEVANT EXPERIENCE:
Project Manager, Owens Valley Natural Resources Management, Los Angeles Department of Water and Power, Los Angeles, CA
Mr. Robinson was the principal-in-charge for extensive studies to manage groundwater recharge and extraction and to assist LADWP in compliance with the Long Term Water Agreement in the Owens Valley. This 9-year project has involved assisting LADWP in a variety of subject areas, including vegetation monitoring, CEQA studies associated with the Lower Owens River Project (LORP), annual reporting on enhancement and mitigation projects, Mono Basin studies and update of the LAASM model, review and analysis of surface water hydrology, and modular groundwater flow (MODFLOW) modeling coupled with Ecological Dynamics Simulation (EDYS)
modeling at six separate well fields to evaluate various management techniques for extraction of groundwater augmented by surface spreading. In addition to development of various groundwater extraction strategies, the project involves determination of optimal groundwater recharge, storage, and extraction methods. The project also involves detailed studies of the confining layer prevalent in the valley, including aquifer test design and analysis, and field drilling and soil sampling.

**Project Manager, Owens Valley Environmental Investigations, Owens Valley, Anheuser Busch Companies, CA**

Mr. Robinson was the principal-in-charge for a comprehensive Environmental Impact Report (EIR) and Environmental Assessment (EA) in the Owens Valley, California. The project included the construction of test production facilities and 20 monitoring wells and piezometers. A long-term aquifer test was performed to evaluate the aquifer response to well field pumping. This analysis was used to develop pumping scenarios that would optimize production and minimize adverse environmental impacts of groundwater extraction. Movement of contaminants from Owens Lake was modeled using three separate analytical models and a MODFLOW numerical model that incorporated three aquifer layers over a 10 square mile area. The MODFLOW model was calibrated using historical groundwater levels, climatic monitoring and results of the long-term constant-rate aquifer test. The companion model MODPATH was used to evaluate the travel time of potential contaminants. Following field testing, future impacts to phreatophytic vegetation and movements of natural contaminants were modeled using analytical and numerical models. The project also involved evaluation of air quality, seismic, archeological, subsidence, water quality, and aesthetic impacts. Mr. Robinson acted as the project liaison to numerous federal, state, and local agencies, and conducted public information meetings with the local community of Cartago.

**Project Hydrogeologist, Evaluation of the Causes and Potential Solutions to Fugitive Dust, Owens Lake, CA**

Mr. Robinson was the principal-in-charge on field data collection program to determine the nature of the generation of windblown dust from Owens Lake Bed in southern Owens Valley. The project included mapping of saltcrust, dune, and other surface morphologies of the over 100-square-mile, mostly dry lake bed. Field observations and samples of saltating particles were collected during an intense windstorm on the lake bed in order to evaluate dust generation characteristics of various surface morphologies. Based on field observations, it was determined that the type of surface features generated, and hence the capacity to generate dust, is strongly dependent on local hydrologic conditions of the saturated or unsaturated substrate. Several mitigating alternatives were evaluated, including stabilization by grain size or hydrologic alteration, sand fences, and salt resistant vegetation.

**Project Manager, Sun Valley Watershed Management Plan, Los Angeles County Department of Public Works, Los Angeles County, CA**

Mr. Robinson was the principal-in-charge for development of a watershed management plan for the Los Angeles Department of Public Works. The project is unique in that instead of addressing a single objective of flood control, the project seeks to optimize the multiple benefits of stormwater capture, habitat restoration, recreation, groundwater recharge, water quality improvement, and flood control. The project has brought together a diverse set of stakeholders including a variety of public agencies, environmental groups, and local landowners. The Watershed Management Plan involves innovative techniques such as stormwater Best Management Practices (BMPs), constructed wetlands, infiltration devices, and recycled water.

**Project Manager, Intake Studies and Design for Ocean Water Desalination, West Basin Municipal Water District, CA**

Mr. Robinson was the Project Manager for the feasibility study of ocean water intake systems for the West Basin Municipal Water District in Southern California. This work included cataloguing information on existing or planned intake systems for ocean water intake systems worldwide and a detailed description of all known technologies for ocean desalination intake systems (both surface and subsurface), including evaluation of site-specific requirements, range of intake capacities, impingement and entrainment reduction, environmental effects, cost, and advantages and disadvantages of each technology. Based on this evaluation, the most feasible technology for intake to the proposed desalination plant was selected. Mr. Robinson managed a diverse team of experts, including marine biologists, oceanographers, engineers, hydrogeologists, and environmental specialists.
MEMORANDUM

TO: Board of Directors
FROM: Phil Lauri, P.E., Assistant General Manager
DATE: January 12, 2017
SUBJECT: As-Needed Design and Construction Management Services

RECOMMENDATION

Approve an additional allocation of $100,000 to the On-Call Design and Construction Management budget for Fiscal Year 2017 for a not to exceed amount of $350,000.

Approve an increase in the contract authority for the MWH Constructors’ On-Call Design and Construction Management contract in the amount of $50,000 for a not to exceed amount of $300,000 in Fiscal Year 2017.

The Engineering and Operations Committee reviewed this item at its December 20, 2016 meeting and recommends Board approval.

STRATEGIC PLAN

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

PRIOR BOARD ACTION/DISCUSSION

On September 12, 2013, the Board approved three contracts for $100,000 per year for two years for On Call Design Services with R. Brady and Associates, RBF- A Division of Michael Baker International, and Leidos.

On October 10, 2013, the Board approved three contracts for $100,000 per year for two years for On Call Construction Management Services with MWH Constructors (MWH), Butier, and Leidos.

On February 12, 2015, the Board approved $100,000 in additional funding to the On-Call Design budget.

On April 19, 2016, the Engineering & Operations Committee approved four contracts for $250,000 per year for three years for On-Call Design and Construction Management Services to MWH Global, Michael Baker International, Inc., Brady and Associates, Inc., and CivilSource, Inc.

On May 19, 2016, the Board approved the budget for Fiscal Year (FY) 2017, including $250,000 for On-Call Design and Construction Management Services.

BACKGROUND

Since 2005, Mesa Water has used on-call consulting design services to perform as-needed capital improvement project design that is beyond Mesa Water’s staffing ability and/or expertise. These types of projects typically consist of pipeline design, including design of pipeline relocations to accommodate the City of Costa Mesa, County of Orange and other agency projects, surveying, structural analysis, mechanical design, electrical design, traffic analysis, environmental-related
services, corrosion protection assessment, hydraulic modeling, and other miscellaneous design disciplines. Since 2013, Mesa Water has used on-call construction management services for administration, supervision, and inspection of construction activities of the capital improvement projects. In 2016, four firms we competitively selected to provide on-call professional services in design and construction management.

DISCUSSION

Construction of several small to medium size capital improvement projects were initiated with the start of the fiscal year in July 2016. These projects require Professional Services under the on-call design and construction management contracts to facilitate project delivery. Key projects include Well 9B Construction Management, MWRF Improvements Construction Management, design and construction management of Reservoir 1 and 2 Improvements, and design and construction management of OC-44 Import Stations Meter Replacement, as well as several smaller projects. Task Orders totaling $232,154 of the $250,000 FY 2017 budget have been issued, leaving $17,856 for the remainder of FY 2017. Several significant on-call Construction Management projects have been awarded to MWI, and $205,952 of the $250,000 annual ceiling of this contract has been committed. Other projects planned for the FY 2017 On-Call services contracts include design and construction management of pipeline sampling for the Pipeline Integrity Program destructive testing, and design services for replacement of the hydraulic controllers in the Santa Ana pressure control structure on the OC-44. Other unplanned needs for on-call professional services may arise in the second half of the fiscal year.

FINANCIAL IMPACT

In Fiscal Year 2017, $250,000 is budgeted. The requested funding will come from Cash on Hand.

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ATTACHMENTS

None.
RECOMMENDATION

Approve the updated sections to Mesa Water's Standard Specifications and Standard Drawings.

The Engineering and Operations Committee reviewed this item at its December 20, 2016 meeting and recommends Board approval.

STRATEGIC PLAN

Goal #1: Provide a safe, abundant, and reliable water supply.
Goal #2: Practice continuous infrastructure renewal and improvement.

PRIOR BOARD ACTION/DISCUSSION

August 14, 2014 – Mesa Water District’s Standard Specifications and Standard Drawings were last updated and adopted by the Board of Directors.

BACKGROUND

This project provides an update and reformatting to Mesa Water's Standard Specifications and Standard Drawings (MWSSSD). The last update to this document was in August 2014.

DISCUSSION

MWSSD is divided into four main sections and includes the following proposed changes:

Part 1 – Procedural Guide and Design Requirements
Section 100 – Procuring Water Service From Mesa Water District
• 100.15 – Increase minimum improvement bond to $1,000. Refer to Attachment A for suggested changes.

Section 200 – Mesa Water® Fees and Charges for New Development
• 200.2 – Increase minimum performance bond to $1,000 and clarify capacity charges. Refer to Attachment B for suggested changes.

Section 300 – Design and Inspection Procedures
• 300.2.7 – Increase minimum easement width to 15 feet per the Mesa Water® Rules and Regulations for Water Service. Refer to Attachment C for suggested changes.
• 300.7.1 – Reference Section 200.2.3 to avoid redundant information. Refer to Attachment D for suggested changes.
Section 400 – Design Criteria, Water Facilities

- 400.8 – Reference the City of Costa Mesa Fire Department. Refer to Attachment E for suggested changes.
- 400.10.2 – Include requirements for Shared Services termed “Dominguez Tee.” Refer to Attachment F for suggested changes.
- 400.11 – Include passive purge and vegetation requirements to Standard Water Notes. Refer to Attachment G for suggested changes.
- 400.13.1 – Include AutoCAD files as part of project closure and record drawings. Refer to Attachment H for suggested changes.

Part 2 – General Conditions for Construction of Water Facilities

Section 200 – Scope and Control of Work

- 200.5 – Label section “Submittals.” Refer to Attachment I for suggested changes.

Part 3 – Technical Specifications for Construction of Water Facilities

Specifications

- Section 15041 – Include storm drains to National Pollutant Discharge Elimination System. Refer to Attachment J for suggested changes.

- Section 15042 – Increase maximum flow for flushing from 2 feet per second to 3 feet per second. Refer to Attachment K for suggested changes.

- Section 15139 – Include NSF61 to materials compliance requirements. Refer to Attachment L for suggested changes.

- Section 15162 – Include PVC and ACP as pipe materials in the existing distribution system. Refer to Attachment M (Page 15162-1) for suggested changes.

- Section 15162 – Include Romac 501 as accepted Transition Coupling. Refer to Attachment O for suggested changes. Refer to Attachment M (Page 15162-3) for suggested changes.

- Section 15162 – Include Romac Alpha as accepted Flanged Coupling Adaptor. Refer to Attachment M (Page 15162-3) for suggested changes.

- Section 15162 – Include Romac EJ400 as accepted Expansion Joints. Refer to Attachment M (Page 15162-4) for suggested changes.

Standard Drawings (Refer to Attachment N for suggested changes)

- Drawing 7 – Remove fourth meter from 2-inch manifold.
- Drawing 14 – Common modern practice calls for resilient wedge gate valves for pipe 12 inches or less in diameter as reflected in the proposed drawing. Situations involving large diameter pipe or materials not listed on the drawing shall be addressed on a case-by-case basis with oversight by the District Engineer.
• Drawing 16 – The existing drawing does not include a meter assembly used to monitor illegal connections and water loss. The assembly is not a typical installation and staff proposes to vacate the standard.
• Drawing 16N – The existing drawing does not include a meter assembly used to monitor illegal connections and water loss. The assembly is not a typical installation and staff proposes to delete the standard.
• Drawing 17 – The existing drawing does not include a meter assembly used to monitor illegal connections and water loss. The assembly is not a typical installation and staff proposes to vacate the standard.
• Drawing 17N – The existing drawing does not include a meter assembly used to monitor illegal connections and water loss. The assembly is not a typical installation and staff proposes to delete the standard.
• Drawing 20 – 2-inch Junior Fire Lines are now installed downstream of a 2-inch meter per Mesa Water® Standard Drawings 2, 3, 18, and either 23 or 24.
• Drawing 21 – The existing drawing does not include a meter assembly used to monitor illegal connections and water loss. The assembly is not a typical installation and staff proposes to vacate the standard.
• Drawing 21N – The existing drawing does not include a meter assembly used to monitor illegal connections and water loss. The assembly is not a typical installation and staff proposes to delete the standard.
• Drawing 22 – Through meetings with the City of Costa Mesa Fire Department and Mesa Water Operations Staff, it has been determined that there is an excess of isolation valves in the standard assembly and two valves can be removed without loss of isolating abilities and provide reduced cost to Mesa Water customers.
• Drawing 22A – Through meetings with the City of Costa Mesa Fire Department and Mesa Water Operations Staff, it has been determined that there is an excess of isolation valves in the standard assembly and two valves can be removed without loss of isolating abilities and provide reduced cost to Mesa Water customers.

FINANCIAL IMPACT

None.
ATTACHMENTS

Attachment A: Suggested changes to Part 1 Section 100.15
Attachment B: Suggested changes to Part 1 Section 200.2.3
Attachment C: Suggested changes to Part 1 Section 300.2.7
Attachment D: Suggested changes to Part 1 Section 300.7.1
Attachment E: Suggested changes to Part 1 Section 400.8
Attachment F: Suggested changes to Part 1 Section 400.10.2
Attachment G: Suggested changes to Part 1 Section 400.11
Attachment H: Suggested changes to Part 1 Section 400.13.1
Attachment I: Suggested changes to Part 2 Section 200.5
Attachment J: Suggested changes to Part 3 Section 15041
Attachment K: Suggested changes to Part 3 Section 15042
Attachment L: Suggested changes to Part 3 Section 15139
Attachment M: Suggested changes to Part 3 Section 15162
Attachment N: Suggested changes to Standard Drawings
As set forth in the Agreement, the applicant guarantees the water facilities against defects in workmanship and materials for a period of one (1) year after the date of acceptance of the facilities by Mesa Water District.

It is further agreed that the facilities shall be restored to full compliance with the requirements of Mesa Water’s Standard Specifications and Plans, including any test requirements, if during said one (1) year period the facilities or any portion thereof are found not be in conformance with any provisions of said Standard Specifications and Plans. This guarantee is in addition to any and all other warranties, express or implied, with respect to the facilities.

100.13 DEDICATION OF FACILITIES

Upon completion and final inspection of all work, the inspector shall file a Final Inspection and Cash Bond Release Request (Appendix 5) at least 30 days prior to a regular Board Meeting for dedication and formal acceptances. The applicant shall furnish Mesa Water with a report of the actual costs of the water facilities, and to substantiate such report with invoices and receipts acceptable to Mesa Water. Mesa Water shall also be provided with a complete set of record drawings ("as-builts") on reproducible mylars. Upon said acceptance, Mesa Water will give approval for the release of bonds held by Mesa Water District or posted to the city or county for the construction of the water facilities.

100.14 INDEMNITY BOND

If water facilities are to be constructed in a right-of-way under the jurisdiction of an agency requiring Mesa Water District to sign the encroachment permit, the applicant shall furnish Mesa Water with an Indemnity Bond prior to execution of the permit. The bond shall be for a sum not less than the completed value of said facilities. The value shall be determined by the District Engineer.

100.15 IMPROVEMENT BONDS

The Developer shall post improvement bonds directly with Mesa Water District prior to construction of the offsite water systems. A detailed Engineer’s cost estimate will be submitted by the Developer. Ten percent (10%) or a minimum of $1,000 (whichever is more) of the total cost estimate will be paid by the Developer before construction. The bonds shall guarantee the satisfactory completion of the water systems in the sole opinion of Mesa Water District.

100.16 BOND RELEASE

Subject to Government Code Section 66499.7, forty (40) days following satisfactory completion of the construction of the improvements and upon written request of the Developer, Mesa Water District will release the construction bonds. The developer surety bonds will be released one year after the acceptance of the facilities by Mesa Water District.

END OF SECTION
SECTION 200

MESA WATER FEES AND CHARGES
FOR NEW DEVELOPMENT

200.1 ADMINISTRATION AND ENGINEERING FEES

As set forth in the Water Service Agreement (Appendix 4), the applicant hereby agrees to pay all administration and engineering fees, (including inspection and plan check costs), calculated as a percentage of the total cost as estimated by Mesa Water, as well as Capacity Charges, meter charges, interim water service line charges, (if applicable), and any other charges of Mesa Water District. The amount of such fees and charges shall be based on the applicable schedules of the Rules and Regulations in effect on the date when the applicant has submitted to Mesa Water its completed Application, payment of all fees and charges, plans and specifications, bonds, conveyance of necessary easements and other items which may be required herein prior to issuance of the permit and the plans of the Applicant have been approved by Mesa Water.

The meter charge includes provisions by Mesa Water of a water meter and customer control valve. The customer control valve is to be obtained from Mesa Water and installed by the applicant’s contractor as the work progresses, and that the water meter is to be installed by Mesa Water prior to the provision of permanent water service by Mesa Water.

200.2 DEPOSIT

A deposit will be collected on all new development to cover the actual cost for time and materials, including Mesa Water’s fully burdened labor rate, for Plan Check, Installation and Inspection Work performed. After the work has been completed, the actual cost of the project will be determined and any excess funds from the deposit will be refunded or the applicant shall be required to pay the costs in excess of the deposit. The current approved Fees and Charges for New Development are included within Appendix 6.

200.2.1 Plan Check

The plan check deposit shall be determined using the current approved Water Rate and Charges schedule for New Development.

The most current and up-to-date approved Water Rate and Charge Schedule can be found at www.mesawater.org.

200.2.2 Construction Inspection

The construction inspection deposit shall be determined using the current approved Fees and Charges for New Development.

200.2.3 Construction Performance Bond

The customer or applicant shall provide a construction performance bond in the amount of 10% of the estimated installation and construction costs or a minimum of $1,000 (whichever is more) as determined by:

1. Cost estimate certified by a Registered California Civil Engineer; or
2. Executed construction contract for water system implementation.
The minimum bond amount will be $500.00.

200.2.4 Capacity Charges

The current approved Capacity Charges based on meter type and size are included within Appendix 6, Fees and Charges for New Development. The most current and up-to-date approved Water Rate and Charge Schedule can be found at www.mesawater.org. Capacity charges are not a deposit and applicants are not entitled to a refund except as conditioned under the terms of the Rules and Regulations for Water Service, Section 4.1.5XX, for consideration of upsizing meter sizes.

200.2.5 Meters

The current approved Meter Installation Deposit is based on meter type and size or on the water rate charge schedule for New Developments and can be found at www.mesawater.org.

200.2.6 Construction Work Performed by Mesa Water for Customers

The applicant is encouraged to perform construction with the assistance of a Contractor. However, the applicant may request Mesa Water to perform the work. Mesa Water may construct facilities upon approval of the General Manager.

It will be the responsibility of the Contractor to furnish all materials which shall meet Mesa Water’s Standard Specifications. Contractor to submit material specifications and cut sheets to Mesa Water District for approval, two weeks prior to construction. It will also be the responsibility of the Contractor to provide all labor and equipment necessary to construct or install the water facilities in conformance with the approved plans and the specifications contained in the latest edition of Mesa Water’s Standard Specifications. Contractor to provide proof of valid contractor’s license issued by the State of California for pipeline construction work (C34 or Class A).

END OF SECTION
ATTACHMENT C
300.2.7 Backflow Device Locations

All commercial and industrial domestic water services, and domestic services to sites where there is recycled water on-site, will require that a Reduced Pressure Principle backflow device (RPPD) be installed immediately downstream of the water meter. The device must be installed in accordance with Mesa Water’s Standard Drawings. The assembly must be installed above ground and cannot be installed in an underground vault. These assemblies can be installed in such a manner as to be screened from view, but must be easily accessible to Mesa Water’s personnel to facilitate testing and servicing. There must be a minimum of five (5) feet of clearance on all sides of the backflow assembly. In addition, a ten-fifteen (10-15) foot wide easement must be dedicated to Mesa Water from the public right-of-way to the fireline backflow assembly combination or S-22 meter installation.

All fire services requiring a backflow assembly as specified in Section 300.2.3.2 (Fire Service Requirements) must be installed in accordance with Mesa Water’s Standard Drawings. The required backflow assemblies must be on private property and shall be located adjacent to the building but upstream of the residential building valve, and shall be testable and easily accessible for maintenance and repairs. In addition, a ten-fifteen (10-15) foot wide easement must be dedicated to Mesa Water from the public right-of-way to the backflow assembly.

300.3 PROVIDING REQUIRED EASEMENTS

If an easement outside of the public right-of-way is granted by the District Engineer and General Manager, per Section 4.2.15 of the Rules and Regulations for Water Service for construction and/or maintenance of water facilities, including but not limited to, water mains, hydrants, meter vaults, and any other water appurtenances; its minimum width shall be 15 feet for water mains; and 5 feet on all sides for meters, fire hydrants, meter vaults, and other appurtenances, unless otherwise determined by Mesa Water.

An easement running parallel with a lot line shall not be split so as to occur on two lots. The easement, title report, and legal descriptions with accompanying sketch and plans shall be prepared by the applicant's engineer, two copies of which shall be sent to Mesa Water’s Engineering Department, or easements for Mesa Water facilities shall be shown on a tract or parcel map.

Easement descriptions shall be in a form acceptable to Mesa Water and will be checked by Mesa Water’s Engineering Department. Easements shall also be shown on the construction plans. Mesa Water will approve the plans only after all required easements have been deeded to Mesa Water District together with any necessary partial re-conveyance or subordination agreements. Exhibits will be 8-1/2” X 11”, no exceptions.

Along public streets, a three or five foot utility parallel easement on private property for Mesa Water District may be required depending upon public right-of-way widths and sidewalk locations.

Applicant shall submit two copies of the easement description, plat and boundary closure calculations to Mesa Water for review.

If acceptable, the applicant shall furnish two additional copies of the description, plat and boundary closure calculations, signed by a professional land surveyor, a current (within 30 days) title report of the property reflecting all deeds of trust and encumbrances, and subordinations signed by the trustees shown on the title...
300.7  WATER SERVICE AGREEMENT

When the plans are substantially complete, with only minor revisions remaining, Mesa Water will compute the required Capacity Charges, Meter Charges, and Administrative and Engineering Fees (Payment Voucher included in Appendix 3) and prepare the Water Service Agreement. The applicant will be notified when the agreement and the Payment Voucher are available.

Mesa Water will send a draft copy of the Agreement to the developer including the attached Exhibit “A” summarizing the Water Service Fees and Charges.

300.7.1  Bonds

The applicant will provide, concurrently with the signed Water Service Agreement, if applicable, Payment and Performance Bonds, in connection with the water facilities to be constructed and for an amount to be determined by Professional Engineer’s estimate or executed contract and approved by Mesa Water’s District Engineer per section 200.2.3 of this document.

300.8  FINAL PLAN APPROVAL

Water improvement plans must be approved by the District Engineer before any construction can start. Approval by the District Engineer will be contingent upon satisfying the following requirements:

1. All required corrections have been made on the water improvement plans, and are in conformance with Mesa Water’s Standard Specifications.
2. The Water Service Agreement (Appendix 4) has been executed by the applicant and returned to Mesa Water.
3. All required easement documents have been executed and delivered to Mesa Water. Tract/parcel maps must be signed by Mesa Water prior to plan approval.
4. All required Fees and Charges have been paid by the developer/applicant.
5. All required bonds have been posted with the appropriate entity.
6. All plan submission requirements have been met (mylars, prints and CD).

When the plans have been approved, the applicant’s engineer will be notified.

300.9  WATER SERVICE FEES AND CHARGES

The applicant agrees to pay all administrative and engineering fees, (including inspection and plan check costs), as well as Capacity Charges, meter charges, interim water service line charges, if applicable, and any other charges of Mesa Water. Such fees and charges shall be set forth on Exhibit “A” of the Water Services Agreement between the applicant and Mesa Water District.

300.10  BOARD APPROVAL OF AGREEMENT
ATTACHMENT E
If a sewer is above a water main, the special construction shall extend a minimum of ten (10) feet of horizontal clearance on both sides, or if not feasible, center the piece of new water pipe under the crossing to maximize this horizontal clearance.

If a sewer is located below a water main, and within a vertical distance of a one (1) foot clearance distance, the special construction shall extend a minimum of four (4) feet of horizontal clearance on both sides of the crossing. These construction requirements shall not apply to house laterals that cross perpendicular less than one (1) foot below a pressure water main.

400.7.3 Separation from New and Existing Utilities

Construction of new utilities or structures shall maintain a minimum of five (5) foot parallel separation and a minimum of one (1) foot vertical separation from all Mesa Water pipelines, construction of new water facilities shall maintain a minimum of five (5) foot parallel separation and one (1) foot minimum vertical separation from all existing utilities and structures.

400.8 FIRE FLOW REQUIREMENTS

The design criteria to be used for determining fire flow requirements shall be the actual fire flow requirements as determined by the Orange County Fire Authority or Costa Mesa Fire Department, or per appropriate local fire jurisdiction for the specific area under development.

Before designing the domestic water system for a project, the applicant shall obtain the Orange County Fire Authority or the appropriate local fire jurisdiction fire flow requirements for the project. These requirements, plus indication of the Fire Authority's approval, are required to be on the improvement plans prior to Mesa Water's approval. All existing fire flow tests shall be performed by Mesa Water. Mesa Water will charge a fee to perform this fire flow test. As a general guide, the following shall be considered, as the minimum:

400.8.1 Residential Dwelling Units

The water system shall be capable of providing a residential fire flow minimum of 2,000 gpm, combined flow, for a 4-hour duration from any two adjacent hydrants at a minimum 20 pounds of residual pressure (psi) at the main. For residences 3,600 square feet and under and not contiguous with open space areas, the minimum requirement shall be 1,000 gpm per hydrant at 20 psi (for a total flow of 2,000 gpm). For residences 3,600 square feet and under which are contiguous with open space areas, the minimum requirement shall be 1,000 gpm per hydrant at 30 psi (for a total flow of 2,000 gpm). For residences over 3,600 square feet, the Fire Authority shall be consulted. The open space area is defined as any area bordering an undeveloped open space with no fire control mechanism. New residential dwelling units may be constructed with residential fire sprinkler systems (if required by NFPA 13D or NFPA 13R) which will reduce the minimum fire flow requirements.

400.8.2 Schools and Commercial Areas

The system shall be capable of providing a fire flow of at least 3,000 gpm for 3 hours duration (or as required by the Fire Authority) out of any two adjacent hydrants at a minimum 20 pounds of residual pressure at the main. Most schools and commercial areas will have built-in sprinkler protection for the buildings which will reduce the minimum fire flow requirements.

400.8.3 Industrial Areas
ATTACHMENT F
In industrial developments requiring a high fire flow, the applicant shall consult with the Fire Authority to discuss options for upgrading the domestic water system to deliver the fire flow or provide built-in sprinkler protection for the structures.

400.9  **FIRE HYDRANT LOCATIONS**

The location of fire hydrants shall be as determined by the Orange County Fire Authority or the appropriate local fire jurisdiction for the specific area under development. The exact location with respect to the curb and sidewalk shall be as shown per Mesa Water Standard Drawings.

400.9.1  **Fire Hydrant spacing**

The maximum fire hydrant separation shall be 300 feet from fire hydrant to fire hydrant. The actual spacing will be determined by the Fire Authority. Fire hydrants shall be located a minimum of three (3) feet from the ECR or BCR at intersections or near lot lines. No fire hydrant shall be located within 3 feet of a driveway, or closer than 40 feet to any structure (unless approved by the Fire Authority).

In selected situations where the fire hydrant run is over 20 feet, the size of the hydrant lateral may be increased to 8-inches.

400.9.2  **Types of Hydrants**

Wet barrel all-bronze type hydrants with check valve, as specified by Mesa Water Standard Specifications, are to be used at all locations.

400.9.3  **Plan Requirements**

Fire hydrants shall be shown on the plans where the hydrant is to be located with respect to the property line. Mesa Water fire hydrants shall be located within the public right of way. Maintenance and construction of private hydrants shall be the responsibility of the property owner, and painted red. The building footprints or building pad areas are also to be shown.

400.10  **SERVICE MATERIALS AND MINIMUM SERVICE SIZE**

400.10.1  **General**

Approved materials and manufacturers for various service material tubing and connections are as listed in Mesa Water's Standard Specifications.

400.10.2  **Minimum Domestic Service Size**

Minimum domestic service line size shall be 1-inch in diameter for 5/8-inch, 3/4-inch and 1-inch meters. Shared services, termed a “Dominguez Tee,” that serve two adjacent properties shall require an individual service upgrade to accommodate an increase in meter size due to a remodel or new construction demands. Improvements shall be paid by the property owner undertaking the proposed property improvements. The sizing of the service shall be specified on the plans designated by lot numbers. Services for private-street residential, commercial or industrial developments are to be as shown on plans and may require a detail on the plans of the location of the proposed service.
400.10.3 Type of Service Line

Acceptable service line material is as described below:

- 1-inch and 2-inch service lines shall be copper tubing, Type “K” soft.
- 4-inch and larger service lines shall use PVC pipe per Technical Specification Section 15064. 3-inch service is not acceptable, use 4-inch piping upstream of meter.

400.10.4 Meters

All residential meters 5/8” through 2” will be furnished by Mesa Water, subsequent to payment of all applicable charges, and installed by Mesa Water. All industrial, commercial, individual service meters 3” and larger will be furnished by Mesa Water, subsequent to payment of all applicable charges, and installed by the applicant.

400.10.5 Pressure Reducing Valves

Individual pressure regulators are required by the Uniform Plumbing Code if the average static pressure in the water main is 80 psi or more. Where required, the water service shall be provided with approved pressure regulators set at 80 psi, and shall be installed per Mesa Water Standard Drawings or appropriate governing agency's standards.

400.11 STANDARD WATER NOTES

The following Standard Water Notes shall be included on all improvement plans or water system construction plans:

1. All water system work shall conform to Mesa Water's "Standard Specifications for the Construction of Water Facilities", as last revised. The contractor shall have a copy of the project plans and Mesa Water’s Standard Specifications on the job at all times.
2. A pre-construction meeting of representatives from various other affected utility companies, agencies and the contractor shall be held on the job site (or at a location approved by Mesa Water) at least forty-eight (48) hours prior to the start of work.
3. Mesa Water’s Inspector shall be notified at least two working days before start of work or any inspection. To arrange for inspection, call (949) 631-1291.
4. Water mains shall be installed after the installation of curb and gutter at six feet off of curb face, or as staked by the applicant's surveyor at a minimum 50-foot stationing, if there are no existing curbs.
5. Water meters shall not be located within a driveway. Any water meter found to be within a driveway shall be removed completely and reinstalled at the proper location, at no cost to Mesa Water.
6. All water service laterals shall be constructed perpendicular to the water main without bends or angles from the connection point on the main.
7. All main line valves shall be maintained so as to be accessible during tract development and construction. All valve stem tops having over 48 inches of cover will require an extension meeting Mesa Water Standard Drawing.
8. The top of the pipe 10 inches in diameter and smaller shall be a minimum of 30 inches of cover from the street subgrade or undercut, whichever is greater, unless indicated otherwise on the job plans or as directed otherwise by Mesa Water Inspector because of unusual field conditions. At no time shall the pipe have less than 42 inches of cover between the top of the pipe and the finished street grade.

9. The top of the pipe 12 inches in diameter and larger shall be a minimum of 36 inches of cover from the street subgrade or undercut, whichever is greater, unless indicated otherwise on the job plans or as directed otherwise by Mesa Water Inspector because of unusual field conditions. At no time shall the pipe have less than 48 inches of cover between the top of the pipe and the finished street grade.

10. Pipe shall be bedded and backfilled per Mesa Water Standard Drawings.

11. Fire hydrants shall be installed in accordance with Mesa Water’s Standard Drawings and installed behind curbs and sidewalks where the sidewalks are adjacent to the curbs. Fire hydrants shall be per Mesa Water's Standard Specifications and shall have a concrete pad poured around them. All fire hydrants shall be set with the bottom flange 4 inches above the concrete pad or sidewalk.

12. All water mains 4-inches through 12-inches shall be SDR-14 or thicker, AWWA C-900 PVC, unless otherwise approved by Mesa Water.

13. No facility is to be backfilled until inspected and approved by a Mesa Water Inspector.

14. Shut down or tapping of existing waterlines to facilitate connection to existing facilities shall be coordinated with Mesa Water. Any relocation of existing facilities are subject to approval of the District Engineer.

15. No "hot-taps" or other tie-in connections shall be made to existing Mesa Water mains prior to conducting and passing an approved pressure test and a bacteriological test on the new water distribution system.

16. Tapping sleeves, where called for on the plans, shall be pressure tested in an approved manner in the field, in the presence of Water Mesa Inspector, prior to tapping the main line. Tapping of the main line shall not proceed unless a Mesa Water Inspector is present. Size of tap of water mains will require approval from Mesa Water on a case-by-case basis.

17. All water services shall be installed per Mesa Water's Standard Specifications. All meters shall be installed in grass or planter areas and accessible by vehicle. Any services located in sidewalks are subject to the City or appropriate governing agency and Mesa Water approval. Any meters located in banks of 4 shall be manifaoled per Mesa Water Standard Drawings. All meter registers and lids shall be marked with address identification.

18. Where meters and meter boxes are located within slopes, the angle meter stops shall be so located that the meters and boxes will be parallel and flush, respectively, with the finished surface. Wherever the surrounding grade exceeds eight (8) percent, or in the opinion of Mesa Water Inspector, the adjacent slope is too great, a small retaining wall, clear of the meter box, shall be constructed to the satisfaction of the Mesa Water representative.

19. The applicant shall furnish and install the service lateral between water mains, meters and meter boxes. Water services shall be installed to the property line prior to paving of the street.

20. Curbs shall be inscribed with a “W” indicating locations of all domestic water services. Letter inscription shall be made using a 4-inch power tool wheel grinder.

21. Curbs shall be inscribed with tie downs for all valve locations. Letter inscription shall be made using a 4-inch power tool wheel grinder.
22. The contractor shall expose all points of connection to the existing water system for verification of horizontal and vertical location before construction.

23. All valves shall be located off the tee unless otherwise approved by Mesa Water.

24. At street intersections and bus stops with concrete pads, the main line shall be roped to avoid cross gutter conflict.

25. Individual pressure regulators will be required by the Uniform Plumbing Code if static pressure in the main is 80 psi or more.

26. All 5/8” through 2” meters and customer service valves will be furnished by Mesa Water following receipt of payment of all applicable charges and fees. Mesa Water shall install all 5/8” through 2” meters and customer service valves. The contractor shall expose all angle meter stops and properly locate the meter boxes to grade prior to requesting inspection and installation of the meters and customer service valves by Mesa Water.

27. All nuts and bolts, including valves body bolts and flanges, shall be grade 316 stainless steel. All buried flanges, valves and fittings shall be wrapped with 10-mil polyethylene sheet.

28. Final inspection of new water mains must include water samples that will be tested for presence of bacteria. Two (2) consecutive “passing” samples are required for acceptance.

29. Any water obtained from Mesa Water facilities shall be metered with a construction meter obtained from Mesa Water. The use of jumpers is allowed by permit only. Meters must be installed prior to occupancy of a dwelling.

30. The contractor working on Mesa Water facilities must have a C-34 license issued by the State Contractor’s License Board or Class “A” General Contractors License.

31. Contractor shall obtain and show proof of a construction dewatering permit from the State of California, Regional Water Quality Control Board prior to the start of construction, unless otherwise approved by the District Engineer.

32. An Encroachment Permit from the appropriate jurisdictional agency (City of Costa Mesa, City of Newport Beach or the County of Orange) is required prior to any work within public right-of-way or easement.

33. The existence and location of any underground utilities or structures shown on these plans were obtained by a search of the available records. Approval of these plans by Mesa Water does not guarantee the accuracy, completeness, location, or the existence or non-existence of any utility pipe or structure within the limits of this project. The contractor is required to take all due precautionary means necessary to protect those utility lines not shown on these plans.

34. The applicant shall remove to the satisfaction of Mesa Water’s Inspector all unused water stubs and/or services that were provided to the project site.

35. All butterfly valves 12-inches in diameter and larger shall be flanged and shall be bi-directionally tested and installed by the certified operator in accordance with Mesa Water’s Standard Specifications and Standard Drawings.

36. If a 13D sprinkler system is not a flow through (passive purge) system, then a testable backflow device next to building (residential only) shall be installed. Mesa Water’s Inspector shall verify all flow through systems by:
   - Turning off house valve
   - Check for flow on flow through connection (i.e. toilet or sink)

37. Vegetation, including trees and shrubbery, shall not be planted within 5 feet of water
400.12 MISCELLANEOUS STANDARD GUIDELINES

1. Separate estimate of quantities for the domestic water systems indicating quantity of pipes, valves, fire hydrants, domestic water services, etc. are to be included on the plans.
ATTACHMENT H
2. Plan and profile sheet to show existing underground utilities as well as proposed underground utilities. Vertical clearance at crossings shall be indicated by showing top of pipe and bottom pipe elevation at point of intersection.

3. Blow-off assemblies shall be installed at low points of all mains. Temporary blow-offs shall be installed as service stub-outs for testing and flushing purposes.

4. Combination air valves are to be installed at all high points of water mains in accordance with Mesa Water’s Standard Specifications.

5. Generally, Mesa Water requires all fittings and valves (smaller than 12-inches in diameter) to have "push-on" type ends, except at tees and crosses where valves are required. Valve and fitting are to have flange to flange connection.

6. Water mains stations shall be provided for each contiguous water service area.

7. Water mains to be constructed in landscape slopes and within easements shall be constructed with C-900 SDR 14 or C-905 PVC SDR 18 PVC pipe. Slope anchors may be required in accordance with Mesa Water’s Standard Drawings dependent upon grades and local soil conditions. Thrust blocks will also be required at the angle points at both the top and bottom of the slope.

8. The contractor shall restore or replace all removed or damaged or otherwise disturbed existing surfaces or structures not otherwise noted on the plans or specified herein to a condition equal to that before the work began and to the satisfaction of the Director of Engineering, and the City Engineer. All excess earth and all other debris shall be removed and disposed off by the contractor and the entire site of the work shall be left in a condition acceptable to the City and/or Mesa Water prior to final acceptance of the work. All restoration and cleanup shall be performed in accordance with Mesa Water's Standard Specifications.

400.13 RECORD “AS-BUILT” DRAWINGS

400.13.1 Record Drawings

Record drawings shall be based on an “as built” review and shall show all changes in the work constituting departures from the original contract drawings. Upon completion of each increment of work, all required information and dimensions shall be transferred to the record drawings. Facilities and items to be located and verified on the record drawings shall include the following:

1. Point of connection;
2. Location and elevation of all valves, bends and tees;
3. Location of all services;
4. Type, manufacturer, and model of valves and fire hydrant. Turns required for complete open/close cycle shall be provided for all valves.
5. Location of buried conduit and sensor line assemblies;
6. Items located and constructed as called out in the plans need not be noted as such.
7. Final settings of instrumentation and control equipment.

Prior to submission of the record mylars, two sets of blue lines or bond copy and CAD files will be submitted for review by Mesa Water's Inspector. One set will be returned with comments if necessary. Final 4-mil mylar record drawings are to be submitted only upon incorporation of Mesa Water's Inspector comments.

MESA WATER DISTRICT

AUGUST
SECTION 200
SCOPE AND CONTROL OF WORK

200.1 RESPONSIBILITY FOR FURNISHING MATERIAL AND INSTALLATION

It will be the responsibility of the applicant and his contractor to furnish all materials that meet the following material specifications and all labor and equipment to install facilities in conformance with approved plans and specifications, including Mesa Water’s Standard Specifications.

200.2 GUARANTEE

The applicant and his contractor shall guarantee the work, upon completion, against leaks and breaks due to defective materials or workmanship furnished by the contractor, against settlement of backfill, and damage to resurfacing for a period of one year from the date of completion and acceptance by Mesa Water. Arrangement shall be made for the faithful performance bond to be enforced for a period of one year after the date of final acceptance to cover this guarantee. Damage or leaks due to acts of God, from sabotage, and/or vandalism are specifically exempt from this guarantee.

The date of acceptance by Mesa Water will commence when completion of the entire tract, commercial, or industrial complex is final. Partial releases are not considered to relieve applicant and his contractor of responsibilities under this section.

When defective material or workmanship discovered in the work requires repairs to be made under this guarantee, the applicant shall be notified by telephone and shall make all repairs at their own expense within three calendar days after receipt of such telephoned notice. This telephone notice shall be followed up by written correspondence. Should the applicant or his contractor fail to repair the damage within the three days, Mesa Water may make the necessary repairs and charge the applicant with the actual cost of the repairs. In emergencies demanding immediate attention, Mesa Water shall have the right to repair the defect or damage and charge the applicant with the actual cost of all labor and material required.

200.3 LICENSES, PERMITS, AND FEES

The contractor shall have a valid Contractor’s License of the appropriate class (Class “A” or “C-34”). The contractor or applicant shall obtain all permits, pay all fees, obtain business licenses, and give all necessary notices required for the construction of the work. The contractor shall provide proof of licensing to the District Engineer. Class “A” license shall be required for all non-pipeline work.

200.4 PLANS AND SPECIFICATIONS

Prior to the commencement of construction of any pipelines or pipeline structures, the applicant shall furnish to Mesa Water, design drawings showing pipeline plans and profiles and details of pipeline structures. Work shall not be commenced until Mesa Water has approved said design drawings. The contractor shall keep at the worksite a copy of the approved plans and specifications, and a copy of Mesa Water’s Standard Specifications to which Mesa Water shall have access at all times.

200.5 SHOP DRAWINGSSUBMITTALS

Wherever called for in these Standard Specifications or on the drawings, or where required by Mesa Water, the contractor shall furnish, to Mesa Water for review, six (6) prints of each shop drawing.
SECTION 15041
CHLORINATION OF WATER MAINS FOR DISINFECTION

PART 1 - GENERAL

A. Description

This section describes the disinfection of potable water mains, services, appurtenances, and connections by chlorination, in accordance with ANSI/AWWA B300, B301, C651 and C652 and as specified herein. All chlorine products shall be NSF 60 certified.

B. Related Work Specified Elsewhere

Hydrostatic Testing of Pressure Pipelines: 15042.

C. Job Conditions

1. Discharge of chlorinated water into watercourses or surface waters is regulated by the National Pollutant Discharge Elimination System (NPDES). Contractor shall procure an NPDES permit prior to beginning of work if he plans to discharge water into watercourses, stormdrains, or surface waters.

2. The rate of flow and locations of discharges shall be scheduled in advance to permit review and coordination with Mesa Water and cognizant regulatory authorities.
   a. Orange County EMA--Flood Control.
   b. Cities of Costa Mesa and Newport Beach and portions of unincorporated County of Orange.

3. Potable water shall be used for chlorination.

4. Requests for use of water from Mesa Water lines shall be submitted 48 hours in advance.

5. Chlorination shall be performed prior to hydrostatic testing for pipelines having a diameter of 10-inches and larger. See Part 3, Paragraph A-9 for concurrent testing of smaller diameter pipelines.

PART 2 - MATERIALS

A. Liquid Chlorine Solution

Liquid chlorine solution shall be in accordance with the requirements of ANSI/AWWA B301, and shall be injected with a solution feed chlorinator and a water booster pump or a sufficiently pressurized source of water to provide an adequate flow to inject and disperse the chlorine solution.
2. Concrete Anchor and Thrust Blocks: All concrete anchor blocks shall be allowed to cure a sufficient time to develop the designed minimum strength before testing.

3. Mortar Lining: Steel pipelines shall not be tested before the mortar lining and coating on all of the pipe lengths in the line have attained an age of fourteen (14) days. Cement-mortar lined pipe shall not be filled with water until a minimum period of eight (8) hours has elapsed after the last joint in any section has been made.

4. Flushing: All pipelines shall be flushed prior to hydrostatic testing and disinfection. Flushing shall be performed via Mesa Water’s Flush-out assemblies constructed in accordance with Mesa Water’s Standard Drawings. Velocities shall be sufficient to achieve a minimum of 2 feet per second (fps) velocity in the pipeline. Refer to the table herein below in Section F.1 (Filling/Flushing Rate).

F. Field Test Procedure

1. Filling / Flushing Rate: The pipeline shall be filled at a rate such that the average velocity of flow is no greater than $2\frac{1}{3}$ fps. At no time shall the maximum velocity of flow exceed 2 fps. The following table gives filling and flushing rates to provide $2\frac{1}{3}$ fps velocity for various pipe diameters.

<table>
<thead>
<tr>
<th>Nominal Size (inches)</th>
<th>Flow Rate Q (gpm)</th>
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<tr>
<td>4</td>
<td>120</td>
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<td>6</td>
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<td>660</td>
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<tr>
<td>36</td>
<td>720</td>
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2. Air Removal: All air should be purged from the pipeline before checking for leaks or performing pressure tests on the system. To accomplish this, if air valves or other outlets are not available at high points, taps shall be made to expel the air, and these taps shall be tightly plugged after testing.

3. Pressurization: After the pipeline has been filled and allowed to sit a minimum of 48 hours (72 hours for mortar-lined pipelines), the pressure in the pipeline shall then be pumped up to the specified test pressure.
ATTACHMENT L
SECTION 15139
FIRE HYDRANTS

PART 1 - GENERAL
A. Description
This section includes materials, installation, and testing of wet-barrel type fire hydrants.

B. Related Work Specified Elsewhere
2. Concrete: 03300.

PART 2 - MATERIALS
A. Hydrant Top Section
1. General: Fire hydrants shall be of the wet barrel type, with individual valves for each outlet, and shall conform with the requirements of AWWA C503.
2. Outlets: Hydrants shall have two (2) 2-1/2-inch outlets and one 4-inch outlet. All outlets shall have National Standard Hose Threads. For residential areas, one (1) 2-1/2-inch outlet and one (1) 4-inch outlet.
3. Materials of Construction: The hydrant top section shall be manufactured of bronze conforming to ASTM B62 or type 304 stainless steel conforming to CF-8 ASTM-A-351. All interior working parts, including stem, shall be of bronze containing no more than 7% zinc or 2% aluminum and NSF61 compliant.
4. Operating Nuts: Hydrants are to be provided with 1-1/2-inch sized pentagon-shaped operating nut, and 1-1/2-inch capnuts.
5. Outlet Caps: Plastic outlet nozzle caps shall be provided for all outlets. Caps shall be securely chained to the barrel with non-kinking metal chain in a manner to permit free rotation of the cap.
6. Flanges: Hydrant flanges shall be drilled with a 6-hole pattern. The flange shall be drilled with 3/4-inch diameter holes located on a 9-3/8-inch bolt circle.
ATTACHMENT M
SECTION 15162
FLEXIBLE PIPE COUPLINGS AND EXPANSION JOINTS

PART 1 - GENERAL

A. Description

This section describes materials and installation of flexible gasket sleeve-type compression pipe couplings for steel, PVC, ACP, and ductile iron pipe.

B. Related Work Specified Elsewhere

1. Painting and Coating: 09900.

C. Submittals

1. Submit manufacturer's catalog data on flexible pipe couplings. Show manufacturer's model or figure number for each type of coupling or joint for each type of pipe material for which couplings are used.
2. Submit manufacturer's recommended torques to which the coupling bolts shall be tightened for the flexible gasket sleeve-type compression pipe couplings.
4. Show number, size, and material of construction of the rods and lugs for each thrust harness on the project.

PART 2 - MATERIALS

A. Flexible Pipe Couplings for Steel Pipe

1. General: Steel couplings shall have center sleeves of steel conforming to ASTM A 36, A 53 (Type E or S), or A 512 having a minimum yield strength of 30,000 psi. Follower rings shall be malleable iron (ASTM A 47, Grade 32510), ductile iron (ASTM A 536), or steel (ASTM A 108, Grade 1018, or ASTM A 510, Grades 1018 or 1021). Follower ring material shall match that of the pipe being joined; i.e.: steel follower rings on steel pipe; malleable iron rings for ductile iron pipe. Minimum center sleeve length shall be 5-inches for pipe sizes 1-inch through 3-inches; 7-inches for pipe size 4-inches; and 10-inches for pipe sizes larger than 4-inches.

2. Sleeve Bolts: Sleeve bolts shall have a minimum yield strength of 40,000 psi, an ultimate strength of 60,000 psi, shall be Type 316 stainless steel conforming to ASTM A 193 (Grade B8M) for bolts and ASTM A 194 (Grade 8N) for nuts, and shall conform to AWWA C111.
3. Manufacturers: Flexible pipe couplings for steel pipe shall be steel, and shall be Dresser Style 38, Smith-Blair Type 411, Baker Series 200, Ford, Romac or approved equal.

B. Joint Harness

1. Tie Bolts or Studs: Tie bolts or studs shall be as shown in AWWA Manual M11, Table 13-6, 13-7, and 13-7A. The minimum numbers and sizes of tie bolts or studs shall be as shown in the table below. Bolt or stud material shall conform to ASTM B 193, Grade B7. Nuts shall conform to ASTM A 194, Grade 2H. Lug material shall conform to ASTM A 36, ASTM A 283, Grade B, C, or D, or ASTM A 285, Grade C. Lug dimensions, plate thickness, and weld dimensions shall be as shown in AWWA Manual M11, Figure 13-17.

### TIE BOLTS OR STUD REQUIREMENTS FOR FLEXIBLE PIPE COUPLINGS

<table>
<thead>
<tr>
<th>Nominal Pipe Size (inches)</th>
<th>150 psi</th>
<th>250 psi</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. Bolts or Studs</td>
<td>Size (inches)</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>5/8</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>5/8</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>5/8</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
<td>5/8</td>
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<td>8</td>
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<td>7/8</td>
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<td>24</td>
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<td>7/8</td>
</tr>
<tr>
<td>30</td>
<td>4</td>
<td>1-1/8</td>
</tr>
<tr>
<td>36</td>
<td>4</td>
<td>1-1/4</td>
</tr>
</tbody>
</table>

2. Criteria for Number and Size of Tie Bolts or Studs: The number and size of bolts shall be selected based on the test pressure shown in Section 15042 (Hydrostatic Testing of Pressure Pipelines). For test pressures less than or equal to 150 psi, the 150-psi design in the table above shall be used. For test pressures between 150 and 250 psi, the 250-psi design in the table above shall be used.

3. Washers: Stainless steel, Type 316, washers shall be provided for each lug. Washer material shall be the same as the nuts. Minimum washer thickness shall be 1/8-inch.

4. Wall Thickness Requirement for Welded Lugs: Pipe wall to which lugs are welded shall be adequate to resist stresses. If necessary, the pipe wall thickness shall be increased.
C. **Flexible Couplings for Ductile Iron Pipe**

1. **General:** Ductile iron pipe couplings shall have sleeves of ASTM A 126 Class B ductile iron with a minimum yield strength of 30,000 psi. Follower rings shall be malleable iron ASTM A 47 Grade 32510 or ductile iron ASTM A 536. Minimum center sleeve length shall be 7-inches for pipe sizes up to 6-inches in diameter; 10-inches for pipe sizes larger than 6-inches pipe diameters.

2. **Sleeve Bolts:** Sleeve bolts shall be corrosion resistant Type 316 stainless steel with minimum yield strength of 45,000 psi and shall conform to ASTM-A-193 and AWWA C111.

3. **Manufacturers:** Flexible couplings for ductile iron pipe shall be ductile iron: Dresser Style 153, Smith-Blair Type 442, Baker Series 228, Ford Style FCI, Romac Style 501, or approved equal.

D. **Transition Couplings**

1. **Steel Pipe:** Transition couplings for connecting steel pipe having different outside diameters shall be steel: Dresser Style 62 or 162, Smith-Blair Type 413, Baker Series 212 or 240, **Romac 501**, or approved equal.

2. **Ductile Iron Pipe, PVC Pipe, and Asbestos Cement Pipe:** Transition couplings for connecting ductile iron pipe, PVC pipe, and asbestos cement pipe having different outside diameters shall be ductile iron, and shall be Smith-Blair Type 441, Baker Series 236, Ford Style FC2A, Romac and Dresser or approved equal.

3. **Sleeve Bolts:** Sleeve bolts shall have a minimum yield strength of 40,000 psi, an ultimate strength of 60,000 psi, shall be Type 316 stainless steel conforming to ASTM A 193 (Grade B8M) for bolts and ASTM A 194 (Grade 8N) for nuts, and shall conform to AWWA C111.

E. **Reducing Couplings**

Reducing couplings for steel pipe shall be steel. Reducing couplings for ductile iron pipe, PVC pipe, and asbestos cement pipe shall be ductile iron. Couplings shall be Dresser Style 62, Baker Series 220 or 240, Smith-Blair Type 415 or R441, Romac, Ford, or approved equal.

F. **Flanged Coupling Adapters**

Flanged coupling adapters may be used to install valves, meters, and other types of flanged fittings to plain end pipe of diameter 10-inches and smaller. Flanged coupling adapters shall be Smith-Blair Type 912, Baker Series 601 or 604, Dresser Style 127, Ford Style FFCA, Romac Style FAC501, **Romac Alpha**, or approved equal.

G. **Expansion Joints**

1. **General:** Expansion joints shall have body, flanges, and slip pipe of carbon steel. Packing shall consist of a minimum of four rubber rings, each separated by jute packing.
For installation in steel pipelines, expansion joint shall have plain ends, beveled for welding. For installation in ductile iron pipelines, expansion joint shall have plain ends. Slip pipe shall have a machined surface, and body shall be equipped with pipe stops. Where called for on the plans, limit or stop rings and limit rods shall be provided to prevent the slip pipe from pulling out of the joint.

2. Limit Rods and Body Studs, Bolts and Nuts: Limit rods and body studs, bolts, and nuts shall be Type 316 stainless steel conforming to ASTM A 193 (Grade B8M) for rods and bolts, and ASTM A 194 (Grade 8M) for nuts.

3. Manufacturers: Expansion joints shall be Baker Series 403 or 404, Smith-Blair Type 611 or 612, Romac EJ400, or approved equal.

H. Sleeve Bolts and Nuts for Flanges

1. Stainless Steel Bolts: Bolts and nuts for buried and submerged flanges, flanges in underground vaults and structures, and flanges located outdoors above ground shall be Type 316 stainless steel conforming to ASTM A 193 (Grade B8M) for bolts and ASTM A 194 (Grade 8M) for nuts.

2. Washers: Washers shall be provided for each nut. Washers shall be of the same material as the nuts.

PART 3 - EXECUTION

A. Installation of Flexible Pipe Couplings and Expansion Joints

1. General: Oil, scale, rust, and dirt shall be cleaned from pipe ends. Gaskets in flexible pipe couplings shall be cleaned before installing. Expansion joints shall be installed per manufacturer's recommendations. Expansion joints shall be installed so that 50% of total travel is available for expansion and 50% is available for contraction.

2. Bolt Thread Lubrication: Bolt threads shall be lubricated with graphite and oil prior to installation.

B. Painting and Coating

1. Flexible Couplings: Flexible pipe couplings (including joint harness assemblies), transition couplings, flanged coupling adapters, and expansion joints shall be coated per Section 09900 (Painting and Coating); sleeves shall be coated per System G-1. After installation couplings shall be wrapped with 8-mil polyethylene wrap per AWWA C105.

2. Interior Surface Coating: Interior surfaces of flexible coupling and transition coupling sleeves, and the body of expansion joints shall be coated per Section 09900 (Painting and Coating), System G-1.
C. **Bonding Flexible Pipe Couplings**

Buried flexible pipe couplings that are connected to ductile-iron, cast-iron, or steel pipe shall be bonded to adjacent piping as described in Section 16640 (Cathodic Protection and Joint Bonding).

D. **Hydrostatic Testing**

Flexible pipe couplings, expansion joints, and expansion joints shall be hydrostatically tested in place with the pipe being tested. Test shall be performed in accordance with Section 15042 (Hydrostatic Testing of Pressure Pipelines).

END OF SECTION
ATTACHMENT N
MESA WATER DISTRICT

2" SERVICE

STANDARD MANIFOLD INSTALLATION

TRAFFIC VALVE BOX PER STD DWG NO. 14A

1" COPPER NIPPLE (TYP)

2" COPPER NIPPLE

2" COPPER TEE

2" x 1" COPPER ELL (TYP)

1" IP ADAPTER (TYP)

20" MIN. 36" MIN.

18" MIN. (TYP)

12"

2" COPPER NIPPLE

METER BOX PER STD DWG NO. 3

SIDEWALK

2" COPPER TEE

2" MIP X SOLDER ADAPTER (BEYOND)

LEGEND OF MATERIAL:

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>SIZE &amp; DESCRIPTION</th>
<th>MANUFACTURER</th>
<th>SPEC. NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2&quot; BRASS &quot;BALL STYLE&quot; ANGLE METER STOP w/ LOCKING (INLET: FIP; OUTLET: &quot;SLOTTED&quot; ELONGATED HOLES)</td>
<td>JAMES JONES</td>
<td>J1974W</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MUELLER</td>
<td>B24265</td>
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<tr>
<td></td>
<td></td>
<td>FORD</td>
<td>BFA13-777W</td>
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<tr>
<td></td>
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<td>MCDONALD</td>
<td>4604B</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TYPE &quot;K&quot; SOFT</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>PER STD DWG NO. 3</td>
</tr>
<tr>
<td>2</td>
<td>2&quot; COPPER TUBING</td>
<td>JAMES JONES</td>
<td>J1905W</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MUELLER</td>
<td>B24351</td>
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<td>MCDONALD</td>
<td>6101MW</td>
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<td>3</td>
<td>3/4&quot; CRUSHED ROCK</td>
<td>JAMES JONES</td>
<td>J129</td>
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<td>MUELLER</td>
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<td>FORD</td>
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<td></td>
<td></td>
<td>MCDONALD</td>
<td>610F</td>
</tr>
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</table>

GENERAL NOTES:

1. NUMBER OF METERS AND SIZE SHALL BE DETERMINED BY MESA WATER, IRRIGATION SHALL BE SEPARATE.
2. METER AND CUSTOMER SERVICE VALVE WILL BE FURNISHED AND INSTALLED BY MESA WATER.
3. ALL FITTINGS SHALL BE SILVER COPPER SOLDER ONLY.

Proposed Revision
MESA WATER DISTRICT

STANDARD BUTTERFLY VALVE INSTALLATION

FINISHED PAVED SURFACE

TRIANGLE LID PER TECHNICAL SPECIFICATION SECTION 15100

14 GAUGE COPPER WIRE LENGTH OF PIPE 12" LAP INTO WELL

8" PVC PIPE

BUTTERFLY VALVE

CONCRETE ANCHOR BLOCK - CLASS 560-C-3250

"A"

#4 STEEL REINFORCING BARS COATED ABOVE CONCRETE ONLY PER TECHNICAL SPECIFICATIONS SECTION 09900.

GENERAL NOTES:

1. ANCHOR BLOCK ONLY REQUIRED WHEN VALVE IS NOT FLANGED TO TEE OR CROSS

2. PROVIDE VALVE STEM EXTENSION IF DEPTH TO VALVE EXCEEDS 4 FT. PER STD DWG NO. 15

3. DIMENSION "C" EQUALS TRENCH WIDTH PLUS 2 X THE PIPE DIAMETER.

4. BUTTERFLY VALVE OPERATORS SHALL BE LOCATED ON THE LEFT HAND SIDE OF THE VALVE WHEN STANDING ON THE FLANGED END OF THE VALVE (AT THE TEE OR CROSS) AND LOOKING THROUGH THE VALVE TOWARD THE PIPE END. WHERE CONCRETE CROSS GUTTERS WILL EXIST AT STREET INTERSECTIONS WHICH WILL INTERFERE WITH VALVE BOXES THE PIPELINE SHALL BE MOVED TO A POSITION OF 7 FEET OFF CURB FACE TO CLEAR CROSS GUTTER.

TYPICAL OPERATOR POSITIONS

<table>
<thead>
<tr>
<th>VALVE SIZE</th>
<th>DIMENSION</th>
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</thead>
<tbody>
<tr>
<td>14&quot;</td>
<td>A 12&quot; B 18&quot;</td>
</tr>
<tr>
<td>16&quot;</td>
<td>A 12&quot; B 18&quot;</td>
</tr>
<tr>
<td>18&quot;</td>
<td>A 12&quot; B 18&quot;</td>
</tr>
<tr>
<td>24&quot;</td>
<td>A 12&quot; B 18&quot;</td>
</tr>
</tbody>
</table>

Replace with Attached

MESA WATER DISTRICT

STANDARD BUTTERFLY VALVE INSTALLATION

DRAWN BY: RJW

DATE: MAY 2014

STANDARD DRAWING 14
ITEMS:

1. FLG x FLG x FLG D.I.P. TEE
2. FLG x PO RW GATE VALVE PER MESA WATER STANDARD SPECIFICATION 15100
3. BEVELED END JOINING VALVE x PE DR–14 PVC (C900) PIPE
4. CAST BOLTED SLEEVE–TYPE COUPLING FOR IDENTICAL OR DIFFERENT PIPE MATERIALS ON EACH SIDE
5. EXISTING PIPE

NOTES:

1. NUTS AND BOLTS SHALL BE 316 STAINLESS STEEL.
2. DOUBLE WRAP TEES, VALVES AND ALL FITTINGS IN 8–MIL POLYETHYLENE.
3. WARNING TAPE SHALL BE INSTALLED.
4. SEE MESA WATER STANDARD DRAWING 18 FOR TRENCH DETAILS.
5. SEE MESA WATER STANDARD DRAWING 12 FOR FURTHER THRUST BLOCK DETAILS.
6. SEE MESA WATER STANDARD DRAWING 14A AND 15 FOR VALVE BOX ASSEMBLY AND VALVE EXTENSION.
MESA WATER DISTRICT

REDUCED PRESSURE PRINCIPLE ASSEMBLY (3" OR LARGER)

Installation does not allow for meter. Default to Mesa Water Standard 22A

"FOR DOMESTIC USE ONLY"

HEALTH HAZARD (CONTAMINANT) BACKFLOW PREVENTION DEVICE
APPROVED "N-STYLE" REDUCED PRESSURE PRINCIPLE BACKFLOW DEVICE

RIGHT OF WAY

LIMIT OF PRESSURE TEST AND CHLORINATION

12"
MIN. (TYP.)

6" ZO MAX

2" MIN.

CONCRETE PAD REINFORCED W/ W.W.F. (1.6 X 1.6)
LIMIT OF MESA WATER INSPECTION

5' MIN. SETBACK

D.I. SPOOL (FLG X FLG)
D.I. VALVE SETTER (FROM DEVICE MANUFACTURER), OR 2 D.I. 90° BENDS (FLG X PO) WITH THRUST BLOCK PER STD DWG NO. 12

CUSTOMER SPECIFIED AND MAINTAINED PIPING

Installation does not allow for meter. Default to Mesa Water Standard 22A

GENERAL NOTES:
1. PRESSURE TEST AND CHLORINATE TO LIMITS SHOWN ABOVE.
2. CONTACT MESA WATER FOR LATEST LIST OF APPROVED BACKFLOW PREVENTION ASSEMBLIES.
3. BACKFLOW ASSEMBLY SHALL BE A MINIMUM OF 36" FROM ANY STRUCTURE, CURB OR SIDEWALK.
4. BACKFLOW ASSEMBLY MUST BE EASILY ACCESSIBLE TO FACILITATE TESTING AND SERVICING.
**GENERAL NOTES:**

1. PRESSURE TEST AND CHLORINATE TO LIMITS SHOWN ABOVE.
2. CONTACT MESA WATER FOR LATEST LIST OF APPROVED BACKFLOW PREVENTION ASSEMBLIES.
3. BACKFLOW ASSEMBLY SHALL BE A MINIMUM OF 36" FROM ANY STRUCTURE, CURB OR SIDEWALK.
4. BACKFLOW ASSEMBLY MUST BE EASILY ACCESSIBLE TO FACILITATE TESTING AND SERVICING.

Installation does not allow for meter. Default to Mesa Water Standard 22A.
Installation does not allow for meter. Default to Mesa Water Standard 3 or 24 downstream of the meter.
MESA WATER DISTRICT

REDUCED PRESSURE DETECTOR ASSEMBLY (3" OR LARGER)

GENERAL NOTES:

1. PRESSURE TEST AND CHLORINATE TO LIMITS SHOWN ABOVE EXCEPT FOR DOMESTIC USE ONLY.

2. CONTACT MESA WATER FOR LATEST LIST OF APPROVED BACKFLOW PREVENTION ASSEMBLIES.

3. BACKFLOW ASSEMBLY SHALL BE MINIMUM OF 36" FROM ANY STRUCTURE, CURB OR SIDEWALK.

4. BACKFLOW ASSEMBLY MUST BE EASILY ACCESSIBLE TO FACILITATE TESTING AND SERVICING.

ELEVATION NO. 12

SEE STD. DWG.

NAME OF MESA WATER

CONCRETE PAD (REINFORCED WITH W.W.F. 1.6" X 1.6"

W/GATE VALVE (MRS) W/HAND WHEEL (TYP 2)

LIMIT OF MESA WATER INSPECTION CUSTOMER SPECIFIED AND MAINTAINED PIPING

ADJUSTABLE PIPE SUPPORT (TYP 2)

PIPE O.D. ± 2FT

For Domestic Use Only

Default to Mesa Water Standard

Installation does not allow for meter.
Installation does not allow for meter. Default to Mesa Water Standard 22A

GENERAL NOTES:
1. PRESSURE TEST AND CHLORINATE TO LIMITS SHOWN ABOVE.
2. CONTACT MESA WATER FOR LATEST LIST OF APPROVED BACKFLOW PREVENTION ASSEMBLIES.
3. BACKFLOW ASSEMBLY SHALL BE A MINIMUM OF 36" FROM ANY STRUCTURE, CURB OR SIDEWALK.
4. BACKFLOW ASSEMBLY MUST BE EASILY ACCESSIBLE TO FACILITATE TESTING AND SERVICING.
Replace with Attached. Remove redundant valves.
MESA WATER DISTRICT

RPP OR DCV APPROVED BACKFLOW ASSEMBLY (3", 4", 6" & 8" METER INST.)

PLAN

ELEVATION

1. DIMENSIONS SHOWN ARE APPROXIMATE, AND ARE BASED ON AN ASSUMED METER LENGTH OF 20". CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO MESA FOR REVIEW PRIOR TO CONSTRUCTION.

2. R.W. VALVES IN METER ASSEMBLY TO BE LOCKED (BY CHAIN) IN TO OPEN POSITION R.W. VALVE IN BYPASS TO BE LOCKED (BY CHAIN) IN THE CLOSED POSITION.

3. ASSEMBLY MUST BE EASILY ACCESSIBLE TO FACILITATE TESTING AND SERVICING.

LEGEND OF MATERIAL:

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>SIZE &amp; DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6&quot; R.W. GATE VALVE (FLG. x FLG.)</td>
</tr>
<tr>
<td>2</td>
<td>6&quot;-90° D.I. BEND (FLG. x FLG.)</td>
</tr>
<tr>
<td>3</td>
<td>6&quot; D.I. SPOOL (FLG. x FLG.)</td>
</tr>
<tr>
<td>4</td>
<td>6&quot; D.I. REDUCER (FLG. x FLG.)</td>
</tr>
<tr>
<td>5</td>
<td>R.W. GATE VALVE WITH HANDWHEEL (NRS) (FLG. x FLG.)</td>
</tr>
<tr>
<td>6</td>
<td>D.I. STRAINER (FLG. x FLG.)</td>
</tr>
<tr>
<td>7</td>
<td>COMPOUND METOR OR TURBO METER (FLG. x FLG.) PURCHASED FROM MESA WATER AND INSTALLED BY CONTRACTOR</td>
</tr>
<tr>
<td>8</td>
<td>APPROVED REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY OR APPROVED DOUBLE CHECK VALVE ASSEMBLY (FLG. x FLG.)</td>
</tr>
<tr>
<td>9</td>
<td>90° ELL (FLG. x FLG.)</td>
</tr>
<tr>
<td>10</td>
<td>D.I. SPOOL (FLG. x FLG.)</td>
</tr>
<tr>
<td>11</td>
<td>D.I. TEE (FLG. x FLG.)</td>
</tr>
<tr>
<td>12</td>
<td>CONCRETE PAD REINFORCED W/ W.W.F. 1.6 X 1.6</td>
</tr>
<tr>
<td>13</td>
<td>ADJUSTABLE PIPE SUPPORTS</td>
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<tr>
<td>14</td>
<td>STANDARD POST PER STD DWG NO. 4B</td>
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<tr>
<td>15</td>
<td>CONCRETE THRUST BLOCK PER STD DWG NO. 12</td>
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GENERAL NOTES:
MESA WATER DISTRICT

FOR FIRE USE ONLY

LEGEND OF MATERIAL:

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<th>ITEM NO.</th>
<th>SIZE &amp; DESCRIPTION</th>
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<tr>
<td>1</td>
<td>6&quot; R.W. GATE VALVE (FLG. x FLG.)</td>
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<td>2</td>
<td>6&quot;-90&quot; D.I. BEND (FLG. x FLG.)</td>
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<td>3</td>
<td>6&quot; D.I. SPOOL (FLG. x FLG.)</td>
</tr>
<tr>
<td>4</td>
<td>6&quot; D.I. REDUCER (FLG. x FLG.)</td>
</tr>
<tr>
<td>5</td>
<td>R.W. GATE VALVE WITH HANDWHEEL (NRS) (FLG. x FLG.)</td>
</tr>
<tr>
<td>6</td>
<td>D.I. STRAINER (FLG. x FLG.) U.L. LISTED AND FM APPROVED FOR FIRE SERVICE</td>
</tr>
<tr>
<td>7</td>
<td>TURBO METER (FLG. x FLG.) U.L. LISTED AND FM APPROVED FOR FIRE SERVICE PURCHASED FROM MESA WATER AND INSTALLED BY CONTRACTOR</td>
</tr>
<tr>
<td>8</td>
<td>APPROVED REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY OR APPROVED DOUBLE CHECK VALVE ASSEMBLY (FLG. x FLG.)</td>
</tr>
<tr>
<td>9</td>
<td>90° ELL (FLG. x FLG.)</td>
</tr>
<tr>
<td>10</td>
<td>D.I. SPOOL (FLG. x FLG.)</td>
</tr>
<tr>
<td>11</td>
<td>D.I. TEE (FLG. x FLG.)</td>
</tr>
<tr>
<td>12</td>
<td>CONCRETE PAD REINFORCED W/W.F. 1.6 X 1.6</td>
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<tr>
<td>13</td>
<td>ADJUSTABLE PIPE SUPPORTS</td>
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<tr>
<td>14</td>
<td>STANDARD POST PER STD DWG NO. 4B.</td>
</tr>
<tr>
<td>15</td>
<td>CONCRETE THRUST BLOCK PER STD DWG NO. 12</td>
</tr>
</tbody>
</table>

GENERAL NOTES:

1. DIMENSIONS SHOWN ARE APPROXIMATE, AND ARE BASED ON AN ASSUMED METER LENGTH OF 20". CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO MESA FOR REVIEW PRIOR TO CONSTRUCTION.

2. R.W. VALVES IN METER ASSEMBLY TO BE LOCKED (BY CHAIN) IN TO OPEN POSITION R.W. VALVE IN BYPASS TO BE LOCKED (BY CHAIN) IN THE CLOSED POSITION.

3. ASSEMBLY MUST BE EASILY ACCESSIBLE TO FACILITATE TESTING AND SERVICING.
MESA WATER DISTRICT

RPP OR DCV APPROVED BACKFLOW ASSEMBLY (3", 4", 6" & 8" METER INST.)

ELEVATION

LEGEND OF MATERIAL:

ITEM NO. SIZE & DESCRIPTION
1 6" R.W. GATE VALVE (FLG. x FLG.)
2 6"-90° D.I. BEND (FLG. x FLG.)
3 6" D.I. SPOOL (FLG. x FLG.)
4 6" D.I. REDUCER (FLG. x FLG.)
5 R.W. GATE VALVE WITH HANDWHEEL (NRS) (FLG. x FLG.)
6 D.I. STRAINER (FLG. x FLG.) U.L. LISTED AND FM APPROVED FOR FIRE SERVICE
7 COMPOUND METER OR TURBO METER (FLG. x FLG.) PURCHASED FROM MESA WATER AND INSTALLED BY CONTRACTOR
8 APPROVED REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY OR APPROVED DOUBLE CHECK VALVE ASSEMBLY (FLG. x FLG.)
9 90° ELL (FLG. x FLG.)
10 D.I. SPOOL (FLG. x FLG.)
11 D.I. TEE (FLG. x FLG.)
12 CONCRETE PAD REINFORCED W/ W.W.F. 1.6 X 1.6
13 ADJUSTABLE PIPE SUPPORTS
14 STANDARD POST PER STD DWG NO. 48.
15 CONCRETE THRUST BLOCK PER STD DWG NO. 12

GENERAL NOTES:

1. DIMENSIONS SHOWN ARE APPROXIMATE, AND ARE BASED ON AN ASSUMED METER LENGTH OF 20". CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO MESA FOR REVIEW PRIOR TO CONSTRUCTION.

2. R.W. VALVES IN METER ASSEMBLY TO BE LOCKED (BY CHAIN) IN TO OPEN POSITION R.W. VALVE IN BYPASS TO BE LOCKED (BY CHAIN) IN THE CLOSED POSITION.

3. ASSEMBLY MUST BE EASILY ACCESSIBLE TO FACILITATE TESTING AND SERVICING.
MEMORANDUM

TO: Board of Directors
FROM: Tracy E. Manning, Assistant Operations Manager
DATE: January 12, 2017
SUBJECT: Water System Modeling

RECOMMENDATION

Approve a contract with Carollo Engineering for a not to exceed amount of $100,000 to perform additional water system modeling.

The Engineering and Operations Committee reviewed this item at its December 20, 2016 meeting and recommends Board approval.

STRATEGIC PLAN

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

PRIOR BOARD ACTION/DISCUSSION

The issue of nitrification was first discussed at the January 11, 2014 Engineering and Operations (E&O) Committee meeting shortly after a series of nitrification events occurred within the distribution system.

On October 21, 2014, the E&O Committee received information regarding staff’s recommendation to retain professional engineering services to perform a Nitrification Control Study and provide a Nitrification Mitigation and Control Plan.

On May 14, 2015, the Board authorized the General Manager to execute a contract with Carollo Engineering (Carollo) in the amount of $248,746 to perform the Nitrification Control Study.

On December 20, 2016, the E&O Committee received the Nitrification Control Study Report and presentation. One of the key nitrification factors identified in the study was high water age within the distribution system. High priority recommendations included additional water system modeling to identify potential system modifications that could significantly reduce water age and, in turn, reduce the water quality impacts of nitrification.
The additional modeling work would evaluate the following scenarios:

- Transferring water to neighboring agencies
- Piping modifications to transfer water to the southern service area from the north
- The creation of two pressure zones within the distribution system
- Reservoir operations during peak demands to determine minimum and maximum storage level requirements
- Reservoir function and response during a catastrophic event

FINANCIAL IMPACT

In Fiscal Year 2017, no funds were budgeted. The requested funding will come from Cash on Hand.

ATTACHMENTS

None.
RECOMMENDATION

Approve a proclamation honoring the career of Scott Peca for his more than 28 years of dedicated and committed service to Mesa Water District.

The Engineering and Operations Committee reviewed this item at its December 20, 2016 meeting and recommends Board approval.

STRATEGIC PLAN

Goal #5: Attract and retain skilled employees.

PRIOR BOARD ACTION/DISCUSSION

None.

DISCUSSION

Scott Peca began his career at Mesa Water District on January 18, 1988 as a Water Maintenance Worker I. He worked his way up through the organization holding job titles including Water Maintenance Worker II and Facility Maintenance Worker I & II.

As a Water Maintenance Worker, Scott was involved in operating, maintaining, installing, and repairing the District's water distribution infrastructure to ensure an uninterrupted supply of quality potable water to the customers of Mesa Water District.

As a Facility Maintenance Worker, Scott performed a variety of building and grounds maintenance and repair duties; and monitored contract services for alarm, air conditioning, landscaping, custodial, and elevator services for the District.

Scott was indispensable when it came to the set-up of meeting rooms in the preparation of the District’s Board of Directors’ meetings, employee meetings, and other meetings and events.

Scott was nominated for the Silver Lining Award in 2015; and served as a Safety Ambassador for numerous years.

FINANCIAL IMPACT

None.

ATTACHMENTS

Attachment A: Draft Proclamation
A Day of Celebration to Honor the Career of Scott Peca

Whereas, Scott Peca began his career at Mesa Water District on January 18, 1988 as a Water Maintenance Worker I and worked his way up through the organization holding job titles including Water Maintenance Worker II and Facility Maintenance Worker I & II; and

Whereas, as a Water Maintenance Worker, Scott was involved in operating, maintaining, installing, and repairing the District’s water distribution infrastructure to ensure an uninterrupted supply of quality potable water to the customers of Mesa Water District; and

Whereas, as a Facility Maintenance Worker, Scott performed a variety of building and grounds maintenance and repair duties; and monitored contract services for alarm, air conditioning, landscaping, custodial, and elevator services for the District; and

Whereas, Scott was indispensable when it came to the set-up of meeting rooms in the preparation of the District’s Board of Directors’ meetings, employee meetings, and other meetings and events; and

Whereas, Scott was nominated for the Silver Lining Award in 2015; and served as a Safety Ambassador for numerous years.

NOW THEREFORE, BE IT RESOLVED that the Board of Directors of Mesa Water District hereby recognizes and honors you for your more than 28 years of dedicated and committed service to the District and wishes you the best as you begin your retirement.

______________________________
Ethan Temtanka, President

______________________________
Jim Atkinson, Vice President

October 28, 2016

______________________________
Fred R. Bockmiller, Jr., P.E., Director

______________________________
Shawn Dewane, President

______________________________
James R. Fisler, Director
MEMORANDUM

TO: Board of Directors
FROM: Andrew Hamilton, Chief Financial Officer
DATE: January 12, 2017
SUBJECT: Additional Auditing Services

RECOMMENDATION

Approve a contract with White Nelson Diehl Evans LLP for a not to exceed amount of $100,000 to perform additional auditing services in Fiscal Year 2017.

The Finance Committee reviewed this item at its December 19, 2016 meeting and recommends Board approval.

STRATEGIC PLAN

Goal #3: Be financially responsible and transparent.

PRIOR BOARD ACTION/DISCUSSION

At the June 20, 2016 meeting of the Finance Committee, the Board of Directors (Board) requested that the newly selected auditing firm of White Nelson Diehl Evans LLP potentially conduct additional auditing services.

At the November 21, 2016 meeting of the Finance Committee, the Board received a presentation from Mesa Water's auditor, White Nelson Diehl Evans LLP, detailing three options related to additional auditing services, either using the COSO Framework and Principles related to Fraud Prevention or Agreed Upon Procedures related to Fraud Detection. No action was taken at that time.

DISCUSSION

On December 6, 2016, the Ad-Hoc Audit Committee met with Mesa Water's auditor, White Nelson Diehl Evans LLP, and recommends approving a separate $100,000 contract to perform additional auditing services in Fiscal Year 2017.

FINANCIAL IMPACT

In Fiscal Year 2017, no funds were budgeted. The requested funding will come from Cash on Hand.

ATTACHMENTS

None.
MEMORANDUM

TO: Board of Directors
FROM: Andrew Hamilton, Chief Financial Officer
DATE: January 12, 2017
SUBJECT: Refinancing of Debt

RECOMMENDATION

Approve Option #6 - to advance refund the 2010 Certificates of Participation debt issuance along with adding $8 million of new money using existing debt service levels, utilizing the negotiated sale structure.

The Finance Committee reviewed this item at its December 19, 2016 meeting and recommends Board approval.

STRATEGIC PLAN

Goal #3: Be financially responsible and transparent.

PRIOR BOARD ACTION/DISCUSSION

At the November 21, 2016 meeting of the Finance Committee, the Board received a presentation about potential options to refinance and/or pay off certain unfunded pension costs and outstanding Certificates of Participation (COPs) obligations.

Due to recent historically low current municipal bond interest rates, Mesa Water is seeking to achieve financial savings by looking at current market opportunities related to its outstanding liabilities. Mesa Water’s Financial Advisor, Fieldman, Rolapp & Associates (Fieldman Rolapp), has analyzed the potential savings which could be realized by refinancing, restructuring, or earlier repayment of Mesa Water’s pension liability and 2010 COPs.

Fieldman Rolapp created nine different options for the Board of Directors to consider when contemplating whether to refund the 2010 COPs and/or to provide a plan to reduce or eliminate pension obligations. It was recommended that Mesa Water move forward with refunding the 2010 COPs and consider adding new money borrowing to the transaction for upcoming capital improvements, given the historically low cost of capital in the current municipal bond market, detailed in Option #6.

The Board requested the following additional information:

- Interest rate sensitivity analysis to the Net Present Value (NPV) savings levels presented in terms of lower CalPERS investment returns
- Combined Issuance synergies analysis detailing execution cost synergies and impact if transactions are done separately (refunding versus new money transactions)
- Comprehensive pension cost analysis, including Mesa Water’s “normal cost”
DISCUSSION

The initial financial savings scenarios presented on November 21, 2016 included certain interest rate assumptions in the municipal bond market as of November 10, 2016. The summary is provided for reference below:

Subsequent to November 10, 2016, municipal bond interest rates have increased significantly (although stabilized and decreased between December 5 – 7). The results of the scenarios, as of December 8, 2016, are provided in the table below:

<table>
<thead>
<tr>
<th>SCENARIOS / OPTIONS</th>
<th>Maximize Total NPV Savings</th>
<th>Near Term (9 yr) Cost Impacts</th>
<th>Rate Increases</th>
<th>600 Days Cash</th>
<th>Debt Free Date</th>
<th>Unfunded Pension in 2017?</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 Current COP and Unfunded Pension Repayments (No actions)</td>
<td>0</td>
<td>Breakeven</td>
<td>NA</td>
<td>NA</td>
<td>2046</td>
<td>Yes</td>
</tr>
<tr>
<td>1 2010 COPs Refunding Only</td>
<td>852,000</td>
<td>Savings each year</td>
<td>No</td>
<td>Yes</td>
<td>2046</td>
<td>Yes</td>
</tr>
<tr>
<td>2 Refunding + new money based on savings applied to Pensions</td>
<td>1,487,000</td>
<td>Breakeven</td>
<td>No</td>
<td>Yes</td>
<td>2046</td>
<td>Yes</td>
</tr>
<tr>
<td>3 Refunding + Amortization shortened (20 yr)</td>
<td>1,468,000</td>
<td>Savings each year</td>
<td>No</td>
<td>Yes</td>
<td>2036</td>
<td>Yes</td>
</tr>
<tr>
<td>4 Refunding + Amortization shortened (15 yr)</td>
<td>2,710,000</td>
<td>-668,000</td>
<td>No</td>
<td>No</td>
<td>2031</td>
<td>Yes</td>
</tr>
<tr>
<td>5 Refunding + $8 million new money - same COP final date</td>
<td>5,363,000</td>
<td>-2,192,000</td>
<td>No</td>
<td>No</td>
<td>2025</td>
<td>No</td>
</tr>
<tr>
<td>6 Refunding + $8 million new money - $0 near-term impact</td>
<td>5,243,000</td>
<td>Breakeven</td>
<td>No</td>
<td>Yes</td>
<td>2026</td>
<td>No</td>
</tr>
<tr>
<td>7 Refunding + $7.6 mm Cash payments in FY2026 - 2028</td>
<td>2,759,000</td>
<td>Savings each year</td>
<td>No</td>
<td>No</td>
<td>2028</td>
<td>Yes</td>
</tr>
<tr>
<td>8 Refunding + $8 mm Cash payments in FY2017</td>
<td>5,593,000</td>
<td>-1,643,000</td>
<td>No</td>
<td>No</td>
<td>2025</td>
<td>No</td>
</tr>
</tbody>
</table>

Based on the changes in the market, the all-in borrowing cost increased approximately 0.35%, to 2.15%. This reduced the NPV savings on the 2010 COPs refunding opportunity by $465,000. The higher interest rates also notably impacted Scenarios #5 and #6 due to higher repayment costs.
The first component of savings from recommended Option #6 relates to refunding the 2010 COPs, from a simple economic standpoint, from a current coupon cost of 4.8% to approximately 2.15% all-inclusive cost in the current market.

The second component related to pension savings, from a simple economic standpoint, is refinancing a current cost of 7.5% to approximately 2.15% all-inclusive cost in the current municipal bond market. In addition, this NPV savings is more than 50% of the Unadjusted Actuarial Liability (UAL) being refinanced.

**Interest Rate Sensitivity Analysis**

A sensitivity analysis was performed to assess the impact to the NPV savings presented, given lower CalPERS investment returns. CalPERS assumes it will return an average of 7.5% in determining Mesa Water’s $8 million unfunded pension amount and repayment schedule. Since the Scenario NPV savings are based on the “avoided cost” of the current repayment schedule, the Scenario NPV savings also imply CalPERS earns a 7.5% return.

Based on the sensitivity analysis conducted, each 1% reduction from the 7.5% rate of return has an impact of $1.7 million on a NPV basis over 30 years. The chart below shows lower returns for varying periods of time – 10 years, 20 years, and 30 years. The chart shows the resulting NPV savings for Scenario #6 given various lower CalPERS rates of return.

**Combined Issuance Synergies vs. Two Separate Issuances**

Recommended Option #6 contains both the Refunding of the 2010 COPs and $8 million of new money containing a NPV savings of $4,790,000.

However, the sum of the NPV savings, if each transaction was done separately, equals $4,473,000. This amount represents the sum of the NPV savings of $387,000 to separately refund the 2010 COPs plus the NPV savings of $4,086,000 to separately issue $8 million of new money.
Therefore, the NPV of synergies realized by combining the two issuance transactions saves Mesa Water approximately $317,000. This amount is detailed below:

- Synergy from non-duplicative Issuance Costs: $250,000
- Synergy from lower interest expense: $67,000
- Total NPV Synergy Savings: $317,000

By combining issuances, Mesa Water saves $250,000 of issuance costs by only having a single bond issuance along with achieving $67,000 of interest savings due to new money principal repayments being completed slightly sooner at a marginally lower interest rate.

**Comprehensive Pension Cost Analysis**

Mesa Water’s unfunded pension costs (which total over $17.6 million over the next 30 years), is $418,000 for Fiscal Year (FY) 2017. The unfunded pension costs will increase to $805,000 per year in FY26.

Mesa Water’s pension normal cost is $436,000 for FY17 and $438,000 for FY18 (these are actual amounts per CalPERS’ report/requirements for Classic employees), and amount to 9.6% of payroll. Based on an assumed 2% annual payroll growth (and holding all other actuarial assumptions constant), pension normal cost, by comparison would be $513,000 in FY26. Further, pension normal cost over the next 30 years totals $17.4 million.

On a combined basis, normal and unfunded pension costs make up 2.7% of Mesa Water's total expenses currently, assuming expenses of approximately $32 million. Estimated pension normal costs have been added to the chart which combines Mesa Water’s COPs and unfunded pension costs. As shown graphically, the unfunded pension cost will increase at a much greater rate over the next 20 years than pension normal cost, before ramping down significantly after 2036.

中存在的COPs, Unfunded Pension, and Pension Normal Cost Payment Schedule*
As was discussed at the Finance Committee meeting on November 21, 2016, Option #6 is recommended to refund the 2010 COPs along with adding $8 million of new money borrowing to the transaction, given least cost impact to ratepayers over the next nine years, maintaining the Board’s goal of 600 Days Cash, a shorter debt free date, and historically low estimated cost of capital in the current municipal bond market.

FINANCIAL IMPACT

Refunding the 2010 COPs along with $8 million of new money borrowing is expected to realize $4,790,000 of Total Net Present Value Savings based on current market conditions as of December 8, 2016.

ATTACHMENTS

None.
MEMORANDUM

TO:       Board of Directors
FROM:    Paul E. Shoenberger, P.E., General Manager
DATE:    January 12, 2017
SUBJECT: Board Committee & Liaison Assignments

RECOMMENDATION

Ratify the 2017 Board Committee & Other Agency Liaison Assignments.

STRATEGIC PLAN

Goal #1: Provide a safe, abundant, and reliable water supply.
Goal #2: Practice perpetual infrastructure renewal and improvement.
Goal #3: Be financially responsible and transparent.
Goal #4: Increase public awareness about Mesa Water® and about water.
Goal #5: Attract and retain skilled employees.
Goal #6: Provide outstanding customer service.
Goal #7: Actively participate in regional water issues.

PRIOR BOARD ACTION/DISCUSSION

On January 19, 2013, the Board of Directors (Board) adopted Resolution No. 1428 - Adopting Protocols of the Board of Directors. The new Committee format designates that all Committee meetings will be noticed as Board meetings and held as joint meetings of the Committee and the entire Board. All members of the Board may attend and participate in the meetings. The Executive Committee is excluded from this Committee format.

On January 8, 2015, the Board ratified the Board Agency Liaison Assignments to complement the approved Committee format. The new Other Agency Liaison Assignments permit all members of the Board to attend other local agency meetings with the exception of ACWA/JPIA, City/Districts Liaison, and CalDesal for which designated Directors will be assigned.

DISCUSSION

President Temianka will provide the 2017 Board Committee & Other Agency Liaison Assignments at the Board meeting.

FINANCIAL IMPACT

None.

ATTACHMENTS

None.
RECOMMENDATION

Discuss agenda topics and schedule the Board of Directors' workshop for Friday, March 24, 2017.

The Executive Committee reviewed this item at its January 3, 2017 meeting.

STRATEGIC PLAN

Goal #1: Provide a safe, abundant, and reliable water supply.
Goal #2: Practice perpetual infrastructure renewal and improvement.
Goal #3: Be financially responsible and transparent.
Goal #4: Increase public awareness about Mesa Water® and about water.
Goal #5: Attract and retain skilled employees.
Goal #6: Provide outstanding customer service.
Goal #7: Actively participate in regional water issues.

PRIOR BOARD ACTION/DISCUSSION

None.

DISCUSSION

For the Board’s review, following is the list of proposed topics:

- Designated Funds Policy
- Financial Advisory Services
- Regional Water Issues Update
- Strategic Plan Update
- Measure TT Follow-up
- Closed Session – Labor Negotiations

Staff recommends the Board workshop be scheduled for Friday, March 24, 2017.

FINANCIAL IMPACT

In Fiscal Year 2017, $3,500 was budgeted for Board workshop expenses; the available balance in this account is currently $3,000.

ATTACHMENTS

None.
MEMORANDUM

TO: Board of Directors
FROM: Andrew Hamilton, Chief Financial Officer
DATE: January 12, 2017
SUBJECT: Long Range Financial Planning

RECOMMENDATION

Staff will provide a recommendation for moving forward with a new Long Range Financial Plan at the Board meeting.

STRATEGIC PLAN

Goal #3: Be financially responsible and transparent.

PRIOR BOARD ACTION/DISCUSSION

In 2009, the Board of Directors (Board) of Mesa Water District (Mesa Water) set a financial goal of obtaining a strong AAA credit rating within the succeeding seven years. As such, the Board established annual targets related to Cash on Hand and Days Cash Ratio culminating with the long-term targets to obtain $39.7 million Cash on Hand and 600 Days Cash Ratio by the end of Fiscal Year (FY) 2016. These goals were met in FY 2016.

In late 2013, in order to meet the Board’s fiscal policy goals, debt service and anticipated capital expenditures, Mesa Water created a Long Range Financial Plan using a five-year financial model. At the December 19, 2016 meeting of the Finance Committee, the Committee requested that staff solicit vendor quotes to conduct a new Long Range Financial Plan.

DISCUSSION

The following factors are currently facing the District:

- Increasing water production costs, generally attributed to increases in Orange County Water District’s Replenishment Assessment
- Necessary capital expenditures related to enhanced reliability and increased efficiency
- Conservation mandates which have decreased water revenue

If directed by the Board, staff will issue a Request For Proposal (RFP) to proactively meet the Board’s financial goals in conjunction with ensuring compliance with Proposition 218, which established that revenues generated from rates shall not exceed the cost to provide the service. The RFP is expected to include services related to developing a Long Range Financial Plan, performing a Cost of Service analysis, and proposing an updated Water Rate Design.
Subsequent to the December 19, 2016 Finance Committee meeting, a draft RFP was created and distributed to potential vendors requesting non-binding quotes to complete the study. A recommendation will be provided at the Board meeting based on the quotes received.

**FINANCIAL IMPACT**

In Fiscal Year 2017, no funds were budgeted. The requested funding will come from Cash on Hand.

**ATTACHMENTS**

None.
ACTION ITEMS:

21. CLOSED SESSION:

CONFERENCE WITH LEGAL COUNSEL – SIGNIFICANT EXPOSURE TO LITIGATION/ADJUDICATORY PROCEEDINGS:
Pursuant to California Government Code Sections 54956.9 (d) (2) and 54954.5 (c) - based on existing facts and circumstances, the Board is meeting with General Legal Counsel to review matters relating to legal proceedings presented to the California Fair Political Practices Commission involving Mesa Water District.
Number of Matters: 1
REPORTS:

22. REPORT OF THE GENERAL MANAGER:
   • December Key Indicators Report
   • Other (no enclosure)
Goal #1: Provide a safe, abundant, and reliable water supply

FY 2017 Potable Production (Acre Feet)

<table>
<thead>
<tr>
<th>Water Supply Source</th>
<th>FY 2017 YTD Actual (AF)</th>
<th>FY 2017 YTD Budget (AF)</th>
<th>FY 2017 Annual Budget (AF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear Water</td>
<td>4,715</td>
<td>6,120</td>
<td>12,690</td>
</tr>
<tr>
<td>Amber Water (MWRF)</td>
<td>3,950</td>
<td>2,198</td>
<td>4,241</td>
</tr>
<tr>
<td>Import</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CPTP</td>
<td>90</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total Production</td>
<td>8,755</td>
<td>8,318</td>
<td>16,931</td>
</tr>
</tbody>
</table>

YTD actual water production (AF) through December 31, 2016
## Goal #1: Provide a safe, abundant, and reliable water supply

**FY16 System Water Quality** – This data reflects samples taken in November

### Distribution System:

<table>
<thead>
<tr>
<th></th>
<th>Average</th>
<th>Range</th>
<th>MCL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorine Residual (mg/L)</td>
<td>1.62</td>
<td>Current RAA = 1.81</td>
<td>4 RAA</td>
</tr>
<tr>
<td>Compliance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coliform Positive %</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Compliance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature (°F)</td>
<td>72.6</td>
<td>62 – 84</td>
<td>None</td>
</tr>
</tbody>
</table>

### Reservoir I & II:

<table>
<thead>
<tr>
<th></th>
<th>Average</th>
<th>Range</th>
<th>MCL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorine Residual (mg/L)</td>
<td>1.15</td>
<td>0.29 – 1.8</td>
<td>None</td>
</tr>
<tr>
<td>Monochloramine (mg/L)</td>
<td>1.08</td>
<td>0.23 – 1.67</td>
<td>None</td>
</tr>
<tr>
<td>Ammonia (mg/L)</td>
<td>0.31</td>
<td>0.17 – 0.41</td>
<td>None</td>
</tr>
<tr>
<td>Temperature (°F)</td>
<td>69.8</td>
<td>63 – 79</td>
<td>None</td>
</tr>
</tbody>
</table>

### Wells (Treated):

<table>
<thead>
<tr>
<th></th>
<th>Average</th>
<th>Range</th>
<th>MCL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorine Residual (mg/L)</td>
<td>2.45</td>
<td>2.18 – 2.88</td>
<td>None</td>
</tr>
<tr>
<td>Monochloramine (mg/L)</td>
<td>2.22</td>
<td>1.97 – 2.61</td>
<td>None</td>
</tr>
<tr>
<td>Ammonia (mg/L)</td>
<td>0.56</td>
<td>0.4 – 0.6</td>
<td>None</td>
</tr>
<tr>
<td>Temperature (°F)</td>
<td>70.8</td>
<td>66 – 78</td>
<td>None</td>
</tr>
</tbody>
</table>

### MWRF:

<table>
<thead>
<tr>
<th></th>
<th>Average</th>
<th>Range</th>
<th>MCL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorine Residual (mg/L)</td>
<td>2.20</td>
<td>1.72 – 2.47</td>
<td>None</td>
</tr>
<tr>
<td>Monochloramine (mg/L)</td>
<td>2.04</td>
<td>1.49 – 2.42</td>
<td>None</td>
</tr>
<tr>
<td>Ammonia (mg/L)</td>
<td>0.58</td>
<td>0.46 – 0.72</td>
<td>None</td>
</tr>
<tr>
<td>Temperature (°F)</td>
<td>78.0</td>
<td>73 – 81</td>
<td>None</td>
</tr>
<tr>
<td>Color (CU) Compliance</td>
<td>ND</td>
<td>ND</td>
<td>15</td>
</tr>
<tr>
<td>Odor (TON) Compliance</td>
<td>1.5</td>
<td>1 – 2</td>
<td>3</td>
</tr>
</tbody>
</table>

### Water Quality Calls/Investigations:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Calls</td>
<td>6</td>
</tr>
<tr>
<td>Total Investigations (from calls)</td>
<td>2</td>
</tr>
</tbody>
</table>
Goal #2: Practice perpetual infrastructure renewal and improvement

Revenues of Potable Water
(in thousands)

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Jul</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aug</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sep</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Oct</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Nov</td>
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</tr>
<tr>
<td>Dec</td>
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<td></td>
</tr>
<tr>
<td>Jan</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Feb</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mar</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apr</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>May</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jun</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Actual</th>
<th>Budget</th>
<th>Difference</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total YTD $</td>
<td>12,749,611</td>
<td>12,112,494</td>
<td>637,117</td>
<td>5.26%</td>
</tr>
</tbody>
</table>

Page 3 of 7
Goal #3: Be financially responsible and transparent
Goal #4: Increase public awareness about Mesa Water® and about water

Web Site Information

<table>
<thead>
<tr>
<th>Web Site Information</th>
<th>November 2016</th>
<th>December 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visits to the web site</td>
<td>5,760</td>
<td>4,746</td>
</tr>
<tr>
<td>Unique visitors (First time to the site)</td>
<td>4,155</td>
<td>2,531</td>
</tr>
<tr>
<td>Average per day</td>
<td>192</td>
<td>153</td>
</tr>
<tr>
<td>Average visit length</td>
<td>2 minutes, 33 seconds</td>
<td>2 minutes, 39 seconds</td>
</tr>
<tr>
<td>Page visited most</td>
<td>Online Bill Pay</td>
<td>Home</td>
</tr>
<tr>
<td>Second most visited page</td>
<td>Human Resources</td>
<td>Online Bill Pay</td>
</tr>
<tr>
<td>Third most visited page</td>
<td>Board Meeting Packets</td>
<td>Human Resources</td>
</tr>
<tr>
<td>Fourth most visited page</td>
<td>Payment Options</td>
<td>Payment Options</td>
</tr>
<tr>
<td>Fifth most visited page</td>
<td>Board</td>
<td>Contact</td>
</tr>
<tr>
<td>Most downloaded file</td>
<td>Board Packet</td>
<td>2016 Water Quality Report</td>
</tr>
<tr>
<td>Second most downloaded file</td>
<td>Committee Packet</td>
<td>Board Packet</td>
</tr>
<tr>
<td>Most active day of the week</td>
<td>Monday</td>
<td>Thursday</td>
</tr>
<tr>
<td>Least active day of the week</td>
<td>Saturday</td>
<td>Sunday</td>
</tr>
</tbody>
</table>

Total visits since June 1, 2002 | 1,151,381 |

Water Vending Machine Information

<table>
<thead>
<tr>
<th>Vending Machine Location</th>
<th>Vend Measurement</th>
<th>December 2016 Vends</th>
<th>Totals Vends</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mesa Water Office</td>
<td>1 gal</td>
<td>2,558</td>
<td>235,596</td>
</tr>
</tbody>
</table>
## Goal #5: Attract and retain skilled employees

<table>
<thead>
<tr>
<th>DEPARTMENT:</th>
<th>FY 2017</th>
<th></th>
<th></th>
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<tbody>
<tr>
<td></td>
<td>BUDGET</td>
<td>FILLED</td>
<td>VACANT</td>
</tr>
<tr>
<td><strong>OFFICE OF THE GENERAL MANAGER:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Processes</td>
<td>1.00</td>
<td>1.00</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>1.00</td>
<td>1.00</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>2.00</td>
<td>2.00</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>ADMINISTRATIVE SERVICES:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administrative Services</td>
<td>4.75</td>
<td>4.75</td>
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<tr>
<td>Human Resources</td>
<td>2.75</td>
<td>2.75</td>
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</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>7.50</td>
<td>7.50</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>CUSTOMER SERVICES:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conservation</td>
<td>1.00</td>
<td>1.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Customer Service</td>
<td>8.00</td>
<td>8.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Information Technology</td>
<td>2.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>11.00</td>
<td>10.00</td>
<td>1.00</td>
</tr>
<tr>
<td><strong>ENGINEERING:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering</td>
<td>5.00</td>
<td>5.00</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>5.00</td>
<td>5.00</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>EXTERNAL AFFAIRS:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legislative &amp; Governmental Affairs</td>
<td>1.50</td>
<td>1.00</td>
<td>0.50</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>1.50</td>
<td>1.00</td>
<td>0.50</td>
</tr>
<tr>
<td><strong>FINANCIAL SERVICES:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Reporting/ Purchasing</td>
<td>4.00</td>
<td>3.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Accounting</td>
<td>3.00</td>
<td>1.00</td>
<td>2.00</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>7.00</td>
<td>4.00</td>
<td>3.00</td>
</tr>
<tr>
<td><strong>PUBLIC AFFAIRS:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outreach, Education &amp; Communications</td>
<td>2.50</td>
<td>1.00</td>
<td>1.50</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>2.50</td>
<td>1.00</td>
<td>1.50</td>
</tr>
<tr>
<td><strong>WATER OPERATIONS:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supervision/Support</td>
<td>6.00</td>
<td>4.00</td>
<td>2.00</td>
</tr>
<tr>
<td>Distribution</td>
<td>10.00</td>
<td>10.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Production</td>
<td>3.00</td>
<td>3.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Water Quality</td>
<td>2.00</td>
<td>2.00</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>21.00</td>
<td>19.00</td>
<td>2.00</td>
</tr>
<tr>
<td><strong>TOTAL BUDGETED POSITIONS:</strong></td>
<td>57.50</td>
<td>49.50</td>
<td>8.00</td>
</tr>
<tr>
<td><strong>INTERNS</strong>: (0.5 FTE = 1 Intern)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.50</td>
<td>1.00</td>
<td>0.50</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>1.50</td>
<td>1.00</td>
<td>0.50</td>
</tr>
<tr>
<td><strong>TOTAL</strong>:</td>
<td>59.00</td>
<td>50.50</td>
<td>8.50</td>
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</table>
Goal #6: Provide outstanding customer service

Customer Calls

<table>
<thead>
<tr>
<th>Call Type</th>
<th>FY17 YTD</th>
<th>December 2016</th>
<th>YTD Weekly Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Billing Question</td>
<td>1254</td>
<td>198</td>
<td>48</td>
</tr>
<tr>
<td>Service Requests</td>
<td>998</td>
<td>156</td>
<td>38</td>
</tr>
<tr>
<td>High Bill</td>
<td>466</td>
<td>47</td>
<td>18</td>
</tr>
<tr>
<td>Payments</td>
<td>1083</td>
<td>168</td>
<td>42</td>
</tr>
<tr>
<td>Late Fee</td>
<td>722</td>
<td>102</td>
<td>28</td>
</tr>
<tr>
<td>Account Maintenance</td>
<td>233</td>
<td>27</td>
<td>9</td>
</tr>
<tr>
<td>On-Line Bill Pay</td>
<td>770</td>
<td>124</td>
<td>30</td>
</tr>
<tr>
<td>Water Pressure</td>
<td>26</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>No Water</td>
<td>153</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Conservation</td>
<td>365</td>
<td>18</td>
<td>14</td>
</tr>
<tr>
<td>Water Waste</td>
<td>50</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Other (District info. other utility info. etc.)</td>
<td>2310</td>
<td>360</td>
<td>89</td>
</tr>
<tr>
<td>Rate Increase</td>
<td>12</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Fluoridation</td>
<td>10</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>TOTAL CUSTOMER CALLS</td>
<td>8452</td>
<td>1221</td>
<td>325</td>
</tr>
<tr>
<td>AVERAGE ANSWER TIME (Seconds)</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
</tbody>
</table>

Online Bill Pay Customers

<table>
<thead>
<tr>
<th>Current Customers Enrolled</th>
<th>FY 2017 YTD</th>
<th>December 2016</th>
<th>YTD Weekly Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>11331</td>
<td>1165</td>
<td>181</td>
<td>45</td>
</tr>
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</table>
REPORTS:

23. DIRECTORS’ REPORTS AND COMMENTS:
In accordance with CA Government Code 53232.3 (d), the following report identifies the meetings for which Mesa Water Directors received expense reimbursement.

<table>
<thead>
<tr>
<th>Directors' Name</th>
<th>Meetings Attended</th>
</tr>
</thead>
<tbody>
<tr>
<td>James F. Atkinson</td>
<td>Reimbursement Date: N/A</td>
</tr>
<tr>
<td></td>
<td>Description, Date: N/A</td>
</tr>
<tr>
<td>Fred R. Bockmiller, Jr., P.E.</td>
<td>Reimbursement Date: 12/21/16</td>
</tr>
<tr>
<td></td>
<td>Description, Date: ACWA/JPIA Board Meeting, 11/28</td>
</tr>
<tr>
<td>Shawn Dewane</td>
<td>Reimbursement Date: N/A</td>
</tr>
<tr>
<td>James Fisler</td>
<td>Reimbursement Date: 12/19/16</td>
</tr>
<tr>
<td></td>
<td>Description, Date: ACWA Fall Conference, 11/29-12/1</td>
</tr>
<tr>
<td>Ethan Temianka</td>
<td>Reimbursement Date: 12/21/16</td>
</tr>
<tr>
<td></td>
<td>Description, Date: ACWA Fall Conference, 11/29-12/1</td>
</tr>
</tbody>
</table>
There are no support materials for this item.